British Columbia Herring Spawn Deposition Data for the 1970s

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Les numéros 1 à 25 de cette série ont été publiés à titre de Records statistiques, Service des pêches et de la mer. Les numéros 26-160 ont été publiés à titre de Rapports statistiques du Service des pêches et de la mer, Ministère des Pêches et de l'Environnement. Le nom de la série a été modifié à partir du numéro 161.

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ABSTRACT

Hourston, A. S. 1981. British Columbia herring spawn deposition data for the 1970s. Can. Data Rep. Fish. Aquat. Sci. 257: 200 p.

Records of the length, width, and intensity of individual herring spawnings are recorded by section, locality and date for the years 1971 to 1980. Estimates of the number of eggs laid are also given for each entry. Procedures for collecting and compiling the data are described.

Key words: Clupea harengus pallasi, spawning, eggs.

RÉSUMÉ

Hourston, A. S. 1981. British Columbia herring spawn deposition data for the 1970s. Can. Data Rep. Fish. Aquat. Sci. 297: 200 p.

Les données sur la longueur, la grosseur et l'activité individuelle des reproducteurs de hareng sont présentées par section, par localité et par date, pour les années 1971 à 1980. On donne des approximations de la quantité d'oeufs correspondant à chaque inscription, de même qu'une description de la procédure de rassemblement et de compilation des données.

Mots clés: Clupea harengus pallasi, reporduction, oeufs.

INTRODUCTION

Estimates of the number of eggs deposited form one of the three sources of monitoring data used for annual assessments and forecasts of British Columbia herring stocks (Hourston and Schweigert 1980). These data, along with parameters for fecundity at age (Hourston et al. 1980) and estimates of age composition, percent females and average weight at age from the annual biological sampling (e.g. Hourston 1980b), provide the means of estimating the number of spawners by age class which would have been required to provide the egg depositions found in each section of the coast (Figs. 1 and 2). These estimates of spawning escapement at age are then added to similar estimates of catch by gear from landings (e.g. Hourston 1980a) to add data for the current year (Hourston 1980c) to an ongoing annual inventory of the stocks (Hourston 1980d). This inventory, along with estimates of spawning requirements, forms the basis of further analyses to forecast the available catch for the coming season (e.g. Hourston 1979). The spawn deposition data are also used to update an inventory of spawn distribution and timing by year (Hourston 1980e).

Detailed spawn deposition data have been similarly archived since the 1950-51 season (Hourston et al. 1972), providing a 30-yr series of basic data accessible for analysis and modeling.

METHODS

Herring spawn in the subtidal and intertidal zones at various locations along the British Columbia coast (Hourston and Haegele 1980). Spawning locations utilized in the 1970s are shown in Figs. 3 and 4. Spawn depositions are surveyed by Fishery Officers and/or other Department personnel by walking the beach at low tide and observing and dragging for spawn in shallow water from a small boat. Observations of the date of spawning, and the length, width and density of egg depositions on various substrate types are recorded on forms designed for this purpose, along with any other observations of interest.

Spawn depositions are also mapped on large scale vegetation maps prepared at the Pacific Biological Station (Haegele 1978: Haegele and Hamey 1977; 1979a, b; 1980a, b, c, and d). These maps (e.g. Fig. 5) are prepared from aerial photographs supplemented by diver surveys using techniques developed by Haegele (1975). The maps also serve to assist the field observer in locating the boundaries of spawn depositions, in identifying the substrates involved, and in estimating the length and width of spawn depositions more accurately than would be possible from standard charts. Vegetation maps of the remainder of the major spawning grounds are under preparation. Prior to the availability of the vegetation maps, spawnings were shown on large scale maps enlarged from charts showing details such as depth contours and bottom types. Use of such maps (e.g.

Fig. 6) continues for minor spawnings. When neither of these two types of maps is available (early years and new spawning location), outline sketches are drawn for this purpose.

Initially, spawning density was recorded on the same arbitrary scale of "intensity" used during the 1950s and 1960s (Table 1). However, it became apparent in initial attempts at population analysis on this basis that this procedure was not sufficiently quantitative for this purpose. A new procedure was developed, based on the number (or fraction thereof) of layers of eggs on different substrate types (Humphreys and Hourston 1978). This procedure permits quantitative adjustments for the normal changes in density and patchiness of vegetation with depth (Haegele et al. 1979a). Estimates by the new method proved to be quite good for six of seven sections when compared with the results of direct surveys by divers (Haegele et al. 1979b). In the seventh section, the vegetation was unusually sparse and stunted. This condition would be noted during routine annual surveys and the resulting estimates of egg deposition adjusted accordingly. The new system of estimating egg density was therefore introduced into the coastwide surveys in 1979, including the use of diver surveys for several major spawnings. Diver surveys were extended to a large portion of major spawnings on the coast in 1980.

As these new techniques (vegetation maps, layers of eggs and diver surveys) were introduced in various regions on the coast, the amount of spawn reported increased approximately threefold over previous years. By a fortunate coincidence, estimates of egg deposition by the old system, when most of the spawning reported was intertidal, were adjusted upward by a similar amount to account for the estimated 62 percent loss of eggs to bird predation in the average two day interval between spawn deposition and the survey (Hourston et al. 1972). Consequently, estimates of the number of eggs deposited should be comparable in magnitude for the two methods.

RESULTS

Spawn survey data collected by the old method are recorded by section, locality and date for 1971-1979 in Tables 2-10 respectively. Spawn survey data collected by the new method are recorded for 1979 and 1980 in Tables 11 and 12. Data for both layers of eggs and spawning intensities in 1979 provide a means of comparing estimates from the two systems.

ACKNOWLEDGMENTS

Except for Table 1, the tables were produced directly from computer runs operated by Ms Vivian Haist. Mr C. W. Haegele checked the data against the written reports of the Fishery Officers. Mr D. C. Miller prepared the figures.

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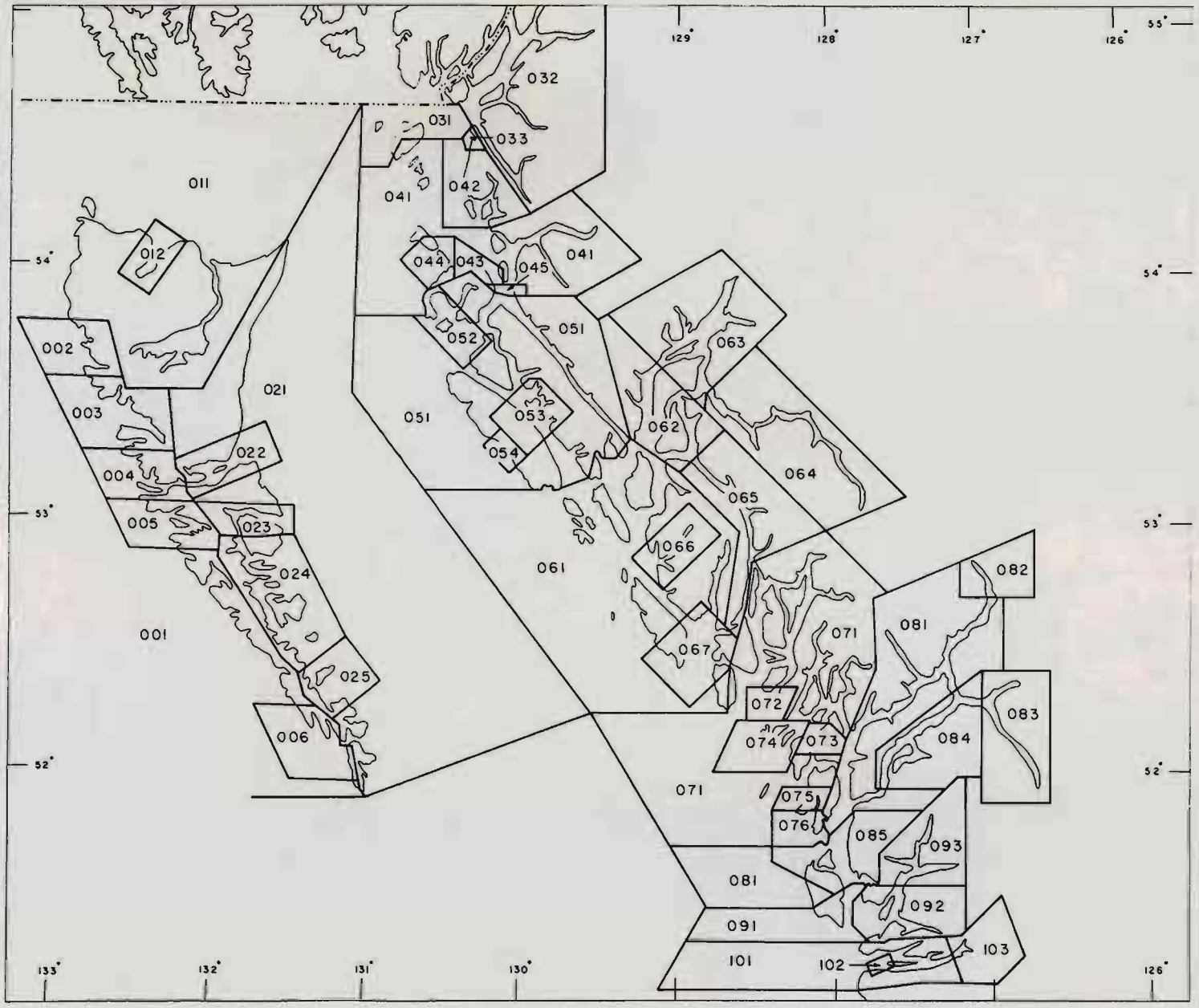

Fig. 1. Herring sections in northern British Columbia.

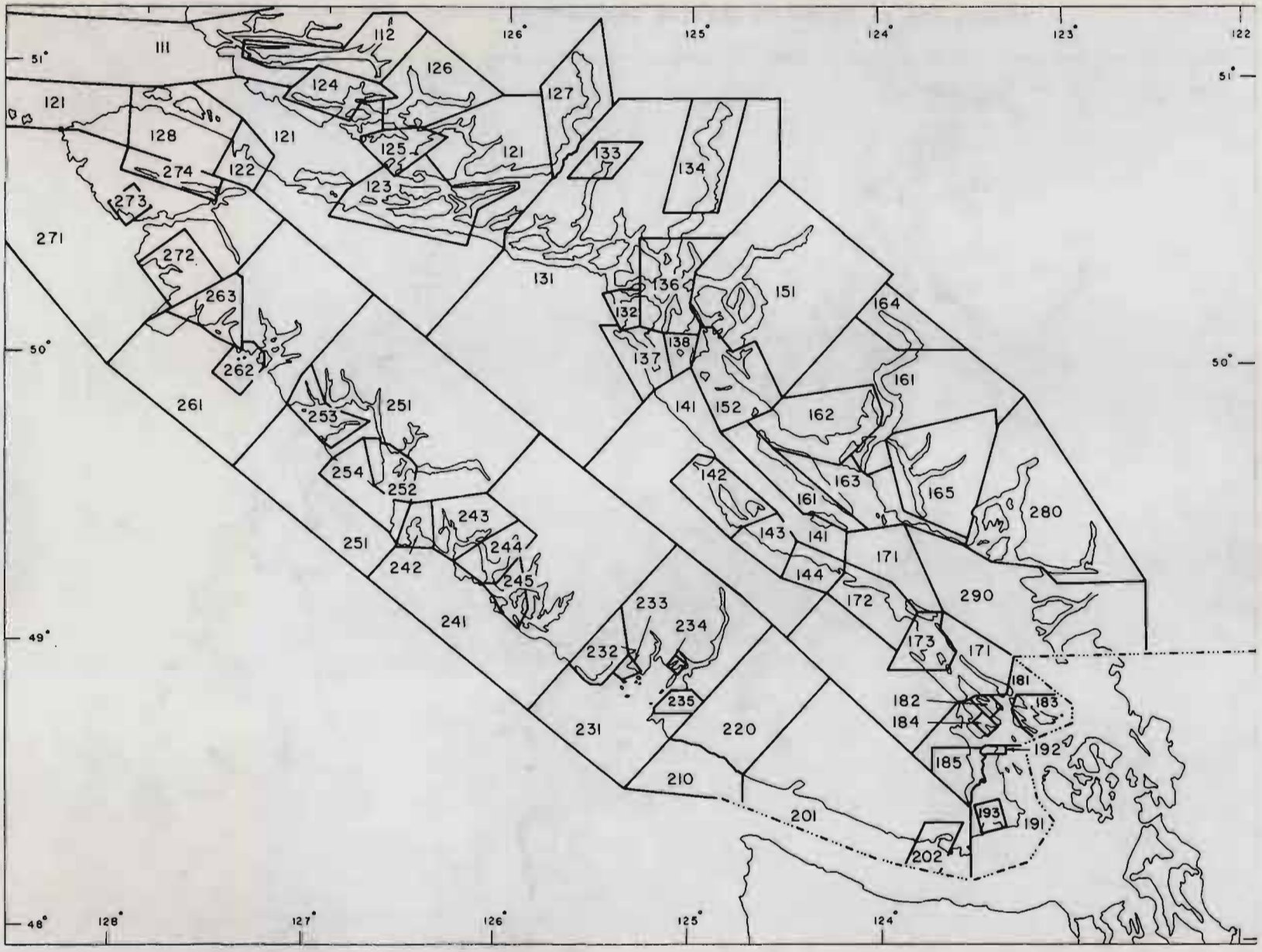

Fig. 2. Herring sections in southern British Columbia.

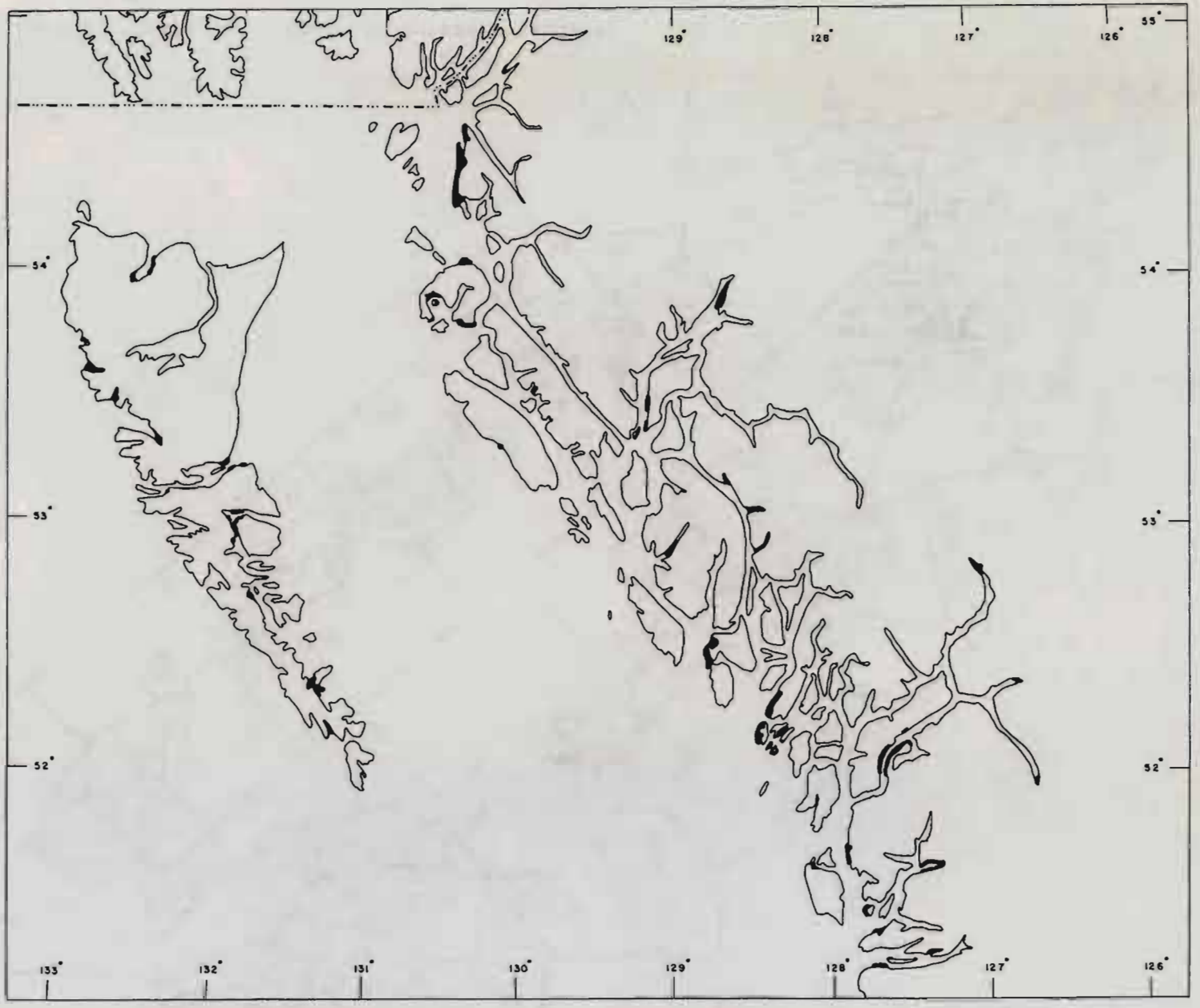

Fig. 3. Herring spawning grounds in northern British Columbia in the 1970s.

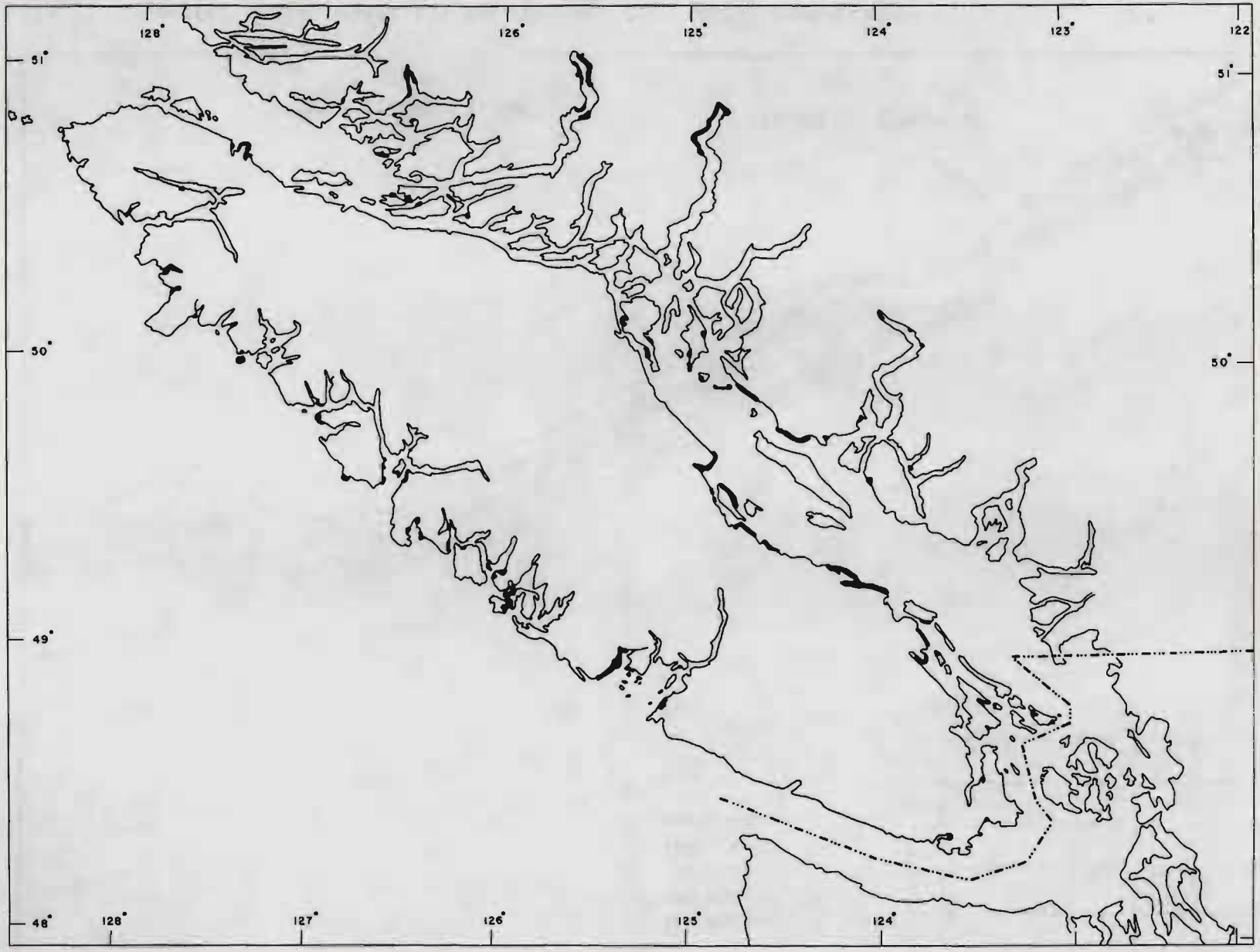

Fig. 4. Herring spawning grounds in southern British Columbia in the 1970s.

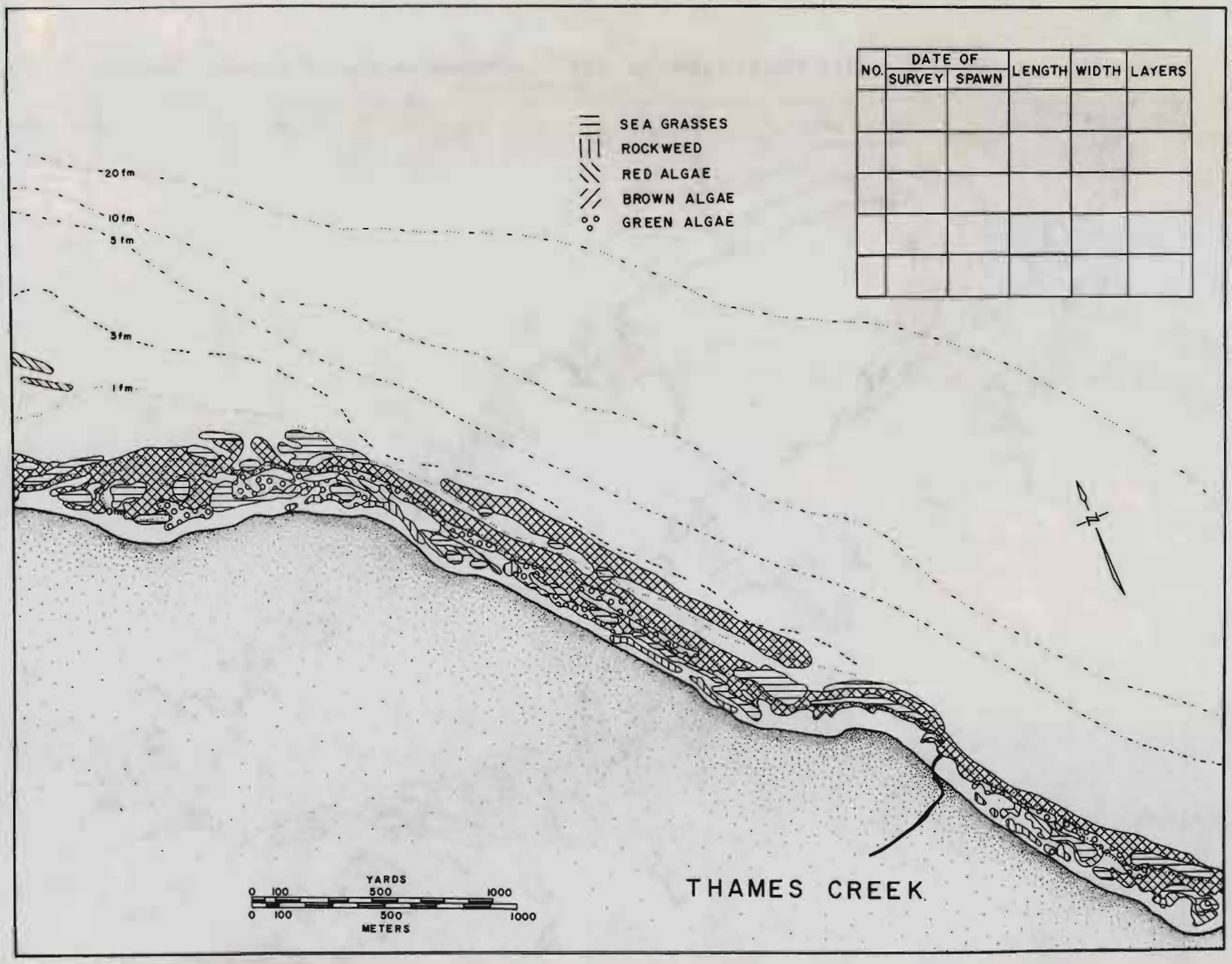

Fig. 5. Spawning ground vegetation map prepared from aerial photographs.

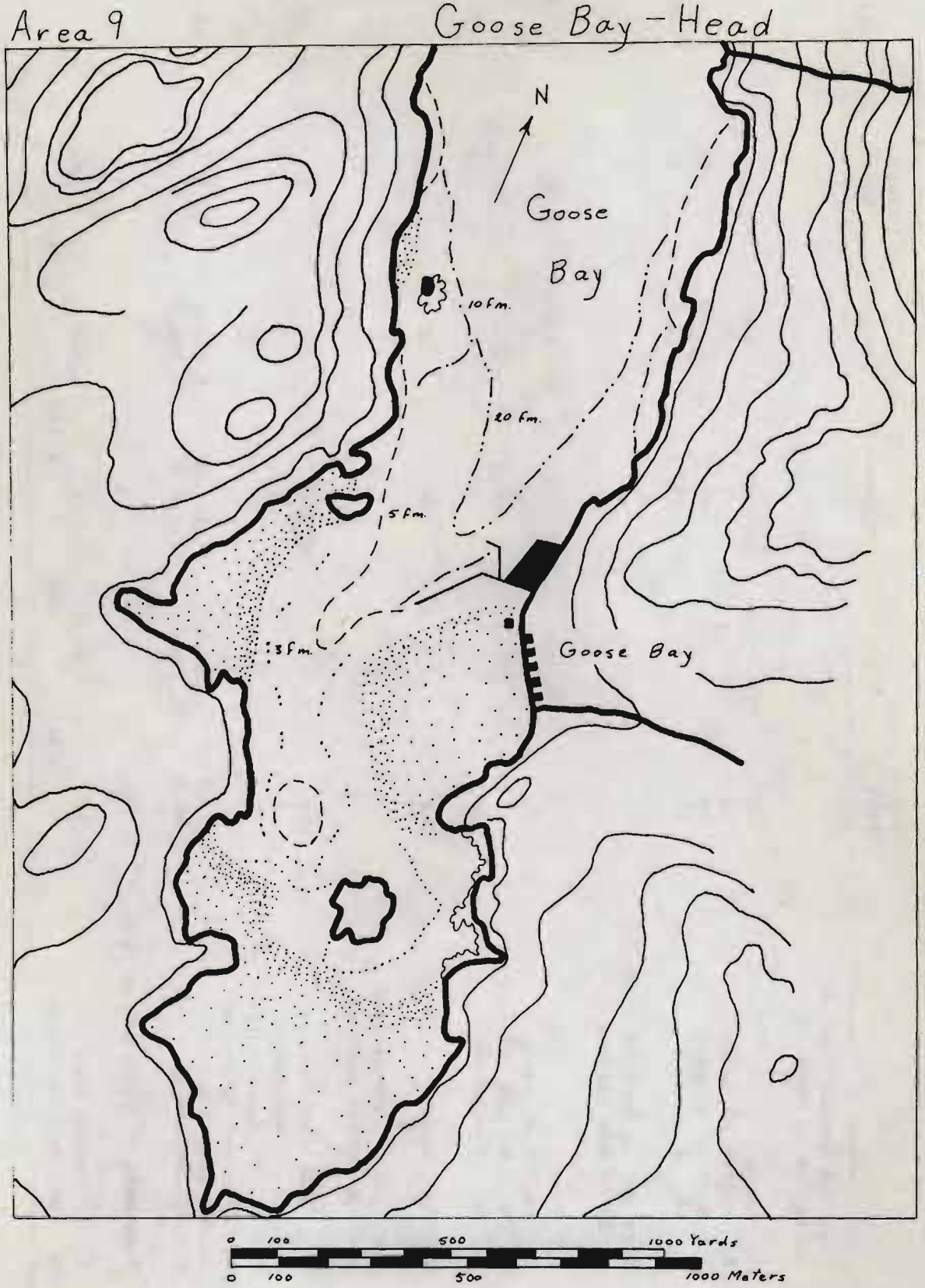

Fig. 6. Spawning ground map enlarged from nautical chart.

Table 1. Estimation of thousands of eggs per square yard of spawning ground at different spawning intensities. (From Hourston et al. 1972).

	Very light	Light	Medium	Heavy	Very heavy	All
A. Eggs per linear inch of eelgrass or japweed						
1. Range	1-25	25-100	100-250	250-500	500 up	
2. Median of range	12.5	62.5	175	375		
3. Mean of samples	12.3	59.7	173.4	332.6	634.2	
4. No. of samples	18	24	29	14	10	95
B. Eggs per sq inch of rockweed, kelp or sea lettuce						
1. Range	1-50	50-200	200-500	500-1,000	1,000 up	
2. Median of range	25	125	350	750		
3. Mean of samples	37.0	131.3	327.2	725.7	2,152.5	
4. No. of samples	1	7	13	7	2	30
C. Units of spawn	1	5	14	30	62	
D. Eggs per 4-inch-sq from cookie cutter samples						
1. Total for samples	169	9,782	24,916	50,713		85,580
2. No. of samples	2	3	2	3	0	
3. No. of spawn units	2	15	28	90		135
4. Eggs per spawn unit						
5. Estimated mean	633.9	3,169.6	8,875.0	19,017.8	39,303.4	633.93
6. Observed mean	84.5	3,260.7	12,458.0	16,904.3		
E. Thousands of eggs per sq yard						
1. Estimated mean	51	257	719	1,540	3,183	
2. Intermediate value	154	488	1,130	2,362		

TABLE 2. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1971

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	C1 PCT	C2	C2 PCT	C3	C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
2	60	4	5	4	19	1000.	3	3000.	1			81 11							45	25	0.459
3	92	4	14	4	18	1500.	5	7500.	3			11 20	1	5	2	5			45	33	5.788
	95	4	15	4	18	1300.	15	19500.	3			81 20 11	1	5	2	5			45	34	15.050
	95	4	15	4	18	300.	8	2400.	3			81 20 11	1	5	2	5			45	35	1.852
	95	4	15	4	18	400.	10	4000.	3			81 20 11	1	5	2	5			45	36	3.087
	95	4	15	4	18	50.	80	4000.	5			81 20 11	1	5	2	5			45	37	8.637
	95	4	15	4	18	100.	5	500.	5			20 81	1	10					45	38	1.080
															TOTAL FOR SECT.					3:	35.493
5	80	4	12	4	15	50.	10	500.	3			81	2	5					45	26	0.386
	80	4	12	4	15	100.	6	600.	3			81 11	2	5					45	27	0.463
	80	4	12	4	15	100.	10	1000.	3			11	2	20					45	28	0.772
	80	4	12	4	15	100.	8	800.	7			81	1	5	2	5			45	29	3.700
	80	4	12	4	15	1200.	8	9600.	1			81 20	1	5	2	5			45	30	1.470
	94	4	12	4	15	800.	20	16000.	5			81	9						45	31	34.547
	94	4	12	4	15	100.	10	1000.	1			81	9						45	32	0.153
															TOTAL FOR SECT.					5:	41.490
6	76	4	24	4	28	6160.	25	154000.	4	102	220	11 81 20	1	10					89	43	225.682
22	103	7	1	7	2	300.	40	12000.	3	106	202	81	2	3	1	2			45	2	9.261
	103	7	1	7	2	300.	10	3000.	7	110	204	81 95	8	40	2	40			45	3	13.874
	103	7	1	7	2	350.	50	17500.	5	111	202	81 95	8	30	2	30			45	4	37.785
	106	4	29	4	30	800.	20	16000.	3	108	215	81 20	1	10	7	10			45	5	12.348
	106	5	13	5	17	300.	20	6000.	5	110	205	81 20	1	10	7	10			45	6	12.955
	106	5	18	5	19	400.	20	8000.	5	108	203	81 20	1	25	7	25			45	7	17.273
	106	5	23	5	19	200.	20	4000.	7	104	206	81 20	1	5	2	5			45	8	18.498
	106	5	23	5	25	200.	10	2000.	5	104	206	81 20	1	5	2	5			45	9	4.318
	106	5	23	5	25	300.	5	1500.	3	102	202	50	1	5	2	5			45	10	1.158
	106	5	27	5	28	400.	30	12000.	5	104	206	81 20	1	20	7	20			45	11	25.910
	106	5	27	5	28	300.	5	1500.	3	102	202	50	1	10					45	12	1.158
	106	7	16	7	19	50.	20	1000.	3	210	204	81	2	3	1	2			45	13	0.772
	106	7	16	7	19	70.	10	700.	3	210	204	81	2	3	1	2			45	14	0.540
	113	6	4	6	7	200.	40	8000.	5	104	206	20	1	5	2	5			45	15	17.273
	113	6	4	6	7	40.	50	2000.	5	102	206	81	1	5	2	5			45	16	4.318
	113	6	4	6	7	250.	15	3750.	5	104	206	20 50	1	5	2	5			45	17	8.097
	113	7	5	7	8	100.	30	3000.	3	202	208	81	2	10					45	18	2.315
	113	7	5	7	8	150.	50	7500.	3	202	208	81	2	10					45	19	5.788
	113	7	5	7	8	40.	20	800.	3	202	208	81	2	10					45	20	0.617
	113	7	5	7	8	600.	40	24000.	3	202	208	81	2	10					45	21	18.523
	115	5	29	5	31	50.	5	250.	3	106	204	20	1	5					45	22	0.193
	118	5	29	5	31	100.	50	5000.	5	104	206	81 20	1	10					45	23	10.796
	118	5	29	5	31	200.	50	10000.	3	104	206	20 81	1	5	2	5			45	24	7.718
															TOTAL FOR SECT.					22:	231.489
23	156	4	23	4	26	13640.	40	545600.	6	104	215	11 81 20	1	5					89	40	1851.435
	158	5	23	5	27	150.	4	600.	3	102	202	20 81	1	5					89	41	0.463
	158	5	28	5	31	200.	4	800.	4	101	202	81	1	5					89	42	1.172
															TOTAL FOR SECT.					23:	1853.071

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2	MORTALITY PCT	MORTALITY C3	MORTALITY PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
25	166	4	5	4	7	8800.	30	264000.	7	106	220	11 81 20	1	5					89	39	1220.901
32	197	3	20	3	30	200.	60	12000.	1	110	105	11	1	8	3	7			30	55	1.838
33	211	4	11	4	21	750.	40	30000.	7	115	205	81 11 20	1	20					30	44	138.739
	211	4	11	4	21	5000.	10	50000.	5	110	103	11	2	8	7	7			30	45	107.958
	211	4	11	4	21	750.	30	22500.	5	115	205	81 11 20	1	30					30	46	48.581
	211	4	11	4	20	750.	60	45000.	7	115	205	81 11 20	1	20					30	47	208.108
	211	4	11	4	20	500.	300	150000.	3	115	205	11	1	85					30	48	115.766
	212	4	17	4	23	1760.	10	17600.	5	115	202	81 11 20	1	20	3	15			30	49	38.001
	212	4	17	4	23	880.	10	8800.	3	115	202	81 11 20	1	10	3	10			30	50	6.792
	212	4	22	4	27	300.	5	1500.	5	109	203	81 11 20	1	10	3	10			30	51	3.239
	213	4	12	4	18	800.	30	24000.	7	111	201	81 11 20	1	25					30	52	110.991
	213	4	12	4	18	1000.	20	20000.	5	108	201	81 11 20	1	25					30	53	43.183
	213	4	12	4	18	530.	15	7950.	3	108	201	81 11 20	1	25					30	54	6.136
															TOTAL FOR SECT.				33:		827.493
42	261	4	16	4	22	350.	20	7000.	3	210	202	20 11	1	3	2	2			16	62	5.402
	261	4	16	4	22	350.	20	7000.	3	209	103	20 11	1	3	2	2			16	63	5.402
	266	4	13	4	13	800.	10	8000.	3	108	100	81 11	1	5					16	64	6.174
	276	4	16	4	22	200.	30	6000.	3	212	203	11 81	1	5					16	57	4.631
	277	4	13	4	15	200.	10	2000.	5	112	104	11	1	2					16	58	4.318
	277	4	13	4	15	500.	15	7500.	7	110	202	11 81	1	3	7	2			16	59	34.685
	277	4	13	4	15	1200.	25	30000.	3	214	205	11 81	1	5	7	5			16	60	23.153
	280	4	16	4	22	1000.	200	200000.	3	210	202	20 81 11	1	10					16	61	154.354
	282	4	12	4	15	850.	10	8500.	5	108	100	11	1	10	2	10			16	65	18.353
															TOTAL FOR SECT.				42:		256.473
43	291	5	3	5	3	800.	20	16000.	5	109	203	20 11	1	5	7	5			16	56	34.547
52	346	4	30	5	3	1150.	10	11500.	3	111	202	11 20	1	5					32	66	8.875
	346	4	30	5	3	1050.	75	78750.	3	111	202	11 20	1	5					32	67	60.777
	346	4	30	5	3	350.	100	35000.	5	111	202	81	1	5					32	68	75.571
	355	4	30	5	3	1200.	100	120000.	5	111	202	81	1	5					32	69	259.099
	355	4	30	5	3	600.	20	12000.	3	111	202	11 20	1	5					32	70	9.261
	355	4	30	5	3	2800.	10	28000.	3	111	202	11 20	1	5					32	71	21.610
	355	5	1			280.	10	2800.	3			81							32	72	2.161
	358	4	10	4	15	90.	10	900.	3			81	1	10					32	73	0.695
	358	4	30	5	3	550.	10	5500.	3	111	202	11	1	5					32	74	4.245
															TOTAL FOR SECT.				52:		442.293
53	322	5	11	5	11	1550.	4	6200.	4	118	203	81 11 20	4	20					32	75	9.086
63	412	3	18			600.	7	4200.	3										90	85	3.241
	412	3	24			900.	3	2700.	7										90	86	12.486
	414	3	18			1300.	7	9100.	3										90	87	7.023
															TOTAL FOR SECT.				63:		22.751
64	394	4	15			300.	4	1200.	5										90	88	2.591

TABLE 2. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1971

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
64	395	4	6			300.	2	600.	5							90	76	1.295
	397	4	15			500.	1	500.	3							90	89	0.386
	398	4	15			2500.	1	2500.	3							90	90	1.929
															TOTAL FOR SECT.		64:	6.202
65	379	4	23			1100.	7	7700.	5							90	83	16.626
	379	4	23			150.	5	750.	7							90	84	3.468
															TOTAL FOR SECT.		65:	20.094
67	431	4	18			780.	20	15600.	5							90	77	33.683
	431	4	18			700.	3	2100.	3							90	78	1.621
	431	4	18			700.	12	8400.	7							90	80	38.847
	431	4	21			1200.	5	6000.	5							90	79	12.955
	431	4	21			500.	5	2500.	3							90	81	1.929
	435	4	21			300.	5	1500.	5							90	82	3.239
															TOTAL FOR SECT.		67:	92.274
72	467	4	2	4	10	500.	15	7500.	5	106	220	81 20 50	3 10			43	96	16.194
	469	4	2	4	7	200.	5	1000.	3	110	210	81 11 20	1 5	3 5		43	97	0.772
	469	4	10	4	10	400.	30	12000.	3	112	206	81 11 20	1 5	3 5		43	98	9.261
	471	3	30	4	10	1200.	4	4800.	3	112	202	11 20 50	1 15	3 15		43	99	3.705
	471	4	9	4	10	2600.	10	26000.	5	112	206	50 11 20	1 15	3 15		43	100	56.138
	491	3	22	3	28	250.	4	1000.	3	106	215	20 81 50	2 15	1 15		43	108	0.772
	496	3	28	4	4	200.	20	4000.	5	108	206	81 20 11	1 30			43	112	8.637
	529	3	22	3	28	300.	10	3000.	5	110	210	20 81 50 11	1 50			43	109	6.477
	529	3	23	3	28	300.	10	3000.	5	110	210	20 81 50 11	1 50			43	110	6.477
	529	3	28	4	4	700.	6	4200.	5	110	210	20 81 50 11	1 50			43	111	9.068
															TOTAL FOR SECT.		72:	117.501
74	536	3	16	4	3	1475.	3	4425.	3	106	220	20 50 11	1 15	2 15		43	116	3.415
	536	3	16	4	3	1025.	3	3075.	3	106	220	20 50 11	1 15	2 15		43	117	2.373
	537	4	16	4	14	100.	100	10000.	3	104	206	50 20	1 30			43	95	7.718
	538	4	22	4	25	600.	5	3000.	1	110	202	11 81	1 15	3 15		43	91	0.459
	538	4	22	4	25	1050.	5	5250.	5	110	100	11 81 50	1 15	3 15		43	92	11.336
	538	4	22	4	25	700.	5	3500.	7	110	204	11 81 20	1 15	3 15		43	93	16.186
	538	4	26	5	2	300.	4	1200.	3	112	104	11 50	1 15	3 15		43	94	0.926
															TOTAL FOR SECT.		74:	42.413
76	497	4	10	4	16	1450.	5	7250.	3	106	204	81 20 11 50	1 30			43	113	5.595
	497	4	10	4	16	1000.	5	5000.	5	106	206	81 20 11 50	1 30			43	114	10.796
	497	4	10	4	16	2450.	5	12250.	7	108	210	81 20 11 50	1 30			43	115	56.652
	560	4	10	4	16	400.	5	2000.	3	108	206	11 20 50	1 50			43	105	1.544
	560	4	10	4	16	400.	5	2000.	5	108	206	11 20 50	1 50			43	106	4.318
	560	4	10	4	16	400.	5	2000.	7	110	206	11 20 81	1 50			43	107	9.249
	562	4	2	4	9	1700.	8	13600.	5	110	206	81 11 50	1 50			43	101	29.365
	562	4	10	4	16	900.	5	4500.	5	110	206	11 20 81	1 50			43	102	9.716
	562	4	10	4	16	1100.	6	6600.	7	110	206	11 81	1 50			43	103	30.523
	564	4	13	4	16	2200.	3	6600.	3	112	100	11 81	3 30			43	104	5.094
															TOTAL FOR SECT.		76:	162.851
82	587	3	26	3	30	7040.	5	35200.	5	115	100	11	2 8	1 7		37	121	76.002

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	C1 PCT	MORTALITY C2	C2 PCT	MORTALITY C3	C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
82	589	3	27	3	31	8800.	4	35200.	5	110	100	11	2	5	1	5			37	122	76.002
															TOTAL FOR SECT.					82:	152.005
83	597	3	17	3	19	7000.	3	21000.	5	111	102	11	9						37	123	45.342
	597	3	21	3	25	15000.	4	60000.	5	114	102	11	2	5	1	5			37	124	129.550
	597	3	29	4	1	8000.	3	24000.	5	111	102	11	9						37	125	51.820
	597	4	6	4	8	1000.	5	5000.	6			81 95	9						37	126	16.967
	598	3	26	4	2	8000.	3	24000.	4	111	102	11 81	2	15					37	127	35.171
															TOTAL FOR SECT.					83:	278.850
84	607	5	22	5	25	2200.	7	15400.	8	117	204	11	2	5	1	5			37	118	109.234
	607	5	28	5	31	2000.	5	10000.	6	111	204	11	9						37	119	33.934
	607	6	23	6	29	6000.	3	18000.	6	113	104	11 20	8	15					37	120	61.081
															TOTAL FOR SECT.					84:	204.249
92	613	4	19	5	1	1800.	3	5400.	3	105	102	11 81 90	1	8	2	7			92	139	4.168
	617	4	2	4	4	2000.	15	30000.	3	106	210	81 11	1	15					92	132	23.153
	617	4	15	4	17	1300.	3	3900.	5	104	204	11 81	1	5	2	5			92	131	8.421
	623	4	15	4	17	500.	3	1500.	7	106	202	90 95 11	1	8	2	7			92	130	6.937
	624	4	6	4	17	400.	3	1200.	3	105	204	11 81	1	5	2	5			92	135	0.926
	624	4	6	4	17	3000.	3	9000.	5	106	220	11 81	1	5	2	5			92	136	19.432
	1489	3	20	3	25	600.	3	1800.	7	105	100	11	9						20	430	8.324
															TOTAL FOR SECT.					92:	71.361
93	626	4	10	4	14	5400.	4	21600.	3	108	203	11 81	1	10					92	137	16.670
	630	3	26	3	27	7000.	3	21000.	3	107	202	90 11	1	20	3	10	8	10	92	128	16.207
	630	3	27	4	15	4100.	3	12300.	3	108	203	11 90	1	25	8	20			92	129	9.493
	631	3	26	3	27	3000.	4	12000.	5	110	202	90 11	1	20	8	10			92	133	25.910
	631	3	27	4	14	2500.	4	10000.	3	107	201	90 11	8	30					92	134	7.718
	632	3	27	4	15	5900.	3	17700.	3	108	203	11 90	1	25	8	20			92	138	13.660
															TOTAL FOR SECT.					93:	89.658
102	641	4	10	4	12	1700.	5	8500.	5	109	201	11	1	8	2	7			92	144	18.353
	641	4	10	4	12	300.	300	90000.	5	106	204	11 81	1	5	2	5			92	145	194.324
	641	4	13	5	2	300.	3	900.	3	105	102	11	1	25					92	146	0.695
	652	4	10	4	11	3000.	5	15000.	5	106	100	11	1	3	2	2			92	141	32.387
	652	4	10	4	12	4100.	5	20500.	5	108	202	11 20 81	1	5	2	5			92	142	44.263
	652	4	10	4	12	300.	5	1500.	7	108	100	11	1	5					92	143	6.937
	654	4	10	4	11	2720.	5	13600.	3	103	210	81 15 50	1	5					92	140	10.496
	655	4	10	4	12	2000.	4	8000.	4	107	201	20 11	1	8	2	7			92	148	11.724
															TOTAL FOR SECT.					102:	319.179
103	648	4	15	5	3	3800.	3	11400.	4	105	201	11 90	1	8	2	7			92	147	16.706
112	659	4	24	4	27	400.	3	1200.	3	103	205	90 11	1	15					53	149	0.926
	659	4	24	4	27	3600.	5	18000.	5	106	210	20 81 11 90	1	10	5	10			53	150	38.865
															TOTAL FOR SECT.					112:	39.791
122	670	4	24	4	28	2250.	10	22500.	3	110	215	20 81	1	15					93	151	17.365
	682	3	31	4	2	1500.	30	45000.	4	106	207	20 81	1	5					93	152	65.946

TABLE 2. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1971

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
122	682	4	10	4	14	70.	30	2100.	5	103	203	20 11	1	5					93	153	4.534
	682	4	10	4	14	500.	5	2500.	5	103	203	20 11	1	5					93	154	5.398
	682	4	10	4	14	600.	2	1200.	3	103	203	20 11	1	5					93	155	0.926
	683	3	31	4	2	600.	600	360000.	1	106	207	20 11	1	5					93	156	55.135
	687	4	16	4	26	800.	2	1600.	3	106	206	20	1	5					93	157	1.235
																			TOTAL FOR SECT.	122:	150.539
123	689	3	9	3	10	30.	10	300.	1	107	205	11 81	1	5	4	5			93	158	0.046
	689	3	15	3	17	30.	10	300.	1	106	203	11 81	1	5	4	5			93	159	0.046
	689	3	15	3	17	50.	20	1000.	1	106	203	11 81	1	5	4	5			93	160	0.153
	705	4	8	4	15	1300.	7	9100.	5	100	208	11	3	3	1	2			93	161	19.648
	706	4	2	4	5	500.	3	1500.	2	110	100	11	1	3	3	2			93	162	0.694
																			TOTAL FOR SECT.	123:	20.587
124	728	4	5	4	9	750.	5	3750.	4	101	212	11	1	3	3	2			93	167	5.495
	728	4	20	4	27	100.	2	200.	3	109	203	11	1	5					93	168	0.154
																			TOTAL FOR SECT.	124:	5.650
125	738	3	29	3	30	1000.	200	200000.	6	106	100	11	1	5	3	5			93	169	678.679
	747	3	1	3	4	50.	50	2500.	6	106	206	11 81	1	3	4	2			93	170	8.483
																			TOTAL FOR SECT.	125:	687.162
126	756	4	17	4	27	75.	1	75.	3	106	103	11	3	10					93	163	0.058
	756	4	20	4	27	1000.	1	1000.	3	106	103	11	3	10					93	164	0.772
	756	4	20	4	27	600.	3	1800.	5	108	201	11	3	5					93	165	3.886
	757	4	1	4	8	22650.	2	45300.	4	105	203	11 81	1	5					93	166	66.386
																			TOTAL FOR SECT.	126:	71.102
127	749	4	1	4	6	8400.	1	8400.	1	110	104	11	3	3	4	2			93	171	1.286
	749	4	1	4	6	29000.	1	29000.	1	110	104	11	3	3	4	2			93	172	4.441
	749	4	1	4	6	8100.	1	8100.	1	110	104	11	3	3	4	2			93	173	1.241
																			TOTAL FOR SECT.	127:	6.968
132	761	4	15	4	19	500.	7	3500.	3			11 90	1	5					55	174	2.701
	761	4	15	4	19	300.	20	6000.	5			11	1	5					55	175	12.955
	799	4	25	4	26	200.	2	400.	6			15 11	1	10					55	180	1.357
	799	4	25	4	25	200.	2	400.	5			11 90	1	50					55	181	0.864
	799	4	28	4	28	3400.	5	17000.	9			11 90	1	30					55	182	162.495
	799	4	28	4	28	100.	3	300.	3			11 90	1	30					55	183	0.232
	799	4	28	4	29	500.	4	2000.	5			11 90	1	30					55	184	4.318
	800	4	28	4	28	200.	2	400.	5			11 90	1	30					55	187	0.864
																			TOTAL FOR SECT.	132:	185.786
133	774	4	15	4	15	100.	2	200.	3			11 90	9						55	191	0.154
	774	4	19	4	20	200.	3	600.	5			11 90	5	13	1	12			55	192	1.295
	774	4	23	4	27	100.	2	200.	5			11 90	5	13	1	12			55	193	0.432
	774	5	1			9000.	3	27000.	5			11	5	12	1	13			55	194	58.297
																			TOTAL FOR SECT.	133:	60.179
134	781	3	21	3	24	3000.	2	6000.	3			11 90	1	5					55	195	4.631

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
134	781	3	29	3	29	2400.	3	7200.	7			11 90	1	10					55	196	33.297
	781	3	29	3	30	7200.	3	21600.	5			11 90	1	10					55	197	46.638
	781	3	30	3	30	7400.	3	22200.	5			11 90	9						55	198	47.933
	781	3	30	3	30	1500.	3	4500.	3			11 90	1	8					55	199	3.473
	781	3	30	3	30	2400.	3	7200.	7			11 90	1	8					55	200	33.297
	784	3	21	3	23	3000.	2	6000.	3			11	1	5					55	201	4.631
	785	3	21	3	25	400.	6	2400.	5			81	1	75					55	202	5.182
	785	3	21	3	25	600.	1	600.	5			81	1	75					55	203	1.295
	785	3	21	3	25	1600.	13	20800.	5			81	1	75					55	204	44.911
																			TOTAL FOR SECT.	134:	225.288
137	804	3	29	3	29	2400.	4	9600.	5			90 11	1	50					55	176	20.728
	804	4	10	4	13	800.	7	5600.	7			90 11	9						55	177	25.898
	804	4	10	4	13	400.	4	1600.	5			90 11	9						55	178	3.455
	804	4	10	4	13	700.	3	2100.	5			90 11	9						55	179	4.534
	805	3	26	3	29	100.	1	100.	3			81 90 11	1	50					55	185	0.077
	805	4	10	4	13	20.	20	400.	1			90 11	9						55	186	0.061
	806	3	28	3	29	200.	6	1200.	3			90 11	1	50					55	188	0.926
	808	4	10	4	13	200.	3	600.	5			81	9						55	190	1.295
																			TOTAL FOR SECT.	137:	56.975
138	771	3	22	3	30	300.	3	900.	3			81	1	50					55	189	0.695
142	827	3	17	3	19	800.	15	12000.	1	104	202	81 15	1	15					25	210	0.612
	827	3	17	3	19	200.	15	3000.	1	104	202	81 15	1	15					25	211	0.153
	827	3	17	3	19	300.	50	15000.	1	106	202	81 15	1	15					25	212	0.765
	827	4	8	4	9	300.	75	22500.	3	106	204	81 15	1	10					25	213	5.782
																			TOTAL FOR SECT.	142:	7.312
143	810	3	21	3	21	500.	75	37500.	5	106	102	15	1	10	2	10			25	205	26.963
	810	3	22	3	23	300.	50	15000.	5	108	100	81 15 11	1	10	2	10			25	206	10.785
	831	3	26	4	2	3100.	125	387500.	5	108	100	15 11 81 90	1	10	2	10			25	214	278.612
	835	3	25	3	25	800.	200	160000.	5	108	100	15 11 81 90	1	10	2	10			25	215	115.040
	835	3	25	3	27	600.	200	120000.	5	108	100	15 11 81 90	1	10	2	10			25	216	86.280
	835	3	26	3	27	500.	150	75000.	5	108	100	15 11 81 90	1	10	2	10			25	217	53.925
	835	4	1	4	6	1800.	150	270000.	5	108	100	15 11 90 81	1	10	2	10			25	218	194.130
																			TOTAL FOR SECT.	143:	765.735
144	823	3	26	3	28	20.	10	200.	5	102	100	15 11	1	5	2	5			25	207	0.144
	823	3	27	3	28	25.	15	375.	5	105	102	81	2	8	1	7			25	208	0.270
	823	3	27	3	29	350.	15	5250.	5	108	101	90 11 99	1	5	2	5			25	209	3.775
																			TOTAL FOR SECT.	144:	4.188
152	845	3	24	3	26	2000.	30	60000.	5	100	205	11	1	10					20	219	129.550
	845	3	24	3	28	400.	10	4000.	7	105	100	81	1	10					20	220	18.498
	851	3	28	3	30	1000.	20	20000.	7	100	203	81	1	10					20	221	92.492
	853	3	22	3	28	600.	5	3000.	5	105	100	11	9						20	222	6.477
	858	3	20	3	23	500.	20	10000.	7	100	202	11	1	10					20	223	46.246
	858	3	26	3	30	1500.	10	15000.	5	105	100	11	1	20					20	224	32.387
	858	4	1	4	5	2000.	15	30000.	7	110	100	11	1	10					20	225	138.739

TABLE 2. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1971

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	M C1	M PCT	C2	C2 PCT	C3	C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
152	868	4	9	4	12	200.	15	3000.	5	105	100	11 81	9						20	226	6.477
																		TOTAL FOR SECT.		152:	470.868
162	874	3	19	3	19	5000.	3	15000.	5	105	210	15 20 11	1	3	3	2			57	234	32.387
	896	3	15	3	18	1500.	8	12000.	5	105	100	81	9						57	240	25.910
	904	3	15	3	17	4500.	20	90000.	7	110	205	81	2	5					57	243	416.216
	904	4	1	4	5	1000.	5	5000.	3	102	100	81	1	20					57	244	3.859
	910	3	17	3	17	400.	5	2000.	5	110	205	11	1	20					57	245	4.318
	915	3	18	3	21	800.	5	4000.	5	105	100	11	9						20	241	8.637
																		TOTAL FOR SECT.		162:	491.327
163	871	3	3	30	40	150.	2	300.	4	110	206	20 11	1	5					57	227	0.440
	871	3	3	3	4	600.	5	3000.	5	110	210	20 11	1	3	3	2			57	228	6.477
	871	3	10	3	13	100.	50	5000.	5	100	210	11 20	1	2					57	229	10.796
	871	3	14	3	15	200.	3	600.	4	106	210	81 20 11	1	3	3	2			57	230	0.879
	871	3	16	3	18	600.	5	3000.	3	102	210	15 20 81	1	3	3	2			57	231	2.315
	871	3	19	3	19	300.	1	300.	3	108	205	20 15	1	5	3	5			57	232	0.232
	872	3	20			1000.	5	5000.	5										57	233	10.796
	883	3	14	3	15	400.	100	40000.	1	100	210	81 20	1	2					57	236	6.126
	887	2	20	2	22	500.	2	1000.	3	107	100	11 41	1	5					57	237	0.772
	887	3	1	3	12	600.	1	600.	1	110	204	11	1	3	3	2			57	238	0.092
	887	3	1	3	12	200.	2	400.	5	110	210	11 20	1	9	3	8	2	8	57	239	0.864
	898	2	24	2	25	100.	1	100.	1	110	104	11	4	9	1	8	3	8	57	242	0.015
	913	4	14	4	14	200.	20	4000.	4	108	210	20 11	1	5					57	246	5.862
																		TOTAL FOR SECT.		163:	45.665
165	875	3	24	4	5	1100.	100	110000.	1	105	210	81	1	5					57	235	16.847
172	928	3	29	4	1	4300.	15	64500.	7	108	202	81 11	1	15	2	15			1	250	298.288
	928	4	7	4	9	2050.	15	30750.	7	105	205	11 50	1	20	2	20			1	251	142.207
	999	3	1	3	4	200.	150	30000.	5	105	102	81	1	15	2	15			1	253	64.775
	999	3	1	3	4	500.	50	25000.	5	107	103	81	1	18	2	17			1	254	53.979
	999	3	1	3	4	350.	50	17500.	5	106	102	81	1	20	2	20			1	255	37.785
	999	3	2	3	4	1000.	15	15000.	5	106	204	81 41	1	10	2	10			1	256	32.387
	999	3	6	3	9	600.	300	180000.	1	107	203	81 11 15	1	13	2	12			1	257	27.568
	999	3	25	3	28	2000.	10	20000.	5	106	204	11 20	1	20	2	20			1	258	43.183
	1000	3	25	3	28	2700.	30	81000.	5	107	201	81 11	1	18	2	17			1	259	174.892
	1001	3	29	3	30	3100.	15	46500.	7	107	204	11 90	1	20	2	20			1	248	215.045
	1001	3	29	4	1	1350.	15	20250.	7	106	204	11 81 41	1	20	2	20			1	249	93.649
	1002	3	11	3	14	3200.	600	1920000.	3	109	103	81 11	1	20	2	20			1	252	1481.802
																		TOTAL FOR SECT.		172:	2665.560
173	944	3	29	3	30	600.	10	6000.	5	104	203	15 81	1	20					1	260	12.955
	944	3	29	3	31	100.	5	500.	5	106	102	81 15	1	15	2	15			1	261	1.080
	944	3	31	4	2	3400.	5	17000.	3	105	201	11 15	1	13	2	12			1	262	13.120
	949	3	4	3	7	300.	10	3000.	1	104	204	11 15	1	15	2	15			1	268	0.459
	954	3	15	3	17	200.	15	3000.	1	106	101	11 50	1	20	2	20			1	263	0.459
	985	4	10	4	13	200.	5	1000.	3	103	203	15 20	1	20					1	264	0.772
	985	4	10	4	13	150.	10	1500.	5	106	102	11 15	1	15	2	15			1	265	3.239
	988	4	9	4	10	300.	50	15000.	5	107	203	81 11	1	18	2	17			1	266	32.387

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
173	988	4	9	4	10	1500.	15	22500.	5	104	204	81 11	1 30			1	267	48.581
														TOTAL FOR SECT.			173:	113.053
182	1050	2	7	2	9	2200.	55	121000.	1	102	202	81 50 41 20	1 15			8	269	18.532
	1050	2	9	2	10	400.	50	20000.	3	104	202	81 50 41 20	1 10			8	270	15.435
	1050	2	15	2	17	2300.	55	126500.	1	102	202	81 15	1 10			8	271	19.374
	1050	3	7	3	15	1500.	20	30000.	1	105	203	81	1 5			8	272	4.595
	1050	3	7	3	15	300.	35	10500.	7	105	208	81 11 50	1 5			8	273	48.559
	1050	3	7	3	15	850.	5	4250.	5	105	210	11 15 90	1 5			8	274	9.176
	1050	3	7	3	15	100.	25	2500.	5	100	203	11 81	1 5			8	275	5.398
	1050	3	10	3	15	1900.	8	15200.	1	105	203	81	1 5			8	276	2.328
	1050	3	10	3	15	100.	10	1000.	5	100	205	81	1 5			8	277	2.159
	1050	3	23	3	24	300.	25	7500.	5	105	202	81 50 20	1 15			8	278	16.194
	1051	1	28	2	1	30.	10	300.	1	100	204	81 20	1 50	8 50		8	290	0.046
	1051	2	7	2	9	900.	30	27000.	1	105	100	81 50 15	1 50	8 50		8	291	4.135
	1051	2	15	2	17	100.	20	2000.	1	202	203	81 41	1 15			8	292	0.306
	1051	3	4	3	4	425.	5	2125.	1	100	210	81 50 20	1 10			8	293	0.325
	1051	3	4	3	4	150.	5	750.	3	100	215	81 50 20	1 5			8	294	0.579
	1051	3	6	3	9	800.	15	12000.	5	105	202	81 11 50	1 10			8	295	25.910
	1051	4	2	4	2	600.	20	12000.	5	105	205	81 50 20	1 10			8	296	25.910
	1053	2	7	2	9	400.	25	10000.	1	102	202	81 50 15	1 35			8	279	1.532
	1053	2	9	2	10	200.	25	5000.	3	202	202	81 20	1 10			8	280	3.859
	1053	2	12	2	12	150.	30	4500.	3	105	100	81	1 10			8	281	3.473
	1053	2	13	2	13	150.	20	3000.	1	105	100	11 20 41	1 10			8	282	0.459
	1053	3	1	3	2	1025.	30	30750.	2	100	210	81 50 20	1 15			8	283	14.221
	1053	3	6	3	8	400.	10	4000.	7	105	100	11 90 41	1 15			8	284	18.498
	1053	3	6	3	8	1050.	5	5250.	5	105	100	81 11 50 90	1 5			8	285	11.336
	1053	3	6	3	8	650.	5	3250.	3	105	100	81 11 50 90	1 10			8	286	2.508
	1053	3	6	3	16	450.	5	2250.	5	106	205	11 90 81	1 5			8	287	4.858
	1053	3	6	3	16	375.	5	1875.	7	106	204	11 90 81	1 15			8	288	8.671
	1053	3	6	3	16	675.	5	3375.	7	106	204	11 90 81	1 15			8	289	15.608
	1054	2	14	2	14	50.	5	250.	3	110	105	11 20	1 10			8	308	0.193
	1054	2	15	2	17	350.	125	43750.	5	102	205	81 11 50	1 20			8	309	94.463
	1054	3	6	3	16	575.	2	1150.	9	106	204	11 90 81	1 5			8	310	10.992
	1054	3	6	3	16	350.	125	43750.	5	100	204	81 11	1 10			8	311	94.463
	1054	3	6	3	16	750.	10	7500.	7	106	204	11 90	1 15			8	312	34.685
	1055	2	7	2	9	200.	25	5000.	1	102	202	81	1 25			8	313	0.766
	1055	2	15	2	17	450.	20	9000.	1	102	203	81 50 41	1 10			8	314	1.378
	1055	3	6	3	16	1000.	10	10000.	2	100	202	81	1 5			8	315	4.625
	1055	3	6	3	16	275.	5	1375.	4	106	204	11 90	1 5			8	316	2.015
	1055	3	6	3	16	925.	5	4625.	5	105	204	11 90	1 5			8	317	9.986
	1058	3	4	3	4	800.	10	8000.	3	100	215	81	1 5			8	328	6.174
	1058	3	4	3	4	255.	10	2550.	5	100	210	81	1 5			8	329	5.506
	1058	3	4	3	4	200.	10	2000.	7	100	210	15 50	1 5			8	330	9.249
	1058	3	4	3	4	700.	5	3500.	3	100	212	11 90	1 5			8	331	2.701
														TOTAL FOR SECT.			182:	561.181
183	1021	2	15	2	18	300.	20	6000.	1	102	203	81 41	1 10			8	297	0.919
	1021	3	1	3	3	300.	30	9000.	3	100	208	81	1 5			8	298	6.946
	1021	3	10	3	17	1100.	35	38500.	1	100	204	81	1 10			8	299	5.896

TABLE 2. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1971

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MOR TALITY C1	C1 PCT	C2	C2 PCT	C3	C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
183	1021	3	12	3	17	900.	3	2700.	6	106	203	90 11	1	5					8	300	9.162
	1021	3	12	3	17	500.	150	75000.	1	106	203	81 90 11	1	55					8	301	11.486
	1021	3	12	3	17	100.	3	300.	7	106	202	90 11	1	35					8	302	1.387
	1022	2	15	2	18	300.	25	7500.	1	103	202	81 41	1	10					8	303	1.149
	1022	2	20	2	23	300.	30	9000.	2	105	205	11 81	1	10					8	304	4.162
	1022	2	22	2	23	350.	25	8750.	3	105	206	11 81	1	10					8	305	6.753
	1022	3	12	3	17	200.	2	400.	1	103	203	90 11	4	75					8	306	0.061
	1022	3	12	3	17	200.	2	400.	5	106	103	90 11	1	5					8	307	0.864
	1034	2	21	2	23	200.	10	2000.	1	100	206	11 50	1	5					8	318	0.306
	1041	2	15	2	18	225.	20	4500.	3	100	203	81	1	10					8	321	3.473
	1041	2	21	2	23	150.	25	3750.	3	105	210	11 81 41	1	15					8	322	2.894
	1041	3	1	3	3	250.	25	6250.	4	100	210	81 50 41	1	5					8	323	9.159
	1041	3	1	3	3	100.	5	500.	3	100	215	81	1	5					8	324	0.386
	1041	3	2	3	3	600.	3	1800.	5	108	100	11 50	1	25					8	325	3.886
	1041	3	3	3	4	100.	20	2000.	7	104	205	81 15 50	1	20					8	326	9.249
	1041	3	10	3	17	500.	35	17500.	1	106	205	81 90 11	1	15					8	327	2.680
															TOTAL FOR SECT.				183:		80.820
185	1039	2	26	3	9	500.	20	10000.	3	104	202	50 20 81	1	10					8	319	7.718
	1039	3	21	3	25	600.	20	12000.	5	100	210	50 20 81	1	5					8	320	25.910
															TOTAL FOR SECT.				185:		33.628
220	1096	4	14			200.	20	4000.	1										34	332	0.613
232	1132	3	10	3	10	600.	10	6000.	7	108	210	81 15	1	10					34	369	27.748
	1142	3	13	3	16	150.	10	1500.	3	105	215	81	1	40					34	337	1.158
	1142	3	13	3	16	75.	10	750.	3	105	215	81	1	40					34	338	0.579
	1142	3	13	3	16	100.	10	1000.	3	105	215	81	1	40					34	339	0.772
	1144	3	23	3	24	4000.	10	40000.	3	105	260	81 20 15	1	15	5	15			34	340	30.871
	1144	3	23	3	24	100.	100	10000.	3	105	240	81 20 15	1	15	5	15			34	341	7.718
	1144	3	31	4	1	600.	20	12000.	5	110	240	81 20 11	1	40					34	342	25.910
	1144	3	31	4	1	250.	150	37500.	4	115	240	81 20 11	1	40					34	343	54.955
	1144	3	31	4	1	4000.	10	40000.	3	110	260	81 20 11	1	30					34	344	30.871
	1144	4	6	4	6	1500.	10	15000.	3	110	220	15 11	1	20					34	345	11.577
	1144	4	6	4	7	5000.	100	500000.	3	110	225	15 81	1	40					34	346	385.886
	1144	4	6	4	7	900.	60	54000.	5	110	230	15 81	1	40					34	347	116.595
	1144	4	6	4	7	950.	60	57000.	5	110	230	15 81	1	40					34	348	123.072
	1144	4	6	4	7	300.	150	45000.	5	110	230	15 81	1	40					34	349	97.162
	1145	3	31	4	1	100.	10	1000.	5	100	250	81 20 11	1	20					34	350	2.159
	1145	4	6	4	7	60.	10	600.	1	105	220	11 15	1	30					34	351	0.092
	1145	4	6	4	7	75.	10	750.	1	105	220	11 15	1	30					34	352	0.115
	1150	3	23	3	25	100.	100	10000.	3	100	250	81 20 15	1	20	5	20			34	374	7.718
	1150	3	24	3	25	100.	10	1000.	3	100	250	81 20 15	1	20	5	20			34	375	0.772
	1150	4	6	4	6	300.	10	3000.	3	110	220	15 11	1	20					34	376	2.315
	1153	3	5	3	10	400.	10	4000.	1	105	205	81	1	50					34	367	0.613
	1159	4	6	4	6	1600.	10	16000.	3	110	220	11 15	1	15					34	368	12.348
															TOTAL FOR SECT.				232:		941.003
233	1130	3	23	3	23	2150.	50	107500.	6	125	230	81 20 15	1	25	5	25			34	370	364.790
	1130	3	23	3	23	300.	150	45000.	6	120	240	81 20 15	1	20	5	20			34	371	152.703

TABLE 2. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1971

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	C1 PCT	C2	C2 PCT	C3	C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
233	1130	3	23	3	23	200.	40	8000.	6	125	230	81 20 15	1	15	5	15			34	372	27.147
	1130	3	31	4	1	2150.	50	107500.	3	110	250	81 20 11	1	30					34	373	82.965
	1141	3	3	3	4	500.	50	25000.	1	115	230	15 81 20	5	20	1	20	4	10	34	333	3.829
	1141	3	3	3	4	200.	50	10000.	1	110	230	15 81 20	1	25	4	25			34	334	1.532
	1141	3	4	3	4	100.	25	2500.	1	110	220	15 81 20	5	20	1	10	4	10	34	335	0.383
	1141	3	10	3	12	400.	20	8000.	3	108	215	81	1	30					34	336	6.174
	1149	3	17	3	17	100.	15	1500.	3	100	220	81	1	30					34	355	1.158
	1149	3	22	3	23	250.	100	25000.	3	115	240	81 20 15	1	25	5	25			34	356	19.294
	1149	3	25	3	26	25.	10	250.	3	100	215	81 20 11	1	15	5	15			34	357	0.193
	1149	3	25	3	26	50.	15	750.	3	100	210	81 20 11	1	15	5	15			34	358	0.579
	1149	3	25	3	26	15.	10	150.	3	100	210	81 20 11	1	15	5	15			34	359	0.116
	1149	3	28	3	31	250.	30	7500.	1	100	210	81 20 11	1	20					34	360	1.149
	1149	3	28	3	31	200.	25	5000.	1	100	206	81 20 11	1	50					34	361	0.766
	1149	3	28	3	31	150.	20	3000.	5	100	220	81 20 11	1	10					34	362	6.477
	1149	3	29	3	31	100.	10	1000.	3	100	215	81 20 11	1	40					34	363	0.772
	1149	3	30	3	31	300.	40	12000.	5	100	240	81 20 11	1	20					34	364	25.910
	1149	3	30	3	31	600.	20	12000.	3	100	240	81 20 11	1	20					34	365	9.261
	1149	4	3	4	6	400.	5	2000.	5	108	210	15 11	1	30					34	366	4.318
	1151	4	4	4	6	600.	5	3000.	3	110	215	11 15	1	20					34	377	2.315
	1151	4	11	4	13	600.	40	24000.	5	100	225	15 11 20	1	15					34	378	51.820
	1152	4	6	4	7	100.	10	1000.	1	100	220	11 15	1	20					34	379	0.153
	1152	4	11	4	13	300.	25	7500.	5	100	240	15 11 20	1	10					34	380	16.194
																			TOTAL FOR SECT. 233:		779.997
234	1123	3	27	3	30	350.	100	35000.	1	105	210	81 20 11	1	50					34	353	5.360
	1124	3	27	3	30	400.	20	8000.	9	110	220	81 11 15	1	10					34	354	76.468
																			TOTAL FOR SECT. 234:		81.829
242	1217	3	18	3	20	350.	10	3500.	7			20 81							66	382	16.186
243	1206	3	24	3	30	300.	5	1500.	5			81							66	383	3.239
	1206	4	6	4	7	1000.	10	10000.	5			81 11 20							66	384	21.592
	1206	4	16	4	20	100.	5	500.	5			20 11							66	385	1.080
																			TOTAL FOR SECT. 243:		25.910
244	1182	4	4	4	5	3850.	10	38500.	6			20 81 11	5	2		70			66	381	130.646
245	1195	3	20	3	22	3450.	50	172500.	4			81 11 20							66	388	252.793
	1195	3	21	3	24	600.	15	9000.	3			11 81 20							66	389	6.946
	1197	3	18	3	22	1200.	200	240000.	1			81							66	391	36.757
	1198	3	21	3	23	2250.	175	393750.	5			11 81 20							66	392	850.169
	1198	3	26	4	2	1000.	100	100000.	3			81							66	393	77.177
	1220	3	20	3	26	800.	300	240000.	7			81							66	394	1109.910
	1221	4	1	4	8	600.	10	6000.	3			81							66	386	4.631
	1222	3	26	3	26	625.	5	3125.	3			81 11							66	387	2.412
	1224	3	22	3	31	290.	35	10150.	5			81 11							66	390	21.915
																			TOTAL FOR SECT. 245:		2362.709
251	1234	4	20	4	27	600.	2	1200.	5	102	201	11 20	1	4	2	4			56	410	2.591
252	1252	4	16	4	27	500.	4	2000.	5	103	205	11 20	1	5	2	5			56	398	4.318

TABLE 2. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1971

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
252	1277	4	15	4	15	1900.	3	5700.	6	104	206	81 11	1	5	2	5			56	397	19.342
	1278	4	16	4	27	1000.	2	2000.	3	103	204	81 11 20	1	5	2	5			56	395	1.544
	1278	4	16	4	27	100.	100	10000.	5	103	206	81	1	3	2	2			56	396	21.592
	1281	4	15	4	20	1900.	8	15200.	7	103	204	81 20 11	1	5	2	5			56	402	70.294
	1282	4	7	4	9	900.	10	9000.	7	102	208	81 11 20	1	5	2	5			56	408	41.622
	1282	4	7	4	9	300.	20	6000.	3	102	208	81	1	10					56	409	4.631
	1283	4	6	4	8	1200.	5	6000.	7	103	206	81 11 20	1	8	2	7			56	403	27.748
	1284	4	15	4	15	3200.	6	19200.	8	106	235	81 11 90 20	1	8	2	7			56	407	136.187
															TOTAL FOR SECT.				252:		327.277
253	1263	3	20	3	20	300.	100	30000.	5	104	214	81 11	1	15					56	399	64.775
	1263	3	21	3	21	600.	300	180000.	5	105	214	81	1	20					56	400	388.649
	1263	3	21	3	20	200.	2	400.	5	104		11	1	10					56	401	0.864
	1266	3	20	3	20	800.	3	2400.	5	103	204	81 11	1	10					56	404	5.182
	1266	3	20	4	13	200.	4	800.	7	102	203	81 11	1	5	2	5			56	405	3.700
	1268	3	20	3	20	2500.	2	5000.	5	102	201	81 11	1	8	2	7			56	406	10.796
															TOTAL FOR SECT.				253:		473.965
262	1296	3	10	3	15	1400.	50	70000.	5	103	202	81 20	1	9	4	8	8	8	46	413	151.141
	1296	3	15	3	15	200.	40	8000.	5	103	202	81 20	1	15	8	15			46	414	17.273
	1298	3	17	3	17	300.	40	12000.	3	103	202	81	1	30					46	415	9.261
															TOTAL FOR SECT.				262:		177.676
263	1304	3	10	3	16	800.	100	80000.	5	101	201	81 90	1	13	8	12			46	411	172.733
	1304	3	19	3	20	500.	50	25000.	5	101	201	81 90	1	15	5	15			46	412	53.979
															TOTAL FOR SECT.				263:		226.712
273	1320	3	23	4	2	400.	10	4000.	6	108	202	81	1	20					94	416	13.574
274	1331	5	2	5	11	500.	12	6000.	5	104	203	81	1	15					94	417	12.955
	1331	5	2	5	11	200.	6	1200.	5	102	203	81	1	15					94	418	2.591
	1331	5	2	5	11	300.	8	2400.	6	103	203	81 11	1	15					94	419	8.144
	1331	5	2	5	11	200.	5	1000.	4	103	202	81 11	1	15					94	420	1.465
															TOTAL FOR SECT.				274:		25.156
280	912	3	10			500.	20	10000.	3	102	204	81	2	15					57	247	7.718
	1340	4	15	4	16	14.	2	28.	1		210	11 20	8	10					78	423	0.004
	1343	3	25	3	31	200.	20	4000.	8		220	11 20	8	10					78	421	28.372
	1344	3	25	3	30	700.	25	17500.	9	100	215	11 20	8	10					78	422	167.275
															TOTAL FOR SECT.				280:		203.369
290	1351	2	20	3	20	1500.	500	750000.	1	102	215	81	8	15					78	424	114.865
	1351	2	20	3	20	1200.	500	600000.	1	102	215	81	8	15					78	425	91.892
	1351	2	20	3	20	2000.	500	1000000.	1	102	215	81	8	15					78	426	153.153
	1351	2	20	3	20	1200.	500	600000.	1	102	215	81	8	15					78	427	91.892
	1351	2	20	3	20	1500.	600	900000.	1	102	215	81	8	15					78	428	137.838
	1351	2	20	3	20	1500.	600	900000.	1	102	215	81	8	15					78	429	137.838
															TOTAL FOR SECT.				290:		727.477

TABLE 3. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1972

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2	MORTALITY PCT	MORTALITY C3	MORTALITY PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
2	60	4	20	4	30	1000.	10	10000.	1	103	205	81 11	1	3	2	2			45	15	1.532
	60	4	20	4	30	200.	20	4000.	1	106	208	81 11	1	3	2	2			45	16	0.613
	60	4	20	4	30	200.	100	20000.	1	106	210	81 95	1	3	2	2			45	17	3.063
	62	4	10	4	13	600.	10	6000.	5	106	204	11 20 81	1	5					45	31	12.955
															TOTAL FOR SECT.					2:	18.162
3	91	4	21	4	28	1200.	5	6000.	3	105	204	81 11	1	3	2	2			45	18	4.631
	91	4	21	4	28	200.	8	1600.	5	106	204	81 11	1	3	2	2			45	19	3.455
	91	4	21	4	28	400.	20	8000.	1	106	206	81 11	1	3	2	2			45	20	1.225
	91	4	21	4	28	300.	10	3000.	3	105	204	81 11	1	3	2	2			45	21	2.315
	91	4	21	4	28	150.	3	450.	3	105	204	81 11	1	3	2	2			45	22	0.347
															TOTAL FOR SECT.					3:	11.973
5	80	4	16	4	19	250.	20	5000.	5	106	204	81 11	1	5					45	23	10.796
	80	4	16	4	19	200.	20	4000.	5	106	204	81 11	1	5					45	24	8.637
	80	4	16	4	19	2000.	10	20000.	5	106	204	81 11	1	5					45	25	43.183
	80	4	28	5	2	2000.	10	20000.	5	106	206	81 20	1	5					45	26	43.183
	80	4	28	5	2	300.	10	3000.	5	106	204	81	1	5					45	27	6.477
	80	4	28	5	2	300.	10	3000.	5	106	204	81	1	5					45	28	6.477
	80	4	28	5	2	600.	10	6000.	5	106	202	81 11	1	5					45	29	12.955
	80	4	28	5	2	300.	20	6000.	5	106	204	81 11	1	5					45	30	12.955
	94	4	28	5	2	800.	8	6400.	3	105	204	81	1	5					45	32	4.939
															TOTAL FOR SECT.					5:	149.603
6	76	3	20	3	22	1200.	15	18000.	5	106	204	81 11	1	5					45	43	38.865
	76	3	27	3	29	300.	30	9000.	5	108	202	81 11	1	5					45	44	19.432
	76	3	27	3	29	400.	30	12000.	5	108	202	81 11	1	5					45	45	25.910
	76	3	27	3	29	1400.	15	21000.	5	106	204	81 11	1	5					45	46	45.342
	76	3	27	3	29	300.	15	4500.	5	104	206	81 11	1	5					45	47	9.716
	76	3	27	3	29	1200.	15	18000.	5	104	204	81 11	1	5					45	48	38.865
	76	3	27	3	29	400.	10	4000.	5	106	204	20 11	1	5					45	49	8.637
	76	3	27	3	29	400.	20	8000.	3	108	202	11	1	5					45	50	6.174
	76	3	29	4	3	400.	20	8000.	5	106	204	11 20	1	5					45	51	17.273
	76	3	29	4	3	1200.	10	12000.	5	106	204	11 81 20	1	5					45	52	25.910
	76	3	29	4	3	300.	10	3000.	5	106	204	20 11	1	5					45	53	6.477
	76	3	29	4	3	500.	10	5000.	5	106	204	20 11	1	5					45	54	10.796
	76	3	29	4	3	250.	20	5000.	5	106	204	20 11	1	5					45	55	10.796
	76	3	29	4	3	400.	5	2000.	5	106	204	81 11	1	5					45	56	4.318
	76	3	29	4	3	200.	5	1000.	3	106	100	11	1	5					45	57	0.772
															TOTAL FOR SECT.					6:	269.284
22	101	5	19	5	23	100.	5	500.	1	104	206	20	1	3	3	2			45	2	0.077
	106	4	29	4	30	300.	10	3000.	3	102	206	81	1	3	3	2			45	11	2.315
	106	5	4	5	6	1000.	15	15000.	3	102	206	81	1	3	3	2			45	6	11.577
	106	5	4	5	6	500.	20	10000.	3	102	206	81	1	3	3	2			45	12	7.718
	106	5	19	5	23	500.	20	10000.	5	104	212	20 11	3	5					45	7	21.592
	106	5	19	5	23	400.	20	8000.	3	104	212	20 11	1	3	3	2			45	9	6.174
	106	5	19	5	23	1000.	10	10000.	3	104	212	20 11	3	5					45	10	7.718
	106	7	1	7	6	300.	20	6000.	1	104	210	81 20	3	5					45	5	0.919

TABLE 3. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1972

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
22	106	7	1	7	6	400.	10	4000.	3	104	210	81 20	3 5			45	8	3.087
	113	6	22	6	27	4600.	20	92000.	4	102	215	81 20	9			45	3	134.823
	113	6	22	6	27	1320.	30	39600.	7	102	215	81 20	9			45	4	183.135
	113	7	1	7	6	700.	20	14000.	7	102	215	81	3 5			45	13	64.745
	118	5	19	5	23	50.	50	2500.	1	104	206	20	1 3	3 2		45	14	0.383
														TOTAL FOR SECT.		22:		444.261
23	156	4	3	4	9	10560.	40	422400.	6	104	205	81 20 11	1 5			89	38	1433.369
	156	5	2	4	29	50.	5	250.	3	101	204	81	1 2			89	39	0.193
	156	5	2	4	29	900.	15	13500.	4	102	204	11 20	1 5			89	40	19.784
	156	5	2	4	29	600.	5	3000.	3			11 20	1 5			89	41	2.315
														TOTAL FOR SECT.		23:		1455.661
24	139	4	23	4	29	850.	20	17000.	3	102	202	81 20	1 5			89	42	13.120
25	167	4	4	4	11	200.	40	8000.	5	104	202	20 11	1 2			89	33	17.273
	167	4	4	4	4	300.	20	6000.	3	104	202	20 11	1 2			89	34	4.631
	167	4	8	4	11	700.	20	14000.	3	106	201	11 20 81	1 5			89	35	10.805
	167	4	8	4	11	2800.	20	56000.	5	106	201	11 20 81	1 5			89	36	120.913
	167	4	8	4	11	3000.	20	60000.	7	106	201	11 20 81	1 5			89	37	277.477
														TOTAL FOR SECT.		25:		431.099
33	211	4	3	4	6	800.	5	4000.	3	108	104	11 90	3 5	1 20		30	58	3.087
	211	4	3	4	6	700.	8	5600.	3	109	102	11 90	3 5	1 20		30	59	4.322
	211	4	3	4	6	1300.	10	13000.	3	112	104	11 90	3 5	1 20		30	60	10.033
	211	4	3	4	6	400.	20	8000.	3	114	106	11 90	3 5	1 20		30	61	6.174
	211	4	3	4	6	600.	50	30000.	3	114	106	11 90	3 5	1 20		30	62	23.153
	211	4	3	4	6	1300.	20	26000.	5	114	106	11 90	3 5	1 20		30	63	56.138
	215	4	7	4	10	3000.	10	30000.	5	116	103	81 11 90	3 5	1 20		30	64	64.775
	218	4	7	4	10	500.	10	5000.	3	112	104	11 90	3 5	1 20		30	65	3.859
	218	4	7	4	10	1200.	15	18000.	5	114	101	81 11 90	3 5	1 20		30	66	38.865
														TOTAL FOR SECT.		33:		210.406
42	239	4	3	4	6	1100.	40	44000.	5	111	102	11 81	1 30			16	71	95.003
	239	4	3	4	6	425.	5	2125.	3	111	102	11	1 30			16	72	1.640
	261	6	18	6	27	1000.	100	100000.	3	112	206	20 50	1 8	2 7		16	73	77.177
	262	4	3	4	6	2700.	30	81000.	3	111	102	11 81	1 30			16	74	62.514
	263	4	26	5	1	4000.	10	40000.	1	103	203	50 81 20	1 30			16	75	6.126
	266	4	9	5	12	3300.	30	99000.	3	102	204	11 81	1 30			16	76	76.405
	282	6	2	6	8	2500.	50	125000.	5							16	77	269.895
	282	6	2	6	8	500.	30	15000.	5							16	78	32.387
	282	6	5	6	8	100.	20	2000.	3							16	79	1.544
														TOTAL FOR SECT.		42:		622.691
43	287	4	19	4	26	900.	10	9000.	3	105	202	20 11 50	1 10	7 10		16	67	6.946
	287	4	19	4	26	1200.	10	12000.	3	105	202	20 11 50	1 10	7 10		16	68	9.261
	287	4	27	5	2	400.	20	8000.	7	105	202	50 20 81	1 10	7 20		16	69	36.997
	287	4	27	5	2	800.	20	16000.	7	107	202	50 20 81	1 10	7 20		16	70	73.994
														TOTAL FOR SECT.		43:		127.198
44	243	4	30	5	1	650.	20	13000.	6	110	202	11 20 50	1 10			32	80	44.114

TABLE 3. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1972

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2	MORTALITY PCT	MORTALITY C3	MORTALITY PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
44	243	5	1	5	1	1050.	30	31500.	6	110	202	11 20 50	1	10					32	81	106.892
	243	5	1	5	1	1000.	100	100000.	6	110	202	11 20 50	1	10					32	82	339.339
	243	5	1	5	1	700.	100	70000.	5	110	202	11 20 50	1	10					32	83	151.141
																	TOTAL FOR SECT.			44:	641.486
52	344	4	9	4	17	100.	30	3000.	4	106	205	81	1	10	2	10			32	84	4.396
	344	4	9	4	17	20.	50	1000.	5	103	100	81	1	20					32	85	2.159
	346	5	1	5	1	1400.	100	140000.	5	110	202	11 20 50	1	10					32	86	302.282
	346	5	1	5	1	400.	30	12000.	4	110	202	11 20 50	1	10					32	87	17.586
	354	4	30	5	1	200.	30	6000.	4	107	202	11 20 50	1	10					32	88	8.793
																	TOTAL FOR SECT.			52:	335.216
62	416	3	18	3	20	550.	12	6600.	1			90							90	122	1.011
	416	3	18	3	20	300.	2	600.	1			90							90	123	0.092
																	TOTAL FOR SECT.			62:	1.103
66	368	6	9			1500.	5	7500.	5										90	89	16.194
67	431	4	6	4	6	15.	2	30.	3			11							90	90	0.023
	431	4	6	4	6	85.	15	1275.	3			11							90	91	0.984
	431	4	6	4	6	45.	5	225.	3			11							90	92	0.174
	431	4	6	4	6	290.	10	2900.	4			11 20							90	93	4.250
	431	4	6	4	6	50.	1	50.	4			20							90	94	0.073
	431	4	6	4	6	250.	5	1250.	4			11							90	95	1.832
	431	4	6	4	6	40.	15	600.	5			20							90	96	1.295
	431	4	6	4	6	100.	50	5000.	5			81							90	97	10.796
	431	4	6	4	6	50.	10	500.	5			11							90	98	1.080
	431	4	6	4	6	100.	10	1000.	6			11							90	99	3.393
	431	4	6	4	6	50.	30	1500.	6			90							90	100	5.090
	431	4	6	4	6	200.	5	1000.	6			90							90	101	3.393
	431	4	6	4	6	125.	15	1875.	6			11							90	102	6.363
	431	4	6	4	6	50.	25	1250.	6			81							90	103	4.242
	431	4	6	4	6	75.	20	1500.	6			11							90	104	5.090
	431	4	6	4	6	50.	30	1500.	7			81							90	105	6.937
	431	4	6	4	6	25.	25	625.	7			81							90	106	2.890
	431	4	6	4	6	50.	50	2500.	7			81							90	107	11.562
	431	4	6	4	6	40.	20	800.	7			81							90	108	3.700
	431	4	6	4	10	1900.	10	19000.	5			81							90	109	41.024
	431	4	6	4	10	100.	50	5000.	5			11							90	110	10.796
	431	4	6	4	10	150.	100	15000.	6			11							90	111	50.901
	431	4	6	4	10	180.	50	9000.	7			81							90	112	41.622
	431	4	6	4	10	50.	30	1500.	7			11							90	113	6.937
	431	4	6	4	19	250.	1	250.	3			11							90	114	0.193
	431	4	6	4	19	50.	1	50.	5			20							90	115	0.108
	431	4	6	4	19	350.	5	1750.	5			20 11							90	116	3.779
	431	4	6	4	19	25.	25	625.	5			81							90	117	1.349
	431	4	6	4	19	150.	2	300.	5			81							90	118	0.648
	431	4	6	4	19	200.	10	2000.	6			81							90	119	6.787
	431	4	6	4	19	25.	25	625.	6			81							90	120	2.121
	433	4	6	4	19	100.	10	1000.	4			11							90	121	1.465
																	TOTAL FOR SECT.			67:	240.896

TABLE 3. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1972

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
72	471	3	30	3	30	100.	3	300.	2	110	206	11 81	1	33			96	137	0.139
	471	3	30	3	30	700.	3	2100.	3	110	206	11 81	1	33			96	138	1.621
	471	3	30	3	30	1350.	3	4050.	4	110	206	11 81	1	33			96	139	5.935
	471	3	30	3	30	200.	40	8000.	4	110	206	11 81	1	33			96	140	11.724
	529	3	30	3	30	200.	60	12000.	3	110	210	11 20 50 81	1	33			96	162	9.261
	529	3	30	3	30	300.	4	1200.	3	110	210	11 20 50 81	1	33			96	163	0.926
	529	3	30	3	30	350.	4	1400.	3	110	210	11 20 50 81	1	33			96	164	1.080
	529	3	30	3	30	300.	4	1200.	3	110	210	11 20 50 81	1	33			96	165	0.926
	529	3	30	3	30	250.	4	1000.	3	110	210	11 20 50 81	1	33			96	166	0.772
	529	3	30	3	30	180.	4	720.	3	110	210	11 20 50 81	1	33			96	167	0.556
	529	4	24	4	24	30.	5	150.	3	108	220	11 50 20 81	1	33			96	168	0.116
	529	4	24	4	24	30.	5	150.	3	108	220	11 50 20 81	1	33			96	169	0.116
	529	4	24	4	24	400.	15	6000.	3	108	220	11 50 20 81	1	33			96	170	4.631
															TOTAL FOR SECT.			72:	37.802
73	492	4	16			150.	2	300.	1								96	159	0.046
	492	4	16			550.	1	550.	1								96	160	0.084
	492	4	16			350.	1	350.	1								96	161	0.054
	492	4	25	4	25	550.	1	550.	1	104	202	90 81					96	156	0.084
	492	4	26	4	26	350.	2	700.	1	104	202	90 81					96	157	0.107
	492	4	27	4	27	150.	2	300.	1	108	220	90 81	1	33			96	158	0.046
															TOTAL FOR SECT.			73:	0.421
74	498	3	31	3	31	400.	5	2000.	3	106	210	11 20 81	1	33			96	179	1.558
	498	3	31	3	31	500.	5	2500.	3	106	210	11 20 81	1	33			96	180	1.947
	538	3	15	3	12	1750.	2	3500.	3	110	201	11 81 50	1	33			96	124	2.726
	538	3	28	3	28	1800.	3	5400.	1	112	202	11 81 50	1	33			96	125	0.827
	538	3	28	3	28	175.	3	525.	1	110	204	11 81 50	1	33			96	126	0.080
	538	3	28	3	28	600.	3	1800.	2	110	204	11 81 50	1	33			96	127	0.832
	538	3	28	3	28	75.	3	225.	3	110	204	11 81 50	1	33			96	128	0.175
	538	3	28	3	28	600.	3	1800.	3	110	204	11 81 50	1	33			96	129	1.402
	538	3	28	3	28	200.	5	1000.	3	110	204	11 81 50	1	33			96	130	0.779
	538	3	28	3	28	1000.	8	8000.	5	110	204	11 81 50	1	33			96	131	17.273
	538	3	28	3	28	200.	6	1200.	5	110	204	11 81 50	1	33			96	132	2.591
	538	3	28	3	28	100.	35	3500.	5	110	204	11 81 50	1	33			96	133	7.557
	538	3	28	3	28	900.	15	13500.	5	110	204	11 81 50	1	33			96	134	29.149
	538	3	28	3	28	400.	5	2000.	5	110	204	11 81 50	1	33			96	135	4.318
	538	3	28	3	28	150.	5	750.	5	110	204	11 81 50	1	33			96	136	1.619
	545	3	24	3	24	1250.	5	6250.	3	110	204	11 81 50	1	33			96	171	4.867
	545	3	29	3	29	150.	30	4500.	3	108	206	11 81 50	1	33			96	172	3.505
	545	3	29	3	29	350.	8	2800.	3	108	206	11 81 50	1	33			96	173	2.181
	545	3	29	3	29	400.	5	2000.	3	108	206	11 81 50	1	33			96	174	1.558
	545	3	29	3	29	450.	3	1350.	3	108	206	11 81 50	1	33			96	175	1.051
	545	3	29	3	29	300.	50	15000.	5	108	206	11 81 50	1	33			96	176	32.387
															TOTAL FOR SECT.			74:	118.383
75	505	4	10	4	10	900.	2	1800.	3	108	215	11 50 20 81	1	33			96	177	1.389
	505	4	11	4	11	2750.	2	5500.	1	108	215	11 50 20 81	1	33			96	178	0.842
															TOTAL FOR SECT.			75:	2.232

TABLE 3. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1972

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
76	559	4	12	4	12	100.	3	300.	1	110	206	11 81 50	1	33					96	141	0.046
	559	4	12	4	12	450.	3	1350.	3	110	206	11 81 50	1	33					96	142	1.042
	559	4	12	4	12	550.	4	2200.	3	110	206	11 50 81	1	33					96	143	1.698
	559	4	12	4	12	550.	5	2750.	4	110	206	11 50 81	1	33					96	144	4.030
	559	4	12	4	12	100.	50	5000.	6	110	206	11 50 81	1	33					96	145	16.967
	559	4	12	4	12	150.	10	1500.	7	110	206	11 50 81	1	33					96	146	6.937
	559	4	16	4	16	300.	4	1200.	2	108	208	11 50 81	1	33					96	147	0.555
	559	4	16	4	16	250.	3	750.	2	108	208	11 50 81	1	33					96	148	0.347
	559	4	16	4	16	500.	5	2500.	3	108	208	11 50 81	1	33					96	149	1.929
	559	4	16	4	16	225.	10	2250.	3	108	208	11 50 81	1	33					96	150	1.736
	559	4	16	4	16	200.	3	600.	3	108	208	11 50 81	1	33					96	151	0.463
	559	4	16	4	16	300.	2	600.	3	108	208	11 50 81	1	33					96	152	0.463
	559	4	16	4	16	350.	2	700.	5	108	208	11 50 81	1	33					96	153	1.511
	559	4	16	4	16	300.	50	15000.	5	108	208	11 50 81	1	33					96	154	32.387
	559	4	16	4	16	125.	12	1500.	5	108	208	11 50 81	1	33					96	155	3.239
															TOTAL FOR SECT.				76:		73.351
82	587	3	9	3	22	9000.	5	45000.	5	115	100	11	2	8	1	7			37	190	97.162
83	597	3	23	3	29	22880.	5	114400.	5	108	103	11	2	5	1	5			37	191	247.008
84	607	6	4	6	12	3036.	1	3036.	5	104	101	20 11	9							183	6.555
	607	6	4	6	12	4048.	1	4048.	7	104	101	20 11	9							184	18.720
	607	6	4	6	12	4041.	4	16164.	7	106	206	20 11	9							185	74.752
	607	6	4	6	12	2024.	3	6072.	7	105	204	20 11	9							186	28.081
	607	6	4	6	12	3036.	3	9108.	3	105	204	20 11	9							187	7.029
	607	6	4	6	12	6072.	2	12144.	7	104	202	20 11	9							188	56.161
	607	6	4	6	12	3036.	2	6072.	3	104	202	20 11	9							189	4.686
															TOTAL FOR SECT.				84:		195.986
85	573	4	1	4	5	3520.	3	10560.	5	107	102	11	1	8	2	7			37	181	22.801
	575	4	1	4	4	100.	3	300.	5	107	104	11 50	1	5					37	182	0.648
															TOTAL FOR SECT.				85:		23.448
92	613	4	28	5	4	1100.	1	1100.	3	104	202	11	1	30	3	30			92	198	0.849
	617	3	25	4	4	400.	1	400.	1	102	208	41 81 11	1	10	4	5			92	200	0.061
	617	4	1	4	4	2500.	2	5000.	3	106	204	11 95 90	1	10	4	10			92	201	3.859
	617	4	2	4	9	200.	2	400.	7	104	210	11 95 99	1	20	4	15			92	202	1.850
	617	4	2	4	9	12160.	2	24320.	3	106	208	81 11 90 20	1	20	4	20			92	203	18.769
	620	4	8	4	11	100.	1	100.	3	102	207	99 11 90 95	1	10	3	10	4	10	92	204	0.077
	1489	3	26	3	29	150.	15	2250.	3	104	205	11	9						20	301	1.736
															TOTAL FOR SECT.				92:		27.202
93	615	3	31	4	3	1000.	2	2000.	3	107	201	11	1	10	4	10			92	199	1.544
	630	4	2	4	5	15000.	2	30000.	3	104	206	11	1	20	4	15			92	194	23.153
	630	4	2	4	5	11500.	2	23000.	3	106	204	11	1	20	4	15			92	195	17.751
	630	4	2	4	5	500.	3	1500.	5	106	206	11	1	20	4	15			92	196	3.239
	630	4	4	4	8	200.	2	400.	1	105	203	11	1	30	4	30			92	197	0.061
	631	4	2	4	5	1000.	3	3000.	5	107	203	11	1	15	4	15			92	192	6.477

TABLE 3. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1972

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2	MORTALITY PCT	MORTALITY C3	MORTALITY PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
93	631	4	2	4	5	5000.	2	10000.	3	107	203	11	1	15	4	15			92	193	7.718
															TOTAL FOR SECT.				93:		59.943
102	641	3	22	3	30	3000.	3	9000.	3	105	203	20 11 41 90	1	10	2	10	4	10	92	208	6.946
	652	3	22	3	30	8000.	3	24000.	3	105	212	20 11 41	1	15	2	10	4	10	92	207	18.523
	653	3	22	3	31	300.	2	600.	3	101	215	20	1	10	4	5			92	205	0.463
	653	4	14	4	20	3000.	2	6000.	3	103	212	20 11 50	1	15	2	15	4	15	92	206	4.631
	655	3	23	3	30	3000.	2	6000.	3	102	208	20 11	1	10	4	10			92	209	4.631
															TOTAL FOR SECT.				102:		35.193
112	659	3	28	3	30	4000.	1	4000.	1	104	206	11	1	8	4	7			53	210	0.613
	659	3	28	3	30	700.	1	700.	3	104	206	90	1	5	4	5			53	211	0.540
	659	3	28	3	30	500.	1	500.	3	104	206	11	4	15					53	212	0.386
	659	4	10	4	12	1900.	2	3800.	5	103	206	11 20	1	5					53	213	8.205
	659	4	10	4	12	100.	1	100.	3	105	206	11 20	1	5					53	214	0.077
	659	4	10	4	12	1000.	1	1000.	5	104	208	90 81	1	5					53	215	2.159
	659	4	10	4	12	200.	2	400.	5	105	208	11 20	1	5					53	216	0.864
															TOTAL FOR SECT.				112:		12.844
122	670	4	12	4	12	150.	30	4500.	5	103	208	81	1	5					97	217	9.716
	670	4	12	4	17	350.	5	1750.	3	103	208	20 81	1	5					97	218	1.351
	682	3	22	3	26	700.	15	10500.	5	103	206								97	219	22.671
	682	3	22	3	26	650.	50	32500.	3	103	206								97	220	25.083
	682	3	22	3	26	600.	20	12000.	5	103	206								97	221	25.910
	683	3	22	3	26	800.	10	8000.	5	103	206								97	222	17.273
	683	3	22	3	26	400.	2	800.	1	103	206								97	223	0.123
	683	3	22	3	26	600.	300	180000.	3	103	206								97	224	138.919
	687	4	14	4	24	200.	200	40000.	3	110	100	20	1	15					97	225	30.871
															TOTAL FOR SECT.				122:		271.916
123	706	3	22	3	23	700.	2	1400.	5										97	226	3.023
	706	3	22	3	23	10.	20	200.	3										97	227	0.154
	706	3	22	3	23	10.	20	200.	3										97	228	0.154
	706	3	22	3	23	600.	1	600.	3										97	229	0.463
	707	3	22	3	23	50.	2	100.	3			20 90	1	2					97	230	0.077
	717	3	27	3	29	1000.	1	1000.	3	110	104								97	231	0.772
	717	3	27	3	29	500.	2	1000.	3	110	104								97	232	0.772
	717	3	27	3	29	600.	3	1800.	5	110	104								97	233	3.886
															TOTAL FOR SECT.				123:		9.302
124	728	3	22	3	29	350.	4	1400.	3	110	100								97	239	1.080
	728	3	22	3	29	200.	200	40000.	5	110	100								97	240	86.366
	733	5	2	5	17	100.	5	500.	5	105	204	90 20	1	10					97	241	1.080
	733	5	10	5	17	500.	6	3000.	5	105	204	90 20	1	10					97	242	6.477
	741	4	5	4	6	700.	3	2100.	5	109	100								97	251	4.534
	741	4	5	4	6	200.	2	400.	4	109	100								97	252	0.586
															TOTAL FOR SECT.				124:		100.124
125	725	3	21	3	23	1000.	6	6000.	5	109	204								97	250	12.955
	738	2	22	2	24	200.	40	8000.	5	100	207	81	4	30					97	243	17.273

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
125	738	2	22	2	24	100.	50	5000.	5	100	207	81 20 90	4 30			97	244	10.796
	738	3	13	3	15	2800.	15	42000.	6	111	203	81 20 90	1 5			97	245	142.523
	738	3	13	3	15	1200.	10	12000.	6	111	203	81 20 90	1 5			97	246	40.721
	738	3	13	3	15	1600.	10	16000.	6	111	203	81 20 90	1 5			97	247	54.294
	747	2	22	2	24	60.	40	2400.	5	111	200	81 20 90	1 20	4 15		97	248	5.182
	747	3	21	3	23	1000.	7	7000.	5	109	204	90 20	1 15			97	249	15.114
														TOTAL FOR SECT.		125:		298.858
126	756	3	25	3	28	1600.	2	3200.	1	106	100					97	234	0.490
	757	3	4	4	13	9600.	2	19200.	3							97	235	14.818
	757	3	4	4	13	1000.	3	3000.	5							97	236	6.477
	757	3	25	3	28	1000.	3	3000.	5	106	100					97	237	6.477
	757	3	25	3	28	9300.	2	18600.	3	106	100					97	238	14.355
														TOTAL FOR SECT.		126:		42.618
127	749	3	15	3	22	3000.	2	6000.	4				4 10			97	253	8.793
	749	3	18	3	22	3800.	1	3800.	3			90 20	4 10			97	257	2.933
	749	3	18	3	22	2000.	200	400000.	3			90 20	4 10			97	269	308.709
	749	3	20	3	22	1400.	2	2800.	4				4 10			97	258	4.103
	749	3	21	3	22	6500.	1	6500.	3				4 10			97	259	5.017
	749	3	21	3	22	9000.	2	18000.	3				4 10			97	260	13.892
	749	3	21	3	22	2900.	3	8700.	3				4 10			97	265	6.714
	749	3	31	4	6	2000.	3	6000.	5	106	203					97	254	12.955
	749	3	31	4	6	1200.	3	3600.	3	105	201					97	255	2.778
	749	3	31	4	6	2200.	1	2200.	3	102	201					97	256	1.698
	749	3	31	4	6	500.	1	500.	1	108	104					97	261	0.077
	749	3	31	4	6	4000.	2	8000.	3	104	202					97	262	6.174
	749	3	31	4	6	1000.	1	1000.	3	108	104					97	263	0.772
	749	3	31	4	6	600.	3	1800.	3	111	102					97	264	1.389
	749	3	31	4	6	3200.	1	3200.	1	108	104					97	266	0.490
	749	3	31	4	6	3000.	1	3000.	1	108	104					97	267	0.459
	749	3	31	4	6	1500.	1	1500.	1	108	104					97	268	0.230
														TOTAL FOR SECT.		127:		377.183
132	800	4	27	4	28	20.	10	200.	7	107	101		1 2			55	276	0.925
133	774	4	12	4	17	1500.	3	4500.	7			11 90	1 2			55	278	20.811
	774	4	12	4	17	750.	3	2250.	3			11 90	9			55	279	1.736
	774	4	12	4	17	750.	3	2250.	5			11	1 2			55	280	4.858
														TOTAL FOR SECT.		133:		27.405
134	785	3	28	4	4	2000.	2	4000.	5	106	100	11 90	1 3	5 2		55	282	8.637
	785	3	30	4	4	2000.	2	4000.	3	106	100	90 11	1 2			55	283	3.087
	785	3	30	4	4	6000.	2	12000.	7	106	100	11	1 5			55	284	55.495
	785	3	30	4	4	6000.	2	12000.	5	106	100	11	1 5			55	285	25.910
	785	4	2	4	13	1800.	2	3600.	3	106	101	11	1 5			55	281	2.778
	785	4	2	4	13	2200.	3	6600.	5	109	102	11	1 2			55	286	14.250
	785	4	2	4	13	2150.	3	6450.	7	109	102	90 11	1 2			55	287	29.829
	785	4	5	4	13	3000.	2	6000.	5	107	101	90 11	1 5			55	288	12.955
	785	4	8	4	13	1600.	100	160000.	3	109	100	81	1 5			55	289	123.483

TABLE 3. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1972

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
134	785	4	8	4	13	2000.	5	10000.	3	110	100	11 81	1	25					55	290	7.718
																		TOTAL FOR SECT.		134:	284.143
137	802	3	29	3	31	400.	4	1600.	5	108	202	11 41	1	3	4	2			55	270	3.455
	802	3	29	3	31	300.	3	900.	5	106	202	11 41	1	3	4	2			55	272	1.943
	804	3	20	3	21	400.	6	2400.	5	110	203	15 11	1	10					55	271	5.182
	804	3	30	3	31	1500.	5	7500.	5	109	202	11	1	3	3	2			55	273	16.194
	804	4	13	4	16	2200.	4	8800.	7	108	201	11 15	1	5					55	274	40.697
	805	3	30	3	31	500.	4	2000.	5	108	201	15 11	1	2					55	275	4.318
	806	3	27	3	31	700.	10	7000.	5	108	201	11 41	1	3	4	2			55	277	15.114
																		TOTAL FOR SECT.		137:	86.903
142	827	3	23	3	24	500.	75	37500.	3	106	204	81 15	1	10					25	292	9.638
143	810	3	20	3	20	250.	60	15000.	4	103	101	15 81	1	10	2	10			25	291	7.320
	835	3	20	3	21	75.	25	1875.	3	108	100	15 90	1	10					25	293	0.482
	835	3	20	3	21	1300.	65	84500.	4	108	203	15 81 41 90	1	10	2	10			25	294	41.236
	835	3	28	3	30	125.	20	2500.	4	108	102	11 15	1	10	2	10			25	295	1.220
																		TOTAL FOR SECT.		143:	50.258
152	845	3	26	3	28	3000.	30	90000.	5			11 15	1	5	2	5			20	296	194.324
	845	4	1	4	5	1000.	20	20000.	5	104	205	11 81	1	10					20	297	43.183
	858	3	19	3	21	150.	8	1200.	3	102	210	11 20	1	10					20	298	0.926
	858	3	26	3	28	4000.	40	160000.	5	107	202	11 20	1	10	3	10			20	299	345.465
	858	4	5	4	13	2000.	25	50000.	7	110	100	11 20	1	10					20	300	231.231
																		TOTAL FOR SECT.		152:	815.130
162	874	2	24	2	26	75.	5	375.	3	110	205	11	1	25	4	25			57	309	0.289
	874	3	9	3	14	3700.	2	7400.	3	110	215	11 15 41 20	1	5					57	310	5.711
	896	3	19	3	22	150.	20	3000.	5	110	204	11 81	1	5					20	314	6.477
	896	4	11	4	13	1000.	20	20000.	5			15 11	1	10					20	315	43.183
	910	3	20	3	21	200.	20	4000.	3	107	204	11 81	1	5					20	318	3.087
	910	3	22	3	24	200.	10	2000.	3	110	204	11	1	10					20	319	1.544
	910	4	1	4	1	1500.	10	15000.	5	110	100	11	1	10					20	320	32.387
	911	4	15	4	17	200.	5	1000.	3	110	204	11	3	10					20	321	0.772
	914	3	19	3	22	800.	30	24000.	5	105	205	41 81 20	1	10					20	322	51.820
	914	4	8	4	11	1000.	15	15000.	7	110	204	11 20	2	50					20	323	69.369
																		TOTAL FOR SECT.		162:	214.640
163	871	3	7	3	7	300.	7	2100.	5	115	210	11 41	1	5	3	5			57	302	4.534
	871	3	8	3	8	200.	2	400.	3	115	210	15 41	1	5	3	5			57	303	0.309
	871	3	9	3	15	100.	3	300.	7	115	210	11 41	1	5	3	5			57	304	1.387
	871	3	14	3	15	200.	1	200.	1	100	210	15 95	9						57	305	0.031
	871	3	24	3	26	850.	5	4250.	3	110	210	11	1	5	3	5			57	306	3.280
	871	3	24	3	26	200.	60	12000.	5	110	220	20 15	1	5					57	307	25.910
	871	4	8	4	15	200.	1	200.	3	112	202	11	1	10	3	10			57	308	0.154
	887	3	18	3	20	1000.	6	6000.	5	110	220	20 11 41	1	3	3	2			57	313	12.955
	898	4	17	4	19	300.	1	300.	4	112	102	11	3	20					57	316	0.440
	898	4	23	4	26	700.	2	1400.	3	112	100	11 41	1	20	3	20			57	317	1.080
																		TOTAL FOR SECT.		163:	50.080

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2	MORTALITY PCT	MORTALITY C3	MORTALITY PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
164	882	4	16	4	19	1000.	3	3000.	4	110	210	11	1	5	3	5			57	312	4.396
165	875	4	9	4	18	500.	2	1000.	3	115	100	11	1	25	3	25			57	311	0.772
172	920	3	27	3	27	75.	10	750.	3	102	205	11 50	1	5					1	335	0.579
	922	3	20	3	20	1000.	25	25000.	3	110	202	11 81	1	5					1	336	19.294
	930	3	18	3	18	2500.	15	37500.	3	130	100	11 81	1	15					1	338	28.941
	930	3	27	3	27	250.	75	18750.	5	106	220	81	1	5					1	339	40.484
	995	2	24	2	24	100.	3	300.	1	102	206	20 11	1	65					1	324	0.046
	995	3	4	3	4	1000.	25	25000.	3	105	103	81 11	1	20					1	325	19.294
	995	3	5	3	5	1900.	15	28500.	3	104	100	81	1	15					1	326	21.995
	995	3	6	3	6	400.	10	4000.	3	102	203	81	1	15					1	327	3.087
	995	3	6	3	6	320.	40	12800.	3	102	101	81	1	15					1	328	9.879
	995	3	6	3	6	100.	100	10000.	3	102	101	81	1	15					1	329	7.718
	995	3	6	3	6	400.	100	40000.	3	202	210	81	1	15					1	330	30.871
	995	3	6	3	6	300.	10	3000.	3	104	102	81	1	15					1	331	2.315
	995	3	7	3	7	800.	100	80000.	1	102	202	81 20	1	30					1	332	12.252
	995	3	20	3	20	1200.	15	18000.	3	102	220	11 81	1	10					1	333	13.892
	995	3	27	3	27	300.	15	4500.	3	104	203	11 81	1	50					1	334	3.473
	1001	3	28	3	28	750.	10	7500.	3	102	225	11	1	5					1	337	5.788
	1002	3	15	3	15	3000.	15	45000.	5	104	225		1	15					1	340	97.162
	1002	3	15	3	15	3800.	12	45600.	7	110	104	11 15	1	25					1	341	210.883
																			TOTAL FOR SECT.	172:	527.955
173	940	4	11	4	11	300.	3	900.	3	104	201	11	1	10					1	342	0.695
	940	4	21	4	21	600.	2	1200.	3	103	101	41 15	1	20					1	343	0.926
	941	3	25	3	25	800.	6	4800.	1	101	210	11	1	30					1	344	0.735
	953	2	28	2	28	200.	4	800.	3	103	205	11 15	1	50					1	345	0.617
	953	3	20	3	20	600.	10	6000.	3	104	208	11 15 20	1	35					1	346	4.631
	953	3	21	3	21	800.	12	9600.	3	104	206	81 15 11	1	25					1	347	7.409
	954	3	20	3	20	650.	25	16250.	3	115	100	11 81	1	10					1	348	12.541
	954	3	20	3	20	300.	15	4500.	1	115	100	11 81 90	1	10					1	349	0.689
	954	3	21	3	21	200.	20	4000.	1	100	220	11 20	1	15					1	350	0.613
	956	3	27	3	27	500.	8	4000.	1	104	206	11 15	1	15					1	351	0.613
	988	3	29	3	29	250.	6	1500.	3	106	103	11 15 81	1	20					1	352	1.158
	988	3	29	3	29	350.	6	2100.	3	103	206	81 15 11	1	20					1	353	1.621
																			TOTAL FOR SECT.	173:	32.247
182	1050		32	3	23	800.	12	9600.	3	105	220	81 15 11	1	10					98	365	7.409
	1050	2	13	2	14	200.	20	4000.	3	100	205	11 81 20	1	10					98	355	3.087
	1050	2	13	2	14	250.	75	18750.	5	224	230	20 15	1	5					98	356	40.484
	1050	2	13	2	15	150.	10	1500.	3			15 20	1	10					98	357	1.158
	1050	2	15	2	16	400.	10	4000.	4	106	100	11 20 41 15	1	25					98	358	5.862
	1050	2	20	2	21	400.	10	4000.	4	205	224	81 15	1	5					98	359	5.862
	1050	2	20	2	21	200.	150	30000.	2	205	225	11 81	1	5					98	360	13.874
	1050	2	20	2	21	450.	25	11250.	4	205	225		1	5					98	361	16.486
	1050	3	6	3	10	300.	10	3000.	7	104	206	81	1	20					98	362	13.874
	1050	3	6	3	10	1900.	10	19000.	3	100	207	81 11 90	1	10					98	363	14.664
	1050	3	6	3	10	1150.	5	5750.	5	100	210	81 11	1	20					98	364	12.415

TABLE 3. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1972

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
182	1051	1	31	2	1	1500.	5	7500.	1	102	100	81 20	1 10			98	373	1.149
	1051	2	6	2	7	500.	10	5000.	3	100	206	81	1 10			98	374	3.859
	1051	2	7	2	8	1000.	10	10000.	3	106	202	81 20 11 41	1 15			98	375	7.718
	1051	2	8	2	9	1000.	6	6000.	4	105	203	11 90 20	1 10			98	376	8.793
	1051	2	23	2	23	500.	4	2000.	5	108	210	11 81 41 20	1 30			98	377	4.318
	1051	2	23	2	23	450.	10	4500.	3	102	210	11 81 41 20	1 10			98	378	3.473
	1051	2	28	2	29	500.	35	17500.	4	107	220	41 20 81	1 15			98	379	25.646
	1051	2	28	2	29	525.	5	2625.	3	107	210	41 20 81	1 15			98	380	2.026
	1051	2	28	2	29	350.	5	1750.	3	108	215	41 20 81	1 15			98	381	1.351
	1051	2	28	2	29	300.	10	3000.	5	107	215	41 20 81	1 15			98	382	6.477
	1051	3	2	3	2	550.	10	5500.	3	108	215	11 95 90	1 15			98	383	4.245
	1051	3	2	3	2	400.	10	4000.	5	108	215	11 81 90	1 15			98	384	8.637
	1051	3	27	3	28	250.	8	2000.	3	104	210	81 11	1 10			98	385	1.544
	1051	3	27	3	28	400.	10	4000.	7	105	212	81 11	1 10			98	386	18.498
	1051	4	3	4	3	275.	10	2750.	3	110	212	81 41	1 50			98	387	2.122
	1051	4	3	4	3	100.	10	1000.	5	110	212	81 41	1 50			98	388	2.159
	1051	4	3	4	3	125.	5	625.	1	105	215	20 11 90	1 20			98	389	0.096
	1053	1	31	2	1	175.	10	1750.	1	100	100	81	1 10			98	366	0.268
	1053	2	20	2	21	150.	20	3000.	1	103	216	11 81	1 10			98	367	0.459
	1053	2	21	2	22	75.	50	3750.	1	104	212	11 81	1 10			98	368	0.574
	1053	2	21	2	22	1050.	20	21000.	4	100	218	11 81	1 10			98	369	30.775
	1053	3	2	3	2	450.	20	9000.	3	105	220	11 81	1 10			98	370	6.946
	1053	3	2	3	2	450.	20	9000.	1	105	220	11 81	1 10			98	371	1.378
	1053	3	31	3	22	1625.	5	8125.	3	106	212	81 15 11	1 10			998	372	6.271
	1054	2	21	2	21	75.	2	150.	1	105	202	11	1 50			98	397	0.023
	1054	2	21	2	22	425.	10	4250.	3	112	100	11 81	1 5			98	398	3.280
	1054	2	21	2	22	200.	2	400.	1	103	206	11	1 10			98	399	0.061
	1054	3	6	3	10	300.	5	1500.	3	101	206	81	1 10			98	400	1.158
	1055	2	5	2	7	1600.	13	20800.	3	100	210	81 20 41	1 10			98	401	16.053
	1055	2	21	2	22	50.	10	500.	1	100	212	11 81	1 10			98	402	0.077
	1057	2	20	2	21	300.	100	30000.	4	100	225		1 5			98	412	43.964
															TOTAL FOR SECT.	182:		348.571
183	1021	2	24	2	24	2500.	8	20000.	1	102	210	11 81	1 10			98	390	3.063
	1021	3	26	3	28	200.	5	1000.	1	100	215	81 11	1 5			98	391	0.153
	1022	2	25	2	28	750.	50	37500.	2	100	215	81 11 41	1 5			98	392	17.342
	1022	3	5	3	9	200.	5	1000.	1	101	204	11 81	1 10			98	394	0.153
	1022	3	6	3	9	800.	15	12000.	5	103	206	11 81 90	1 10			98	393	25.910
	1022	3	26	3	28	125.	10	1250.	1	102	212	81 11	1 10			98	395	0.191
	1022	3	26	3	28	350.	30	10500.	3	100	215	81 11	1 5			98	396	8.104
	1034	3	26	3	28	100.	25	2500.	5	100	215	81 15	1 5			98	404	5.398
	1041	2	26	2	28	200.	25	5000.	2	100	212	81 11	1 5			98	407	2.312
	1041	3	6	3	9	800.	5	4000.	3	102	203	11 81	1 10			98	408	3.087
	1041	3	26	3	28	300.	5	1500.	3	109	210	81 11	1 50			98	409	1.158
	1041	3	26	3	28	150.	15	2250.	3	100	215	81	1 5			98	410	1.736
	1041	3	27	3	28	200.	10	2000.	1	100	215	81 11	1 5			98	411	0.306
															TOTAL FOR SECT.	183:		68.914
184	1007	3	28	3	28	2600.	15	39000.	1	100	210	81 11	1 5			98	354	5.973
185	1029	3	12	3	19	1100.	100	110000.	3			81	1 30			99	403	84.895

TABLE 3. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1972

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
185	1039	3	12	3	14	200.	30	6000.	7			11				99	405	27.748
	1039	3	12	3	14	75.	10	750.	5			11				99	406	1.619
															TOTAL FOR SECT.	185:		114.262
193	1066	3	15	3	21	250.	15	3750.	1			81	1	40		99	413	0.574
232	1142	3	12	3	14	100.	10	1000.	3		220	81 20 11	1	15		34	418	0.772
	1142	3	12	3	14	1000.	40	40000.	7	105	240	81 20 11	1	5		34	419	184.985
	1142	3	12	3	14	400.	40	16000.	4	105	240	81 20 11	1	5		34	420	23.447
	1142	3	13	3	14	200.	30	6000.	3	110	230	81 20 11	1	10		34	421	4.631
	1142	3	13	3	14	200.	10	2000.	3		230	81 20 11	1	5		34	422	1.544
	1142	3	13	3	14	200.	15	3000.	4		230	81 20 11	1	10		34	423	4.396
	1142	3	13	3	14	300.	30	9000.	3	110	230	81 20 11	1	20		34	424	6.946
	1142	3	13	3	14	500.	30	15000.	4	105	240	81 20 11	1	10		34	425	21.982
	1143	3	22	3	27	150.	10	1500.	3	110	220	81 20 11	1	60		34	426	1.158
	1144	3	26	3	27	4000.	10	40000.	4	105	240	81 20 11	1	20		34	427	58.619
	1144	3	26	3	27	800.	30	24000.	4	105	240	81 20 11	1	20		34	428	35.171
	1144	4	6	4	11	2400.	50	120000.	3	105	230	11 81 20 15	1	20		34	429	92.613
	1148	4	2	4	1	50.	30	1500.	1	110	220	81				34	431	0.230
	1148	4	2	4	2	400.	40	16000.	1	110	210	81				34	432	2.450
	1148	4	3	4	4	1000.	30	30000.	3	110	210	81				34	433	23.153
	1153	3	26	3	27	1000.	10	10000.	4	103	205	81 20 11	1	40		34	438	14.655
	1153	3	26	3	27	400.	200	80000.	4	103	205	81 20 11	1	40		34	439	117.237
	1153	3	26	3	27	150.	100	15000.	4	103	205	81 20 11	1	40		34	440	21.982
	1153	4	5	4	7	2400.	30	72000.	3	110	220	81 11 15	1	40		34	441	55.568
	1159	3	20	3	21	50.	10	500.	3	205	220	81 20 11	1	40		34	442	0.386
															TOTAL FOR SECT.	232:		671.923
233	1141	3	9	3	10	500.	50	25000.	5	110	230	81 20 11	1	40		34	414	53.979
	1141	3	11	3	12	1500.	30	45000.	4	105	230	81 20 11	1	40		34	415	65.946
	1141	3	12	3	13	50.	30	1500.	3	105	230	81 20 11	1	40		34	416	1.158
	1141	3	12	3	14	50.	30	1500.	3	105	230	81 20 11	1	10		34	417	1.158
	1149	3	10	3	11	500.	200	100000.	1	105	230	81 20 11	1	20		34	434	15.315
	1149	3	10	3	11	1200.	200	240000.	6	105	230	81 20 11	1	20		34	435	814.414
	1149	3	11	3	12	400.	30	12000.	3	105	230	81 20 11	1	20		34	436	9.261
	1149	3	12	3	14	300.	15	4500.	1	105	230	81 20 11	1	20		34	437	0.689
															TOTAL FOR SECT.	233:		961.920
235	1122	4	1	3	28	100.	15	1500.	1	120	215	81	1	90		34	430	0.230
242	1217	3	27	4	2	200.	100	20000.	3	110	201	81	9			66	444	15.435
243	1199	3	25	4	3	2400.	4	9600.	5	112	201	20 81	1	10	2 10	66	462	20.728
	1199	3	25	4	3	400.	5	2000.	7	112	201	20 81	2	10		66	463	9.249
	1207	3	29	4	1	2375.	12	28500.	5	112	102	20 81	1	15		66	449	61.536
	1207	3	29	4	1	70.	5	350.	7	112	102	20 81	1	15		66	450	1.619
															TOTAL FOR SECT.	243:		93.132
244	1182	3	25	4	3	200.	30	6000.	3	110	102	81 11	9			66	443	4.631
	1183	3	29	4	1	1500.	6	9000.	5	110	103	11 20 81	1	2		66	448	19.432

TABLE 3. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1972

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
244	1186	3	29	4	1	1200.	5	6000.	7	114	101	20 81 11	1	5					66	451	27.748
	1186	3	29	4	1	100.	2	200.	3	114	101	20 81 11	1	5					66	452	0.154
															TOTAL FOR SECT.				244:		51.965
245	1195	3	26	4	3	1700.	400	680000.	5	114	103	81 11	1	2					66	453	1468.228
	1198	3	23	3	27	2650.	140	371000.	5	112	104	20 81	1	15					66	454	801.048
	1198	3	23	3	27	125.	25	3125.	3	112	104	20 81	1	15					66	455	2.412
	1198	3	23	3	27	400.	75	30000.	7	112	104	20 81	1	15					66	456	138.739
	1198	3	26	3	31	580.	20	11600.	3	114	102	81 11	9						66	457	8.953
	1198	3	26	3	31	100.	25	2500.	5	114	102	81 11	1	5					66	458	5.398
	1220	3	25	4	1	800.	300	240000.	5	112	201	81	9						66	459	518.198
	1222	3	24	3	29	1475.	38	56050.	5	118	104	20 81	1	15					66	445	121.021
	1222	3	24	3	29	140.	20	2800.	7	118	104	20 81	1	15					66	446	12.949
	1222	3	24	3	29	2430.	29	70470.	3	118	104	20 81	1	15					66	447	54.387
	1226	3	24	3	28	2070.	28	57960.	5	114	105	20 81	1	15					66	460	125.145
	1226	3	24	3	28	400.	4	1600.	3	114	105	20 81	1	15					66	461	1.235
															TOTAL FOR SECT.				245:		3257.712
252	1277	3	30	3	30	2000.	5	10000.	7	106	206	81 20 11	1	5	2	5			56	464	46.246
	1281	3	30	3	30	1500.	6	9000.	5	106	206	81 20 11	1	5					56	480	19.432
	1282	3	30	3	30	1000.	15	15000.	5	106	206	81 20 11	1	5	2	5			56	484	32.387
															TOTAL FOR SECT.				252:		98.066
253	1261	3	24	3	27	750.	5	3750.	5	103	212	20 11	1	3	2	2			56	465	8.097
	1262	3	8	3	8	2500.	50	125000.	3	106	215	11 81 20	1	5	2	5			56	466	96.471
	1262	3	8	3	8	500.	20	10000.	5	108	203	81	1	10					56	467	21.592
	1263	3	15	3	18	100.	25	2500.	5	102	208	81 11	1	5					56	468	5.398
	1263	3	15	3	18	400.	50	20000.	5	104	206	81 11 20	1	3					56	469	43.183
	1263	3	15	3	18	100.	25	2500.	3	104	100	81	1	5					56	470	1.929
	1263	3	15	3	18	2000.	50	100000.	7	106	212	81	1	45					56	471	462.462
	1263	3	15	3	18	250.	50	12500.	7	108	212	81 11 11	1	5					56	472	57.808
	1263	3	15	3	18	1200.	35	42000.	3	110	106	81	1	50					56	473	32.414
	1263	3	17	3	18	200.	5	1000.	7	106	103	11 90	1	5					56	474	4.625
	1263	3	17	3	18	200.	10	2000.	5	108	106	11 90	1	5					56	475	4.318
	1263	3	17	3	18	200.	100	20000.	3	106	102	81	1	5					56	476	15.435
	1263	3	17	3	18	1000.	500	500000.	5	102	225	81	1	10					56	477	1079.580
	1263	3	17	3	18	200.	50	10000.	7	106	102	81 20	1	8	2	7			56	478	46.246
	1263	3	17	3	18	350.	10	3500.	7	106	204	11 81 20	1	5					56	479	16.186
	1264	3	13	3	12	1200.	50	60000.	5	108	204	81 11 20	1	8	2	7			56	481	129.550
	1264	3	24	3	27	500.	300	150000.	5	102	212	81 11 20	1	2					56	482	323.874
	1264	3	24	3	27	200.	50	10000.	5	106	208	11 20	1	3	2	2			56	483	21.592
	1266	3	22	3	18	2000.	10	20000.	5	108	204	11 90 20	1	5					56	485	43.183
	1266	3	22	3	23	300.	15	4500.	7	106	204	11 20	1	5					56	486	20.811
	1266	3	22	3	23	200.	100	20000.	7	106	208	11 20	1	5					56	487	92.492
	1266	3	22	3	23	400.	100	40000.	7		100	81	1	1					56	488	184.985
	1266	3	22	3	23	800.	50	40000.	7	106	204	11 20 81	1	10					56	489	184.985
	1268	3	13	3	12	1500.	5	7500.	5	104	204	81 20	1	5	2	5			56	490	16.194
	1268	3	13	3	12	50.	50	2500.	7	104	202	81 20	1	5					56	491	11.562
															TOTAL FOR SECT.				253:		2924.972
262	1287	3	23	3	24	1600.	40	64000.	6	103	208	20 81	1	20	5	15			46	492	217.177

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2	MORTALITY PCT	MORTALITY C3	MORTALITY PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
2	62	4	7	4	8	800.	5	4000.	1	104	210	81 20	1	3	2	2			45	17	0.613
3	92	4	6	4	7	500.	15	7500.	6	102	210	81 20	1	3	2	2			45	18	25.450
	92	4	7	4	8	3300.	10	33000.	5	102	210	81 20	1	3	2	2			45	19	71.252
	95	4	7	4	8	700.	10	7000.	5	104	206	81 20	8	5					45	20	15.114
	95	4	7	4	8	300.	30	9000.	3	104	206	81 20	8	5					45	21	6.946
															TOTAL FOR SECT.					3:	118.763
5	80	4	9	4	10	3000.	8	24000.	1	104	206	81 20	1	3	2	2			45	13	3.676
	80	4	9	4	10	1100.	3	3300.	3	104	206	81 20	1	3	2	2			45	14	2.547
	80	4	9	4	10	1900.	4	7600.	5	102	204	81 20	1	3	2	2			45	15	16.410
	80	4	9	4	10	730.	20	14600.	7	102	206	81 20	1	10	8	10			45	16	67.520
															TOTAL FOR SECT.					5:	90.152
6	76	4	1	4	5	5000.	8	40000.	5	105	204	81 11	1	5					45	56	86.366
	76	4	1	4	5	2000.	15	30000.	3	105	204	81 11	1	10					45	57	23.153
	76	4	1	4	5	1500.	15	22500.	5	106	204	81 20	1	5					45	58	48.581
	76	4	1	4	5	3000.	15	45000.	5	106	204	81 20	9						45	59	97.162
	76	4	1	4	6	300.	20	6000.	5	106	204	81 11	9						45	60	12.955
	76	4	1	4	6	300.	10	3000.	5	104	204	81 20	1	5					45	61	6.477
	76	4	1	4	6	1500.	10	15000.	5	106	205	81 20	1	5					45	62	32.387
	76	4	1	4	6	250.	15	3750.	5	105	206	81 20	1	5					45	63	8.097
	76	4	1	4	6	2000.	10	20000.	5	104	206	81 20	1	5					45	64	43.183
	76	4	1	4	6	1000.	5	5000.	5	106	204	81 20 11	9						45	65	10.796
	76	4	1	4	6	500.	10	5000.	5	108	204	81 20	9						45	66	10.796
	76	4	1	4	6	300.	10	3000.	5	106	206	81 20	2	15					45	67	6.477
															TOTAL FOR SECT.					6:	386.432
22	106		40	4	10	50.	10	500.	1	106	202	81	1	10					45	2	0.077
	106	4	17	4	26	200.	20	4000.	3	102	210	81	1	10					45	3	3.087
	106	5	21	5	21	150.	40	6000.	3	104	204	81	8	10					45	4	4.631
	106	5	30	6	1	70.	40	2800.	5	100	215	20	7	30					45	11	6.046
	106	5	30	6	1	50.	40	2000.	5	100	215	20	7	30					45	12	4.318
	120	5	1	5	3	400.	30	12000.	9	102	210	81 20	1	25	7	25			45	6	114.703
	120	5	2	5	3	200.	20	4000.	7	102	210	81 20	1	25	7	25			45	7	18.498
	120	5	2	5	3	200.	10	2000.	5	102	210	81 20	1	25	7	25			45	8	4.318
	123	5	21	5	21	100.	20	2000.	5	110	210	81 20	3	50					45	5	4.318
	126	4	17	4	26	700.	10	7000.	3	102	210	81	1	10					45	9	5.402
	126	6	22	6	25	230.	8	1840.	1	100	210	81	8	5					45	10	0.282
															TOTAL FOR SECT.					22:	165.680
23	158	4	15	4	22	1200.	15	18000.	5	108	204	81							100	24	38.865
	158	4	15	4	22	400.	10	4000.	7	110	204	81							100	25	18.498
	158	4	15	4	22	800.	8	6400.	5	110	204	81							100	26	13.819
	158	4	15	4	22	500.	8	4000.	5	108	204	81							100	27	8.637
	159	4	15	4	22	300.	3	900.	5	108	204	81							100	28	1.943
	159	4	15	4	22	50.	4	200.	5	110	204	11							100	29	0.432
	160	3	28	4	4	150.	20	3000.	3	103	202	20							100	44	2.315
	160	3	28	4	4	300.	25	7500.	5	103	202	81 11							100	45	16.194

TABLE 4. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1973

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2	MORTALITY PCT	MORTALITY C3	MORTALITY PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
23	160	3	28	4	14	300.	35	10500.	7	103	202	81 20							100	46	48.559
	161	4	15	4	21	100.	200	20000.	1	106	206	20							100	47	3.063
	161	4	15	4	21	1000.	30	30000.	5	106	206	20 11							100	48	64.775
	161	4	15	4	21	500.	80	40000.	3	106	206	20							100	49	30.871
	161	4	15	4	21	1000.	20	20000.	3	104	203	81							100	50	15.435
	161	4	15	4	21	2400.	12	28800.	5	108	206	20 11							100	51	62.184
	161	4	15	4	21	300.	8	2400.	5	109	100	11							100	52	5.182
	162	4	15	4	21	1200.	4	4800.	5	109	104	11							100	53	10.364
	162	4	15	4	21	500.	10	5000.	7	104	102	11							100	54	23.123
	162	4	15	4	22	1300.	15	19500.	7	110	204	81							100	55	90.180
																	TOTAL FOR SECT.		23:		454.438
25	164	4	1	4	7	200.	10	2000.	5	108	100	81 11	1	35					100	22	4.318
	164	4	1	4	7	20.	2	40.	3	108	103	81	1	35					100	23	0.031
	176	4	14	4	18	200.	8	1600.	5	106	206	81							100	30	3.455
	176	4	14	4	18	600.	15	9000.	5	106	208	20							100	31	19.432
	176	4	14	4	18	200.	60	12000.	5	106	208	20							100	32	25.910
	176	4	14	4	18	1100.	15	16500.	5	106	208	20							100	33	35.626
	176	4	14	4	18	200.	100	20000.	5	106	208	20							100	34	43.183
	182	4	14	4	17	400.	100	40000.	1	106	206	20							100	35	6.126
	182	4	14	4	17	400.	40	16000.	1	106	206	20							100	36	2.450
	182	4	14	4	17	1100.	20	22000.	5	106	206	20							100	37	47.502
	182	4	14	4	17	600.	40	24000.	5	106	206	20							100	38	51.820
	182	4	14	4	17	700.	10	7000.	5	106	206	20							100	39	15.114
	182	4	14	4	17	300.	8	2400.	5	106	206	20							100	40	5.182
	182	4	14	4	17	400.	10	4000.	5	106	206	81 20							100	41	8.637
	182	4	14	4	17	500.	10	5000.	5	106	206	81							100	42	10.796
	182	4	14	4	17	600.	60	36000.	1	106	206	20							100	43	5.514
																	TOTAL FOR SECT.		25:		285.095
33	211	4	2	4	4	700.	30	21000.	3	108	207	81 20 11	1	8	3	7			32	68	16.207
	211	4	2	4	4	900.	10	9000.	3	112	206	81 20 11	1	8	3	7			32	69	6.946
	211	4	2	4	4	300.	25	7500.	3	108	210	81 20 11	1	8	3	7			32	70	5.788
	211	4	3	4	4	1500.	20	30000.	5	107	213	81 20 11	1	8	3	7			32	71	64.775
	212	4	8	4	12	1800.	20	36000.	5	108	212	81 20 11	1	5	3	5			32	72	77.730
	217	4	3	4	12	1200.	15	18000.	5	106	215	81 11	1	5	3	5			32	73	38.865
	221	4	8	4	19	325.	10	3250.	3			81 20	1	5	3	5			32	74	2.508
	221	4	8	4	19	450.	150	67500.	5			81 20	1	5	3	5			32	75	145.743
																	TOTAL FOR SECT.		33:		358.562
42	260	4	9	4	11	200.	15	3000.	5	108	204	11	1	5					16	83	6.477
	261	5	13	5	15	2000.	100	200000.	5	108	205	81 20 11 50	1	5					16	85	431.832
	262	4	7	4	9	3900.	50	195000.	5	119	204	81 20	1	20	7	10			16	86	421.036
	263	4	24	5	2	150.	20	3000.	3	104	202	81 20 11	1	1					16	87	2.315
	263	4	30	5	2	100.	20	2000.	3	104	202	81 20 11	1	1					16	88	1.544
	266	4	7	4	11	400.	15	6000.	5	108	204	81	1	5					16	89	12.955
	280	5	13	5	15	800.	100	80000.	5	108	205	81 20 11 50	1	5					16	84	172.733
																	TOTAL FOR SECT.		42:		1048.892
43	286	5	9	5	14	1500.	5	7500.	5	106	205	81 20 11	1	5					16	82	16.194

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
43	287	4	18	4	25	500.	10	5000.	3	100	206	20 11	1	5					16	76	3.859
	287	4	20	4	25	1000.	15	15000.	5	100	206	20 11	1	5					16	77	32.387
	291	4	16	4	25	1000.	300	300000.	7	110	202	20 11	1	5	7	5			16	78	1387.387
	291	4	16	4	25	500.	150	75000.	5	108	100	81 11	1	5	7	5			16	79	161.937
	291	4	16	4	25	500.	50	25000.	3	108	201	81 20 11	1	10					16	80	19.294
	291	4	20	4	25	150.	15	2250.	5	100	206	20 11	9						16	81	4.858
																	TOTAL FOR SECT.		43:		1625.917
52	339	5	7	5	9	400.	400	160000.	3	106	202	81 11	1	5					101	90	123.483
	339	5	7	5	9	200.	200	40000.	3	106	202	81 11	1	5					101	91	30.871
	339	5	7	5	9	100.	50	5000.	3	106	202	81 11	1	5					101	92	3.859
	339	5	7	5	9	50.	50	2500.	3	106	202	81 11	1	5					101	93	1.929
	339	5	7	5	9	25.	50	1250.	3	106	202	81 11	1	5					101	94	0.965
	339	5	7	5	9	25.	25	625.	3	106	202	81 11	1	5					101	95	0.482
	345	4	11	4	11	400.	3	1200.	3	110	205	15 81 20	1	5					101	96	0.926
	346	4	10	4	12	200.	20	4000.	5	110	220	81 20	1	20					101	97	8.637
	346	4	10	4	12	1800.	100	180000.	3	110	210	81 11	1	20					101	98	138.919
	348	4	10	4	10	200.	10	2000.	5	110	215	81 11	1	5					101	99	4.318
	348	4	10	4	10	400.	5	2000.	3	110	215	81 11	1	5					101	100	1.544
	348	4	10	4	10	400.	10	4000.	3	110	210	81 11	1	5					101	101	3.087
	348	4	10	4	10	400.	15	6000.	5	110	210	81 11	1	5					101	102	12.955
	348	4	10	4	10	200.	3	600.	5	110	210	81 11	1	5					101	103	1.295
	348	4	10	4	10	400.	10	4000.	5	110	210	81 11	1	5					101	104	8.637
	356	4	10	4	10	400.	5	2000.	3	110	215	81 11	1	3	5	2			101	105	1.544
	356	4	10	4	10	200.	30	6000.	5	110	215	81 11	1	3	5	2			101	106	12.955
	356	4	10	4	10	200.	10	2000.	3	110	215	81 20 11	1	3	5	2			101	107	1.544
	358	4	10	4	12	200.	200	40000.	3	110	220	81 11	1	10	5	10			101	108	30.871
	358	4	10	4	12	300.	100	30000.	5	110	218	81	1	20					101	109	64.775
																	TOTAL FOR SECT.		52:		453.595
62	408	5	26			6160.	1	6160.	3			11	1	5					102	143	4.754
	416	5	28			800.	5	4000.	4			11	1	5					102	110	5.862
	416	5	29			600.	15	9000.	6			11	1	5					102	111	30.541
	416	5	29			100.	15	1500.	3			11	1	5					102	112	1.158
	416	5	30			100.	10	1000.	5			11	1	5					102	113	2.159
	416	6	1			50.	10	500.	3			11	1	5					102	114	0.386
	416	6	1			100.	10	1000.	5			11	1	5					102	115	2.159
																	TOTAL FOR SECT.		62:		47.018
63	403	3	16	3	23	100.	5	500.	1			11	1	5					102	142	0.077
	412	3	16	3	23	1000.	5	5000.	1			11	1	5					102	144	0.766
	414	3	16	3	23	2780.	5	13900.	1			11	1	5					102	145	2.129
	414	3	16	3	26	200.	5	1000.	1			11	1	5					102	146	0.153
	414	3	16	3	26	90.	3	270.	1			11	1	5					102	147	0.041
																	TOTAL FOR SECT.		63:		3.166
67	425	4	11	4	21	4500.	20	90000.	7			81 20	1	5					102	116	416.216
	425	4	11	4	21	2800.	10	28000.	6			81 20	1	5					102	117	95.015
	425	4	11	4	21	2500.	3	7500.	5			81 20	1	5					102	118	16.194
	431	3	26	3	31	1200.	15	18000.	5			81 20 11 50	1	5					102	119	38.865

TABLE 4. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1973

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
67	431	3	29	3	31	150.	10	1500.	7			81 20 11	1 10			102	120	6.937
	431	3	31	3	31	250.	15	3750.	5			81 20 11	1 10			102	121	8.097
	431	4	3	4	11	1200.	15	18000.	7			81 20 11	1 10			102	122	83.243
	431	4	3	4	11	1500.	10	15000.	7			81 20 11	1 10			102	123	69.369
	432	4	11	4	21	700.	20	14000.	6			81 20	1 5			102	124	47.508
	432	4	11	4	21	1100.	15	16500.	5			81 20	1 5			102	125	35.626
	433	4	1	4	1	400.	30	12000.	3			81 20	1 5			102	126	9.261
	433	4	3	4	10	600.	15	9000.	3			81 11	1 5			102	127	6.946
	433	4	3	4	10	400.	5	2000.	4			81 11	1 5			102	128	2.931
	433	4	3	4	10	600.	3	1800.	3			81 11	1 5			102	129	1.389
	433	4	3	4	10	200.	30	6000.	3			81 11	1 5			102	130	4.631
	433	4	3	4	10	200.	20	4000.	3			81 11	1 5			102	131	3.087
	433	4	11	4	22	1600.	15	24000.	6			81 20	1 5			102	132	81.441
	433	4	11	4	22	2200.	10	22000.	5			81 20	1 5			102	133	47.502
	435	3	31	3	31	650.	15	9750.	5			81 20 11	1 10			102	134	21.052
	435	4	3	4	11	100.	15	1500.	5			11	1 10			102	135	3.239
	435	4	3	4	11	200.	3	600.	5			11	1 10			102	136	1.295
	435	4	3	4	11	800.	5	4000.	5			81 20 11	1 5			102	137	8.637
	435	4	3	4	11	1400.	3	4200.	5			81 20 11	1 5			102	138	9.068
	435	4	4	4	11	1300.	10	13000.	5			81 20	1 5			102	139	28.069
	435	4	7	4	11	1400.	10	14000.	7			81 20 11	1 10			102	140	64.745
	435	4	7	4	11	600.	40	24000.	7			81 20 11	1 5			102	141	110.991
														TOTAL FOR SECT.		67:		1221.354
72	484	3	26	4	1	175.	5	875.	3							90	170	0.675
	484	3	26	4	1	50.	25	1250.	3							90	171	0.965
	484	3	26	4	1	225.	10	2250.	4							90	172	3.297
	484	3	26	4	1	600.	10	6000.	4							90	173	8.793
	484	3	26	4	1	125.	50	6250.	4							90	174	9.159
	484	3	26	4	1	50.	30	1500.	4							90	175	2.198
	484	3	26	4	1	50.	30	1500.	5							90	176	3.239
	489	3	26	3	31	100.	75	7500.	3							90	218	5.788
	489	3	26	3	31	75.	75	5625.	3							90	219	4.341
	489	3	26	3	31	125.	20	2500.	4							90	220	3.664
	489	3	26	3	31	100.	3	300.	4							90	221	0.440
	489	3	26	3	31	400.	150	60000.	5							90	222	129.550
	489	3	26	3	31	350.	5	1750.	5							90	223	3.779
	489	3	26	3	31	100.	75	7500.	5							90	224	16.194
	489	3	26	3	31	100.	100	10000.	5							90	225	21.592
	489	3	26	3	31	175.	40	7000.	6							90	226	23.754
	489	3	26	3	31	150.	100	15000.	5							90	227	32.387
	491	3	26	4	1	75.	30	2250.	5							90	181	4.858
	491	3	26	4	1	100.	50	5000.	6							90	182	16.967
	491	3	26	4	1	75.	75	5625.	6							90	183	19.088
	499	3	26	4	1	350.	10	3500.	3							90	240	2.701
	499	3	26	4	1	350.	40	14000.	5							90	241	30.228
	499	3	26	4	1	400.	10	4000.	4							90	242	5.862
	529	3	26	4	1	300.	5	1500.	3							90	184	1.158
	529	3	26	4	1	700.	10	7000.	3							90	185	5.402
	529	3	26	4	1	175.	20	3500.	3							90	186	2.701

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
72	529	3	26	4	1	250.	10	2500.	4							90	187	3.664
															TOTAL FOR SECT.		72:	362.443
73	502	4	9	4	11	300.	5	1500.	3							90	243	1.158
	502	4	9	4	11	200.	120	24000.	5							90	244	51.820
	502	4	9	4	11	500.	10	5000.	4							90	245	7.327
	509	4	11	4	15	700.	10	7000.	2							90	205	3.237
															TOTAL FOR SECT.		73:	63.542
74	498	4	2	4	11	1200.	6	7200.	3							90	235	5.557
	498	4	2	4	11	800.	5	4000.	3							90	236	3.087
	498	4	2	4	11	800.	10	8000.	5							90	237	17.273
	498	4	2	4	11	200.	5	1000.	5							90	238	2.159
	498	4	2	4	11	150.	15	2250.	5							90	239	4.858
	536	3	13	3	23	350.	3	1050.	3							90	206	0.810
	537	3	23	3	27	700.	20	14000.	4							90	161	20.517
	537	3	23	3	27	125.	75	9375.	3							90	162	7.235
	537	3	23	3	27	175.	3	525.	5							90	163	1.134
	537	3	23	3	27	20.	15	300.	5							90	164	0.648
	537	3	28	4	3	600.	5	3000.	3							90	165	2.315
	538	3	12	3	20	75.	3	225.	1							90	148	0.034
	538	4	12	4	23	100.	10	1000.	3							90	149	0.772
	538	4	12	4	23	25.	5	125.	3							90	150	0.096
	539	3	13	3	21	3600.	2	7200.	3							90	207	5.557
	539	3	13	3	21	1800.	3	5400.	3							90	208	4.168
	539	3	13	3	21	75.	20	1500.	3							90	209	1.158
	540	3	29	4	5	50.	10	500.	3							90	228	0.386
	540	3	29	4	5	400.	5	2000.	3							90	229	1.544
	540	3	29	4	5	600.	20	12000.	4							90	230	17.586
	540	3	29	4	5	125.	6	750.	4							90	231	1.099
	540	3	29	4	5	350.	10	3500.	5							90	232	7.557
	540	3	29	4	5	450.	50	22500.	6							90	233	76.351
	540	3	29	4	5	175.	75	13125.	6							90	234	44.538
	543	4	2	4	11	200.	20	4000.	3							90	251	3.087
	543	4	2	4	11	150.	100	15000.	3							90	252	11.577
	543	4	2	4	11	1600.	100	160000.	5							90	253	345.465
	544	4	10	4	14	75.	10	750.	5							90	168	1.619
	544	4	10	4	14	75.	75	5625.	5							90	169	12.145
	545	3	23			150.	3	450.	1							90	190	0.069
	545	3	23			200.	2	400.	2							90	191	0.185
	545	3	23			1300.	3	3900.	3							90	192	3.010
	545	3	23			300.	4	1200.	3							90	193	0.926
	545	3	23			175.	50	8750.	3							90	194	6.753
	545	3	23			900.	5	4500.	3							90	195	3.473
	545	3	23			250.	4	1000.	4							90	196	1.465
	545	3	23			125.	4	500.	4							90	197	0.733
	545	3	23			400.	5	2000.	4							90	198	2.931
	545	3	23			200.	8	1600.	4							90	199	2.345
	545	3	23			100.	4	400.	5							90	200	0.864
	545	3	23			150.	10	1500.	5							90	201	3.239

TABLE 4. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1973

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
74	545	3	23			50.	7	350.	6							90	202	1.188
	545	3	23			30.	10	300.	6							90	203	1.018
	545	4	12	4	23	450.	2	900.	1							90	204	0.138
	546	3	29	4	5	400.	100	40000.	3							90	248	30.871
															TOTAL FOR SECT.		74:	659.539
75	445	4	10	4	14	225.	8	1800.	1							90	151	0.276
	445	4	10	4	14	450.	20	9000.	3							90	152	6.946
	445	4	10	4	14	100.	75	7500.	3							90	153	5.788
	445	4	10	4	14	150.	5	750.	3							90	154	0.579
	445	4	10	4	14	175.	50	8750.	3							90	155	6.753
	445	4	10	4	14	200.	2	400.	3							90	156	0.309
	445	4	10	4	14	500.	20	10000.	4							90	157	14.655
	445	4	10	4	14	50.	15	750.	7							90	158	3.468
															TOTAL FOR SECT.		75:	38.774
76	497	4	9	4	13	150.	150	22500.	4							90	188	32.973
	497	4	9	4	13	200.	2	400.	3							90	189	0.309
	551	4	10	4	18	1000.	10	10000.	1							90	159	1.532
	551	4	10	4	18	300.	20	6000.	3							90	160	4.631
	553	4	10	4	13	50.	10	500.	1							90	210	0.077
	553	4	10	4	13	120.	10	1200.	3							90	211	0.926
	553	4	10	4	13	100.	50	5000.	3							90	212	3.859
	553	4	10	4	13	100.	75	7500.	4							90	213	10.991
	553	4	10	4	13	200.	35	7000.	4							90	214	10.258
	553	4	10	4	13	200.	5	1000.	4							90	215	1.465
	553	4	10	4	13	225.	15	3375.	1							90	216	0.517
	554	4	10	4	14	800.	10	8000.	3							90	217	6.174
	555	4	10	4	13	75.	35	2625.	3							90	246	2.026
	555	4	10	4	13	300.	10	3000.	3							90	247	2.315
	556	3	29	4	9	30.	2	60.	2							90	177	0.028
	557	4	4	4	9	275.	5	1375.	3							90	249	1.061
	557	4	4	4	9	50.	30	1500.	3							90	250	1.158
	559	3	22	3	26	75.	5	375.	3							90	178	0.289
	559	3	22	3	26	50.	6	300.	3							90	179	0.232
	560	4	4	4	8	250.	10	2500.	5							90	180	5.398
	562	3	22	3	26	20.	20	400.	3							90	166	0.309
	564	4	4	4	8	800.	5	4000.	5							90	167	8.637
															TOTAL FOR SECT.		76:	95.163
82	587	3	17	3	21	5000.	2	10000.	3	115	202	11	2	30		91	266	7.718
	587	3	17	3	21	8000.	3	24000.	4	115	202	11	2	30		91	267	35.171
	587	3	17	3	21	7000.	2	14000.	4	115	202	11	2	30		91	268	20.517
															TOTAL FOR SECT.		82:	63.405
83	597	3	20	3	23	2000.	1	2000.	4	115	102	11	1	3	2 2	91	269	2.931
	597	3	20	3	23	13000.	2	26000.	4	115	102	11	1	3	2 2	91	270	38.102
	597	3	30	4	2	3100.	1	3100.	3	115	102	11	1	3	2 2	91	271	2.392
	598	3	26	3	27	4600.	3	13800.	3	112	100	81 11	1	3	2 2	91	272	10.650
	598	3	26	3	27	900.	2	1800.	1	112	100	81 11	1	3	2 2	91	273	0.276
															TOTAL FOR SECT.		83:	54.352

TABLE 4. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1973

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
84	607	6	1	6	1	4600.	2	9200.	7	110	208	11 90	8	20					91	263	42.547
	607	6	24	6	24	14000.	4	56000.	7	110	208	11 90	8	20					91	264	258.979
	607	6	24	6	24	14000.	2	28000.	7	110	208	11 90	8	20					91	265	129.489
																	TOTAL FOR SECT.			84:	431.015
85	575	4	13	4	24	1350.	4	5400.	4	110	202	20 11	1	3	2	2			91	254	7.914
	575	4	13	4	24	1150.	20	23000.	4	110	202	20 11	1	3	2	2			91	255	33.706
	575	4	13	4	24	400.	20	8000.	5	110	202	20 11	1	3	2	2			91	256	17.273
	576	4	13	4	24	1150.	2	2300.	1	110	202	11	1	3	2	2			91	258	0.352
	576	4	13	4	24	1000.	15	15000.	4	110	202	11	1	3	2	2			91	259	21.982
	576	4	13	4	24	1260.	10	12600.	5	110	202	11	1	3	2	2			91	260	27.205
	603	4	2	4	3	5500.	5	27500.	7	110	201	81 11	1	3	2	2			91	257	127.177
	604	4	10	4	10	400.	10	4000.	4	110	201	20 11	1	3	2	2			91	261	5.862
	604	4	10	4	10	75.	50	3750.	4	110	201	20 11	1	3	2	2			91	262	5.495
																	TOTAL FOR SECT.			85:	246.967
92	617	4	8	4	9	500.	300	150000.	4	103	210	81 20	1	15	3	15			103	280	219.820
	617	4	10	4	10	300.	400	120000.	1	103	210	81 20	1	15	3	15			103	281	18.378
	617	4	10	4	10	500.	200	100000.	3	105	208	81 20	1	15	3	15			103	282	77.177
	617	4	10	4	10	2000.	3	6000.	5	105	206	11 90	1	10	2	10			103	283	12.955
	617	4	21	4	24	500.	300	150000.	3	102	210	81 20	1	20	3	15			103	284	115.766
	617	4	21	4	24	300.	400	120000.	3	102	210	81 20	1	15	3	15			103	285	92.613
	617	4	21	4	24	500.	200	100000.	3	102	210	81 20	1	15	3	15			103	286	77.177
	617	4	21	4	24	1500.	3	4500.	3	104	206	11	1	15					103	287	3.473
	1489	3	29			150.	15	2250.	4			11	1	5	2	5			104	561	3.297
																	TOTAL FOR SECT.			92:	620.656
93	626	4	2	4	4	2000.	3	6000.	3	104	206	81 11	1	20					103	288	4.631
	630	3	21	3	22	5800.	2	11600.	4	105	204	81 20 11 90	1	15	4	15			103	274	16.999
	630	3	21	3	22	3700.	2	7400.	4	105	204	81 20 11 90	1	15	4	15			103	275	10.844
	630	4	6	4	9	4100.	2	8200.	1	106	202	11 90	1	15					103	276	1.256
	630	4	6	4	9	3700.	2	7400.	1	106	202	11 90	1	15					103	277	1.133
	630	4	8	4	9	3000.	3	9000.	4	105	206	11 90	1	20					103	278	13.189
	630	4	20	4	24	3400.	3	10200.	3	104	204	11 90	1	15					103	279	7.872
	632	4	20	4	24	7700.	3	23100.	3	104	206	11 90	1	15					103	289	17.828
	633	4	20	4	24	4000.	3	12000.	3	105	205	11 90	1	15					103	290	9.261
	634	4	20	4	24	5000.	3	15000.	3	105	204	11 90	1	15	2	10			103	291	11.577
																	TOTAL FOR SECT.			93:	94.591
102	641	4	9	4	9	3900.	3	11700.	5	103	207	11 90	1	20					103	295	25.262
	641	4	9	4	9	500.	3	1500.	5	102	207	20 11	1	20					103	296	3.239
	650	4	9	4	9	100.	2	200.	3	102	212	20 11	1	15	2	15			103	299	0.154
	652	4	9	4	9	3300.	2	6600.	4	104	205	20 11 41	1	10	2	10			103	292	9.672
	652	4	9	4	9	2200.	3	6600.	5	104	205	20 11 90	1	10	2	10			103	293	14.250
	652	4	19	4	27	400.	2	800.	5	101	215	20	2	10					103	294	1.727
	655	4	9	4	9	2000.	3	6000.	5	103	207	20 11 90	1	20					103	297	12.955
																	TOTAL FOR SECT.			102:	67.260
103	649	4	20	4	27	1800.	3	5400.	4	104	207	11 90	1	15	3	10			103	298	7.914

TABLE 4. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1973

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
112	659	5	3	5	12	3500.	1	3500.	3	102	202	20 11	1 40			92	300	2.701
	662	4	12			900.	1	900.	3	203	209	90	8 99			92	301	0.695
														TOTAL FOR SECT.		112:		3.396
122	682	4	4	4	5	100.	20	2000.	5	104	212	81 20 11	1 35	3 30		92	302	4.318
	682	4	4	4	5	150.	10	1500.	4	100	216	20	1 15	3 10		92	303	2.198
	682	4	4	4	5	200.	5	1000.	3	105	208	81 20	1 10	3 10		92	304	0.772
	683	4	4	4	5	200.	10	2000.	5	107	215	81 20	1 35	3 35		92	305	4.318
	683	4	4	4	5	600.	5	3000.	4	103	206	20 11	1 30	2 30		92	306	4.396
	683	4	4	4	5	700.	3	2100.	3	103	204	81 20 11	1 30			92	307	1.621
														TOTAL FOR SECT.		122:		17.624
123	689	3	16	3	22	100.	2	200.	3	104	206	11	1 4			78	308	0.154
	706	3	19	3	24	1900.	3	5700.	5	104	206	20 11	1 6			78	309	12.307
	706	3	22	3	24	1700.	6	10200.	5	104	206	20 11	1 6			78	310	22.023
	706	3	24	3	27	1500.	8	12000.	7	104	210	11	1 6			78	311	55.495
	710	4	2	4	6	1000.	10	10000.	7	102	212	81 20 11	1 10			78	312	46.246
	710	4	2	4	6	2000.	10	20000.	7	102	212	81 20 11	1 5			78	313	92.492
	718	3	12	3	16	1100.	2	2200.	3	100	204	11	1 4			78	314	1.698
														TOTAL FOR SECT.		123:		230.417
124	739	3	25	4	7	100.	100	10000.	3	102	208	11	1 4			78	329	7.718
	739	4	2	3	30	1000.	20	20000.	7	102	212	81 11	1 10			78	330	92.492
														TOTAL FOR SECT.		124:		100.210
125	738	2	26	3	4	250.	10	2500.	3	106	201	81 11	1 2			78	322	1.929
	738	2	28	3	4	200.	4	800.	4	110	202	81 11	1 2			78	323	1.172
	738	3	24	3	27	300.	150	45000.	3	102	206	81	1 4			78	324	34.730
	738	3	28	3	30	1000.	3	3000.	5	101	204	20 11	1 5			78	325	6.477
	738	3	28	3	30	1200.	3	3600.	4	101	204	81 11	1 5			78	326	5.276
	738	3	28	3	30	1600.	3	4800.	3	101	204	81 11				78	327	3.705
	738	4	9			3900.	2	7800.	3							78	328	6.020
	747	3	1	3	4	150.	4	600.	4	110	102	81 11	1 3			78	331	0.879
	747	3	4	3	4	2000.	10	20000.	5	110	102	11	1 3			78	332	43.183
	747	3	7	3	8	1400.	2	2800.	4	104	210	11	1 2			78	333	4.103
	747	3	7	3	8	300.	100	30000.	3	104	210	81				78	334	23.153
	747	3	7	3	8	2600.	2	5200.	3	104	210	11	1 2			78	335	4.013
														TOTAL FOR SECT.		125:		134.641
126	757	3	22	3	23	350.	10	3500.	3	104	206	20 11	1 4			78	315	2.701
	757	3	22	3	23	425.	10	4250.	4	104	206	11	1 4			78	316	6.228
	757	3	22	3	23	4750.	3	14250.	4	104	206	11	1 4			78	317	20.883
	757	3	25	4	7	6800.	2	13600.	3	100	204	20 11	1 4			78	318	10.496
	757	3	25	4	7	3200.	4	12800.	3	100	204	11	1 4			78	319	9.879
	757	3	25	4	7	1900.	3	5700.	3	100	204	11	1 4			78	320	4.399
	757	3	25	4	7	3300.	4	13200.	3	101	204	11	1 5			78	321	10.187
														TOTAL FOR SECT.		126:		64.774
127	749	3	19	3	24	200.	100	20000.	5	104	208	11	1 4			78	336	43.183

TABLE 4. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1973

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	C1 PCT	MORTALITY C2	C2 PCT	MORTALITY C3	C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
127	749	3	22	3	24	1700.	6	10200.	5	104	212	11	1	4					78	337	22.023
	749	3	22	3	24	3000.	10	30000.	5	104	212	11	1	4					78	338	64.775
	749	3	22	3	24	3500.	6	21000.	6	104	212	11	1	4					78	339	71.261
	749	3	22	3	25	2500.	8	20000.	5	104	210	20 11	1	5					78	340	43.183
	749	3	23	3	24	6100.	8	48800.	6	104	210	11	1	6					78	341	165.598
	749	3	23	3	24	2000.	400	800000.	5	104	210	20 11	1	5					78	342	1727.327
	749	3	23	3	24	6400.	10	64000.	5	104	210	20 11	1	5					78	343	138.186
																			TOTAL FOR SECT.	127:	2275.537
133	774	4	10	4	18	300.	3	900.	5	108	102	11	8	99					55	345	1.943
	774	4	10	4	18	25.	3	75.	5	108	101	11	1	5					55	346	0.162
	774	4	10	4	18	75.	3	225.	5	108	101	11	9						55	347	0.486
																			TOTAL FOR SECT.	133:	2.591
134	781	3	18	3	26	2000.	4	8000.	3	110	100	11	1	5					55	348	6.174
	781	3	18	3	26	3700.	4	14800.	5	110	100	11	1	5					55	349	31.956
	781	3	18	3	26	300.	4	1200.	3	110	201	11 90	9						55	350	0.926
	781	3	18	3	27	100.	4	400.	7	110	100	11	1	5					55	351	1.850
	781	3	24	4	4	4000.	3	12000.	5	110	101	11	1	10					55	353	25.910
	781	3	24	4	4	700.	3	2100.	5	109	101	11	9						55	354	4.534
	781	4	1	4	4	2700.	3	8100.	5	110	101	11 90	1	3					55	352	17.489
																			TOTAL FOR SECT.	134:	88.839
137	804	4	11	4	17	1700.	3	5100.	5	109	102	11 90	1	5	3	5			55	344	11.012
143	810	3	26	3	27	125.	20	2500.	3	100	205	15	2	15					25	355	0.643
	831	3	9	3	9	700.	20	14000.	6	108	205	15 11	2	35					25	356	15.820
	831	3	12	3	13	300.	25	7500.	5	108	203	15 11	2	25					25	357	5.392
	835	3	23	3	25	350.	20	7000.	4	106	100	15	2	30					25	359	3.416
	835	3	23	3	25	650.	50	32500.	4	108	100	15	2	20					25	360	15.860
																			TOTAL FOR SECT.	143:	41.131
144	834	3	26	3	27	180.	25	4500.	4	103	205	15	2	20					25	358	2.196
152	845	3	28			1000.	20	20000.	6			81 11	1	5	2	5			104	361	67.868
	845	3	28			2000.	60	120000.	6			81 11	1	5	2	5			104	362	407.207
	851	4	5			2000.	25	50000.	7										104	363	231.231
	858	3	21			150.	8	1200.	3			81 11	1	5	2	5			104	364	0.926
	858	3	28			4000.	40	160000.	4			81 11	1	5	2	5			104	365	234.474
	858	4	5			2000.	25	50000.	6			81 11	1	5	2	5			104	366	169.670
																			TOTAL FOR SECT.	152:	1111.377
162	910	3	21			200.	20	4000.	3			15 20	1	5	2	5			104	374	3.087
	910	4	1			1500.	20	30000.	6			11	1	10					104	375	101.802
	914	3	3			150.	20	3000.	6			20 11	1	10					104	376	10.180
	914	3	3			800.	30	24000.	6			20 11	1	10					104	377	81.441
	914	4	11			1000.	20	20000.	6			20 11							104	378	67.868
																			TOTAL FOR SECT.	162:	264.378
163	873	2	17			100.	1	100.	3	100	204	81 41							57	367	0.077

TABLE 4. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1973

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	C1 PCT	C2	C2 PCT	C3	C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
163	884	3	20	3	20	350.	4	1400.	4	112	202	15 11 41	1	3	3	2			57	368	2.052
	884	3	24	3	26	75.	3	225.	1	112	100	11 41	1	5					57	369	0.034
	884	3	28	3	28	600.	3	1800.	4	103	100	11 41	1	5					57	370	2.638
	900	3	28	4	2	1000.	10	10000.	4	107	220	81 41	1	5					57	371	14.655
	900	4	8	4	13	600.	10	6000.	4	107	230	81 41	1	5					57	372	8.793
	900	4	15	4	17	200.	2	400.	5	104	100	15 11	1	5	3	5			57	373	0.864
															TOTAL FOR SECT.				163:		29.112
172	931	3	14	3	14	800.	100	80000.	3	100	218	20 11	1	5					1	381	61.742
	997	3	9	3	12	3800.	150	570000.	3	105	220	15 81 41	1	10	2	10			1	379	439.910
	999	3	13	3	18	3300.	400	1320000.	3	107	218	81 41 99	1	15	2	15			1	382	1018.739
	999	4	6	4	9	300.	50	15000.	1	101	212	81 99	1	10					1	383	2.297
	1002	3	13	3	13	5000.	100	500000.	3	104	230	20 11	1	15					1	380	385.886
															TOTAL FOR SECT.				172:		1908.574
173	947	3	19	3	19	1700.	50	85000.	5	109	235	81 20 11	1	25	2	25			1	390	183.529
	947	3	19	3	19	150.	50	7500.	1	102	220	20 11 50	1	5	2	5			1	391	1.149
	947	4	2	4	10	1250.	50	62500.	3	108	215	81 20 11	1	20					1	392	48.236
	949	2	15	2	17	800.	50	40000.	1	107	103	11 99	1	15	2	10			1	393	6.126
	953	3	26	3	28	300.	7	2100.	3	109	103	15 11	1	10	2	10			1	384	1.621
	953	4	2	4	3	600.	5	3000.	3	107	101	11 50	1	10	2	5			1	385	2.315
	954	3	19	3	19	1200.	50	60000.	5	106	215	20 50	1	15	2	15			1	386	129.550
	954	4	2	4	8	250.	25	6250.	1	106	208	20 11	1	5	2	5			1	387	0.957
	954	4	2	4	8	200.	50	10000.	3	106	215	11 50	1	10	2	5			1	388	7.718
	954	4	9	4	10	350.	6	2100.	3	108	102	11 41	1	10	2	10			1	389	1.621
															TOTAL FOR SECT.				173:		382.820
182	1050	2	19	2	20	350.	50	17500.	5	103	220	20 11	1	10					37	396	37.785
	1050	2	19	2	20	200.	10	2000.	3	100	210	81 20	1	5					37	397	1.544
	1050	2	19	2	20	200.	5	1000.	3	100	210	81 11	1	5					37	398	0.772
	1050	2	20	2	21	1900.	5	9500.	3	105	215	15 81 11 90	1	10					37	399	7.332
	1050	2	20	2	21	250.	5	1250.	5	105	215	15 81 11 90	1	10					37	400	2.699
	1050	2	21	2	22	500.	15	7500.	2	103	210	81	1	10					37	401	3.468
	1050	2	21	2	22	325.	25	8125.	1	106	210	15 81	1	30					37	402	1.244
	1050	2	22	2	22	400.	4	1600.	5	108	210	11 90	1	40					37	403	3.455
	1050	2	22	2	22	1000.	20	20000.	3	100	210	81	1	5					37	404	15.435
	1050	2	26	2	27	900.	10	9000.	4	100	215	81	1	5					37	405	13.189
	1050	3	12	3	13	500.	15	7500.	3	103	210	81	1	10					37	406	5.788
	1050	3	17	3	19	500.	5	2500.	2	105	212	11 90	1	10					37	407	1.156
	1050	3	17	3	19	200.	20	4000.	3	100	215	15 81	1	5					37	408	3.087
	1050	3	21	3	22	400.	3	1200.	1	106	212	11 41	1	10					37	409	0.184
	1050	3	27	3	28	450.	5	2250.	1	100	210	81 11 95	1	5					37	410	0.345
	1051	2	2	2	5	100.	5	500.	1	100	210	81 41	1	10					37	421	0.077
	1051	2	10	2	12	225.	2	450.	1	100	210	81 11	1	5					37	422	0.069
	1051	2	25	2	27	375.	15	5625.	7	102	215	81 11 90	1	5					37	423	26.014
	1051	2	27	3	2	275.	10	2750.	3	100	215	81 11	1	5					37	424	2.122
	1051	3	1	3	2	350.	10	3500.	3	100	215	81 11	1	5					37	425	2.701
	1051	3	6	3	7	1200.	5	6000.	4	108	210	81 11 90	1	15					37	426	8.793
	1051	3	12	3	13	325.	5	1625.	3	108	212	11 90	1	15					37	427	1.254
	1051	3	13	3	19	350.	10	3500.	3	105	215	81 11 90	1	10					37	428	2.701

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
182	1051	3	21	3	22	300.	5	1500.	3	108	215	11 90	1 15			37	429	1.158
	1053	1	31	1	31	150.	3	450.	1	100	206	81	1 10			37	411	0.069
	1053	2	3	2	5	75.	15	1125.	1	100	210	81	1 10			37	412	0.172
	1053	2	14	2	14	225.	15	3375.	3	100	220	81 11	1 5			37	413	2.605
	1053	2	16	2	16	200.	5	1000.	1	100	215	81	1 5			37	414	0.153
	1053	2	16	2	19	75.	10	750.	3	105	215	11	1 15			37	415	0.579
	1053	2	19	2	19	100.	5	500.	5	110	215	81 11	1 25			37	416	1.080
	1053	2	19	2	19	375.	5	1875.	5	110	215	81 11	1 25			37	417	4.048
	1053	2	19	2	19	700.	5	3500.	5	107	215	81 11	1 20			37	418	7.557
	1053	2	25	2	27	200.	10	2000.	3	103	215	81 11	1 10			37	419	1.544
	1053	3	7	3	8	250.	5	1250.	3	108	210	81 11 90	1 20			37	420	0.965
	1054	2	19	2	19	1500.	5	7500.	3	110	215	11	1 15			37	441	5.788
	1054	2	19	2	19	250.	25	6250.	1	100	210	15 81	1 5			37	442	0.957
	1054	3	17	3	19	400.	15	6000.	3	104	215	81 11 90	1 5			37	443	4.631
	1055	2	10	2	12	400.	6	2400.	1	102	215	81	1 5			37	444	0.368
	1055	2	10	2	12	200.	3	600.	1	102	210	81	1 5			37	445	0.092
	1055	2	17	2	19	275.	10	2750.	5	110	210	81 11	1 25			37	446	5.938
	1055	2	18	2	19	125.	5	625.	1	108	206	11	1 25			37	447	0.096
	1055	2	21	2	21	200.	5	1000.	3	105	210	11 90	1 8			37	448	0.772
	1055	2	22	2	22	325.	5	1625.	3	108	210	81 11 90	1 25			37	449	1.254
	1057	3	6	3	7	200.	5	1000.	3	105	210	11 90	1 20			37	455	0.772
	1057	3	24	3	26	350.	20	7000.	3			11 41	1 5			37	456	5.402
	1058	2	8	2	8	175.	3	525.	3	105	206	81 11	1 15			37	457	0.405
	1058	2	8	2	8	200.	6	1200.	5	102	210	81	1 10			37	458	2.591
	1058	2	8	2	8	125.	10	1250.	3	108	205	81 11	1 15			37	459	0.965
	1058	2	12	2	12	275.	3	825.	1	102	210	11 90	1 5			37	460	0.126
	1058	2	12	2	12	150.	10	1500.	3	100	210	81	1 5			37	461	1.158
	1058	3	7	3	7	200.	8	1600.	5	105	215	81 11 90	1 15			37	462	3.455
	1058	3	8	3	8	950.	5	4750.	3	108	212	81 11 90	1 20			37	463	3.666
	1058	3	23	3	26	475.	5	2375.	1	108	215	81 11	1 25			37	464	0.364
															TOTAL FOR SECT.	182:		199.941
183	1021	2	19	2	20	850.	30	25500.	3	102	215	81 11	1 8			37	430	19.680
	1021	2	29	2	30	800.	5	4000.	1	102	215	81 11	1 5			37	431	0.613
	1021	2	29	2	30	550.	5	2750.	3	102	215	81 11	1 5			37	432	2.122
	1021	2	29	2	30	500.	50	25000.	4	203	215	81	1 5			37	433	36.637
	1021	3	6	3	8	475.	5	2375.	3	105	210	81 11	1 15			37	434	1.833
	1021	3	12	3	13	900.	3	2700.	4	110	212	11 90	1 15			37	435	3.957
	1021	3	20	3	21	400.	15	6000.	1	100	210	81	1 5			37	436	0.919
	1021	3	25	3	28	300.	5	1500.	4	108	215	81 11 90	1 25			37	437	2.198
	1022	3	6	3	8	700.	150	105000.	4	100	215	81	1 5			37	438	153.874
	1022	3	6	3	8	850.	10	8500.	4	105	210	81 11	1 10			37	439	12.456
	1022	3	8	3	13	575.	30	17250.	4	212	212	81	1 5			37	440	25.279
	1025	3	19	3	21	500.	15	7500.	3	100	215	81	1 5			37	465	5.788
	1025	3	26	3	28	300.	10	3000.	2	105	215	81 11	1 10			37	466	1.387
	1034	2	18	2	20	200.	15	3000.	5	100	210	81 11	1 5			37	450	6.477
	1041	3	9	3	13	350.	20	7000.	5	215	215	81	1 5			37	451	15.114
	1041	3	12	3	13	250.	3	750.	3	110	215	11 90	1 15			37	452	0.579
	1041	3	20	3	21	200.	5	1000.	1	100	215	81	1 5			37	453	0.153
	1041	3	20	3	21	500.	10	5000.	1	108	210	81 11 90	1 15			37	454	0.766
															TOTAL FOR SECT.	183:		289.833

TABLE 4. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1973

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
184	1007	3	14	3	16	1600.	15	24000.	1	100	210	81	1	5						37	394	3.676
	1007	3	21	3	22	325.	10	3250.	1	103	215	20 41 90	1	5						37	395	0.498
																			TOTAL FOR SECT.	184:		4.173
192	1072	3	28	3	28	50.	10	500.	1	104	103	11	1	70						9	467	0.077
232	1132	4	2	4	3	250.	10	2500.	3	100	208	81								105	487	1.929
	1142	3	29	4	2	700.	10	7000.	7	100	208	20	1	20	5	20				105	470	32.372
	1142	3	29	4	2	500.	10	5000.	5	100	208	15	1	20	5	20				105	471	10.796
	1142	4	2	4	3	300.	10	3000.	5	100	208	81								105	472	6.477
	1143	3	6	3	11	700.	15	10500.	5	103	205									105	473	22.671
	1144	3	27	3	28	1900.	35	66500.	4	100	208	15								105	474	97.453
	1144	3	28	3	28	200.	50	10000.	7	100	206	81								105	475	46.246
	1144	3	28	3	28	300.	20	6000.	3	100	206	81								105	476	4.631
	1155	3	13	3	13	175.	25	4375.	3	103	210	20 50	1	25						105	494	3.377
	1155	3	15	3	20	350.	25	8750.	4	103	210	20 50	1	25						105	495	12.823
	1156	3	13	3	13	25.	5	125.	1	103	210	20	1	25						105	496	0.019
																			TOTAL FOR SECT.	232:		238.795
233	1141	3	10	3	12	850.	45	38250.	5	103	204	15 81	1	50						105	468	82.588
	1141	3	17	3	21	100.	50	5000.	3	103	204	81	1	65						105	469	3.859
	1149	3	7	3	8	100.	30	3000.	3	105	205	15 81	1	60						105	480	2.315
	1149	3	7	3	8	1200.	25	30000.	7	105	210	15	1	50						105	481	138.739
	1149	3	7	3	8	50.	100	5000.	5	103	210	15	1	25						105	482	10.796
	1149	3	7	3	8	300.	150	45000.	5	105	210	15	1	50						105	483	97.162
	1149	3	7	3	8	200.	100	20000.	7	105	210	15	1	50						105	484	92.492
	1149	3	11	3	12	50.	75	3750.	3	102	210	15	1	10						105	485	2.894
	1149	3	11	3	12	400.	200	80000.	4	106	100	15 81	1	80						105	486	117.237
	1151	3	13	3	14	600.	25	15000.	6	103	210	11	1	60						105	488	50.901
	1151	3	13	3	14	200.	25	5000.	6	103	210	81 20	1	50						105	489	16.967
	1151	3	13	3	14	500.	25	12500.	6	103	210	81	1	60						105	490	42.417
	1151	3	13	3	14	250.	25	6250.	6	103	210	11	1	60						105	491	21.209
	1151	3	15	3	20	100.	25	2500.	3	103	208	50	1	50						105	492	1.929
	1151	3	15	3	20	200.	55	11000.	3	103	210	11	1	50						105	493	8.489
																			TOTAL FOR SECT.	233:		689.995
234	1123	3	15	3	20	250.	75	18750.	1	105	100	81	1	80						105	479	2.872
235	1122	3	23	3	27	100.	50	5000.	1	100	204	81								105	477	0.766
	1122	3	23	3	27	50.	50	2500.	1	100	204	81								105	478	0.383
																			TOTAL FOR SECT.	235:		1.149
242	1217	3	23	3	27	400.	2	800.	1	106	205	81 11	1	20	2	15				66	498	0.123
243	1209	3	27	3	30	70.	1	70.	3	102	207	81 11	9							66	499	0.054
	1209	3	27	3	30	60.	9	540.	7	102	207	81 11	9							66	500	2.497
	1212	3	27	3	30	50.	10	500.	1	102	210	81 11	1	10						66	501	0.077
	1212	3	27	3	30	75.	4	300.	3	102	210	81 11	9							66	502	0.232
	1212	3	27	3	30	30.	3	90.	7	102	210	81 11	9							66	503	0.416
																			TOTAL FOR SECT.	243:		3.276

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
244	1182	3	22	3	29	200.	20	4000.	1	103	100	81 11	1 10			66	497	0.613
	1190	3	18	3	23	150.	12	1800.	1	102	212	81 20	1 5			66	504	0.276
	1190	3	18	3	23	110.	30	3300.	3	104	212	81 20	1 5			66	505	2.547
	1190	3	18	3	23	100.	12	1200.	3	102	212	81 20	1 5			66	506	0.926
															TOTAL FOR SECT.	244:		4.361
245	1195	3	21	3	26	175.	20	3500.	3	107	209	81 11	1 20			66	537	2.701
	1195	3	21	3	26	250.	12	3000.	3	108	204	81 11	1 25			66	538	2.315
	1197	3	21	3	26	485.	40	19400.	1	101	205	81	1 15			66	539	2.971
	1198	3	20	3	26	600.	100	60000.	1	105	204	81 11	1 20			66	540	9.189
	1198	3	20	3	26	50.	25	1250.	3	105	204	81	1 15			66	541	0.965
	1198	3	22	3	26	100.	20	2000.	3	100	212	81 11	9			66	542	1.544
	1198	3	24	3	26	200.	100	20000.	1	205	215	81	9			66	543	3.063
	1198	3	24	3	26	200.	100	20000.	1	205	215	81 11	9			66	544	3.063
	1219	3	24	3	29	125.	25	3125.	3	201	210	81 11	9			66	545	2.412
	1220	3	16	3	24	400.	200	80000.	3	202	210	81	1 10			66	546	61.742
	1224	3	18	3	24	80.	20	1600.	5	106	210	81	1 25			66	547	3.455
	1224	3	18	3	24	100.	15	1500.	7	108	206	81 11	1 25			66	548	6.937
	1225	3	18	3	24	320.	27	8640.	5	108	206	81	1 40			66	549	18.655
	1225	3	19	3	24	41.	270	11070.	3	107	205	81 11	1 15			66	550	8.544
	1227	3	19	3	22	530.	4	2120.	3	101	203	81	1 20			66	551	1.636
	1227	3	19	3	22	320.	10	3200.	3	103	203	81	1 15			66	552	2.470
	1227	3	19	3	22	65.	6	390.	7	106	203	81	1 20			66	553	1.804
	1228	3	19	3	22	20.	2	40.	3	107	212	81 11	1 20			66	554	0.031
	1228	3	19	3	22	775.	9	6975.	5	107	203	81	1 20			66	555	15.060
	1228	3	19	3	22	230.	9	2070.	7	107	204	81	1 25			66	556	9.573
															TOTAL FOR SECT.	245:		158.128
252	1277	3	22	4	6	3400.	20	68000.	5	108	212	81 90	1 10			46	508	146.823
	1278	3	22	4	6	800.	6	4800.	5	101	210	81 20	1 15			46	507	10.364
	1281	3	12	4	6	1100.	15	16500.	6	103	210	20 90	1 10			46	509	55.991
	1282	3	13	4	6	1100.	50	55000.	6	103	208	81 20	1 20			46	510	186.637
	1283	4	1	4	16	500.	10	5000.	5	108	202	81 90	1 20			46	511	10.796
	1284	3	12	3	15	2000.	30	60000.	5	108	201	81	1 15	4 15		46	512	129.550
															TOTAL FOR SECT.	252:		540.160
253	1263	3	22	4	9	2300.	50	115000.	5			20 99	1 10	5 10		46	557	248.303
	1265	4	4	4	9	800.	80	64000.	7	103	207	15 81 20 90	1 10			46	558	295.976
	1266	4	4	4	9	2400.	20	48000.	6	103	207	15 81 20 90	1 10			46	559	162.883
	1268	4	4	4	9	550.	100	55000.	7	103	207	81 90	1 10			46	560	254.354
															TOTAL FOR SECT.	253:		961.517
262	1287	3	13	3	13	1000.	30	30000.	3	106	201	81 90	1 5	3 5		46	513	23.153
	1287	3	13	3	14	1200.	30	36000.	5	102	210	81 90	1 5	3 5		46	514	77.730
	1296	3	3	3	13	1200.	40	48000.	5	102	206	81 90	1 30			46	515	103.640
	1301	3	12	3	26	1200.	75	90000.	5	100	215	81 20	1 5			46	516	194.324
															TOTAL FOR SECT.	262:		398.847
272	1311	3	18	3	26	15.	10	150.	5	100	203	81	1 5			94	517	0.324

TABLE 4. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1973

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
272	1311	3	18	3	26	400.	3	1200.	5	102	100	81 11	1 20			94	518	2.591
	1311	3	18	3	26	200.	3	600.	7	100	202	81 11	1 10			94	519	2.775
	1311	3	18	3	26	800.	3	2400.	7	100	202	81	1 5			94	520	11.099
	1312	3	19	3	25	200.	5	1000.	7	100	203	81	1 5			94	521	4.625
	1312	3	19	3	25	200.	5	1000.	5	103	201	81 11	1 10			94	522	2.159
	1312	3	19	3	25	50.	3	150.	5	102	100	81 11	1 15			94	523	0.324
	1314	4	5	4	10	1200.	10	12000.	5	105	202	81 11	1 15			94	532	25.910
	2272	4	5	4	10	1800.	12	21600.	5	106	202	81 11	1 15			94	562	46.638
	2272	4	5	4		700.	50	35000.	3	103	202	81	1 15			94	563	27.012
															TOTAL FOR SECT.	272:		123.456
273	1320	3	15	3	16	300.	15	4500.	7	104	206	81 11	1 15			94	524	20.811
	1320	3	15	3	16	200.	5	1000.	5	102	202	81 11	1 15			94	525	2.159
	1320	3	17	3	24	100.	5	500.	3	100	203	81	1 10			94	526	0.386
	1320	3	17	3	24	200.	10	2000.	6	102	204	81	1 10			94	527	6.787
	1320	3	17	3	24	200.	5	1000.	5	100	203	81	1 10			94	528	2.159
	1321	3	18	3	24	600.	3	1800.	5	100	202	81 20	1 5			94	529	3.886
	1321	3	18	3	24	400.	4	1600.	7	100	203	81 20	1 5			94	530	7.399
	1321	3	18	3	24	400.	3	1200.	5	100	202	81 20	1 5			94	531	2.591
															TOTAL FOR SECT.	273:		46.179
274	1331	4	19	4	30	800.	5	4000.	5	101	202	81 20	1 10			94	533	8.637
	1331	4	19	4	30	400.	5	2000.	5	101	202	81 20	1 10			94	534	4.318
															TOTAL FOR SECT.	274:		12.955
290	1351	2	20	2	23	2050.	100	205000.	1	204	204	81	1 15			77	535	31.396
	1351	3	18	3	18	1000.	100	100000.	1	202	202	81	1 15			77	536	15.315
															TOTAL FOR SECT.	290:		46.712

TABLE 5. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1974

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
3	92	4	2	4	3	800.	20	16000.	5	105	208	81 11	9 10			45	218	34.547
	92	4	2	4	3	600.	25	15000.	5	104	210	81 11	9 5			45	219	32.387
	92	4	2	4	3	1000.	20	20000.	6	102	210	81	9 20			45	216	67.868
	92	4	2	4	3	300.	15	4500.	5	102	208	81 99	9 5			45	217	9.716
														TOTAL FOR SECT.			3:	144.518
5	80	4	9	4	10	400.	6	2400.	5	104	208	81	9 5			45	204	5.182
	80	4	9	4	10	400.	5	2000.	3	104	208	11	9 5			45	205	1.544
	80	4	9	4	10	300.	8	2400.	3	104	208	11	9 5			45	206	1.852
	80	4	9	4	10	600.	10	6000.	5	104	208	11 81	9 5			45	207	12.955
	80	4	9	4	10	100.	10	1000.	3	104	208	11 81	9 5			45	208	0.772
	80	4	9	4	10	50.	5	250.	5	104	208	11 81	9 5			45	209	0.540
	81	3	26	4	1	1900.	5	9500.	3	104	206	81	9 10			45	210	7.332
	81	3	26	4	1	3600.	10	36000.	5	106	206	11 81	9 5			45	211	77.730
	81	3	26	4	1	2000.	5	10000.	5	106	206	11 81	9 5			45	212	21.592
	81	3	26	4	1	600.	30	18000.	5	106	206	11 81	9 5			45	213	38.865
	81	3	26	4	1	400.	20	8000.	3	104	204	11 81	9 5			45	214	6.174
	94	3	21	4	1	600.	10	6000.	3	104	206	81	9 10			45	215	4.631
														TOTAL FOR SECT.			5:	179.167
6	76	3	19	3	23	7000.	15	105000.	5	104	210	81 11	2 30			45	201	226.712
	76	3	20	3	23	3300.	15	49500.	5	104	210	81 11	2 20			45	202	106.878
	76	3	22	3	23	2400.	20	48000.	4	200	210	81 11	9 10			45	203	70.342
														TOTAL FOR SECT.			6:	403.932
12	53	3	10	3	14	300.	20	6000.	7	120	108	81	1 20			106	191	9.240
	53	3	10	3	14	500.	200	100000.	7	130	105	81	1 10			106	192	154.000
	53	3	13	3	14	200.	10	2000.	7	108	103	81	1 10			106	194	3.080
	53	3	13	3	14	800.	100	80000.	7	150	100	11 81	1 12	3 13		106	193	123.200
	53	3	21	3	21	500.	100	50000.	7	115	100	81	3 10	1 10		106	195	77.000
	1359	2	17	2	19	600.	4	2400.	1	110	103	11	3 30			106	196	0.122
	1360	2	17	2	19	500.	15	7500.	3	110	100	11	1 20	3 20		106	197	1.928
	1361	2	18	2	22	100.	3	300.	3	125	106	81 11	1 20			106	198	0.077
	1361	3	17	3	18	300.	3	900.	3	106	100	11	2 15	1 15		106	199	0.231
	1361	3	17	3	18	2500.	30	75000.	7	120	100	11 20 90	1 10	3 10		106	200	115.500
														TOTAL FOR SECT.			12:	484.378
22	101	5	9	5	10	600.	10	6000.	5	100	220	20 81 11	9 10			45	221	12.955
	101	5	9	5	10	400.	20	8000.	5	100	220	20 81 11	9 10			45	220	17.273
	103	6	13	6	17	150.	35	5250.	3	100	215	81	9 10			45	222	4.052
	106	4	16	4	18	400.	20	8000.	4	106	215	20 81	1 10			45	223	11.724
	106	4	24	4	25	300.	10	3000.	5	106	215	20 81	7 60			45	224	6.477
	106	4	24	4	25	100.	20	2000.	3	106	220	20 81	7 60			45	225	1.544
	106	5	17	5	20	750.	30	22500.	5	104	230	20 81	7 70			45	226	48.581
	115	5	12	5	13	200.	10	2000.	4	100	215	20 81	9 10			45	227	2.931
	118	4	2	4	2	200.	100	20000.	3	104	200	20 81	1 10			45	228	15.435
	118	5	10	5	12	400.	20	8000.	3	106	202	20 81	9 10			45	229	6.174
	118	6	3	6	5	250.	40	10000.	5	104	215	20 81	1 20			45	230	21.592
														TOTAL FOR SECT.			22:	148.738

TABLE 5. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1974

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
23	157	5	28	5	28	300.	5	1500.	5	106	201	81				100	231	3.239
	158	4	25	4	26	2000.	20	40000.	5	103	201	20 11				100	232	86.366
	158	5	28	5	28	75.	5	375.	5	106	201	81				100	233	0.810
	160	3	31	4	2	1200.	10	12000.	3	108	203	20 11				100	234	9.261
	160	3	31	4	2	400.	25	10000.	5	108	203	20 11				100	235	21.592
	160	3	31	4	2	400.	15	6000.	3	108	203	20 11				100	236	4.631
	160	3	31	4	2	400.	35	14000.	6	108	203	81				100	237	47.508
	160	3	31	4	2	2000.	5	10000.	3	108	203	81				100	238	7.718
	160	3	31	4	2	200.	7	1400.	5	108	203	20				100	239	3.023
	162	4	25	4	26	1000.	5	5000.	5	103	202	20 11				100	240	10.796
	1371	5	28	5	28	40.	30	1200.	4	106	101	20 81				100	241	1.759
															TOTAL FOR SECT.		23:	196.701
25	164	4	15	4	19	1000.	10	10000.	3	109	201	20				100	242	7.718
	164	4	15	4	19	800.	7	5600.	4	109	201	11				100	243	8.207
	164	4	15	4	19	150.	5	750.	5	109	201	20				100	244	1.619
	164	4	15	4	19	150.	5	750.	3	107	201	81				100	245	0.579
	164	4	15	4	19	100.	20	2000.	6	107	201	81				100	246	6.787
	164	4	15	4	19	225.	4	900.	5	108	202	20				100	247	1.943
	176	3	25	3	27	1000.	15	15000.	3	107	202	20 11				100	250	11.577
	176	3	25	3	27	800.	25	20000.	3	107	202	20 11				100	252	15.435
	176	4	1	4	5	7400.	5	37000.	3	108	202	20 11				100	248	28.556
	176	4	1	4	5	600.	5	3000.	7	108	202	20 11				100	249	13.874
	176	4	1	4	5	200.	35	7000.	5	108	202	20 11				100	251	15.114
	182	3	29	4	6	11800.	10	118000.	5	109	203	20 81				100	253	254.781
	182	3	30	4	7	600.	5	3000.	1	109	203	20				100	256	0.459
	182	4	1	4	6	500.	30	15000.	7	109	203	20 81				100	254	69.369
	182	4	1	4	6	200.	40	8000.	7	109	203	20 81				100	255	36.997
															TOTAL FOR SECT.		25:	473.015
32	196	5	20	5	22	400.	10	4000.	7	105	214	20 11	1	5	3 5 7 5	107	257	18.498
33	211	3	30	4	1	600.	5	3000.	3	106	200	11 81 20	1	10	3 10	107	258	2.315
	211	3	30	4	1	400.	10	4000.	3	109	202	11 81 20	1	10	3 10	107	259	3.087
	211	3	30	4	1	400.	10	4000.	5	107	204	11 81 20	1	10	3 10	107	260	8.637
	211	3	30	4	1	600.	3	1800.	5	105	202	11 81 20	1	7	3 8	107	261	3.886
	211	3	30	4	1	500.	20	10000.	5	112	206	11 81 20	1	10	3 10	107	262	21.592
	211	3	30	4	1	800.	40	32000.	5	108	211	11 81 20	1	10	3 10	107	263	69.093
	211	3	30	4	1	400.	10	4000.	5	106	205	11 81 20	1	10	3 10	107	264	8.637
	211	3	30	4	1	100.	3	300.	5	106	201	11 81 20	1	7	3 8	107	265	0.648
	211	3	30	4	1	300.	20	6000.	5	114	205	11 81 20	1	10	3 10	107	266	12.955
	211	3	30	4	1	100.	3	300.	3	104	202	11 81 20	1	7	3 8	107	267	0.232
	211	4	1	4	2	100.	15	1500.	3	112	206	11 81 20	1	10	3 10	107	268	1.158
	215	3	30	4	1	650.	20	13000.	5	108	205	81 11 20 90	1	8	3 8 7 9	107	269	28.069
	215	5	21	5	22	800.	12	9600.	7	102	210	81 11 20	1	5	3 5 7 5	107	270	44.396
	218	3	30	4	1	100.	30	3000.	5	107	204	81 11 20	1	7	3 7 7 6	107	271	6.477
	218	3	30	4	1	200.	13	2600.	7	107	202	81 11 20 90	1	7	3 7 7 6	107	272	12.024
	218	3	30	4	1	30.	10	300.	5	107	201	81 11 20 90	1	7	3 7 7 6	107	273	0.648
	218	3	30	4	1	200.	30	6000.	3	108	203	81 11 20 90	1	7	3 8	107	274	4.631

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2	MORTALITY PCT	MORTALITY C3	MORTALITY PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
33	218	4	1	4	2	400.	50	20000.	3	110	205	11 81 20	1	10	3	10			107	276	15.435
	218	4	2	4	3	300.	15	4500.	5	107	206	11 81	1	10	3	10			107	275	9.716
															TOTAL FOR SECT.					33:	253.636
42	260	3	31	4	2	1000.	20	20000.	5	116	202	81 11 15	1	20	3	20			108	277	43.183
	260	3	31	4	2	900.	15	13500.	4	116	203	81 11	1	20	3	20			108	278	19.784
	262	3	31	4	1	30.	5	150.	1	117	112	11	1	17	3	18			108	279	0.023
	262	3	31	4	1	1000.	10	10000.	3	118	110	11 20	1	30	3	30			108	280	7.718
	262	3	31	4	1	1000.	10	10000.	5	104	201	81 20	1	35	3	35			108	281	21.592
	265	3	31	4	1	1000.	15	15000.	4	117	202	81 11 20	1	20	3	20			108	282	21.982
	266	3	31	4	1	300.	10	3000.	4	117	112	11	1	30	3	30			108	283	4.396
	279	5	20	5	24	500.	50	25000.	4	102	202	81 20 15 11	1	15					108	288	36.637
	1362	5	3	5	9	100.	5	500.	3	105	107	81 20 11	1	20					108	284	0.386
	1362	5	3	5	9	750.	15	11250.	5	106	212	20 81 11 15	1	15					108	285	24.291
	1362	5	3	5	9	150.	20	3000.	5	104	100	15 81	1	20					108	286	6.477
	1362	5	3	5	9	500.	3	1500.	3	104	100	15 81	1	20					108	287	1.158
															TOTAL FOR SECT.					42:	187.626
43	287	4	12	4	17	200.	75	15000.	5	108	203		1	17	3	18			108	289	32.387
	287	4	12	4	17	25.	50	1250.	5	108	203	20 11	1	15					108	290	2.699
	291	4	12	4	17	75.	20	1500.	5	107	203	20 11	1	10					108	291	3.239
	291	4	12	4	17	500.	100	50000.	1	104	210	15 20 11	1	15					108	292	7.658
															TOTAL FOR SECT.					43:	45.983
52	338	5	1	5	8	600.	10	6000.	3	110	103	11	1	20	7	20			101	294	4.631
	338	5	1	5	8	1500.	5	7500.	3	110	103	11	1	10					101	295	5.788
	341	4	26	5	7	900.	25	22500.	3	107	204	15	1	20	7	20			101	296	17.365
	346	4	26	5	7	500.	30	15000.	3	107	210	15	1	30					101	297	11.577
	346	4	26	5	7	1200.	200	240000.	3	107	210	15	1	30					101	298	185.225
	354	5	1	5	7	300.	40	12000.	4	105	100	81 11	1	20					101	299	17.586
	354	5	1	5	7	400.	50	20000.	4	105	100	81 11	1	20					101	300	29.309
	355	4	26	5	7	1400.	500	700000.	3	107	210	15	1	30					101	301	540.240
	358	4	26	5	7	400.	20	8000.	5	107	202	11	1	20					101	302	17.273
	358	4	26	5	7	300.	100	30000.	5	107	204	81	1	20					101	303	64.775
	358	4	26	5	7	400.	150	60000.	5	107	204	81	1	20					101	304	129.550
															TOTAL FOR SECT.					52:	1023.318
53	330	5	10	5	16	200.	5	1000.	7	112	104	11	1	18					101	293	4.625
62	408	5	20	5	22	900.	1	900.	3	104	101	11 20 50							43	305	0.695
	408	5	27	5	30	2700.	1	2700.	3	106	100	11 20 50							43	306	2.084
	408	6	8	6	15	1500.	2	3000.	5	108	102	11 81 20							43	307	6.477
	416	6	9	6	18	600.	2	1200.	3	108	100	11 20 50							43	309	0.926
	1379	6	3	5	30	4200.	1	4200.	5	106	100	11 20 50							43	310	9.068
															TOTAL FOR SECT.					62:	19.250
63	414	3	19	3	29	2800.	5	14000.	3	112	202	11 90 50	8	15	1	15			99	308	10.805
67	425	3	28	3	28	650.	20	13000.	3	110	230	90 11 81 20	1	10					99	311	10.033
	425	4	1	4	1	4800.	20	96000.	3	110	230	90 11 81 20	1	10					99	312	74.090

TABLE 5. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1974

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
67	426	4	2	4	2	5000.	10	50000.	3	110	210	90 11 81	1	10		99	313	38.589
	431	4	5	4	24	100.	10	1000.	2		215	81				99	314	0.462
	431	4	5	4	24	10.	10	100.	1	120	115	20				99	315	0.015
	431	4	5	4	24	5.	10	50.	4							99	316	0.073
	431	4	5	4	24	10.	10	100.	2							99	317	0.046
	431	4	5	4	24	150.	75	11250.	5	110	210	81				99	318	24.291
	431	4	8	4	25	50.	30	1500.	3		220	20				99	319	1.158
	431	4	8	4	25	150.	30	4500.	3	210	220	81				99	320	3.473
	431	4	8	4	25	150.	3	450.	1	106	202	90 11				99	321	0.069
	431	4	8	4	25	40.	20	800.	3	201	210	81				99	322	0.617
	431	4	8	4	25	800.	20	16000.	3	130	230	90 11 81 20	1	15		99	323	12.348
	431	4	8	4	25	80.	40	3200.	3	110	210	90 11	1	15		99	324	2.470
	431	4	8	4	25	10.	5	50.	3		220	20				99	325	0.039
															TOTAL FOR SECT.		67:	167.773
72	467	3	24	3	26	400.	10	4000.	4	113	100	20 81 90				90	333	5.862
	471	3	14	4	7	400.	5	2000.	4	116	107	20 81				90	334	2.931
	480	4	1	4	1	2000.	20	40000.	3	106	210	90 11 81	1	20		99	326	30.871
	484	3	24	3	26	400.	10	4000.	4	113	100	20 81 90				90	335	5.862
	491	3	24	3	26	700.	10	7000.	4	113	100	20 81 90				90	336	10.258
	491	4	15	4	16	70.	70	4900.	3	114	106	11 81				90	337	3.782
	491	4	15	4	16	500.	50	25000.	5	114	106	11 81				90	338	53.979
	496	3	20	3	21	150.	5	750.	3			90 81				90	339	0.579
	529	4	15	4	16	600.	2	1200.	3	108	102	11 81				90	341	0.926
															TOTAL FOR SECT.		72:	115.049
74	447	3	28	3	28	720.	2	1440.	4	109	103	11 90				90	331	2.110
	447	3	28	3	28	150.	2	300.	1	109	103	11				90	329	0.046
	447	3	28	3	28	800.	2	1600.	3	109	103	11 90				90	330	1.235
	447	3	28	3	28	400.	4	1600.	5	114	102	11 90				90	332	3.455
	498	3	24	4	1	100.	10	1000.	3	112	202	81 20				90	342	0.772
	538	3	17	3	27	1600.	5	8000.	5	114	109	81 90 20				90	343	17.273
	539	3	4	3	5	150.	10	1500.	4	109	103	11 81 90				90	344	2.198
	540	3	17	3	27	1700.	10	17000.	5	113	101	81 90 20				90	345	36.706
	542	3	12	3	12	2600.	5	13000.	4			90 81				90	346	19.051
	542	3	24	4	6	100.	5	500.	3	113	101	20 81				90	347	0.386
	543	3	21	4	1	2000.	15	30000.	5	112	202	81 20				90	348	64.775
	546	3	18	3	27	2200.	5	11000.	5			11 81 90				90	349	23.751
															TOTAL FOR SECT.		74:	171.757
75	445	4	2	4	1	350.	5	1750.	4	113	101	20 90				90	327	2.565
	445	4	9	4	11	3040.	10	30400.	5	113	102	11 20				90	328	65.638
	505	4	2	4	5	3000.	10	30000.	5	113	205	20 81				90	340	64.775
															TOTAL FOR SECT.		75:	132.978
76	497	4	7	4	9	300.	50	15000.	5	113	203	11 20				90	350	32.387
	551	3	18	3	20	400.	100	40000.	4							90	351	58.619
	551	3	24	3	28	675.	10	6750.	3	108	202	11 90				90	352	5.209
	553	4	16	4	18	50.	5	250.	3							90	353	0.193
	553	4	16	4	18	1850.	5	9250.	4							90	354	13.556

TABLE 5. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1974

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
76	553	4	16	4	18	400.	50	20000.	3							90	355	15.435
	556	3	20	3	23	2000.	5	10000.	5	113	100	11 81 20				90	356	21.592
	559	4	16	4	18	500.	2	1000.	3			11 81				90	357	0.772
	559	4	16	4	18	550.	10	5500.	3			11 81				90	358	4.245
	559	4	16	4	18	450.	50	22500.	3			11 81				90	359	17.365
	559	4	16	4	18	150.	150	22500.	3			11 81				90	360	17.365
	571	4	9	4	10	8100.	8	64800.	5	113	103	11 20				90	361	139.914
															TOTAL FOR SECT.	76:		326.651
82	587	3	20	4	3	11000.	2	22000.	1	106	100	11 90				91	381	3.369
	589	3	20	4	3	8000.	1	8000.	1	106	100	11 90				91	382	1.225
															TOTAL FOR SECT.	82:		4.595
83	597	3	24	4	1	10000.	2	20000.	3	110	102	11				91	383	15.435
	597	3	24	4	1	6500.	1	6500.	1	108	102	11				91	384	0.995
	598	3	24	4	2	4500.	4	18000.	2	112	202	11				91	385	8.324
	598	3	24	4	2	5500.	1	5500.	1	108	102	11				91	386	0.842
	598	3	24	4	2	1500.	2	3000.	3	110	102					91	387	2.315
	598	3	24	4	2	1000.	1	1000.	1	108	102					91	388	0.153
															TOTAL FOR SECT.	83:		28.066
84	607	5	19			2400.	2	4800.	7	104	202	11 90				91	397	22.198
	607	5	19			1200.	2	2400.	5	104	202	11 90				91	398	5.182
	607	5	23			800.	2	1600.	7	104	202	11 90				91	399	7.399
	607	5	26			1000.	2	2000.	7	104	202	11 90				91	400	9.249
	607	5	26			1000.	1	1000.	5	104	101	11 90				91	401	2.159
	607	5	26			1000.	2	2000.	7	104	101	11 90				91	402	9.249
	607	5	26			1500.	1	1500.	5	104	101	11 90				91	403	3.239
	607	5	26			1250.	1	1250.	5	104	101	11 90				91	404	2.699
	607	5	26			200.	1	200.	5	104	101	11 90				91	405	0.432
	607	5	26			1000.	1	1000.	5	104	101	11 90				91	406	2.159
	607	5	26			500.	1	500.	7	104	101	11 90				91	407	2.312
	607	5	26			50.	1	50.	5	104	101	11 90				91	408	0.108
	607	5	29			1500.	1	1500.	3	104	101	11 90				91	409	1.158
	607	5	29			1000.	2	2000.	7	104	202	11 90				91	410	9.249
	607	5	30			700.	2	1400.	5	104	202	11 90				91	411	3.023
	607	6	2			2500.	2	5000.	7	104	202	11 90				91	412	23.123
	607	6	3			600.	1	600.	3	104	101	11 90				91	415	0.463
	607	6	3			800.	1	800.	5	104	101	11 90				91	413	1.727
	607	6	3			3000.	1	3000.	5	104	101	11 90				91	414	6.477
	607	6	4			3000.	2	6000.	7	104	202	11 90				91	417	27.748
	607	6	4			1000.	2	2000.	5	104	202	11 90				91	416	4.318
	607	6	16			2800.	2	5600.	7	104	202	11 90				91	418	25.898
	607	6	18			10400.	2	20800.	7	104	202	11 90				91	419	96.192
															TOTAL FOR SECT.	84:		265.763
85	575	4	5	4	8	1000.	5	5000.	4	110	202	11 81				91	362	7.327
	575	4	5	4	8	1500.	3	4500.	3	110	202	11 81				91	363	3.473
	575	4	5	4	8	800.	2	1600.	5	110	202	11 81				91	364	3.455
	575	4	5	4	8	400.	3	1200.	3	110	202	11 81				91	365	0.926

TABLE 5. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1974

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
85	575	4	5	4	8	200.	3	600.	3	110	202	11 81				91	366	0.463
	575	4	5	4	8	900.	4	3600.	3	110	202	11 81				91	367	2.778
	575	4	5	4	8	600.	3	1800.	5	110	202	11 81				91	368	3.886
	575	4	5	4	8	2200.	3	6600.	3	110	202	11 81				91	369	5.094
	576	4	5	4	8	300.	2	600.	3	110	202	11 81				91	370	0.463
	576	4	5	4	8	1600.	3	4800.	3	110	202	11 81				91	371	3.705
	603	3	11	4	11	200.	5	1000.	4	110	204	11 81				91	389	1.465
	603	3	11	4	11	1000.	15	15000.	4	110	204	11 81				91	390	21.982
	603	3	11	4	11	300.	20	6000.	4	110	204	11 81				91	391	8.793
	603	3	11	4	11	400.	15	6000.	4	110	204	11 81				91	392	8.793
	603	3	11	4	11	600.	5	3000.	4	110	204	11 81				91	393	4.396
	604	3	11	4	11	400.	30	12000.	3	110	204	11 81				91	394	9.261
	604	3	11	4	11	200.	20	4000.	4	110	204	11 81				91	395	5.862
	604	3	11	4	11	200.	6	1200.	3	110	204	11 81				91	396	0.926
	1363	4	5	4	8	200.	3	600.	4	110	202	11 81				91	372	0.879
	1363	4	5	4	8	1200.	3	3600.	5	110	202	11 81				91	373	7.773
	1363	4	5	4	8	700.	4	2800.	5	110	202	11 81				91	374	6.046
	1363	4	5	4	8	200.	3	600.	3	110	202	11 81				91	375	0.463
	1363	4	5	4	8	400.	4	1600.	5	110	202	11 81				91	376	3.455
	1363	4	5	4	8	100.	30	3000.	6	110	202	11 81				91	377	10.180
	1363	4	5	4	8	800.	5	4000.	6	110	202	11 81				91	378	13.574
	1363	4	5	4	8	1400.	2	2800.	3	110	202	11 81				91	379	2.161
	1363	4	5	4	8	2300.	4	9200.	6	110	202	11 81				91	380	31.219
															TOTAL FOR SECT.	85:		168.798
92	617	4	20	4	27	100.	1	100.	5	102	203	90 11 20	3 12	1 13		103	420	0.216
93	626	3	28	3	30	7500.	3	22500.	5	104	206	11 81	1 20			103	421	48.581
	626	3	28	3	30	400.	100	40000.	5	103	210	11 81	1 10	3 10		103	422	86.366
	630	3	24	3	26	3600.	3	10800.	4	105	204	90 81 11	9 15			103	423	15.827
	631	3	24	3	26	6000.	4	24000.	4	105	205	90 81 11	9 15			103	424	35.171
															TOTAL FOR SECT.	93:		185.946
102	641	4	18	4	26	1300.	6	7800.	4	104	207	20 11 81	3 12	1 13		103	425	11.431
	653	3	22	3	25	4100.	2	8200.	4	104	204	20 11 81	3 12	1 13		103	427	12.017
	653	3	22	3	27	500.	50	25000.	3	102	210	81 11	9 15			103	428	19.294
															TOTAL FOR SECT.	102:		42.742
103	1372	4	21	4	26	2200.	2	4400.	2	105	204	11 81	9 15			103	426	2.035
112	659	3	26	4	6	2000.	1	2000.	3	103	202	90 11	1 20	2 20		92	429	1.544
	659	4	10	4	18	100.	1	100.	3	102	203	90 99	1 30			92	430	0.077
	662	3	26	4	18	400.	1	400.	3	101	205	90	100			92	431	0.309
															TOTAL FOR SECT.	112:		1.929
122	682	3	26	4	7	100.	3	300.	3	202	207	81 20	1 85			92	432	0.232
	682	3	26	4	7	150.	5	750.	3	203	210	81 20	1 85			92	433	0.579
	682	3	26	4	7	75.	10	750.	3	204	214	81 20	1 85			92	434	0.579
	682	3	26	4	7	125.	1	125.	5	202	209	20 81	1 40			92	435	0.270
	682	3	26	4	7	200.	1	200.	5	203	215	81	1 30	2 30		92	436	0.432

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
122	682	3	26	4	7	100.	2	200.	1	202	208	81	1 25	2 25		92	437	0.031
	682	3	26	4	7	75.	10	750.	1	202	210	81 99	1 25	2 25		92	438	0.115
	682	3	26	4	7	50.	20	1000.	1	102	206	81 99	1 35	2 35		92	439	0.153
														TOTAL FOR SECT.		122:		2.390
123	702	3	19	3	19	500.	2	1000.	3	107	100	11	1 5			78	440	0.772
	705	4	4	4	10	35.	15	525.	1	108		81				78	441	0.080
	717	5	7	5	7	4000.	10	40000.	7	110	104	11	1 10			78	442	184.985
														TOTAL FOR SECT.		123:		185.837
124	739	4	24	5	6	100.	100	10000.	5	106	103	11				78	448	21.592
	739	4	24	4	31	2000.	20	40000.	7	112	102	11	1 5			78	449	184.985
														TOTAL FOR SECT.		124:		206.577
125	738	3	19	3	19	2000.	2	4000.	6	110	102	11 81	1 5			78	445	13.574
	738	3	19	3	19	300.	3	900.	3	110	102	11 81	1 5			78	446	0.695
	738	3	19	3	20	4000.	2	8000.	6	109	102	11 81	1 5			78	447	27.147
														TOTAL FOR SECT.		125:		41.415
126	757	3	24	3	25	3120.	2	6240.	1	111	103	11	1 8			78	460	0.956
	757	3	24	3	25	1200.	2	2400.	3	111	103	11	1 8			78	461	1.852
	757	3	24	3	25	6720.	2	13440.	5	111	103	11	1 8			78	462	29.019
	757	3	24	3	26	1680.	3	5040.	5	110	103	11	1 8			78	463	10.882
	757	3	24	3	26	5280.	3	15840.	6	111	102	11	1 8			78	464	53.751
	2126	3	18	3	18	600.	5	3000.	6	110	102	11 81	1 5			78	443	10.180
	2126	3	18	3	18	900.	4	3600.	6	110	102	11 81	1 5			78	444	12.216
														TOTAL FOR SECT.		126:		118.857
127	749	3	20	3	20	2000.	8	16000.	5	110	104	11	1 5			78	450	34.547
	749	3	20	3	20	4000.	6	24000.	7	110	104	11	1 5			78	451	110.991
	749	3	20	3	20	3000.	10	30000.	7	110	104	11	1 5			78	452	138.739
	749	3	20	3	27	4000.	5	20000.	3	110	104	11 99	1 5			78	457	15.435
	749	3	20	3	24	3000.	3	9000.	5	110	104	11	1 5			78	458	19.432
	749	3	20	3	22	2000.	300	600000.	5	110	106	11	1 5			78	453	1295.495
	749	3	20	3	24	1300.	100	130000.	3	112	105	11	1 5			78	454	100.330
	749	3	20	3	21	4000.	6	24000.	6	112	105	11	1 5			78	455	81.441
	749	3	21	3	24	6000.	5	30000.	5	110	104	11	1 5			78	459	64.775
	749	3	27	4	12	3000.	3	9000.	5	110	105	11	1 5			78	456	19.432
														TOTAL FOR SECT.		127:		1880.619
132	761	4	13	4	16	1200.	5	6000.	5	110	202	81 11				55	465	12.955
	766	4	10	4	10	20.	30	600.	4	112	102	81				55	466	0.879
	766	4	10	4	10	30.	4	120.	4	112	103	11				55	467	0.176
	766	4	13	4	16	200.	20	4000.	5	108	202	90 11				55	470	8.637
	766	4	14	4	16	800.	6	4800.	5	108	202	81 11				55	468	10.364
	766	4	14	4	16	30.	30	900.	7	108	202	81				55	469	4.162
														TOTAL FOR SECT.		132:		37.173
133	774	3	2	4	3	1000.	5	5000.	5	111	105	11				55	471	10.796
134	784	3	25	3	26	5700.	4	22800.	6	110	202	11				55	472	77.369

TABLE 5. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1974

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
134	784	3	25	3	27	3400.	5	17000.	5	112	101	11				55	475	36.706
	784	3	25	3	27	800.	4	3200.	7	110	101	11				55	476	14.799
	784	3	25	3	27	1400.	4	5600.	3	112	101	11				55	477	4.322
	784	3	26	3	26	1200.	5	6000.	5	110	202	11				55	473	12.955
	784	3	26	3	26	1300.	5	6500.	5	110	202	11				55	474	14.035
	784	3	26	3	27	1200.	4	4800.	7	112	103	90 11				55	478	22.198
	784	3	26	3	27	700.	4	2800.	3	112	103	90 11	8 15			55	479	2.161
															TOTAL FOR SECT.	134:		184.544
137	804	3	24	3	25	100.	50	5000.	3	100	204	81	1 15			55	480	3.859
	804	4	23	4	23	100.	5	500.	5	108	202	90 11				55	481	1.080
															TOTAL FOR SECT.	137:		4.938
142	817	3	20	3	25	700.	25	17500.	6	107	204	11	1 10	2 10		25	482	19.775
	817	5	12	5	14	500.	100	50000.	3	106	203	11	1 10			25	483	12.850
	827	3	17	3	19	1300.	20	26000.	1	204		81 15	1 15			25	486	1.326
															TOTAL FOR SECT.	142:		33.951
143	832	3	22	3	25	4200.	25	105000.	6	107	204	11	1 10	2 10		25	487	118.650
	835	3	24	3	26	1000.	20	20000.	3	106	205	11 10	1 10	2 10		25	489	5.140
	835	3	24	3	26	1100.	25	27500.	4	106	205	11	1 10	2 10		25	490	13.420
	835	3	28	3	29	800.	20	16000.	5	202	206	81 92	1 8	2 7		25	491	11.504
	835	3	28	3	29	75.	25	1875.	5			81	1 8	2 7		25	492	1.348
	835	3	29	3	29	350.	65	22750.	6			16	1 8	2 8	8 7	25	493	25.707
															TOTAL FOR SECT.	143:		175.770
144	824	3	24	3	26	2300.	18	41400.	5	108	206	11	1 8	2 7		25	484	29.767
	824	3	26	3	27	2300.	18	41400.	6	108	206	11	1 8	2 7		25	485	46.782
	834	3	19	3	24	120.	15	1800.	3	104	206	11 16	1 10	2 10		25	488	0.463
															TOTAL FOR SECT.	144:		77.011
152	845	3	26	3	28	1200.	10	12000.	3			11 20				109	494	9.261
	845	3	26	3	28	500.	300	150000.	4			11 20				109	495	219.820
	856	3	26	3	28	1000.	10	10000.	3			11 20				109	496	7.718
	858	3	26	3	28	2400.	20	48000.	4			11 20				109	497	70.342
	858	3	26	3	28	400.	300	120000.	4			11 20				109	498	175.856
	861	3	26	3	28	150.	50	7500.	5			11 20				109	2	16.194
	861	3	26	3	28	500.	10	5000.	1			11 20				109	3	0.766
	861	3	26	3	28	250.	15	3750.	1			11 20				109	4	0.574
	861	3	26	3	28	500.	3	1500.	1			11 20				109	5	0.230
	861	3	26	3	28	400.	7	2800.	3			11 20				109	6	2.161
	861	3	26	3	28	150.	5	750.	3			11 20				109	499	0.579
	861	3	26	3	28	350.	4	1400.	2			11 20				109	500	0.647
	861	3	26	3	28	100.	50	5000.	6			11 20				109	501	16.967
	861	3	26	3	28	800.	7	5600.	4			11 20				109	502	8.207
															TOTAL FOR SECT.	152:		529.321
163	883	3	22	3	22	150.	10	1500.	3	210	220	81	1 5			57	9	1.158
	884	3	18	3	18	50.	1	50.	3	111	109	11	1 20	3 20		57	10	0.039
															TOTAL FOR SECT.	163:		1.196

TABLE 5. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1974

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
164	882	4	22	5	1	1500.	3	4500.	3	105	203	90 15	1	10		1	8	3.473
165	875	4	3	4	4	200.	20	4000.	1	202	220	81	6	80		57	7	0.613
172	927	3	18	3	20	6000.	8	48000.	5	108	204	90 15 81	1	20		1	11	103.640
	927	3	22	3	27	6300.	10	63000.	6	108	207	90 15 81	1	20		1	12	213.784
	928	3	20	3	20	1500.	7	10500.	3	108	204	11 81 21	1	20		1	13	8.104
	928	3	20	3	27	1800.	10	18000.	6	105	203	90 15 81	1	15		1	14	61.081
	930	4	8	4	13	450.	20	9000.	5	100	215	15 21	1	10		1	15	19.432
	930	4	8	4	13	700.	20	14000.	5	103	220	15 21	1	15		1	16	30.228
	997	3	16	3	16	2250.	100	225000.	5	100	205	11 81	1	5		1	60	485.811
	997	3	25	3	27	3200.	5	16000.	4	103	210	81 21	1	20		1	41	23.447
	998	3	8	3	10	2000.	75	150000.	5	100	220	11 81	1	5		1	42	323.874
	999	3	2	3	2	1950.	200	390000.	5	100	224	81	1	5		1	43	842.072
	1001	3	10	3	10	500.	6	3000.	5	100	204	11 20	1	5		1	45	6.477
	1001	3	11	3	11	535.	5	2675.	6	100	204	11 81	1	5		1	44	9.077
	1001	3	12	3	12	200.	5	1000.	5	108	204	11	1	20		1	46	2.159
	1001	3	13	3	13	200.	6	1200.	5	100	206	11	1	5		1	47	2.591
	1001	3	21	3	21	1600.	6	9600.	6	104	205	11 81 20	1	10		1	48	32.577
	1001	3	23	3	27	600.	10	6000.	6	106	204	20 11	1	10		1	49	20.360
	1002	3	8	3	10	3400.	75	255000.	6	100	220	11 81	1	5		1	50	865.315
	1002	3	8	3	10	3000.	100	300000.	4	100	220	11 15 81	1	5		1	51	439.640
	1002	3	25	3	27	4000.	10	40000.	6	108	208	11 81 21	1	20		1	52	135.736
	1366	4	3	4	10	1250.	10	12500.	5	100	225	11 81 21	1	5		1	53	26.989
	1366	4	4	4	10	5350.	10	53500.	5	100	230	90 15 81	1	5		1	54	115.515
	1367	3	9	3	11	550.	4	2200.	3	100	218	81 20	1	5		1	55	1.698
	1367	3	18	3	19	1200.	10	12000.	5	100	221	81	1	5		1	56	25.910
	1367	3	22	3	27	800.	30	24000.	4	101	208	81 20	1	15		1	57	35.171
	1367	4	3	4	10	500.	10	5000.	3	102	205	81	1	10		1	58	3.859
	1368	3	13	3	13	800.	6	4800.	5	105	224	11	1	10		1	59	10.364
															TOTAL FOR SECT.		1721	3844.912
173	941	3	16	3	18	4800.	3	14400.	5	110	210	11 21	1	15		1	17	31.092
	941	3	19	3	20	200.	1	200.	3	108	200	81 11	1	15		1	18	0.154
	941	4	5	4	12	250.	5	1250.	3	100	208	15 22	1	15		1	19	0.965
	947	3	10	3	12	950.	150	142500.	5	106	220	20 11 81	1	10		1	20	307.680
	947	3	17	3	19	500.	200	100000.	7	102	245	20 11 81	1	5		1	21	462.462
	947	3	17	3	19	300.	500	150000.	7	102	245	20 11 81	1	5		1	22	693.694
	947	3	17	3	19	300.	300	90000.	7	102	245	20 11 81	1	5		1	23	416.216
	947	3	17	3	19	300.	150	45000.	7	102	245	20 11 81	1	5		1	24	208.108
	947	3	17	3	19	300.	100	30000.	7	100	230	20 11 81	1	5		1	25	138.739
	947	3	17	3	19	300.	50	15000.	7	100	230	20 11 81	1	5		1	26	69.369
	947	3	17	3	19	200.	5	1000.	7	105	225	20 11 81	1	10		1	27	4.625
	953	3	11	3	14	700.	10	7000.	2	105	212	11	1	10		1	28	3.237
	953	3	27	4	2	1500.	20	30000.	3	105	220	90 15 81	1	5		1	29	23.153
	954	3	9	3	12	900.	50	45000.	5	106	220	81 11 20	1	15		1	30	97.162
	954	3	16	3	18	600.	20	12000.	5	110	210	11 21	1	15		1	31	25.910
	954	3	16	3	18	1600.	3	4800.	5	110	215	11 21	1	15		1	32	10.364
	954	3	17	3	18	200.	50	10000.	5	100	220	11 21	1	5		1	33	21.592

TABLE 5. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1974

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
173	970	4	2	4	7	1100.	2	2200.	5	110	220	90 15 81	1 15			1	34	4.750
	970	4	2	4	10	2200.	30	66000.	5	110	220	90 15 81	1 15			1	35	142.505
	985	3	5	3	11	250.	10	2500.	1	106	212	11	1 10			1	36	0.383
	988	3	27	4	2	5000.	25	125000.	3	100	218	90 15 81	1 5			1	37	96.471
	988	4	5	4	12	100.	5	500.	3	102	206	11 22	1 15			1	38	0.386
	988	4	10	4	12	500.	50	25000.	3	101	205	81 22	1 10			1	39	19.294
	1365	4	1	4	8	650.	5	3250.	3	107	215	90 15 81	1 15			1	40	2.508
															TOTAL FOR SECT.	173:		2780.820
182	1050	3	13	3	13	900.	40	36000.	5	104	205	81 11	1 20			19	72	77.730
	1050	3	13	3	13	650.	25	16250.	5	104	205	81 11	1 20			19	73	35.086
	1050	3	16	3	17	500.	20	10000.	5	104	205	81 11	1 25			19	75	21.592
	1050	3	16	3	17	200.	25	5000.	4	104	205	81 11	1 15			19	74	7.327
	1050	3	18	3	26	1500.	30	45000.	5	104	205	81 11	1 20			19	76	97.162
	1050	3	18	3	26	600.	25	15000.	5	102	210	81 11	1 10			19	77	32.387
	1050	3	21	3	26	1200.	15	18000.	6	104	210	15 11	1 25			19	78	61.081
	1050	3	30	4	9	2000.	40	80000.	6	104	205	81 11	1 20			19	80	271.471
	1050	3	30	4	9	1100.	30	33000.	6	104	210	15 11 81	1 15			19	79	48.360
	1051	3	5	3	11	500.	1	500.	3	110	104	11	1 90			19	81	0.386
	1051	3	5	3	11	480.	5	2400.	5	100	215	97	1 10			19	82	5.182
	1051	3	21	3	26	300.	7	2100.	5	101	215	97	1 10			19	83	4.534
	1053	3	10	3	15	400.	3	1200.	5	108	102	11 90	1 30			19	84	2.591
	1053	3	10	3	15	250.	3	750.	5	107	102	11 90	1 10			19	85	1.619
	1054	2	10	2	14	200.	2	400.	1	100	206	81	1 15			19	92	0.061
	1054	3	10	3	15	400.	3	1200.	5	107	102	11 90	1 20			19	86	2.591
	1054	3	10	3	15	100.	2	200.	3	107	102	11	1 10			19	87	0.154
	1055	3	10	3	15	1500.	3	4500.	5	108	102	11 90	1 10			19	88	9.716
	1057	3	21	3	26	2000.	20	40000.	5	102	220	90 15 81	1 20			19	89	86.366
	1057	3	21	3	26	700.	20	14000.	5	102	220	15 11	1 15			19	90	30.228
	1058	2	26	2	28	200.	5	1000.	3	110	104	11	1 70			19	91	0.772
															TOTAL FOR SECT.	182:		796.399
183	1014	3	18	3	21	100.	5	500.	3	205	215	81	1 5			19	61	0.386
	1021	2	27	2	28	400.	3	1200.	3	102	210	81 11	1 10			19	62	0.926
	1022	2	12	2	14	300.	30	9000.	1	216	212	81	1 10			19	63	1.378
	1022	3	15	3	19	500.	30	15000.	4	206	212	81 11	1 5			19	64	21.982
	1022	3	15	3	19	400.	100	40000.	4	100	215	81 15	1 5			19	65	58.619
	1022	3	15	3	19	700.	20	14000.	4	105	210	81	1 10			19	66	20.517
	1025	3	17	3	19	800.	15	12000.	4	100	215	81	1 5			19	67	17.586
	1041	2	12	2	14	50.	5	250.	1	202	206	81	1 25			19	68	0.038
	1041	2	12	2	14	100.	5	500.	1	100	206	81	1 20			19	69	0.077
	1041	3	19	3	19	400.	2	800.	3	102	204	81 11	1 5			19	70	0.617
	1041	3	20	3	21	350.	50	17500.	5	100	215	81 11	1 5			19	71	37.785
															TOTAL FOR SECT.	183:		159.911
192	1072	3	10	3	13	100.	10	1000.	3			81	1 50			9	93	0.772
232	1144	3	7	3	11	1300.	20	26000.	5	102	201	51 81	1 30			110	108	56.138
	1144	3	7	3	11	100.	75	7500.	5	101	203	51 81	1 20			110	109	16.194
	1144	3	7	3	11	125.	15	1875.	5	101	202	51 81	1 20			110	110	4.048

TABLE 5. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1974

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES		MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
232	1144	3	7	3	11	50.	15	750.	6	101	202	81		1	20					110	111	2.545
	1144	3	7	3	11	390.	20	7800.	6	101	203	81		1	20					110	112	26.468
	1144	3	7	3	11	175.	50	8750.	3	102	202	81		1	30					110	113	6.753
	1144	3	7	3	11	775.	10	7750.	1	101	202	51		1	30					110	114	1.187
	1144	3	7	3	11	210.	80	16800.	3	101	204	81		1	10					110	115	12.966
	1144	3	7	3	11	500.	75	37500.	5	102	203	51		1	10	2	10			110	105	80.968
	1144	3	7	3	11	700.	300	210000.	7	102	204	11		1	12	2	13			110	106	971.171
	1144	3	7	3	11	200.	30	6000.	3	101	202	51	81	1	20					110	107	4.631
	1144	3	7	3	11	440.	125	55000.	5	102	203	51		1	10	2	10			110	103	118.754
	1144	3	7	3	11	740.	275	203500.	5	102	203	51		1	10	2	10			110	104	439.389
	1144	4	4	4	9	200.	30	6000.	3	100	204	51		1	10					110	116	4.631
	1144	4	4	4	9	250.	30	7500.	3	201	203	51		1	10					110	117	5.788
	1144	4	4	4	9	150.	30	4500.	3	201	203	51		1	10					110	118	3.473
																TOTAL FOR SECT.				232:		1755.104
233	1130	3	3	3	11	70.	40	2800.	5	101	203	50		1	10					110	94	6.046
	1130	3	3	3	11	100.	75	7500.	5	106	212	50		1	5					110	95	16.194
	1130	3	3	3	11	125.	75	9375.	5	101	203	50		1	5					110	96	20.242
	1130	3	3	3	11	300.	10	3000.	5	101	202	50		1	5					110	97	6.477
	1130	3	3	3	11	400.	15	6000.	5	101	202	50	81	1	5					110	98	12.955
	1130	3	3	3	11	120.	100	12000.	5	101	203	50	81	1	15					110	99	25.910
	1141	3	2	3	11	900.	75	67500.	5	112	224	81		1	30					110	100	145.743
	1141	3	2	3	11	140.	50	7000.	4	101	202	81		1	10					110	101	10.258
	1141	3	2	3	11	50.	50	2500.	6	210		23								110	102	8.483
	1151	3	7	3	11	350.	50	17500.	6	102	204	51	11	1	25					110	119	59.384
	1151	3	7	3	11	200.	20	4000.	6	102	204	51	11	1	25					110	120	13.574
																TOTAL FOR SECT.				233:		325.267
242	1217	3	17			950.	23	21850.	5												157	47.178
	1217	3	18			1320.	23	30360.	5												158	65.552
																TOTAL FOR SECT.				242:		112.730
245	1195	3	21	3	26	60.	30	1800.	3	102	215	81	85	1	10					94	121	1.389
	1195	3	21	3	26	50.	10	500.	7	102	215	81	85	1	10					94	122	2.312
	1195	3	21	3	26	60.	30	1800.	3	102	215	81	85	1	10					94	123	1.389
	1195	3	21	3	26	175.	30	5250.	4	102	215	81	85	1	10					94	124	7.694
	1195	3	26	4	2	15.	15	225.	7	106	210	81	11	1	10					94	125	1.041
	1195	3	26	4	2	35.	20	700.	7	106	210	81	11	1	10					94	126	3.237
	1195	3	26	4	2	200.	30	6000.	7	106	210	81	11	1	10					94	127	27.748
	1195	3	26	4	2	150.	15	2250.	5	106	210	81	11	1	10					94	128	4.858
	1195	3	26	4	2	100.	10	1000.	7	106	210	81	11	1	10					94	129	4.625
	1195	3	26	4	2	200.	125	25000.	7	106	210	81	11	1	10					94	130	115.616
	1197	3	23	4	2	150.	225	33750.	7	102	206	81		1	5					94	131	156.081
	1197	3	23	4	2	125.	175	21875.	5	102	206	81		1	5					94	132	47.232
	1197	3	23	4	2	600.	400	240000.	5	102	206	81		1	5					94	133	518.198
	1197	3	23	4	2	150.	20	3000.	7	102	206	81		1	5					94	134	13.874
	1198	3	20	3	29	100.	150	15000.	3	206	216	81	20							94	135	11.577
	1198	3	23	3	29	150.	40	6000.	7	206	216	81	20							94	136	27.748
	1198	3	23	4	1	1000.	125	125000.	5	101	231	81	11	1	15	2	15			94	137	269.895
	1198	3	23	4	1	400.	100	40000.	5	101	231	81	11	1	15	2	15			94	138	86.366

TABLE 5. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1974

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES			MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
245	1198	3	23	4	1	150.	75	11250.	7	101	231	81	11		1	15	2	15			94	139	52.027
	1198	3	23	4	1	50.	20	1000.	5	101	231	81	11		1	15	2	15			94	140	2.159
	1198	3	23	4	1	400.	100	40000.	7	101	231	81	11		1	15	2	15			94	141	184.985
	1198	3	23	4	1	800.	200	160000.	5	101	231	81	11		1	15	2	15			94	142	345.465
	1198	3	23	4	1	200.	125	25000.	5	101	231	81	11		1	15	2	15			94	143	53.979
	1198	3	23	4	1	40.	15	600.	1	101	231	81	11		1	15	2	15			94	144	0.092
	1219	3	20	3	28	50.	30	1500.	4	104	222	81	11	50	1	20	2	25			94	159	2.198
	1219	3	20	3	28	150.	100	15000.	7	104	222	81	11	50	1	20	2	25			94	160	69.369
	1219	3	20	3	28	75.	4	300.	5	104	222	81	11	50	1	20	2	25			94	161	0.648
	1219	3	20	3	28	30.	30	900.	7	104	222	81	11	50	1	20	2	25			94	162	4.162
	1219	3	20	3	28	125.	12	1500.	7	104	222	81	11	50	1	20	2	25			94	163	6.937
	1219	3	20	3	28	600.	100	60000.	5	104	222	81	11	50	1	20	2	25			94	164	129.550
	1219	3	20	3	28	250.	150	37500.	7	104	222	81	11	50	1	20	2	25			94	165	173.423
	1219	3	20	3	28	125.	20	2500.	5	104	222	81	11	50	1	20	2	25			94	166	5.398
	1219	3	20	3	28	125.	12	1500.	7	104	222	81	11	50	1	20	2	25			94	167	6.937
	1219	3	20	3	28	100.	25	2500.	7	104	222	81	11	50	1	20	2	25			94	168	11.562
	1219	3	20	3	28	1000.	200	200000.	7	104	222	81	11	50	1	20	2	25			94	169	924.925
	1220	3	14	3	27	450.	400	180000.	1	203	216	81			1	20					94	170	27.568
	1224	3	21	3	26	200.	30	6000.	5	104	210	81	85		1	15					94	171	12.955
	1224	3	21	3	26	200.	30	6000.	3	104	210	81	85		1	15					94	172	4.631
	1224	3	21	3	26	40.	10	400.	5	104	210	81	85		1	15					94	173	0.864
	1369	3	24	4	2	40.	25	1000.	7	105	206	81	11		1	15	2	15			94	145	4.625
	1369	3	24	4	2	100.	50	5000.	7	105	206	81	11		1	15	2	15			94	146	23.123
	1369	3	24	4	2	300.	200	60000.	3	105	206	81	11		1	15	2	15			94	147	46.306
	1369	3	24	4	2	150.	6	900.	7	105	206	81	11		1	15	2	15			94	148	4.162
	1369	3	24	4	2	100.	10	1000.	3	105	206	81	11		1	15	2	15			94	149	0.772
	1369	3	24	4	2	50.	15	750.	7	105	206	81	11		1	15	2	15			94	150	3.468
	1369	3	24	4	2	125.	50	6250.	7	105	206	81	11		1	15	2	15			94	151	28.904
	1369	3	24	4	2	400.	200	80000.	7	105	206	81	11		1	15	2	15			94	152	369.970
	1370	3	30	4	7	250.	50	12500.	3	102	210	81			1	5					94	153	9.647
	1370	3	30	4	7	80.	20	1600.	7	102	210	81			1	5					94	154	7.399
	1370	3	30	4	7	150.	5	750.	7	102	210	81			1	5					94	155	3.468
	1370	3	30	4	7	250.	20	5000.	7	102	210	81			1	5					94	156	23.123
																					TOTAL FOR SECT.	245:	3845.680
252	1277	3	21	3	23	100.	30	3000.	5	103	203	15	81		1	60					46	178	6.477
	1277	3	28	4	4	2100.	25	52500.	7	218	232	81	20								46	179	242.793
	1278	3	28	4	4	2000.	20	40000.	7	210	230	81	20	16							46	180	184.985
	1281	3	5	3	13	500.	100	50000.	5	101	202	20	81	90	1	80					46	181	107.958
	1281	3	28	4	4	500.	50	25000.	7	218	232	81	90	20							46	182	115.616
	1282	3	29	4	4	600.	175	105000.	7	210	240	20	99								46	183	485.586
																					TOTAL FOR SECT.	252:	1143.414
253	1263	3	8	3	13	150.	40	6000.	5	102	201	81			1	60					46	174	12.955
	1263	3	27	4	3	100.	100	10000.	9	100	215	98	90								46	175	95.586
	1263	3	27	4	3	600.	30	18000.	5	100	213	20	90								46	176	38.865
	1266	3	27	4	3	2000.	40	80000.	5	100	205	81	90								46	177	172.733
																					TOTAL FOR SECT.	253:	320.138
262	1287	3	16	3	18	1500.	10	15000.	3	103	212	20			1	3	2	3	3	4	111	184	11.577

TABLE 5. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1974

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	PCT	C2	PCT	C3	PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
262	1296	3	2	3	4	1700.	40	68000.	5	110	202	81 93	1	12	3	13			111	185	146.823
	1378	3	9	3	11	250.	15	3750.	5	109	201	24 90	1	25	3	25			111	186	8.097
															TOTAL FOR SECT.				262:		166.496
280	1346	4	12	4	15	800.	15	12000.	5	100	210	90 20	1	13	5	13	8	14	15	187	25.910
290	1351	2	20			1500.	100	150000.	1											188	22.973
	1351	2	20			3000.	150	450000.	1											189	68.919
	1351	2	20			3500.	100	350000.	1											190	53.604
	1351	3	23			1000.	100	100000.	1											503	15.315
															TOTAL FOR SECT.				290:		160.811

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
2	60	4	7	4	10	1200.	8	9600.	3	102	215	20 81				45	8	7.409
	60	4	7	4	10	250.	10	2500.	3	102	215	20 81				45	9	1.929
															TOTAL FOR SECT.		2:	9.338
3	92	4	16	4	20	2000.	10	20000.	4	102	220	20 81				45	23	29.309
	97	4	12	4	14	400.	5	2000.	5	106	210	11 20 81				45	21	4.318
	97	4	12	4	14	1240.	5	6200.	4	106	210	11 20 81				45	22	9.086
															TOTAL FOR SECT.		3:	42.714
4	67	4	19	4	24	1000.	7	7000.	4	104	210	20 81				45	10	10.258
5	80	4	16	4	23	4600.	10	46000.	4	106	210	11 81				45	20	67.411
	80	4	16	4	23	1400.	10	14000.	4	106	210	11 81				45	19	20.517
															TOTAL FOR SECT.		5:	87.928
6	76	3	16	3	16	50.	5	250.	2	102	205	11 15 20 81				45	11	0.116
	76	3	30	4	1	2000.	30	60000.	5	106	210	11 15 20 81				45	13	129.550
	76	3	30	4	1	3400.	30	102000.	5	106	210	11 15 20 81				45	12	220.234
	76	3	31	4	2	2550.	18	45900.	7	106	215	11 15 20 81				45	14	212.270
	76	3	31	4	2	600.	18	10800.	7	106	215	11 15 20 81				45	15	49.946
	76	4	1	4	3	300.	28	8400.	5	106	210	11 15 20 81				45	16	18.137
	76	4	3	4	4	950.	14	13300.	3	106	210	11 15 20 81				45	17	10.265
	76	4	3	4	4	775.	20	15500.	7	106	215	11 15 20 81				45	18	71.682
															TOTAL FOR SECT.		6:	712.199
12	53	3	15	3	18	450.	40	18000.	1			11 81	1 15	4 10		104	2	2.757
	53	3	15	3	18	525.	35	18375.	1			11 81	1 15	4 10		104	3	2.814
	53	3	15	3	18	100.	25	2500.	1			11 81	1 15	4 10		104	4	0.383
	53	3	31	4	2	300.	30	9000.	4			11	1 10			104	5	13.189
	53	3	31	4	2	800.	100	80000.	4			11	1 10			104	6	117.237
	53	4	4	4	5	200.	15	3000.	1			11	1 20			104	7	0.459
	1361	3	1	3	3	1000.	10	10000.	4			81	1 10	3 5		104	260	14.655
															TOTAL FOR SECT.		12:	151.494
22	106	6	6	6	9	1200.	20	24000.	3	104	220	20 81				45	44	18.523
	111	5	27	5	31	1200.	10	12000.	3	106	210	20 81				45	46	9.261
	111	5	28	5	31	200.	100	20000.	4	104	225	11 20 81				45	47	29.309
	111	5	28	5	31	200.	50	10000.	6	104	225	11 20 81				45	48	33.934
	113	5	14	5	15	1100.	10	11000.	4	106	210	20 81				45	45	16.120
	120	5	13	5	15	1800.	20	36000.	6	104	230	20 81				45	41	122.162
	120	5	27	5	28	100.	40	4000.	5	106	240	20 81				45	43	8.637
	123	5	2	5	4	800.	15	12000.	6	104	230	20 81				45	40	40.721
	132	5	23	5	24	300.	50	15000.	5	106	240	20 81				45	42	32.387
															TOTAL FOR SECT.		22:	311.054
23	156	4	10	4	15	1600.	6	9600.	4	108	203	11 20					25	14.068
	156	4	20	4	23	1500.	10	15000.	5	108	203	11 81					28	32.387
	156	5	7	5	10	800.	5	4000.	5	106	203	11 20				45	29	8.637
	157	5	28	6	2	100.	6	600.	6	106	204	11 81				45	32	2.036

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2	MORTALITY PCT	MORTALITY C3	MORTALITY PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
23	157	5	28	6	2	150.	6	900.	3	106	204	11 81							45	33	0.695
	158	4	20	4	23	700.	10	7000.	7	110	204	11 81								27	32.372
	158	5	20	5	24	700.	10	7000.	4	110	204	81							45	24	10.258
	158	5	20	5	24	2000.	10	20000.	5	110	204	81							45	30	43.183
	158	5	20	5	24	500.	10	5000.	3	108	203	11 81							45	31	3.859
	162	4	20	4	23	4000.	10	40000.	5	110	204	11 81								26	86.366
																	TOTAL FOR SECT.			23:	233.862
25	167	3	30	4	2	2000.	20	40000.	7	106	210	15 81							45	34	184.985
	167	4	1	4	3	1000.	20	20000.	5	106	204	11 15 81							45	35	43.183
	176	4	9	4	16	1500.	10	15000.	4	102	215	15							45	37	21.982
	176	4	9	4	16	1500.	10	15000.	3	106	215	11 15 81							45	38	11.577
	176	4	9	4	16	1000.	10	10000.	5	106	215	11 81							45	39	21.592
	185	4	5	4	7	5800.	20	116000.	4	104	215	11 15							45	36	169.994
																	TOTAL FOR SECT.			25:	453.312
32	196	6	1	6	3	1000.	10	10000.	3			11 20	1	10	3	10			107	49	7.718
33	218	4	14	4	16	100.	15	1500.	3			11 20 81	1	10	3	10			107	50	1.158
42	262	4	8	4	10	250.	35	8750.	3	114	206	11 15 20	1	10	3	5	7	10	108	55	6.753
	262	4	8	4	10	300.	10	3000.	3	116	210	11 20	1	25	3	15	4	10	108	56	2.315
	262	4	8	4	10	655.	35	22925.	3	112	202	15 20 81	1	15	3	10	7	20	108	57	17.693
	262	4	8	4	10	3000.	230	690000.	4	115	208	11 15 20 81	1	15	3	15	7	45	108	58	1011.171
	265	4	8	4	10	200.	2	400.	1	101	201	81	1	20					108	59	0.061
	265	4	8	4	10	1775.	120	213000.	4	114	230	11 20 81 90	1	15	3	10	7	25	108	60	312.144
	265	4	8	4	10	900.	60	54000.	4	114	210	11 20 81 90	1	15	3	10	7	20	108	61	79.135
	265	4	8	4	10	250.	2	500.	1		227	20							108	62	0.077
	266	4	8	4	10	600.	50	30000.	4	115	215	11 20 81	1	15	3	5	4	5	108	51	43.964
	266	4	8	4	10	200.	1	200.	1	115	201	11 81	1	15	3	5	4	5	108	52	0.031
	266	4	8	4	10	1400.	75	105000.	4	109	202	11 81 90	1	15	3	10	7	35	108	53	153.874
	266	4	8	4	10	500.	25	12500.	3	114	206	11 20 81 90	1	15	3	10	7	15	108	54	9.647
																	TOTAL FOR SECT.			42:	1636.865
43	286	4	27	4	28	30.	3	90.	1	106	200	11 15 81	1	15	3	10			108	63	0.014
	286	4	27	4	28	1300.	5	6500.	3	116	204	11 15 20 81	1	10	3	10			108	64	5.017
	286	4	27	4	28	700.	8	5600.	3	116	204	11 15 20 81	1	20	3	20			108	65	4.322
	286	4	27	4	28	120.	10	1200.	4			97	8	10					108	66	1.759
																	TOTAL FOR SECT.			43:	11.111
52	339	5	17	5	21	300.	300	90000.	3	105	210	81	1	5					101	67	69.459
	341	4	26	4	25	2000.	10	20000.	5	110	202	11	1	5	7	5			101	86	43.183
	341	4	26	4	25	2000.	3	6000.	5	110	202	11	1	5	7	5			101	87	12.955
	341	4	27	4	25	900.	20	18000.	5	107	202	20	1	10	7	10			101	72	38.865
	341	4	30	5	5	150.	20	3000.	5	110	202	11	1	10					101	88	6.477
	341	4	30	5	5	20.	10	200.	7	110	202	11	1	10					101	89	0.925
	346	4	27	4	25	450.	5	2250.	5	110	202	81	1	10	7	10			101	75	4.858
	346	4	27	4	25	500.	40	20000.	5	110	202	20 81	1	10	7	10			101	76	43.183
	346	4	27	4	25	1300.	100	130000.	5	110	202	20 81	1	20					101	77	280.691
	354	4	29	4	29	400.	10	4000.	7	110	100	81	1	10					101	69	18.498

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
52	354	4	29	4	29	20.	10	200.	5	110	100	81	1	10					101	68	0.432
	354	4	29	4	29	150.	30	4500.	5	110	100	11 81	1	10					101	70	9.716
	354	4	29	4	29	300.	50	15000.	5	110	100	81	1	10					101	71	32.387
	355	4	27	4	25	200.	100	20000.	5	107	202	20 81	1	20					101	73	43.183
	355	4	27	4	25	800.	300	240000.	5	108	202	20 81	1	20					101	74	518.198
	358	4	27	4	25	300.	10	3000.	5	107	100	11	1	10					101	78	6.477
	358	4	27	4	25	150.	10	1500.	5	107	100	11	1	10					101	79	3.239
	358	4	27	4	25	450.	5	2250.	5	107	100	11	1	10					101	80	4.858
	358	4	27	4	25	300.	100	30000.	5	107	100	81	1	10					101	81	64.775
	358	4	27	4	25	100.	100	10000.	5	107	100	20 81	1	10	7	10			101	82	21.592
	358	4	27	4	25	40.	40	1600.	5	107	100	20 81	1	10	7	10			101	83	3.455
	358	4	27	4	25	250.	5	1250.	5	107	100	81	1	10	7	10			101	84	2.699
	358	4	27	4	25	600.	10	6000.	5	107	100	11	1	5					101	85	12.955
															TOTAL FOR SECT.				52:		1243.061
63	410	3	30	4	3	30.	2	60.	1	112	102	11 50	3	25					43	91	0.009
	412	3	30	4	3	2000.	2	4000.	3	110	102	11	3	30					43	94	3.087
	413	3	30	4	3	1650.	2	3300.	1	112	102	11 50	3	25					43	92	0.505
	414	3	30	4	3	4200.	2	8400.	3	112	102	11	3	30					43	93	6.483
															TOTAL FOR SECT.				63:		10.085
65	379	4	9	4	14	400.	5	2000.	3	105	202	11 23	1	20					43	90	1.544
67	425	4	5	4	7	3100.	25	77500.	5	110	210	11 23 81	1	15	2	15			43	95	167.335
	425	4	11	4		3700.	10	37000.	3	110	210	11 22 81	1	15	2	15			43	98	28.556
	430	4	8	4	12	200.	50	10000.	3	110	210	11 81	1	15	2	15			43	96	7.718
	430	4	8	4	12	500.	10	5000.	3	110	210	11 81	1	15	2	15			43	97	3.859
	431	4	3	4	8	1600.	10	16000.	5	108	215	11 81	1	15	2	10			43	99	34.547
	431	4	9	4	11	600.	20	12000.	3	108	215	11 81	1	15	2	10			43	100	9.261
	431	4	11	4	15	1400.	20	28000.	5	105	215	11 81	1	20					43	101	60.456
	431	4	11	4	15	2000.	10	20000.	5	110	215	11 81	1	15	2	10			43	102	43.183
	431	4	13	4	15	1000.	10	10000.	5	110	215	11 81	1	15	2	15			43	103	21.592
	432	4	9	4	12	1000.	50	50000.	5	108	215	11 23 81	1	10	2	10			43	107	107.958
	432	4	9	4	16	100.	10	1000.	3	108	205	11 23	1	10	2	10			43	108	0.772
	432	4	9	4	12	250.	10	2500.	3	108	210	11 23	1	10	2	10			43	106	1.929
	433	4	11	4	16	3200.	12	38400.	3	110	208	11 23 50	1	10	2	10			43	104	29.636
	435	4	9	4	16	250.	30	7500.	3	107	208	11 81	1	10	2	10			43	105	5.788
															TOTAL FOR SECT.				67:		522.589
72	499	4	6	4	7	80.	5	400.	4			11							99	111	0.586
	499	4	6	4	7	300.	15	4500.	4			11 22 50							99	112	6.595
	499	4	6	4	7	300.	25	7500.	5			11 22 50 81							99	113	16.194
	499	4	6	4	7	150.	5	750.	4			11 20 41							99	114	1.099
	499	4	6	4	7	100.	5	500.	5			11 50 41							99	115	1.080
	499	4	6	4	7	450.	10	4500.	4			11 20 50							99	116	6.595
	499	4	6	4	7	150.	5	750.	3			11 50							99	117	0.579
	499	4	6	4	7	700.	20	14000.	5			11 20 41 50							99	118	30.228
	499	4	6	4	7	200.	100	20000.	6			11 20 50							99	119	67.868
	499	4	6	4	7	200.	50	10000.	3			20 41 50 81							99	120	7.718
	499	4	6	4	7	150.	6	900.	4			11 50							99	121	1.319

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
72	499	4	6	4	7	300.	15	4500.	5			11 20 50				99	122	9.716
	499	4	6	4	7	400.	30	12000.	4			11 50 81				99	123	17.586
	499	4	6	4	7	600.	15	9000.	5			11 20 50 81				99	124	19.432
	499	4	6	4	7	50.	30	1500.	3			81				99	125	1.158
	499	4	6	4	7	650.	7	4550.	5			11 50 81				99	126	9.824
	499	4	6	4	7	100.	5	500.	3			11 50				99	127	0.386
	499	4	6	4	7	300.	5	1500.	2			11 50				99	128	0.694
	499	4	6	4	7	250.	10	2500.	4			11 20 22				99	129	3.664
	499	4	6	4	7	60.	40	2400.	3			50				99	130	1.852
	499	4	6	4	7	250.	10	2500.	4			11 22				99	131	3.664
	499	4	6	4	7	200.	25	5000.	5			11 50				99	132	10.796
	499	4	6	4	7	150.	15	2250.	5			11				99	133	4.858
	499	4	6	4	7	30.	20	600.	3			81				99	134	0.463
	499	4	6	4	7	30.	25	750.	3			81				99	135	0.579
	499	4	6	4	7	75.	5	375.	3			11 41				99	136	0.289
	499	4	6	4	7	800.	7	5600.	4			11 20 41 81				99	137	8.207
															TOTAL FOR SECT.		72:	233.026
73	454	4	1	4	2	1475.	5	7375.	3			11 90					109	5.692
	477	4	1	4	2	1158.	6	6948.	3			11 90					110	5.362
															TOTAL FOR SECT.		73:	11.054
74	542	3	7	3	7	700.	12	8400.	1			11					145	1.286
	542	3	7	3	7	200.	12	2400.	3			11					146	1.852
	542	3	7	3	7	100.	12	1200.	5			11					147	2.591
	543	3	27	3	27	406.	25	10150.	3			11 81 90					148	7.833
	543	3	27	3	27	20.	15	300.	1			81					149	0.046
	543	3	27	3	27	50.	5	250.	1			81					150	0.038
	543	3	27	3	27	200.	70	14000.	3			11 90					151	10.805
	543	4	4	4	5	35.	30	1050.	3			11 20 41				99	152	0.810
	543	4	4	4	5	300.	6	1800.	4			11 20 41				99	153	2.638
	543	4	4	4	5	300.	10	3000.	3			20 41 50				99	154	2.315
	543	4	4	4	5	125.	20	2500.	4			11 41 81				99	155	3.664
	543	4	4	4	5	100.	175	17500.	4			11 20 41 81				99	156	25.646
	543	4	4	4	5	100.	250	25000.	4			11 20 41 81				99	157	36.637
	543	4	4	4	5	550.	100	55000.	5			11 20 41 81				99	158	118.754
	543	4	4	4	5	300.	20	6000.	5			11 50 81				99	159	12.955
	543	4	4	4	5	100.	80	8000.	3			22				99	160	6.174
	543	4	4	4	5	100.	4	400.	4			11				99	161	0.586
	543	4	4	4	5	30.	20	600.	1			81				99	162	0.092
	543	4	4	4	5	50.	30	1500.	4			11 20				99	163	2.198
	543	4	4	4	5	150.	6	900.	3			11 20				99	164	0.695
	543	4	4	4	5	60.	6	360.	3			11 20				99	165	0.278
	543	4	4	4	5	300.	10	3000.	4			11 20 50 81				99	166	4.396
	543	4	4	4	5	100.	20	2000.	4			11 20 50 81				99	167	2.931
	543	4	4	4	5	60.	20	1200.	5			11 20 41				99	168	2.591
	543	4	4	4	5	100.	5	500.	3			11 41				99	169	0.386
	543	4	4	4	5	100.	5	500.	4			11 41				99	170	0.733
	543	4	4	4	5	250.	100	25000.	4			11 20 41 81				99	171	36.637
															TOTAL FOR SECT.		74:	285.567

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES		MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
75	445	4	11	4	15	220.	10	2200.	3			11	90								139	1.698
	445	4	11	4	15	790.	10	7900.	5			11	90								140	17.057
	505	4	10	4	15	300.	3	900.	3			11	90	4	90						138	0.695
	505	4	11	4	15	60.	10	600.	1			11	90								141	0.092
	505	4	11	4	15	860.	10	8600.	3			11	90								142	6.637
	505	4	11	4	15	3210.	10	32100.	5			11	90								143	69.309
	505	4	11	4	15	240.	10	2400.	7			11	90								144	11.099
																		TOTAL FOR SECT.			75:	106.587
76	497	4	11	4	19	200.	38	7600.	5			11	90								191	16.410
	497	4	11	4	19	150.	5	750.	5			11	90								192	1.619
	556	3	14	3	17	1500.	3	4500.	3			11									172	3.473
	559	3	20	3	28	300.	100	30000.	3			81									173	23.153
	559	3	20	3	28	150.	200	30000.	4			81									174	43.964
	559	3	20	3	28	100.	20	2000.	3			81									175	1.544
	559	3	20	3	28	100.	10	1000.	2			81									176	0.462
	559	3	20	3	28	100.	10	1000.	2			81									177	0.462
	559	3	20	3	28	500.	200	100000.	4			81	90	1	30						178	146.547
	559	3	20	3	28	75.	20	1500.	6			81	90								179	5.090
	559	3	20	3	28	75.	20	1500.	6			81	90								180	5.090
	559	3	20	3	28	100.	10	1000.	2			81	90								181	0.462
	559	4	11	4	19	220.	10	2200.	3			11	90								188	1.698
	559	4	11	4	19	2865.	10	28650.	5			11	90								189	61.860
	559	4	11	4	19	830.	10	8300.	7			20	81								190	38.384
	560	4	11	4	19	200.	3	600.	3			11	90								186	0.463
	560	4	11	4	19	200.	1	200.	5			11	90								187	0.432
	561	4	4	4	4	300.	4	1200.	1			11	90								182	0.184
	561	4	11	4	19	150.	10	1500.	5			11	81								184	3.239
	561	4	11	4	19	350.	10	3500.	7			11	20								185	16.186
	561	4	11	4	19	150.	10	1500.	3			11	81								183	1.158
	566	4	11	4	19	115.	10	1150.	3			11	90								193	0.888
	566	4	11	4	19	170.	10	1700.	5			11	90								194	3.671
	566	4	11	4	19	40.	10	400.	7			11	90								195	1.850
																		TOTAL FOR SECT.			76:	378.288
82	589	3	22	4	1	2000.	10	20000.	3	104	202	11	90	9					91		215	15.435
	589	3	22	4	1	3000.	6	18000.	3	104	202	11	90	9					91		216	13.892
	589	3	22	4	1	1600.	10	16000.	3	104	202	11	90	9					91		217	12.348
	589	3	22	4	1	2000.	3	6000.	3	104	202	11	90	9					91		218	4.631
	589	3	22	4	1	3500.	2	7000.	1	104	202	11	90	9					91		219	1.072
	589	3	22	4	1	100.	2	200.	3	104	202	11	90	9					91		220	0.154
	589	3	22	4	1	2500.	2	5000.	1	104	202	11	90	9					91		221	0.766
	589	3	22	4	1	1500.	5	7500.	1	104	202	11	90	9					91		222	1.149
	589	3	22	4	1	1000.	10	10000.	3	104	202	11	90	9					91		223	7.718
	589	3	22	4	1	3500.	20	70000.	3	104	202	11	90	9					91		224	54.024
																		TOTAL FOR SECT.			82:	111.189
83	597	3	15	3	25	5500.	2	11000.	1	104	202	11	90	9					91		210	1.685
	597	3	15	3	25	6500.	3	19500.	1	104	202	11	90	9					91		211	2.986

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
83	598	3	25	4	1	250.	15	3750.	1	104	202	11 90	9			91	212	0.574
	598	3	25	4	1	4500.	4	18000.	1	104	202	11 90	9			91	213	2.757
	598	3	25	4	1	9000.	1	9000.	1	104	202	11 90	9			91	214	1.378
															TOTAL FOR SECT.		83:	9.381
84	607	6	4	6	10	3600.	2	7200.	3			11 90				91	235	5.557
	607	6	4	6	10	15000.	2	30000.	3			11 90				91	236	23.153
	607	6	4	6	10	4000.	4	16000.	6			11 90				91	237	54.294
	607	6	12	6	21	2400.	3	7200.	3								234	5.557
	607	6	21	6	25	7300.	2	14600.	5			11 90				91	238	31.524
	607	6	21	6	25	400.	2	800.	3			11 90				91	239	0.617
	607	6	21	6	25	8800.	3	26400.	5			11 90				91	240	57.002
															TOTAL FOR SECT.		84:	177.704
85	575	4	9	4	17	1500.	3	4500.	3	104	202	11 90	9			91	207	3.473
	575	4	9	4	17	600.	3	1800.	5	104	202	11 90	9			91	208	3.886
	575	4	9	4	17	900.	10	9000.	5	104	202	11 90	9			91	209	19.432
	576	4	6	4	9	900.	3	2700.	3	104	202	11 90	9			91	198	2.084
	576	4	6	4	9	1100.	5	5500.	3	104	202	11 90	9			91	199	4.245
	576	4	6	4	9	1500.	3	4500.	5	104	202	11 90	9			91	200	9.716
	576	4	6	4	9	500.	5	2500.	5	104	202	11 90	9			91	201	5.398
	576	4	9	4	17	1800.	3	5400.	3	104	202	11 90	9			91	202	4.168
	576	4	9	4	17	600.	5	3000.	5	104	202	11 90	9			91	203	6.477
	584	3	25	3	27	500.	10	5000.	5	104	202	11 90	9			91	196	10.796
	584	3	25	3	27	200.	10	2000.	3	104	202	11 90	9			91	197	1.544
	602	4	6	4	16	1500.	3	4500.	3	100	204	11 90	9			91	225	3.473
	602	4	6	4	16	500.	30	15000.	3	100	204	11 90	9			91	226	11.577
	602	4	6	4	16	600.	5	3000.	4	100	204	11 90	9			91	227	4.396
	602	4	6	4	16	400.	10	4000.	4	100	204	11 90	9			91	228	5.862
	602	4	6	4	16	800.	100	80000.	4	100	204	11 90	9			91	229	117.237
	602	4	6	4	16	250.	20	5000.	5	100	204	11 90	9			91	230	10.796
	602	4	6	4	16	800.	10	8000.	5	100	204	11 90	9			91	231	17.273
	602	4	6	4	16	350.	3	1050.	5	100	204	11 90	9			91	232	2.267
	602	4	6	4	16	1100.	30	33000.	5	100	204	11 90	9			91	233	71.252
	1363	4	6	4	9	600.	5	3000.	3	104	202	11 90	9			91	204	2.315
	1363	4	6	4	9	500.	5	2500.	4	104	202	11 90	9			91	205	3.664
	1363	4	6	4	9	1100.	10	11000.	5	104	202	11 90	9			91	206	23.751
															TOTAL FOR SECT.		85:	345.082
92	617	4	3	4	6	238.	2	476.	3	108	204	81	1	15		112	243	0.367
	617	4	3	4	6	73.	2	146.	1	108	204	81	1	15		112	244	0.022
	620	4	10	4	10	440.	2	880.	9	110	100	11	9	15		112	245	8.412
	620	4	10	4	10	4720.	2	9440.	5	110	100		9	15		112	246	20.382
	628	4	19	4	24	700.	2	1400.	4	110	100	11	9	15		112	242	2.052
	1489	3	24	1	29	1200.	6	7200.	7	105	216	20	1	5		109	352	33.297
															TOTAL FOR SECT.		92:	64.533
93	626	4	14	4	17	2000.	1	2000.	3	108	202	81	9	15		112	241	1.544
	630	3	31	4	1	100.	30	3000.	7	108	102	11	1	15	4 10	112	248	13.874
	630	3	31	4	1	9400.	3	28200.	6	108	102	11	1	15	4 10	112	249	95.694

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	C1 PCT	C2	C2 PCT	C3	C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
93	630	3	31	4	1	2332.	50	116600.	5	108	100	11	1	15	4	10			112	250	251.758
	630	3	31	4	1	1700.	2	3400.	4	108	100	11	1	15	4	10			112	251	4.983
	630	3	31	4	1	400.	50	20000.	3	108	100	11	1	15	4	10			112	252	15.435
	631	3	31	4	2	3000.	1	3000.	7	112	100	11	1	10	4	10			112	253	13.874
	631	3	31	4	2	3000.	2	6000.	5	112	100	11	1	10	4	10			112	254	12.955
	631	3	31	4	2	500.	10	5000.	5	112	100	11	1	10	4	10			112	255	10.796
	631	3	31	4	2	1700.	2	3400.	3	112	100	11	1	10	4	10			112	256	2.624
	632	3	25	3	28	2500.	2	5000.	1	108	100	11	9	15					112	247	0.766
	634	4	8	4	17	4280.	2	8560.	3	110	100	11	9	15					112	257	6.606
													TOTAL FOR SECT.						93:		430.908
102	653	3	28	4	5	500.	5	2500.	4	102	210	11 20	3	10	4	10			112	261	3.664
	653	3	28	4	5	200.	3	600.	4	104	204	11	3	10	4	10			112	262	0.879
	653	3	28	4	5	200.	12	2400.	4	110	204	11	1	10	4	5			112	263	3.517
	653	3	28	4	5	600.	3	1800.	3	106	202	11 20	1	10	4	5			112	264	1.389
	653	3	28	4	5	150.	2	300.	1	104	204	11	4	15					112	265	0.046
	653	3	28	4	5	600.	10	6000.	5	110	204	20 81	3	10	4	10			112	266	12.955
													TOTAL FOR SECT.						102:		22.450
103	649	3	26	4	4	4000.	4	16000.	4	108	204	11 81	3	20					112	258	23.447
	1372	4	8	4	12	1500.	1	1500.	1	110	204	20	2	20					112	259	0.230
													TOTAL FOR SECT.						103:		23.677
112	659	4	2	4	15	2150.	1	2150.	3	103	201	11 90	1	35	2	30			92	267	1.659
	659	4	2	4	15	160.	2	320.	7	105	203	11 90	1	35	2	35			92	268	1.480
	662	4	2	4	15	250.	2	500.	7	101	206	11 96	1	45	9	40			92	269	2.312
	662	4	2	4	15	700.	1	700.	5	101	201	11 90	1	40		402			92	270	1.511
	662	4	2	4	15	3725.	1	3725.	3	102	203	11 90	1	35		209			92	271	2.875
													TOTAL FOR SECT.						112:		9.838
122	682	3	26	3	29	100.	20	2000.	6	102	212	20 81	1	60					92	272	6.787
	682	3	26	3	29	100.	5	500.	3	107	202	90	1	90					92	273	0.386
	682	3	26	3	29	200.	3	600.	3	106	204	81 90	1	90					92	274	0.463
	682	3	26	3	29	100.	10	1000.	4	101	210	20 81	1	30	2	20			92	275	1.465
	682	3	26	3	29	100.	5	500.	5	103	207	81	1	75					92	276	1.080
	682	3	26	3	29	100.	10	1000.	5	103	209	20 81	1	45	2	30			92	277	2.159
	682	3	26	3	29	150.	3	450.	4	105	205	81 90	1	90					92	278	0.659
	682	3	26	3	29	200.	10	2000.	7	101	215	20	1	60					92	279	9.249
	682	3	26	3	29	200.	10	2000.	5	103	210	81 90	1	30	2	30			92	280	4.318
	682	3	26	3	29	100.	10	1000.	4	107	209	20 81	1	45	2	30			92	281	1.465
	682	3	26	3	29	100.	5	500.	4	102	210	20	1	30	2	30			92	282	0.733
	682	3	26	3	29	100.	5	500.	3	104	206	81	1	75					92	283	0.386
													TOTAL FOR SECT.						122:		29.151
123	705	3	27	3	28	2300.	30	69000.	7	103	210	11 81	1	10					78	286	319.099
	706	3	18	3	20	200.	50	10000.	5	102	208	11 81	1	10					78	284	21.592
	706	3	19	3	20	600.	50	30000.	5	102	208	11 81	1	10					78	285	64.775
	710	4	3	4	5	1200.	10	12000.	7	102	208	11 81	1	10					78	287	55.495
	717	5	10	5	17	1000.	5	5000.	7	104	206	11	1	5					78	288	23.123
	1384	3	18	3	20	600.	50	30000.	7	102	212	11 20 90	1	10					78	289	138.739

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
123	1384	3	19	3	21	200.	50	10000.	7	108	210	11 81	1	10			78	290	46.246
																TOTAL FOR SECT.	123:		669.069
124	739	3	26	3	28	1000.	30	30000.	6	102	210	11 81	1	10			78	296	101.802
	739	4	4			200.	35	7000.	6									295	23.754
																TOTAL FOR SECT.	124:		125.556
125	738	3	28			50.	30	1500.	5									294	3.239
	738	3	29			600.	20	12000.	5									293	25.910
	738	4	5	4	7	2000.	5	10000.	5	103	208	11 20	1	10			78	300	21.592
	747	3	16	3	19	1000.	20	20000.	7	104	210	11 81	1	5			78	291	92.492
	747	4	4	4	5	100.	10	1000.	5	103	208	11 81	1	10			78	297	2.159
	747	4	4	4	6	200.	30	6000.	7	102	207	11 81	1	10			78	298	27.748
	747	4	4	4	6	1000.	20	20000.	7	102	208	11 90	1	10			78	299	92.492
																TOTAL FOR SECT.	125:		265.632
126	722	3	27	3	28	600.	40	24000.	5	103	208	11 81	1	10			78	292	51.820
	722	3	31	4	3	50.	40	2000.	7	103	208	11 20	1	5			78	301	9.249
	757	3	16	3	19	4500.	5	22500.	5	104	212	11	1	5			78	309	48.581
	757	3	18	3	20	1500.	5	7500.	5	102	213	11 90	1	10			78	310	16.194
	757	3	22	3	23	6000.	5	30000.	5	110	204	11 90	1	10			78	311	64.775
	757	3	23	3	24	5000.	5	25000.	5	102	210	11 90	1	5			78	312	53.979
	757	4	8	4	8	8000.	5	40000.	5	101	208	11 20	1	5			78	313	86.366
																TOTAL FOR SECT.	126:		330.964
127	749	3	21	3	25	3000.	5	15000.	4	102	210	11 90	1	10			78	302	21.982
	749	3	23	3	26	3000.	300	900000.	5	104	210	11 81	1	5	54		78	303	1943.243
	749	3	24	3	26	2000.	6	12000.	5	103	208	11	1	5	54		78	304	25.910
	749	3	24	3	26	2000.	6	12000.	7	102	208	11 20	1	10	54		78	306	55.495
	749	3	24	3	26	1000.	5	5000.	5	102	210	11	1	5	54		78	307	10.796
	749	3	24	3	26	2000.	6	12000.	5	102	210	11 81	1	10	54		78	305	25.910
	749	3	25	3	26	2000.	3	6000.	5	103	207	11	1	5	54		78	308	12.955
																TOTAL FOR SECT.	127:		2096.291
132	798	4	9	4	11	150.	7	1050.	9	201	221	97	6	100			55	322	10.036
	798	4	14	4	16	2000.	5	10000.	7	109	201	11	1	5			55	321	46.246
																TOTAL FOR SECT.	132:		56.283
133	774	4	14	4	15	2000.	4	8000.	5	108	202	11 90	9				55	314	17.273
134	784	3	27	3	28	16400.	4	65600.	6	112	102	11 90	1	10			55	320	222.607
	784	4	5	4	8	400.	4	1600.	5	110	101	11 90					55	318	3.455
	785	3	27	3	28	8000.	4	32000.	6	111	102	11 90	1	10			55	319	108.589
	785	4	1	4	2	60.	35	2100.	3	108	104	99					55	315	1.621
	785	4	5	4	8	60.	30	1800.	5	108	103	99	1	5			55	316	3.886
	785	4	5	4	8	100.	5	500.	3	108	103	99	1	10			55	317	0.386
																TOTAL FOR SECT.	134:		340.543
137	804	3	21	3	23	2030.	4	8120.	3	110	202	11 81	1	20			55	323	6.267
	804	3	26	3	31	50.	3	150.	5	108	201	11	3	5			55	324	0.324

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	C1 PCT	C2	C2 PCT	C3	C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
137	804	3	26	3	31	100.	35	3500.	7	106	202	20 81	1	20					55	325	16.186
	804	3	26	3	31	200.	50	10000.	7	106	202	20 81	1	50					55	326	46.246
	805	4	14	4	15	400.	75	30000.	6	108	100	11 81	1	5					55	327	101.802
	806	4	14	4	15	2000.	10	20000.	5	108	100	11 90	1	10					55	328	43.183
													TOTAL FOR SECT.						137:		214.008
142	813	3	26	3	28	6000.	25	150000.	4	109	211	11 90	1	3	2	2			25	334	73.200
	813	3	27	3	28	5400.	20	108000.	6	109	211	11 90	1	3	2	2			25	333	122.040
	813	4	2	4	5	4000.	50	200000.	3	108	210	11 90	1	3	2	2			25	336	51.400
	813	4	2	4	5	1500.	25	37500.	3	108	210	11 90	1	3	2	2			25	335	9.638
	817	3	20	3	23	4000.	50	200000.	7	106	210	11	1	5	2	5			25	330	308.000
	827	3	6	3	6	1400.	50	70000.	3	105	204	11 81	1	5	2	5			25	329	17.990
	827	5	12	5	13	400.	25	10000.	5	106	204	81	1	5	2	5			25	337	7.190
	828	5	12	5	13	1000.	25	25000.	5	106	204	81	1	5	2	5			25	338	17.975
													TOTAL FOR SECT.						142:		607.432
143	825	3	20	3	23	900.	50	45000.	7	106	210	11	1	5	2	5			25	332	69.300
	825	3	20	3	23	4800.	50	240000.	7	106	210	11	1	5	2	5			25	331	369.600
	831	3	31	3	31	1000.	50	50000.	5	103	210	11 16	1	5	2	5			38	345	35.950
	835	4	2	4	2	1200.	50	60000.	5	105	203	11 16	1	10	2	5			38	344	43.140
													TOTAL FOR SECT.						143:		517.990
144	823	3	28	3	29	2000.	25	50000.	5	106	204	11 16 20 90	1	10	2	5			38	343	35.950
	824	3	28	3	29	2500.	50	125000.	6	110	210	11 16 20 90	1	10	2	5			38	342	141.250
	834	3	21	3	23	450.	50	22500.	6	102	210	11 16 81	1	5	2	5			38	339	25.425
	834	3	23	3	23	150.	20	3000.	5	102	210	11 16 81	1	5	2	5			38	340	2.157
	834	3	24	3	24	650.	75	48750.	5	104	208	16 81	1	5	2	5			38	341	35.051
													TOTAL FOR SECT.						144:		239.833
152	845	3	24	1	29	400.	65	26000.	7	103	220	11 81	2	15					109	346	120.240
	845	3	24	1	29	200.	150	30000.	7	108	220	11 81	2	15					109	347	138.739
	845	3	24	1	29	150.	150	22500.	7	100	208	81	1	40					109	348	104.054
	858	3	24	1	29	3000.	20	60000.	7	103	225	11 81	2	15					109	349	277.477
	858	3	24	1	29	150.	150	22500.	9	103	225	11 81	2	10					109	350	215.068
	859	3	28	4	8	400.	30	12000.	3			11	1	5					109	353	9.261
	861	3	24	1	29	6200.	6	37200.	7	105	211	11 81	2	10					109	351	172.036
													TOTAL FOR SECT.						152:		1036.875
162	894	3	22	1	24	2500.	50	125000.	4			11	9	5					109	354	183.183
	894	3	22	3	24	1200.	20	24000.	1			11	9	5					109	359	3.676
													TOTAL FOR SECT.						162:		186.859
163	871	3	17	3	19	200.	2	400.	3	105	202	11	1	25					57	355	0.309
	871	3	19	3	20	150.	10	1500.	4	102	215	20 81	1	5					57	356	2.198
	871	3	23	3	23	1000.	3	3000.	5	105	205	11 90	1	10					57	357	6.477
													TOTAL FOR SECT.						163:		8.984
164	882	3	28	4	1	4000.	10	40000.	1	110	205	41 90	1	15	3	10			57	358	6.126
172	920	3	22	3	24	125.	10	1250.	7	106	206	11		151		102		1	360		5.781

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
172	920	3	22	3	24	250.	5	1250.	5	106	206	11		151		102			1	361	2.699
	920	3	22	3	24	250.	5	1250.	7	106	206	11		151		102			1	362	5.781
	920	3	22	3	24	500.	40	20000.	5	106	206	11		151		102			1	363	43.183
	920	3	22	3	24	25.	3	75.	7	106	206	11		151		102			1	364	0.347
	920	3	22	3	24	750.	20	15000.	5	106	206	11		151		102			1	365	32.387
	920	3	22	3	24	250.	50	12500.	5	106	206	11		151		102			1	366	26.989
	927	3	28	3	29	100.	25	2500.	7	105	204	11 20 90	1	15	2	10			1	396	11.562
	927	3	28	3	29	125.	25	3125.	5	105	215	11 20 90	1	15	2	10			1	397	6.747
	927	3	28	3	29	200.	25	5000.	3	106	202	11 20 90	1	15	2	10			1	398	3.859
	930	3	20	3	21	3000.	20	60000.	7	108	212	15 20 81 90	1	15	2	15			1	386	277.477
	931	3	23	3	24	1400.	10	14000.	5	107	208	15 20 81 90	1	10	2	10			1	387	30.228
	931	3	26	3	26	400.	30	12000.	5	106	207	11 15	2	25					1	388	25.910
	933	3	22	3	24	375.	5	1875.	7	106	206	11		151		102			1	367	8.671
	933	3	22	3	24	600.	15	9000.	7	106	206	11		151		102			1	368	41.622
	933	3	22	3	24	100.	3	300.	7	106	206	11		151		102			1	369	1.387
	933	3	22	3	24	2000.	20	40000.	9	106	206	11		151		102			1	370	382.342
	933	3	22	3	24	1500.	15	22500.	9	106	206	11		151		102			1	371	215.068
	997	3	3	3	5	1000.	15	15000.	5	108	208	15 20 81 90	1	15	2	10			1	390	32.387
	997	3	4	3	7	3500.	25	87500.	3	107	207	20 81	1	10	2	10			1	391	67.530
	997	3	6	3	7	1500.	40	60000.	5	106	206	11 20 81	1	10	2	10			1	392	129.550
	997	3	12	3	15	3500.	25	87500.	3	105	205	81	1	15	2	10			1	393	67.530
	999	3	17	3	22	500.	25	12500.	3	105	207	20 81	1	10	2	10			1	402	9.647
	999	3	21	3	22	500.	25	12500.	5	105	207	81	1	10	2	10			1	403	26.989
	999	3	21	3	22	150.	25	3750.	5	105	208	81	1	15	2	10			1	404	8.097
	999	3	22	3	24	1300.	50	65000.	5	106	201	81	1	15	2	10			1	401	140.345
	1002	3	5	3	6	7000.	50	350000.	7	106	211	15 20 81 90	1	10	2	10			1	389	1618.619
	1367	3	1	3	3	150.	150	22500.	3	104	201	81	1	15	2	10			1	399	17.365
	1367	3	3	3	6	250.	15	3750.	5	107	202	81	1	10	2	10			1	400	8.097
	1368	3	27	4	2	400.	50	20000.	7	103	212	11 20	2	20					1	405	92.492
	1376	3	25	3	25	600.	50	30000.	7	105	204	20 81	1	10	2	5			1	394	138.739
	1376	3	25	3	25	100.	50	5000.	7	104	204	20 81	1	10	2	5			1	395	23.123
																TOTAL FOR SECT.				172:	3502.551
173	940	4	10	4	12	300.	5	1500.	7	109	202	11 81	1	15	2	10			1	373	6.937
	941	3	25	4	1	5300.	3	15900.	7	107	100	11 15	1	15					1	379	73.532
	941	3	25	4	1	2600.	3	7800.	5	108	100	11 15	1	25					1	380	16.841
	941	3	25	4	1	800.	2	1600.	7	109	203	11 15	1	15					1	381	7.399
	949	2	26	3	1	100.	5	500.	3	106	202	20 81	1	20					1	375	0.386
	949	2	28	3	1	100.	10	1000.	3	107	202	15 81	1	15					1	374	0.772
	953	3	23	4	2	1600.	3	4800.	5	106	201	15 81 90	1	10	2	5			1	378	10.364
	954	3	25	4	1	4650.	3	13950.	5	108	204	11 15	1	20					1	382	30.120
	954	3	26	4	2	1800.	3	5400.	5	107	202	11 15	1	25					1	383	11.659
	955	3	28	4	4	2500.	50	125000.	7	104	204	11 20 81	1	20					1	385	578.078
	956	3	28	4	4	350.	40	14000.	5	108	203	11 20 81	1	20					1	384	30.228
	985	4	1	4	2	800.	3	2400.	3	105	202	15 81 90	1	15	2	10			1	376	1.852
	988	3	23	4	2	725.	3	2175.	1	104	201	15 81 90	1	10	2	5			1	377	0.333
	1365	4	9	4	12	250.	15	3750.	5	108	201	11	1	10	2	5			1	372	8.097
																TOTAL FOR SECT.				173:	776.599
182	1050	2	26	2	28	100.	5	500.	1	5	205	11 81	2	20					113	429	0.077

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
182	1050	2	26	2	28	200.	10	2000.	1	5	205	11 81	2 20			113	430	0.306
	1050	3	10	3	11	1700.	75	127500.	4	104	205	11 81	1 20			113	438	186.847
	1050	3	11	3	12	2200.	75	165000.	5	104	205	11 81	1 20			113	439	356.261
	1050	3	12	3	14	600.	50	30000.	5	104	205	11 81	1 20			113	441	64.775
	1050	3	12	3	14	600.	50	30000.	3	104	204	11 81	1 20			113	442	23.153
	1050	3	16	3	18	350.	50	17500.	5	104	204	11 81	1 20			113	446	37.785
	1050	3	16	3	17	300.	50	15000.	3	104	204	11 81	1 20			113	445	11.577
	1050	3	18	3	18	750.	50	37500.	5	104	205	11 81	1 20			113	447	80.968
	1050	3	18	3	18	150.	25	3750.	3	102	202	81	1 20			113	448	2.894
	1050	3	26	3	27	150.	25	3750.	3	104	204	81	1 20			113	454	2.894
	1050	3	27	3	27	300.	25	7500.	3	105	204	81	1 20			113	456	5.788
	1050	3	27	3	27	200.	15	3000.	3	105	205	11 90	1 20			113	457	2.315
	1051	2	27	2	28	300.	2	600.	1	6	102	11 81	2 20			113	431	0.092
	1051	3	4	3	5	200.	5	1000.	3	102	205	11 81	1 20			113	437	0.772
	1051	3	11	3	12	400.	50	20000.	3	102	210	11 81	1 20			113	440	15.435
	1051	3	12	3	14	600.	25	15000.	5	100	210	11 97	1 20			113	443	32.387
	1051	3	12	3	14	300.	5	1500.	3	102	205	11 81	1 20			113	444	1.158
	1051	3	20	3	20	200.	25	5000.	3	102	205	11 81	1 20			113	450	3.859
	1051	3	23	3	24	900.	40	36000.	6	104	205	11 90	1 20			113	451	122.162
	1053	2	26	2	28	200.	3	600.	1	8	102	11	2 20			113	428	0.092
	1053	3	1	3	3	500.	3	1500.	4	8	2	11 90	2 20			113	435	2.198
	1053	3	1	3	3	800.	3	2400.	4	8	2	11 90	2 20			113	436	3.517
	1055	3	1	3	3	750.	3	2250.	4	8	2	11 90	2 20			113	433	3.297
	1055	3	1	3	3	900.	3	2700.	4	8	2	11 90	2 20			113	434	3.957
	1057	3	23	3	24	200.	35	7000.	3	102	210	11 90	1 20			113	453	5.402
	1057	3	26	3	27	100.	25	2500.	3	102	210	11 90	1 20			113	455	1.929
	1058	2	27	2	28	1600.	10	16000.	5	10	205	11 81	2 20			113	432	34.547
	1058	3	20	3	20	500.	25	12500.	5	105	210	11 81	1 20			113	449	26.989
	1058	3	23	3	24	200.	25	5000.	5	105	205	11 90	1 20			113	452	10.796
	1058	4	26	4	10	1500.	10	15000.	6	105	210	11 81	1 20			113	458	50.901
															TOTAL FOR SECT.	1821		1095.132
183	1021	2	17	2	25	100.	2	200.	1	206	212	81	2 20			113	406	0.031
	1021	2	24	2	25	300.	30	9000.	3	102	210	81	2 20			113	407	6.946
	1021	2	26	2	26	200.	3	600.	1	8	102	11 90	2 20			113	408	0.092
	1021	3	10	3	10	350.	50	17500.	3	104	204	81	1 20			113	415	13.506
	1021	3	19	3	20	150.	25	3750.	3	104	205	81	1 20			113	419	2.894
	1022	3	4	3	5	100.	3	300.	3	102	203	20	1 20			113	413	0.232
	1022	3	11	3	12	300.	75	22500.	3	102	210	81	1 20			113	417	17.365
	1022	3	19	3	20	450.	75	33750.	3	100	215	15 81	1 20			113	420	26.047
	1022	3	19	3	20	250.	50	12500.	3	102	210	11 81	1 20			113	421	9.647
	1022	3	21	3	23	500.	300	150000.	5	100	215	20 81	201			113	423	323.874
	1022	3	26	3	27	600.	400	240000.	4	100	215	20 81	1 20			113	424	351.712
	1022	3	29	3	31	700.	3	2100.	5	106	204	11 90	1 20			113	427	4.534
	1025	3	22	3	23	200.	50	10000.	5	100	215	81	1 20			113	425	21.592
	1025	3	22	3	23	200.	50	10000.	3	100	215	81	1 20			113	426	7.718
	1041	3	1	3	3	100.	5	500.	3	5	100	11 90	2 20			113	410	0.386
	1041	3	1	3	3	150.	10	1500.	1	3	205	81	2 20			113	411	0.230
	1041	3	1	3	3	200.	10	2000.	1	3	5	81	2 20			113	412	0.306
	1041	3	2	3	3	500.	75	37500.	5	5	210	15 81	2 20			113	409	80.968

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2	MORTALITY PCT	MORTALITY C3	MORTALITY PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
183	1041	3	8	3	10	150.	50	7500.	5	100	215	11 81	1	20					113	414	16.194
	1041	3	15	3	16	100.	25	2500.	3	103	205	81	1	20					113	418	1.929
	1041	3	21	3	23	600.	25	15000.	5	105	210	11 90	1	20					113	422	32.387
																	TOTAL FOR SECT.		183:		918.589
184	1007	3	12	3	12	400.	100	40000.	4	104	206	81	1	20					113	416	58.619
232	1131	3	28	4	4	300.	50	15000.	1	105	205	50 80	1	5	2	5			110	518	1.414
	1131	3	28	4	4	100.	25	2500.	7	100	210	50	1	5	2	5			110	519	7.116
	1131	3	28	4	4	350.	75	26250.	6	100	210	50	1	5	2	5			110	520	54.829
	1132	2	23	2	25	200.	75	15000.	4	107	235	11 22 81	1	10					110	461	13.530
	1132	2	23	2	25	350.	25	8750.	3	107	235	11 22	1	10					110	462	4.157
	1132	2	24	2	26	75.	10	750.	3	105	210	15 22 81	1	10					110	463	0.356
	1142	3	4	3	5	100.	50	5000.	1	100	205	11 22	1	10					110	464	0.471
	1142	3	4	3	18	150.	5	750.	3	225	235	22	1	5					110	465	0.356
	1142	3	4	3	18	50.	25	1250.	3	212	225	22	1	5					110	466	0.594
	1143	3	19	3	20	200.	25	5000.	7	105	210	50 81	1	15					110	496	14.233
	1143	3	19	3	20	300.	100	30000.	7	105	210	50 81	1	15					110	497	85.397
	1143	3	19	3	20	175.	25	4375.	7	105	210	50 81	1	15					110	498	12.454
	1143	3	19	3	20	150.	25	3750.	7	105	210	50 81	1	15					110	499	10.675
	1144	3	19	3	20	1500.	20	30000.	4	102	205	81	1	10	2	5			110	495	27.061
	1145	3	27	4	4	100.	25	2500.	5	105	210	11 50 81	1	5					110	516	3.323
	1145	3	27	4	4	750.	25	18750.	5	105	210	11 50 81	1	5					110	517	24.919
	1150	3	28	4	4	150.	75	11250.	7	100	206	11 50 81	1	5					110	512	32.024
	1150	3	28	4	4	75.	25	1875.	7	100	206	11 50 81	1	5					110	513	5.337
	1153	3	19	3	20	600.	35	21000.	5	102	215	50 81	1	15					110	492	27.909
	1153	3	19	3	20	500.	50	25000.	5	102	215	50 81	1	15					110	493	33.226
	1153	3	19	3	20	500.	30	15000.	5	103	215	50 81	1	10	2	5			110	494	19.935
	1153	3	19	3	20	300.	30	9000.	1	100	210	81	1	5					110	500	0.848
	1155	3	8	3	11	75.	75	5625.	4	105	210	50 81	1	10					110	468	5.074
	1155	3	8	3	11	50.	50	2500.	5	105	210	50 81	1	10					110	469	3.323
	1159	3	8	3	11	200.	50	10000.	5	105	212	11 81	1	10					110	467	13.290
	1159	3	27	4	4	250.	75	18750.	9	105	215	11 81	1	5					110	514	110.317
	1159	3	27	4	4	750.	30	22500.	7	105	215	11 50 81	1	5					110	515	64.048
																	TOTAL FOR SECT.		232:		576.217
233	1130	3	19	3	20	100.	30	3000.	5	105	210	22 50	1	5					110	470	3.987
	1130	3	19	3	20	100.	50	5000.	4	105	210	22	1	5					110	471	4.510
	1130	3	21	3	23	1330.	20	26600.	7	105	205	11 50 81 90	1	5					110	479	75.719
	1130	3	21	3	23	350.	100	35000.	6	105	210	50 81	1	5					110	480	73.105
	1141	3	19	3	23	250.	50	12500.	7	105	210	81	1	10					110	481	35.582
	1141	3	21	3	23	155.	15	2325.	6	105	210	11 50	1	10					110	482	4.856
	1141	3	21	3	23	200.	30	6000.	7	105	210	11 50 81	1	10					110	483	17.079
	1141	3	21	3	23	230.	25	5750.	7	108	205	11 50 81	1	10					110	484	16.368
	1141	3	21	3	23	300.	70	21000.	7	105	210	11 50 81	1	10					110	485	59.778
	1141	3	21	3	23	175.	50	8750.	7	105	210	11 50 81	1	10					110	486	24.908
	1141	3	21	3	23	125.	50	6250.	6	105	205	11 50 81	1	10					110	487	13.055
	1141	3	21	3	23	350.	5	1750.	5	105	205	11 41 50	1	10					110	488	2.326
	1141	3	21	3	23	225.	10	2250.	7	105	205	50	1	10					110	489	6.405
	1141	3	21	3	23	75.	15	1125.	9	105	205	50	1	10					110	490	6.619

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
233	1141	3	21	3	23	75.	15	1125.	7	105	205	50	1	10			110	491	3.202
	1149	3	19	3	22	500.	20	10000.	5	105	100	81	1	15			110	472	13.290
	1149	3	19	3	22	150.	10	1500.	1	105	205	11 50	1	5			110	473	0.141
	1149	3	19	3	22	180.	30	5400.	5	105	205	81	1	10			110	474	7.177
	1149	3	19	3	22	30.	10	300.	1	100	205	81	1	5			110	475	0.028
	1151	3	26	4	2	550.	35	19250.	6	105	220	11 21 50	1	5			110	502	40.208
	1151	3	26	4	2	350.	20	7000.	3	105	100	11 50 81	1	5			110	503	3.325
	1151	3	26	4	2	150.	30	4500.	5	105	205	11 50 81	1	5			110	504	5.981
	1151	3	26	4	2	100.	2	200.	3	103	103	50	1	5			110	505	0.095
	1151	3	26	4	2	200.	10	2000.	3	105	100	11 50	1	5			110	506	0.950
	1151	3	26	4	2	100.	25	2500.	7	105	205	50 81	1	5			110	507	7.116
	1151	3	26	4	2	300.	10	3000.	3	105	100	11	1	5			110	508	1.425
	1151	3	26	4	2	300.	50	15000.	5	105	210	11 22	1	5			110	509	19.935
	1151	3	26	4	2	350.	30	10500.	6	105	210	50	1	5			110	510	21.932
	1151	3	26	4	2	100.	50	5000.	6	105	210	50	1	10			110	511	10.444
	1158	3	21	3	23	100.	30	3000.	5	105	205	11 50	1	5			110	476	3.987
	1158	3	21	3	23	75.	30	2250.	5	105	205	11 50	1	5			110	477	2.990
	1158	3	21	3	23	225.	30	6750.	5	105	205	11 50	1	5			110	478	8.971
	1158	3	25	4	4	75.	25	1875.	9	105	205	11 50 81	1	5			110	501	11.032
																TOTAL FOR SECT.	233:		506.527
235	1126	4	7	4	15	1600.	75	120000.	3	100	210	20	1	5			110	459	92.613
	1126	4	7	4	15	300.	50	15000.	3	100	210	20	1	5			110	460	11.577
																TOTAL FOR SECT.	235:		104.189
242	1217	3	24	4	4	300.	50	15000.	5	104	212	11 50 81	1	20			94	575	32.387
	1217	3	24	4	4	100.	50	5000.	3	104	212	11 50 81	1	20			94	577	3.859
	1217	3	24	4	4	400.	100	40000.	5	104	212	11 50 81	1	20			94	578	86.366
	1217	3	24	4	4	400.	50	20000.	1	104	212	11 20 81	1	20			94	579	3.063
	1217	3	24	4	4	400.	125	50000.	5	104	212	11 20 81	1	20			94	580	107.958
	1217	3	24	4	4	125.	50	6250.	5	104	212	11 20 81	1	20			94	581	13.495
	1217	3	24	4	4	150.	12	1800.	5	104	212	11 20 81	1	20			94	582	3.886
	1217	3	24	4	4	150.	15	2250.	1	104	212	11 20 81	1	20			94	583	0.345
	1217	3	24	4	4	50.	6	300.	5	104	212	11 20 81	1	20			94	584	0.648
	1217	3	24	4	4	650.	10	6500.	5	104	212	11 20 81	1	20			94	585	14.035
	1217	3	24	4	4	150.	10	1500.	7	104	212	11 20 81	1	20			94	586	6.937
	1217	3	24	4	4	80.	30	2400.	7	104	212	11 20 81	1	20			94	587	11.099
	1217	3	24	4	4	800.	8	6400.	5	104	212	11 20 81	1	20			94	588	13.819
	1217	3	24	4	4	400.	15	6000.	3	104	212	11 20 81	1	20			94	589	4.631
	1217	3	24	4	4	20.	7	140.	5	104	212	11 20 81	1	20			94	590	0.302
	1217	3	24	4	4	350.	15	5250.	5	104	212	11 20 81	1	20			94	591	11.336
	1217	3	24	4	4	30.	10	300.	5	104	212	11 20 81	1	20			94	592	0.648
	1217	3	24	4	4	40.	15	600.	3	104	212	11 20 81	1	20			94	593	0.463
	1217	3	24	4	4	1000.	70	70000.	5	104	212	11 20 81	1	20			94	594	151.141
																TOTAL FOR SECT.	242:		466.417
243	1206	3	21	4	1	150.	20	3000.	5	103	210	11 20 81	1	10			94	565	6.477
	1206	3	21	4	1	100.	30	3000.	5	103	210	11 20 81	1	10			94	566	6.477
	1206	3	21	4	1	20.	5	100.	5	103	210	11 20 81	1	10			94	567	0.216
	1206	3	21	4	1	20.	5	100.	5	103	210	11 20 81	1	10			94	568	0.216

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
243	1206	3	21	4	1	15.	10	150.	5	103	210	11 20 81	1 10			94	569	0.324
	1206	3	21	4	1	200.	5	1000.	3	103	210	11 20 81	1 10			94	570	0.772
	1206	3	21	4	1	150.	5	750.	5	103	210	11 20 81	1 10			94	571	1.619
	1206	3	21	4	1	250.	2	500.	3	103	210	11 20 81	1 10			94	572	0.386
	1206	3	21	4	1	200.	30	6000.	5	103	210	11 20 81	1 10			94	573	12.955
	1206	3	21	4	1	25.	8	200.	5	103	218	11 20 81	1 10			94	574	0.432
	1207	3	21	4	1	70.	30	2100.	7	201	218	11 20 81	1 25			94	559	9.712
	1207	3	21	4	1	150.	50	7500.	7	201	218	11 20 81	1 25			94	560	34.685
	1207	3	21	4	1	150.	14	2100.	7	201	218	11 20 81	1 25			94	561	9.712
	1207	3	21	4	1	100.	12	1200.	7	201	218	11 20 81	1 25			94	562	5.550
	1207	3	21	4	1	25.	20	500.	3	201	218	11 20 81	1 25			94	563	0.386
	1207	3	21	4	1	75.	20	1500.	7	201	218	11 20 81	1 25			94	564	6.937
	1207	3	23	4	1	300.	60	18000.	7	201	218	11 20 81	1 25			94	556	83.243
	1207	3	23	4	1	200.	15	3000.	5	201	218	11 20 81	1 25			94	557	6.477
	1207	3	23	4	1	50.	20	1000.	7	201	218	11 20 81	1 25			94	558	4.625
	1209	3	23	3	27	60.	30	1800.	7	206	216	11 20 81				94	550	8.324
	1212	3	23	3	26	150.	15	2250.	7	206	230	11 20 81	1 5			94	538	10.405
	1212	3	23	3	26	500.	60	30000.	7	206	230	11 20 81	1 5			94	539	138.739
	1212	3	23	3	26	40.	20	800.	5	206	230	11 20 81	1 5			94	540	1.727
	1212	3	23	3	26	100.	10	1000.	7	206	230	11 20 81	1 5			94	541	4.625
	1212	3	23	3	26	60.	40	2400.	9	206	230	11 20 81	1 5			94	542	22.941
	1212	3	23	3	26	15.	4	60.	3	206	230	11 20 81	1 5			94	543	0.046
	1212	3	23	3	26	20.	5	100.	5	206	230	11 20 81	1 5			94	544	0.216
	1212	3	23	3	26	75.	15	1125.	7	206	230	11 20 81	1 5			94	545	5.203
	1212	3	23	3	26	30.	10	300.	5	206	230	11 20 81	1 5			94	546	0.648
	1212	3	23	3	26	30.	12	360.	7	206	230	11 20 81	1 5			94	547	1.665
	1212	3	23	3	26	70.	8	560.	5	206	230	11 20 81	1 5			94	548	1.209
	1212	3	23	3	26	20.	5	100.	7	206	230	11 20 81	1 5			94	549	0.462
	1394	3	23	3	27	30.	2	60.	3	103	218	11 20 81	1 10			94	551	0.046
	1394	3	23	3	27	30.	10	300.	7	103	218	11 20 81	1 10			94	552	1.387
	1394	3	23	3	27	100.	10	1000.	3	103	218	11 20 81	1 10			94	553	0.772
	1394	3	23	3	27	500.	4	2000.	3	103	218	11 20 81	1 10			94	554	1.544
	1394	3	23	3	27	700.	25	17500.	5	103	218	11 20 81	1 10			94	555	37.785
														TOTAL FOR SECT.		243:		428.945
244	1182	3	20	4	3	100.	40	4000.	1	202	204	11 50 81				94	537	0.613
	1190	3	22	4	3	10.	3	30.	1	203	208	11 50 81	1 10			94	521	0.005
	1190	3	22	4	3	50.	30	1500.	1	203	208	11 50 81	1 10			94	522	0.230
	1190	3	22	4	3	100.	5	500.	1	203	208	11 50 81	1 10			94	523	0.077
	1190	3	22	4	3	75.	5	375.	1	203	208	11 50 81	1 10			94	524	0.057
	1190	3	22	4	3	125.	2	250.	3	203	208	11 50 81	1 10			94	525	0.193
	1190	3	22	4	3	25.	5	125.	3	203	208	11 50 81	1 10			94	526	0.096
	1200	3	24	4	3	40.	10	400.	5	106	208	11 50 81	1 10			94	527	0.864
	1200	3	24	4	3	15.	10	150.	7	106	208	11 50 81	1 10			94	528	0.694
	1200	3	24	4	3	30.	2	60.	3	106	208	11 50 81	1 10			94	529	0.046
	1200	3	24	4	3	15.	2	30.	5	106	208	11 50 81	1 10			94	530	0.065
	1200	3	24	4	3	80.	3	240.	5	106	208	11 50 81	1 10			94	531	0.518
	1200	3	24	4	3	30.	2	60.	1	106	208	11 50 81	1 10			94	532	0.009
	1200	3	24	4	3	50.	2	100.	3	106	208	11 50 81	1 10			94	533	0.077
	1200	3	24	4	3	30.	3	90.	5	106	208	11 50 81	1 10			94	534	0.194

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
244	1200	3	24	4	3	18.	12	216.	7	106	208	11 50 81	1 10			94	535	0.999
	1200	3	24	4	3	70.	10	700.	7	106	208	11 50 81	1 10			94	536	3.237
														TOTAL FOR SECT.		244:		7.974
245	1185	3	30	4	9	250.	125	31250.	5	208	220	11 20 81	1 20			94	667	67.474
	1185	3	30	4	9	225.	10	2250.	5	208	220	11 20 81	1 20			94	668	4.858
	1197	3	28	4	9	400.	125	50000.	5	206	210	81 20 81	1 25			94	669	107.958
	1197	3	28	4	9	200.	50	10000.	3	206	210	81 20 81	1 25			94	670	7.718
	1197	3	28	4	9	400.	150	60000.	3	206	210	81 20 81	1 25			94	671	46.306
	1197	3	28	4	9	250.	70	17500.	3	206	210	81 20 81	1 25			94	672	13.506
	1201	3	24	4	7	40.	6	240.	3	104	208	11 20 81	1 20			94	659	0.185
	1201	3	24	4	7	80.	2	160.	3	104	208	11 20 81	1 20			94	660	0.123
	1201	3	24	4	7	20.	10	200.	3	104	208	11 20 81	1 20			94	661	0.154
	1201	3	24	4	7	150.	6	900.	7	104	208	11 20 81	1 20			94	662	4.162
	1201	3	24	4	7	50.	2	100.	1	104	208	11 20 81	1 20			94	663	0.015
	1201	3	24	4	7	30.	8	240.	3	104	208	11 20 81	1 20			94	664	0.185
	1201	3	24	4	7	150.	25	3750.	7	104	208	11 20 81	1 20			94	665	17.342
	1201	3	24	4	7	50.	2	100.	1	104	208	11 20 81	1 20			94	666	0.015
	1202	3	25	3	30	15.	15	225.	7	103	218	11 20 81	1 20			94	595	1.041
	1202	3	25	3	30	20.	2	40.	3	103	218	11 20 81	1 20			94	596	0.031
	1202	3	25	3	30	200.	5	1000.	7	103	218	11 20 81	1 20			94	597	4.625
	1202	3	25	3	30	80.	20	1600.	7	103	218	11 20 81	1 20			94	598	7.399
	1202	3	25	3	30	80.	15	1200.	5	103	218	11 20 81	1 20			94	599	2.591
	1202	3	25	3	30	100.	100	10000.	5	103	218	11 20 81	1 20			94	600	21.592
	1202	3	25	3	30	500.	100	50000.	7	103	218	11 20 81	1 20			94	601	231.231
	1202	3	25	3	30	1600.	200	320000.	7	103	218	11 20 81	1 20			94	602	1479.880
	1219	3	26	4	10	200.	6	1200.	1	204	218	81 20 81				94	694	0.184
	1220	3	24	3	31	400.	200	80000.	1	103	216	11 20 81	1 10			94	633	12.252
	1222	4	5	4	10	25.	10	250.	3	102	214	11 20 81	1 10			94	695	0.193
	1222	4	5	4	10	100.	50	5000.	5	102	214	11 20 81	1 10			94	696	10.796
	1222	4	5	4	10	25.	25	625.	7	102	214	11 20 81	1 10			94	697	2.890
	1222	4	5	4	10	300.	50	15000.	5	102	214	11 20 81	1 10			94	698	32.387
	1222	4	5	4	10	200.	100	20000.	5	102	214	11 20 81	1 10			94	699	43.183
	1222	4	5	4	10	70.	20	1400.	5	102	214	11 20 81	1 10			94	700	3.023
	1222	4	5	4	10	60.	20	1200.	5	102	214	11 20 81	1 10			94	701	2.591
	1222	4	5	4	10	50.	6	300.	5	102	214	11 20 81	1 10			94	702	0.648
	1222	4	5	4	10	80.	20	1600.	5	102	214	11 20 81	1 10			94	703	3.455
	1224	3	24	3	31	150.	5	750.	3	103	216	11 20 81	1 10			94	634	0.579
	1224	3	24	3	31	150.	20	3000.	5	103	216	11 20 81	1 10			94	635	6.477
	1224	3	24	3	31	150.	30	4500.	7	103	216	11 20 81	1 10			94	636	20.811
	1224	3	24	3	31	50.	10	500.	5	103	216	11 20 81	1 10			94	637	1.080
	1225	3	19	3	31	1600.	400	640000.	5	100	218	11 20 81	1 15			94	609	1381.862
	1226	3	25	4	2	60.	15	900.	5	106	218	11 20 81	1 20			94	614	1.943
	1226	3	25	4	2	150.	50	7500.	7	106	218	11 20 81	1 20			94	615	34.685
	1226	3	25	4	2	30.	3	90.	5	106	218	11 20 81	1 20			94	616	0.194
	1226	3	25	4	2	500.	100	50000.	7	106	218	11 20 81	1 20			94	617	231.231
	1226	3	25	4	2	50.	20	1000.	5	106	218	11 20 81	1 20			94	618	2.159
	1226	3	25	4	2	50.	8	400.	7	106	218	11 20 81	1 20			94	619	1.850
	1226	3	25	4	2	200.	5	1000.	5	106	218	11 20 81	1 20			94	620	2.159
	1226	3	25	4	2	150.	5	750.	5	106	218	11 20 81	1 20			94	621	1.619

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
245	1226	3	25	4	2	50.	2	100.	7	103	214	11 20 81	1	20			94	622	0.462
	1226	3	25	4	2	20.	5	100.	7	106	218	11 20 81	1	20			94	623	0.462
	1226	3	25	4	2	30.	5	150.	7	106	218	11 20 81	1	20			94	624	0.694
	1226	3	25	4	2	40.	3	120.	5	106	218	11 20 81	1	20			94	625	0.259
	1226	3	25	4	2	20.	20	400.	5	106	218	11 20 81	1	20			94	626	0.864
	1226	3	25	4	2	100.	15	1500.	7	106	218	11 20 81	1	20			94	627	6.937
	1226	3	25	4	2	15.	15	225.	5	106	218	11 20 81	1	20			94	628	0.486
	1226	3	25	4	2	25.	10	250.	5	106	218	11 20 81	1	20			94	629	0.540
	1226	3	25	4	2	25.	10	250.	5	106	218	11 20 81	1	20			94	630	0.540
	1226	3	25	4	2	40.	2	80.	5	106	218	11 20 81	1	20			94	631	0.173
	1226	3	25	4	2	20.	5	100.	5	106	218	11 20 81	1	20			94	632	0.216
	1227	3	25	4	2	13.	15	195.	7	104	214	11 20 81	1	10			94	638	0.902
	1227	3	25	4	2	40.	2	80.	7	104	214	11 20 81	1	10			94	639	0.370
	1227	3	25	4	2	75.	15	1125.	7	104	214	11 20 81	1	10			94	640	5.203
	1227	3	25	4	2	20.	5	100.	5	104	214	11 20 81	1	10			94	641	0.216
	1227	3	25	4	2	100.	5	500.	5	104	214	11 20 81	1	10			94	642	1.080
	1227	3	25	4	2	30.	12	360.	7	104	214	11 20 81	1	10			94	643	1.665
	1227	3	25	4	2	40.	10	400.	7	104	214	11 20 81	1	10			94	644	1.850
	1227	3	25	4	2	80.	10	800.	7	104	214	11 20 81	1	10			94	645	3.700
	1227	3	25	4	2	150.	3	450.	5	104	214	11 20 81	1	10			94	646	0.972
	1227	3	25	4	2	125.	7	875.	7	104	214	11 20 81	1	10			94	647	4.047
	1227	3	25	4	2	25.	3	75.	5	104	214	11 20 81	1	10			94	648	0.162
	1227	3	25	4	2	25.	10	250.	5	104	214	11 20 81	1	10			94	649	0.540
	1227	3	25	4	2	500.	2	1000.	3	104	214	11 20 81	1	10			94	650	0.772
	1227	3	25	4	2	25.	5	125.	7	104	214	11 20 81	1	10			94	651	0.578
	1227	3	25	4	2	100.	15	1500.	5	104	214	11 50 81	1	10			94	652	3.239
	1227	3	25	4	2	500.	6	3000.	5	104	214	11 50 81	1	10			94	653	6.477
	1227	3	25	4	2	150.	3	450.	5	104	214	11 50 81	1	10			94	654	0.972
	1227	3	25	4	2	20.	4	80.	7	104	214	11 50 81	1	10			94	655	0.370
	1228	3	25	3	31	200.	30	6000.	5	101	210	11 20 81	1	20			94	610	12.955
	1228	3	25	3	31	20.	10	200.	7	101	210	11 20 81	1	20			94	611	0.925
	1228	3	25	3	31	40.	10	400.	7	101	210	11 20 81	1	20			94	612	1.850
	1228	3	25	3	31	150.	40	6000.	5	101	210	11 20 81	1	20			94	613	12.955
	1369	3	20	4	4	30.	6	180.	3	102	210	11 20 81	1	20			94	682	0.139
	1369	3	20	4	4	50.	6	300.	3	102	210	11 20 81	1	20			94	683	0.232
	1369	3	20	4	4	70.	10	700.	3	102	210	11 20 81	1	20			94	684	0.540
	1370	3	27	4	10	80.	3	240.	1	102	210	20 81	1	15			94	576	0.037
	1370	3	27	4	10	20.	1	20.	3	102	214	20 81	1	15			94	685	0.015
	1370	3	27	4	10	25.	2	50.	3	102	214	20 81	1	15			94	686	0.039
	1370	3	27	4	10	80.	10	800.	3	102	214	11 20 81	1	10			94	687	0.617
	1370	3	27	4	10	500.	8	4000.	3	102	214	11 20 81	1	10			94	688	3.087
	1370	3	27	4	10	50.	6	300.	3	102	214	11 20 81	1	10			94	689	0.232
	1370	3	27	4	10	40.	8	320.	3	102	214	11 20 81	1	10			94	690	0.247
	1370	3	27	4	10	60.	10	600.	1	102	214	11 20 81	1	10			94	691	0.092
	1370	3	27	4	10	100.	1	100.	1	102	214	11 20 81	1	10			94	692	0.015
	1370	3	27	4	10	20.	5	100.	1	102	214	11 20 81	1	10			94	693	0.015
	1377	3	19	3	30	200.	100	20000.	7	103	214	11 20 81	1	15			94	603	92.492
	1377	3	19	3	30	500.	6	3000.	5	103	214	11 20 81	1	15			94	604	6.477
	1377	3	19	3	30	75.	25	1875.	5	103	214	11 20 81	1	15			94	605	4.048
	1377	3	19	3	30	60.	25	1500.	5	103	214	11 20 81	1	15			94	606	3.239

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
245	1377	3	19	3	30	80.	25	2000.	5	103	214	11 20 81	1 15			94	607	4.318
	1377	3	19	3	30	200.	30	6000.	5	103	214	11 20 81	1 15			94	608	12.955
	1404	3	24	4	7	200.	125	25000.	5	201	210	81	1 25			94	656	53.979
	1404	3	24	4	7	400.	150	60000.	5	201	210	81	1 25			94	657	129.550
	1404	3	24	4	7	400.	30	12000.	5	201	210	81	1 25			94	658	25.910
	1405	4	4	4	9	150.	1	150.	3	101	210	11 20 81	1 25			94	673	0.116
	1405	4	4	4	9	100.	1	100.	1	101	210	11 20 81	1 25			94	674	0.015
	1405	4	4	4	9	50.	1	50.	3	101	210	11 20 81	1 25			94	675	0.039
	1407	3	20	4	4	25.	2	50.	5	102	210	11 20 81	1 20			94	676	0.108
	1407	3	20	4	4	150.	12	1800.	3	102	210	11 20 81	1 20			94	677	1.389
	1407	3	20	4	4	150.	50	7500.	5	102	210	11 20 81	1 20			94	678	16.194
	1407	3	20	4	4	70.	40	2800.	5	102	210	11 20 81	1 20			94	679	6.046
	1407	3	20	4	4	200.	15	3000.	3	102	210	11 20 81	1 20			94	680	2.315
	1407	3	20	4	4	250.	6	1500.	3	102	210	11 20 81	1 20			94	681	1.158
															TOTAL FOR SECT.	245:		4255.728
252	1277	4	3	4	7	3500.	40	140000.	5	102	225	20 81	1 5			46	714	302.282
	1277	4	23	4	27	2000.	6	12000.	3	101	215	81	1 5			46	715	9.261
	1277	5	1	5	6	100.	6	600.	5	102	210	81	1 5			46	716	1.295
	1278	3	27	5	6	800.	15	12000.	5	103	215	81	1 10			46	719	25.910
	1281	3	29	4	7	800.	60	48000.	6	102	230	20 81	1 5			46	718	162.883
	1282	3	29	4	7	900.	150	135000.	7	102	230	20 81	1 5			46	717	624.324
															TOTAL FOR SECT.	252:		1125.956
253	1262	3	15	3	27	500.	100	50000.	7	102	215	81	1 5			46	711	231.231
	1262	3	15	3	27	500.	50	25000.	7	102	215	81	1 5			46	712	115.616
	1262	3	15	3	27	300.	200	60000.	7	103	215	20 81	1 10			46	713	277.477
	1263	3	5	3	15	200.	50	10000.	3	103	202	81	1 20			46	708	7.718
	1263	3	9	3	10	70.	40	2800.	5	101	205	81	1 15			46	706	6.046
	1263	3	9	3	10	1700.	80	136000.	6	102	225	20 81	1 15			46	707	461.502
	1266	3	25	3	27	100.	100	10000.	7	102	210	81	1 10			46	704	46.246
	1266	3	27	3	27	1800.	80	144000.	7	103	225	20 81	1 5			46	705	665.946
	1268	3	26	3	27	500.	100	50000.	4	102	225	20 81	1 20	2 20		46	709	73.273
	1268	3	26	3	27	600.	100	60000.	7	102	225	20 81	1 20	2 20		46	710	277.477
															TOTAL FOR SECT.	253:		2162.532
262	1296	3	6	3	6	1000.	30	30000.	5	102	208	20 81	1 5			46	720	64.775
	1300	3	10	3	10	900.	30	27000.	5	100		20 81	1 5			46	721	58.297
	1300	4	11	4	11	150.	20	3000.	5	100		81	1 5			46	722	6.477
															TOTAL FOR SECT.	262:		129.550
263	1304	3	7	3	7	250.	20	5000.	3	103	205	81	1 10			46	724	3.859
	1305	3	7	3	7	500.	20	10000.	3	103	205	81	1 10			46	723	7.718
															TOTAL FOR SECT.	263:		11.577
273	1318	3	26	3	29	1200.	100	120000.	5	104	202	81	1 5			114	735	259.099
	1318	3	26	3	29	250.	40	10000.	3	104	202	11	1 5			114	736	7.718
	1318	3	26	3	29	400.	30	12000.	7	104	202	81	1 5			114	737	55.495
	1318	3	26	3	25	650.	30	19500.	3	104	202	81	1 5			114	738	15.050
	1320	3	26	3	29	400.	25	10000.	5	108	103	11 81	1 15			114	725	21.592

TABLE 6. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1975

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
273	1320	3	26	3	29	1000.	10	10000.	5	105	102	11 81	1	10			114	726	21.592
	1320	3	26	3	29	1000.	35	35000.	7	110	105	11 81	1	20			114	727	161.862
	1320	3	26	3	29	250.	10	2500.	7	105	101	11 81	1	10			114	728	11.562
	1321	3	26	3	29	500.	30	15000.	5	108	104	11 20 81	1	15			114	729	32.387
	1321	3	26	3	29	200.	30	6000.	7	108	104	11 20 81	1	15			114	730	27.748
	1321	3	26	3	29	200.	25	5000.	5	108	104	11 20 81	1	10			114	731	10.796
	1321	3	26	3	29	100.	30	3000.	7	108	104	11 20 81	1	10			114	732	13.874
	1321	3	26	3	29	325.	30	9750.	5	108	104	11 20 81	1	10			114	733	21.052
	1321	3	26	3	29	500.	35	17500.	3	108	104	20	1	15			114	734	13.506
															TOTAL FOR SECT.			273:	673.331
290	1351	2	21	2	25	1500.	200	300000.	1			81						739	45.946
	1351	3	2	3	4	500.	200	100000.	1			81						740	15.315
	1351	5	7			1000.	300	300000.	5									741	647.748
															TOTAL FOR SECT.			290:	709.009

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	M O R T A L I T Y C1 PCT	C2 PCT	C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
2	60	4	11	4	24	850.	8	6800.	3	106	202	11 81	9			115	60	5.248
	60	4	11	4	24	400.	10	4000.	3	106	202	11 81	9			115	61	3.087
	60	4	11	4	24	100.	8	800.	3	106	202	11 81	9			115	62	0.617
	60	4	11	4	24	250.	10	2500.	3	106	202	11 81	9			115	63	1.929
	62	4	12	4	26	100.	4	400.	3	107	100	11	9			115	64	0.309
	62	4	12	4	26	75.	4	300.	3	107	100	11	9			115	65	0.232
	62	4	12	4	26	150.	4	600.	3	107	100	11	9			115	66	0.463
												TOTAL FOR SECT.					2:	11.885
3	92	4	12	4	23	300.	10	3000.	3	106	204	11 81	9			115	51	2.315
	97	4	11	4	24	100.	6	600.	5	106	100	11	9			115	52	1.295
	97	4	11	4	24	150.	6	900.	5	106	100	11	9			115	53	1.943
	97	4	11	4	24	200.	6	1200.	5	106	100	11	9			115	54	2.591
	97	4	11	4	24	250.	10	2500.	1	106	100	11	9			115	55	0.383
	97	4	11	4	24	400.	6	2400.	5	106	100	11	9			115	56	5.182
	97	4	11	4	24	250.	6	1500.	5	106	100	11	9			115	57	3.239
	97	4	11	4	24	100.	6	600.	5	106	100	11	9			115	58	1.295
	97	4	11	4	24	100.	6	600.	5	106	100	11	9			115	59	1.295
												TOTAL FOR SECT.					3:	19.540
5	80	4	12	4	21	300.	8	2400.	5	106	204	11 81	9			115	45	5.182
	80	4	12	4	21	300.	5	1500.	5	106	204	11 81	9			115	46	3.239
	80	4	12	4	21	2400.	10	24000.	3	108	204	11 81	9			115	47	18.523
	80	4	12	4	21	1100.	4	4400.	3	108	100	11	9			115	48	3.396
	80	4	12	4	21	3200.	4	12800.	5	106	204	11 81	9			115	49	27.637
												TOTAL FOR SECT.					5:	57.976
6	76	4	6	4	12	100.	15	1500.	1	106	206	20	9			103	16	0.230
	76	4	6	4	12	300.	15	4500.	1	106	206	20 81	9			103	17	0.689
	76	4	6	4	12	400.	10	4000.	1	106	206	20 81	9			103	18	0.613
	76	4	6	4	12	2200.	20	44000.	1	104	206	81	9			103	19	6.739
	76	4	6	4	12	3000.	8	24000.	5	105	206	11 20 81	9			103	20	51.820
	76	4	6	4	12	1700.	8	13600.	5	105	206	11 20 81	9			103	21	29.365
	76	4	6	4	12	1300.	10	13000.	5	106	206	11 20 81	9			103	22	28.069
	76	4	6	4	12	600.	10	6000.	3	106	206	11 20 81	9			103	23	4.631
	76	4	6	4	12	600.	10	6000.	5	106	206	20 81	9			103	24	12.955
	76	4	6	4	12	200.	10	2000.	3	106	206	20 81	9			103	25	1.544
	76	4	6	4	12	600.	15	9000.	3	106	206	20 81	9			103	26	6.946
	76	4	6	4	12	300.	7	2100.	7	106	206	20 81	9			103	27	9.712
	76	4	6	4	12	400.	20	8000.	5	106	206	20 81	9			103	28	17.273
	76	4	6	4	12	100.	50	5000.	3	104	206	20	9			103	29	3.859
	76	4	6	4	12	400.	15	6000.	5	106	206	20 81	9			103	30	12.955
	76	4	6	4	12	400.	10	4000.	3	106	206	20	9			103	31	3.087
	76	4	6	4	12	50.	20	1000.	7	106	206	11 20	9			103	32	4.625
	76	4	6	4	12	50.	20	1000.	7	106	206	11 20	9			103	33	4.625
	76	4	6	4	12	50.	10	500.	7	104	204	81	9			103	34	2.312
	76	4	6	4	12	50.	10	500.	5	104	206	20	9			103	35	1.080
	76	4	6	4	12	100.	10	1000.	3	100	205	81	9			103	36	0.772
	76	4	6	4	12	400.	10	4000.	5	105	205	11 20	9			103	37	8.637

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2	MORTALITY PCT	MORTALITY C3	MORTALITY PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
6	76	4	6	4	12	200.	15	3000.	5	105	205	11 20 81	9						103	38	6.477
	76	4	6	4	12	200.	15	3000.	5	105	205	11 81	9						103	39	6.477
	76	4	12	4	23	2000.	4	8000.	5	106	204	11 81	9						115	50	17.273
	76	4	25	4	29	1000.	20	20000.	7	106	206	11 20	1	5					103	40	92.492
	76	4	25	4	29	360.	20	7200.	5	105	205	11 20	1	5					103	41	15.546
	76	4	25	4	29	2300.	20	46000.	7	106	206	20 81	1	5					103	42	212.733
	76	4	25	4	29	1000.	20	20000.	5	106	206	11 20 81	1	5					103	43	43.183
	76	4	25	4	29	1500.	20	30000.	3	104	206	20 81	1	5					103	44	23.153
																	TOTAL FOR SECT.			61	629.870
11	52	6	29	6	30	3300.	100	330000.	4	203	210	11	1	5					104	15	483.604
12	53	2	12	2	18	100.	50	5000.	1	101	208	11	1	10					104	2	0.255
	53	2	18	2	18	450.	40	18000.	4	104	203	11	1	20					104	3	8.784
	53	2	22	2	24	400.	25	10000.	3	108	201	81	1	5					104	4	2.570
	53	2	25	2	26	100.	10	1000.	1	202	208	81	1						104	5	0.051
	53	3	4	3	7	200.	10	2000.	1	201	208	81	1						104	6	0.102
	53	3	4	3	8	500.	50	25000.	3	205	209	11	1	5	52				104	7	6.425
	53	3	8	3	12	500.	50	25000.	3	204	204	81	1						104	9	6.425
	53	3	8	3	13	100.	10	1000.	1	202	208	81	1	15	152				104	10	0.051
	53	3	10	3	12	1500.	50	75000.	3	205	208	11	1	5	52				104	8	19.275
	53	3	12	3	13	3500.	50	175000.	3	204	208	11	1	5	52				104	11	44.975
	53	4	9	4	14	100.	100	10000.	1	102	201	81	1	20					104	12	0.510
	53	4	9	4	16	1000.	20	20000.	1	202	205	81	1						104	13	1.020
	53	4	15	4	16	200.	100	20000.	3	202	205	81	1						104	14	5.140
																	TOTAL FOR SECT.			12	95.583
22	101	6	5	6	10	1000.	10	10000.	4	108	208	11							103	84	14.655
	103	6	8	6	10	3150.	10	31500.	5	108	210	11 20							103	83	68.014
	106	6	8	6	10	1800.	20	36000.	5	106	208	11 20							103	81	77.730
	118	5	30	6	8	300.	200	60000.	5	106	210	20 81							103	85	129.550
	120	5	30	6	5	1100.	15	16500.	5	106	208	11 20							103	80	35.626
	132	6	8	6	10	1000.	20	20000.	5	106	208	11 20							103	82	43.183
																	TOTAL FOR SECT.			22	368.757
23	156	4	24	4	28	600.	40	24000.	3	110	205	11 81							103	71	18.523
	157	6	10	6	15	400.	15	6000.	7	104	210	11 81							103	77	27.748
	157	6	10	6	15	800.	10	8000.	5	104	210	11 81							103	78	17.273
	158	4	13	4	23	400.	15	6000.	5	110	204	20 81							103	70	12.955
	158	4	25	4	28	2200.	10	22000.	3	106	210	11 81							103	73	16.979
	158	5	19	5	21	200.	8	1600.	5	110	100	11							103	74	3.455
	158	5	19	5	21	400.	10	4000.	5	110	100	11 81							103	75	8.637
	158	5	19	5	21	800.	8	6400.	5	106	204	11 81							103	76	13.819
	158	6	16	6	18	1000.	12	12000.	5	104	206	11 81							103	79	25.910
	160	4	13	4	23	3600.	10	36000.	4	110	204	11 20 81							103	72	52.757
																	TOTAL FOR SECT.			23	198.054
24	140	4	20	4	23	600.	10	6000.	7	104	206	11 81							103	67	27.748
	140	4	20	4	23	500.	10	5000.	5	104	206	11							103	68	10.796
	140	4	20	4	23	1000.	10	10000.	3	104	206	11							103	69	7.718
																	TOTAL FOR SECT.			24	46.261

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2	MORTALITY PCT	MORTALITY C3	MORTALITY PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
25	167	3	30	4	2	50.	10	500.	3	100	210	81							103	89	0.386
	167	3	31	4	2	250.	15	3750.	3	105	210	81							103	90	2.894
	167	4	3	4	5	150.	20	3000.	7	100	215	20 81							103	91	13.874
	167	4	3	4	5	700.	20	14000.	3	100	215	20 81							103	92	10.805
	167	4	7	4	12	100.	10	1000.	5	100	215	20							103	93	2.159
	167	4	19	4	22	800.	15	12000.	5	105	210	11 20							103	94	25.910
	167	4	19	4	22	900.	15	13500.	3	105	210	11 20							103	95	10.419
	168	4	7	4	14	2800.	10	28000.	4	105	210	11 81							103	101	41.033
	168	4	7	4	14	3200.	10	32000.	5	100	210	11 20 81							103	102	69.093
	168	4	12	4	14	1200.	8	9600.	5	102	210	11 20							103	103	20.728
	170	3	16	3	18	800.	4	3200.	3	100	204	81							103	86	2.470
	170	3	26	3	28	600.	5	3000.	3	100	205	11 20 81							103	87	2.315
	170	3	31	4	2	600.	15	9000.	4	105	210	11 20 81							103	88	13.189
	171	4	5	4	14	2000.	10	20000.	3	105	210	11 20 81							103	100	15.435
	176	4	19	4	22	1000.	20	20000.	5	105	215	11 81							103	98	43.183
	176	4	19	4	22	5900.	10	59000.	3	100	210	11 20							103	99	45.535
	180	4	14	4	16	1800.	5	9000.	5	100	205	11 81							103	104	19.432
	180	4	14	4	16	2400.	5	12000.	7	100	105	11 20 81							103	105	55.495
	182	4	19	4	22	2600.	10	26000.	7	100	110	11 20							103	97	120.240
	185	4	17	4	21	2000.	10	20000.	4	102	208	11							103	96	29.309
																	TOTAL FOR SECT.			25:	543.906
33	211	4	2	4	7	30.	3	90.	1	101	201	20							116	106	0.014
	211	4	2	4	7	80.	20	1600.	1	201	203	15 20 81							116	107	0.245
	211	4	2	4	7	125.	25	3125.	1	201	206	11 81							116	108	0.479
	211	4	2	4	7	1000.	25	25000.	1	113	203	11 81	1	10	3	5	7	5	116	109	3.829
	211	4	2	4	7	725.	3	2175.	3	112	202	11	1	10	3	5	7	5	116	110	1.679
	211	4	2	4	7	300.	3	900.	5	112	202	11	1	10	3	10			116	111	1.943
	211	4	2	4	7	600.	10	6000.	5	107	103	11 81	1	10	3	10			116	112	12.955
	211	4	2	4	7	100.	10	1000.	3	107	103	11 81	1	10	3	10			116	113	0.772
	211	4	2	4	7	150.	50	7500.	5	107	202	11 81 91	1	10					116	114	16.194
	218	4	2	4	7	300.	20	6000.	5	116	105	11 81 91	1	10	3	5	7	5	116	115	12.955
	218	4	2	4	7	175.	40	7000.	3	113	100	11 81 91	1	10	3	10			116	116	5.402
	218	4	2	4	7	100.	10	1000.	5	113	100	11 81 91	1	10	3	10			116	117	2.159
	218	4	2	4	7	125.	10	1250.	3	113	100	11 81 91	1	10	3	10			116	118	0.965
	218	4	2	4	7	200.	20	4000.	3	113	100	11 20 91	1	10	3	5			116	120	3.087
	218	4	2	4	7	140.	20	2800.	3	112	100	11 20 91	1	10	3	10			116	123	2.161
	218	4	6	4	12	100.	20	2000.	5	113	100	11 20 91	1	10	3	10			116	119	4.318
	218	4	6	4	12	150.	15	2250.	5	113	100	11 20 91	1	10	3	5			116	121	4.858
	218	4	6	4	12	200.	20	4000.	5	112	100	11 20 91	1	10	3	10			116	122	8.637
	218	4	6	4	12	375.	20	7500.	5	112	100	11 20 91	1	10	3	10			116	124	16.194
	218	4	6	4	12	100.	15	1500.	5	115	201	11 15 20 91	1	10	3	10			116	125	3.239
																	TOTAL FOR SECT.			33:	102.083
42	262	4	5	4	8	800.	15	12000.	5	105	215	11 20 81	1		7				117	154	25.910
	262	4	5	4	8	400.	60	24000.	5	110	205	11	1		3				117	155	51.820
	262	4	5	4	8	800.	400	320000.	6	110	205	11 91	1		3		7		117	158	1085.886
	263	4	9	4	13	100.	100	10000.	4	110	100	11	1		3				117	177	14.655
	263	4	9	4	13	700.	100	70000.	5	110	100	11	1		3				117	178	151.141

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
42	263	4	9	4	13	200.	50	10000.	4	110	105	11	1		3				117	179	14.655
	263	4	9	4	13	900.	100	90000.	5	105	205	11	1						117	180	194.324
	263	4	9	4	13	100.	20	2000.	3	105	205	20 81	1						117	181	1.544
	265	4	5	4	8	1900.	300	570000.	5	110	205	11 81	1		3		7		117	160	1230.721
	266	4	4	4	12	50.	10	500.	3	100	205	81	1						117	152	0.386
	266	4	4	4	12	200.	30	6000.	6	100	205	81	1						117	153	20.360
	266	4	5	4	8	300.	10	3000.	6	105	205	11 81	1						117	150	10.180
	266	4	5	4	8	30.	30	900.	4	100	210	81	1						117	151	1.319
	1441	4	5	4	8	250.	15	3750.	5	105	210	11 20	1						117	156	8.097
	1441	4	5	4	8	200.	20	4000.	5	105	210	11 20	1		7				117	157	8.637
	1442	4	5	4	8	40.	10	400.	3	105	205	11	1						117	159	0.309
	1443	4	5	4	8	40.	5	200.	4	110	205	11	1		3				117	161	0.293
	1444	4	5	4	8	250.	50	12500.	5	110	205	11	1		3				117	162	26.989
	1444	4	6	4	8	650.	40	26000.	3	110	205	11	1		3				117	163	20.066
	1444	4	6	4	8	250.	5	1250.	1	115	105	11	1		3				117	164	0.191
	1444	4	6	4	8	250.	5	1250.	2	115	105	11	1		3				117	165	0.578
	1446	4	8	4	9	800.	20	16000.	1	110	100	11	1						117	168	2.450
	1447	4	8	4	9	100.	5	500.	2	110	100	11	1						117	169	0.231
	1447	4	8	4	9	400.	5	2000.	1	110	100	11	1						117	170	0.306
	1447	4	8	4	9	850.	50	42500.	5	110	205	11	1						117	171	91.764
	1448	4	8	4	9	150.	10	1500.	3	110	205	11	1						117	172	1.158
	1448	4	8	4	9	100.	10	1000.	3	110	205	11	1						117	173	0.772
	1448	4	8	4	9	100.	5	500.	1	110	205	11	1						117	174	0.077
	1449	4	9	4	13	80.	10	800.	4	105	100	81	1						117	175	1.172
	1449	4	9	4	13	40.	5	200.	5	105	205	20	1						117	176	0.432
															TOTAL FOR SECT.					42:	2966.423
43	286	4	29			1200.	15	18000.	3	110	215	11 20 81	1		3				117	129	13.892
	286	4	29			650.	10	6500.	3	110	205	11 20	1		3				117	130	5.017
	286	4	29			200.	15	3000.	5	110	215	11 20 81	3						117	131	6.477
	286	4	29			360.	20	7200.	5	110	215	11 20	3						117	132	15.546
	286	4	29			100.	20	2000.	5	100	210	20	1		2		6		117	133	4.318
	286	4	29			550.	100	55000.	5	110	210	11 20	3						117	134	118.754
	286	4	29			150.	1	150.	5	105	105	11	1						117	135	0.324
	286	4	29			200.	5	1000.	1	105	100	11	1						117	136	0.153
	293	4	29			350.	5	1750.	3				1						117	139	1.351
	1450	5	21			50.	5	250.	3	105	205	11 20 81	1		6				117	126	0.193
	1450	5	21			500.	3	1500.	4	105	100	11 20 81	1		6				117	127	2.198
	1450	5	21			110.	5	550.	4	105	205	11 20 81	1		6				117	128	0.806
	1450	5	21			1000.	15	15000.	4	110	205	11 81	1		6				117	143	21.982
	1450	5	21			300.	7	2100.	4	110	205	11 20	1						117	144	3.077
	1450	5	21			800.	20	16000.	4	110	205	11 20 81	1						117	145	23.447
	1450	5	21			200.	100	20000.	3	110	205	11 20	1						117	146	15.435
	1451	4	29			350.	10	3500.	3				1						117	137	2.701
	1451	4	29			550.	5	2750.	3				1						117	138	2.122
	1452	4	29			500.	5	2500.	3				1						117	140	1.929
	1453	4	29			100.	3	300.	1				1						117	141	0.046
	1453	4	29			50.	5	250.	1				1						117	142	0.038
	1454	5	21			100.	15	1500.	4	110	205	11 20	1						117	147	2.198
	1454	5	21			20.	20	400.	5	110	205	11 20 81	1						117	148	0.864

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2	MORTALITY PCT	MORTALITY C3	MORTALITY PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
43	1454	5	21			200.	10	2000.	4	110	205	11 20	1						117	149	2.931
																		TOTAL FOR SECT.		43:	245.801
45	1455	5	30	6	3	2200.	10	22000.	7	112	100	11	1						96	182	101.742
52	339	5	2	5	4	200.	15	3000.	3			11							117	212	2.315
	339	5	2	5	4	50.	30	1500.	3			11							117	213	1.158
	344	4	22	4	20	700.	25	17500.	5			15							117	207	37.785
	344	4	22	4	20	100.	50	5000.	5			15							117	208	10.796
	344	4	22	4	20	700.	50	35000.	5			20							117	209	75.571
	344	4	22	4	20	200.	200	40000.	5			20							117	210	86.366
	344	4	22	4	20	100.	25	2500.	3			11							117	211	1.929
	345	4	1	4	1	100.	50	5000.	3	105	100	20	1						116	183	3.859
	345	4	10	4	13	150.	15	2250.	5	108	202	20	1						116	184	4.858
	345	4	10	4	13	150.	5	750.	3	110	104	11	1						116	185	0.579
	346	4	10	4	14	1300.	80	104000.	5	105	202	81	1						116	190	224.553
	348	4	10	4	13	50.	2	100.	5	110	102	81	1						116	191	0.216
	353	4	10	4	13	25.	1	25.	5	114	108	11	1						116	193	0.054
	353	4	10	4	13	125.	1	125.	5	114	108	11							117	194	0.270
	353	4	10	4	13	150.	20	3000.	5	114	108	11							117	195	6.477
	354	4	8	4	8	300.	25	7500.	5			81							117	198	16.194
	354	4	8	4	8	1600.	20	32000.	5	113	103	15							117	199	69.093
	354	4	8	4	8	400.	7	2800.	3	111	204	11							117	200	2.161
	354	4	8	4	8	300.	25	7500.	5			81							117	201	16.194
	354	4	8	4	8	300.	7	2100.	3	111	204	11							117	202	1.621
	354	4	10	4	12	50.	2	100.	5	107	102	11							117	196	0.216
	354	4	10	4	12	150.	2	300.	5	107	102	11							117	197	0.648
	354	4	10	4	8	1600.	20	32000.	5	109	204	15 20							117	203	69.093
	354	4	10	4	20	800.	20	16000.	5	109	204	15 20							117	204	34.547
	354	4	10	4	20	800.	100	80000.	3	107	201	20							117	205	61.742
	354	4	10	4	20	100.	100	10000.	3	107	201	20							117	206	7.718
	355	4	10	4	13	1300.	15	19500.	5	108	202	20	1						116	186	42.104
	355	4	10	4	14	75.	20	1500.	3	107	202	20	1						116	187	1.158
	355	4	10	4	14	400.	200	80000.	5	106	208	15 81	1						116	188	172.733
	355	4	10	4	14	600.	100	60000.	3	104	201	15 81	1						116	189	46.306
	356	4	6	4	6	450.	30	13500.	5	106	203	20	1						116	192	29.149
																		TOTAL FOR SECT.		52:	1027.460
62	408	5	16	5	20	20000.	1	20000.	7	100	203	11 91	6	20					43	232	92.492
	1458	6	2	6	4	2300.	20	46000.	1	108	220	11 20 91	1	5					43	233	7.045
																		TOTAL FOR SECT.		62:	99.538
65	379	4	15	4	26	600.	2	1200.	1	110	206	11 50	1	3					43	229	0.184
	379	4	15	4	26	1900.	2	3800.	4	110	206	11 50	1	3					43	230	5.569
	382	4	15	4	27	400.	2	800.	3	110	204	11 50	1	3					43	231	0.617
	385	4	20	4	26	400.	2	800.	1	110	204	11 50	1	3					43	227	0.123
	385	4	20	4	26	1800.	2	3600.	4	110	206	11 50	1	3					43	228	5.276
																		TOTAL FOR SECT.		65:	11.768
67	425	3	26	3	28	1600.	15	24000.	3	112	206	11 20 81	1	10					43	214	18.523

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
67	425	3	27	3	28	1100.	10	11000.	3	112	210	11 20 81	1	7					43	215	8.489
	425	4	7	4	8	3000.	30	90000.	4	108	215	11 20	1	3					43	216	131.892
	430	4	16	4	24	250.	5	1250.	1	110	102	11 20	1	10					43	220	0.191
	431	4	13	4	25	4800.	5	24000.	3	108	212	11 20 81	1	10					43	221	18.523
	431	4	13	4	25	100.	10	1000.	5	106	210	20 81	1	7					43	222	2.159
	431	4	13	4	25	150.	20	3000.	5	106	212	20 81	1	5					43	223	6.477
	431	4	13	4	25	100.	10	1000.	3	106	206	11 20 81	1	7					43	224	0.772
	432	4	13	4	24	900.	10	9000.	3	112	206	11 20 50	1	10					43	219	6.946
	433	4	13	4	24	300.	3	900.	3	108	206	11 20 81	1	7					43	218	0.695
	1456	3	28	4	10	2600.	8	20800.	4	112	100	11 20 91	1	5					43	217	30.482
	1457	4	13	4	26	20.	10	200.	3	106	204	20 81	1	5					43	225	0.154
	1457	4	13	4	26	100.	10	1000.	5	106	204	11 20 81	1	5					43	226	2.159
															TOTAL FOR SECT.				67:		227.462
72	471	4	3	4	5	3000.	3	9000.	3	110	100	11 41 91	1	7					99	258	6.946
	471	4	6	4	9	800.	4	3200.	3	112	102	11 81 91	1	7					99	265	2.470
	480	3	10	3	10	40.	5	200.	1	108	201	11 91	1	8					99	234	0.031
	480	4	3	4	7	1400.	5	7000.	1	110	210	11 20 81 91	1	3					99	256	1.072
	496	4	3	4	5	1600.	3	4800.	1	110	202	11 91	1	3					99	259	0.735
	496	4	6	4	10	150.	4	600.	3	112	204	11 91	1	5					99	267	0.463
	499	4	4	4	6	2200.	15	33000.	3	110	220	11 20 91	1	3	7	4			99	261	25.468
	499	4	4	4	6	1500.	12	18000.	5	110	220	11 20 91	1	3	7	4			99	262	38.865
	499	4	6	4	10	250.	6	1500.	1	110	203	11 81 91	1	5					99	266	0.230
	529	4	2	4	6	200.	12	2400.	3	106	215	11 20 91	1	7					99	257	1.852
	529	4	4	4	6	1700.	6	10200.	3	109	210	11 20 91	1	7					99	260	7.872
	529	4	6	4	10	100.	3	300.	3	110	102	11 91	1	5					99	268	0.232
															TOTAL FOR SECT.				72:		86.235
73	477	3	30	4	5	300.	2	600.	3	110	102	11	9	2					99	244	0.463
	477	3	30	4	5	50.	3	150.	1	104	100	11 81	9	2					99	245	0.023
	477	3	30	4	5	100.	4	400.	5	110	100	11	8	5					99	246	0.864
															TOTAL FOR SECT.				73:		1.350
74	462	4	10	4	15	3110.	3	9330.	3	112	202	11 20 81 91	1	5					99	317	7.201
	462	4	10	4	15	8160.	6	48960.	5	112	215	11 20 81 91	1	5					99	318	105.712
	462	4	10	4	15	87.	30	2610.	7	104	205	11 20 81 91	1	5					99	319	12.070
	538	4	11	4	14	300.	7	2100.	5	110	202	11 20 91	1	2					99	331	4.534
	538	4	11	4	14	200.	20	4000.	5	110	202	11 20 91	1	2					99	332	8.637
	538	4	11	4	14	600.	5	3000.	5	110	202	11 20 81	1	2					99	333	6.477
	538	4	11	4	14	650.	10	6500.	5	110	100	11 20 81	1	2					99	334	14.035
	538	4	11	4	14	2600.	12	31200.	5	108	202	11 20 81 91	1	5					99	335	67.366
	538	4	11	4	14	130.	30	3900.	3	110	204	11 81							99	336	3.010
	538	4	11	4	14	100.	5	500.	3	112	100	11 81							99	337	0.386
	538	4	11	4	14	50.	50	2500.	3	110	204	11 20							99	338	1.929
	538	4	11	4	14	1600.	8	12800.	3	112	106	11 81 91							99	339	9.879
	538	4	11	4	14	380.	2	760.	1	112	104	11 91							99	340	0.116
	538	4	11	4	14	100.	15	1500.	1	112	100								99	341	0.230
	538	4	11	4	14	100.	2	200.	1	110	106	11 91							99	342	0.031
	539	4	12	4	15	1600.	8	12800.	3	108	210	11 20 81 91	1	5					99	330	9.879
	540	4	9	4	16	620.	3	1860.	3	108	100	11 20 91							99	291	1.435

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
74	540	4	9	4	16	740.	6	4440.	5	112	202	11 15 20 81							99	292	9.587
	540	4	9	4	16	600.	6	3600.	3	112	202	11 15 20 81							99	293	2.778
	540	4	9	4	16	350.	4	1400.	3	112	202	11 20 91							99	294	1.080
	540	4	9	4	16	400.	6	2400.	3	112	202	11 20 91							99	295	1.852
	540	4	9	4	16	450.	25	11250.	9	100	206	11 20 81							99	296	107.534
	540	4	9	4	16	450.	25	11250.	7	110	206	11 15 20 81							99	297	52.027
	540	4	9	4	16	150.	6	900.	5	110	204	11 20 81 91							99	298	1.943
	540	4	9	4	16	200.	30	6000.	5	112	202	11 20 81 91							99	299	12.955
	540	4	9	4	16	250.	10	2500.	9	106	204	11 15 20 81							99	300	23.896
	540	4	9	4	16	220.	20	4400.	5	110	100	11 15 20 81							99	301	9.500
	540	4	9	4	16	240.	8	1920.	3	112	104	11 81 91							99	302	1.482
	540	4	9	4	16	300.	5	1500.	3	110	100	11 81 91							99	303	1.158
	540	4	9	4	16	500.	6	3000.	5	108	204	11 15 20 81							99	304	6.477
	540	4	9	4	16	500.	6	3000.	3	112	204	11 20 91							99	305	2.315
	542	4	13	4	18	600.	3	1800.	3	104	204	11 81							99	369	1.389
	542	4	13	4	18	300.	2	600.	3	104	204	11							99	370	0.463
	542	4	13	4	18	400.	4	1600.	3	104	204	11 20 81							99	371	1.235
	542	4	13	4	18	800.	5	4000.	5	102	202	11 20 81							99	372	8.637
	542	4	13	4	18	200.	4	800.	3	102	202	11 81							99	373	0.617
	542	4	13	4	18	300.	3	900.	5	102	202	11 20 81							99	374	1.943
	544	4	12	4	14	1800.	11	19800.	5	106	215	11 20 81	1	3					99	357	42.751
	544	4	12	4	14	800.	10	8000.	3	110	205	11 91							99	358	6.174
	544	4	13	4	18	800.	4	3200.	3	103	203	11 20 81							99	375	2.470
	545	4	12	4	15	3000.	4	12000.	3	112	202	11 20 81 91							99	343	9.261
	545	4	12	4	15	300.	6	1800.	5	112	202	11 20 81 91							99	344	3.886
	545	4	12	4	15	180.	16	2880.	5	112	202	11 81 91							99	345	6.218
	545	4	12	4	15	300.	4	1200.	7	112	100	11 91							99	346	5.550
	545	4	12	4	15	300.	60	18000.	5	112	202	11 20 81 91							99	347	38.865
	545	4	12	4	15	200.	3	600.	7	112	100	11 91							99	348	2.775
	545	4	12	4	15	575.	30	17250.	5	112	202	11 81 91							99	349	37.245
	545	4	12	4	15	340.	4	1360.	5	110	100	11 91							99	350	2.936
	545	4	12	4	15	420.	3	1260.	3	110	100	11 81 91							99	351	0.972
	545	4	12	4	15	230.	2	460.	1	108	100	11 91							99	352	0.070
	545	4	12	4	15	150.	20	3000.	1	112	104	11 91							99	353	0.459
	545	4	12	4	15	100.	40	4000.	5	112	104	11 81 91							99	354	8.637
	545	4	12	4	15	1800.	3	5400.	3	112	104	11 81 91							99	355	4.168
	545	4	12	4	15	400.	2	800.	1	110	104	11 91							99	356	0.123
	546	4	9	4	16	400.	15	6000.	5	110	204	11 15 20 81							99	278	12.955
	546	4	9	4	16	100.	14	1400.	5	110	204	11 15 20 81							99	279	3.023
	546	4	9	4	16	250.	6	1500.	5	110	204	11 15 20 81							99	280	3.239
	546	4	9	4	16	150.	8	1200.	3	112	100	11 15 20 81							99	281	0.926
	546	4	9	4	16	420.	4	1680.	5	112	204	11 15 20 81							99	282	3.627
	546	4	9	4	16	180.	25	4500.	7	108	204	11 15 20							99	283	20.811
	546	4	9	4	16	75.	12	900.	3	210	215	20							99	284	0.695
	546	4	9	4	16	100.	75	7500.	7	106	100	11 81							99	285	34.685
	546	4	9	4	16	300.	3	900.	5	110	204	11 20 91							99	286	1.943
	546	4	9	4	16	400.	5	2000.	5	110	204	11 15 20							99	287	4.318
	546	4	9	4	16	400.	12	4800.	7	110	204	11 15 20							99	288	22.198
	546	4	9	4	16	220.	50	11000.	5	110	204	11 15 20							99	289	23.751
	546	4	9	4	16	230.	3	690.	5	110	204	11 15 20							99	290	1.490

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
74	1419	3	30	4	7	1600.	8	12800.	1	108	220	81				99	255	1.960
	1419	4	9	4	13	1600.	8	12800.	3	107	215	11 20 81 91	1 3			99	306	9.879
	1429	4	10	4	13	1400.	10	14000.	3	114	100	11 81 91	1 5			99	314	10.805
	1429	4	10	4	13	1000.	10	10000.	5	114	100	11 81 91	1 7			99	315	21.592
	1429	4	10	4	13	100.	10	1000.	3	112	202	11 20 81 91	1 5			99	316	0.772
												TOTAL FOR SECT.				74:		853.026
75	505	3	16	3	18	200.	10	2000.	3	106	201	11 91	1 2			99	237	1.544
	505	3	18	3	18	150.	15	2250.	1	108	100	15 91	1 2			99	238	0.345
	505	3	25	3	29	100.	3	300.	1	110	100	11 81 91	1 2	3 1		99	242	0.046
	505	3	25	3	31	350.	5	1750.	3	110	102	11 91				99	243	1.351
	505	4	7	4	7	200.	20	4000.	5	111	205	11 20	1 2			99	271	8.637
	505	4	7	4	7	350.	15	5250.	7	110	102	11 20				99	272	24.279
	505	4	7	4	7	300.	20	6000.	7	110	102	11 20 81				99	273	27.748
	505	4	8	4	8	250.	5	1250.	3	112	204	11 20 81				99	307	0.965
	505	4	8	4	8	200.	8	1600.	3	106	101	11 20	1 2			99	309	1.235
	505	4	10	4	10	150.	150	22500.	3	112	108	20				99	326	17.365
	505	4	10	4	10	2000.	5	10000.	5	114	205	11 15				99	327	21.592
	505	4	12	4	13	50.	20	1000.	3	112	104	20 81				99	365	0.772
	505	4	12	4	15	250.	5	1250.	5	110	202	20				99	367	2.699
	505	4	12	4	15	75.	3	225.	5	115	202	11 91				99	368	0.486
	505	4	14	4	14	50.	2	100.	1	115	102	11 91				99	383	0.015
	1445	4	6	4	8	350.	10	3500.	5	115	105	11	1	3		117	166	7.557
	1445	4	6	4	8	400.	10	4000.	3	110	205	11 20	1	3		117	167	3.087
	1459	3	18	3	18	100.	5	500.	1	105	204	20 91	1 1	3 1		99	239	0.077
	1459	4	12	4	12	100.	50	5000.	1	112	202	11 81				99	328	0.766
	1463	4	8	4	8	100.	15	1500.	3	106	101	11 20	1 2			99	308	1.158
												TOTAL FOR SECT.				75:		121.720
76	549	4	12	4	13	50.	4	200.	1	110	202	11 91				99	363	0.031
	549	4	12	4	13	100.	2	200.	1	112	204					99	364	0.031
	551	4	5	4	5	100.	75	7500.	1	104	202	81				99	263	1.149
	551	4	5	4	9	150.	10	1500.	3	104	205	11 81				99	264	1.158
	551	4	8	4	9	2000.	10	20000.	3	110	205	11 20 81				99	274	15.435
	551	4	12	4	12	350.	4	1400.	3	115	202	11 91				99	360	1.080
	551	4	13	4	14	50.	15	750.	3	114	201	20				99	379	0.579
	551	4	13	4	14	2000.	10	20000.	5	112	205	20				99	380	43.183
	554	3	18	3	28	150.	8	1200.	3	106	204	20 91				99	241	0.926
	555	4	8	4	9	350.	17	5950.	3	110	205	11 91				99	276	4.592
	555	4	9	4	10	150.	10	1500.	3	112	202	11 81				99	323	1.158
	556	3	23	4	5	15.	3	45.	1	112	105	11 91	3 4			99	247	0.007
	556	3	23	4	5	150.	6	900.	3	110	102	11 91	3 3			99	248	0.695
	556	3	23	4	5	50.	5	250.	3	110	104	11 91	3 5			99	249	0.193
	556	3	27	4	5	150.	25	3750.	1	112	202	11 81 91	3 7			99	250	0.574
	556	4	12	4	13	150.	5	750.	1	114	102	11 91				99	362	0.115
	559	3	30	4	6	100.	20	2000.	3	105	205	11 91	8 2			99	254	1.544
	559	4	13	4	13	100.	15	1500.	1	114	204	15 20				99	376	0.230
	559	4	13	4	14	200.	20	4000.	1	112	205	11 20				99	378	0.613
	560	3	15	3	15	250.	20	5000.	3	108	101	11 20	3 2			99	235	3.859
	560	4	7	4	7	800.	5	4000.	3	110	102	11 20				99	270	3.087

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
76	560	4	8	4	9	1000.	12	12000.	3	110	202	11 91							99	275	9.261
	561	3	16	3	16	500.	8	4000.	5	108	101	11 20 81	3	10					99	236	8.637
	561	3	19	3	21	600.	10	6000.	3	105	204	11 20	1	1	3	1			99	240	4.631
	561	3	29	4	6	800.	8	6400.	4	110	205	11 81 91	8	15					99	252	9.379
	561	3	29	4	6	350.	3	1050.	4	108	205	11 91	8	3					99	253	1.539
	561	4	7	4	7	500.	5	2500.	3	110	202	11 20 81							99	269	1.929
	561	4	8	4	9	500.	10	5000.	3	110	210	11 91							99	277	3.859
	561	4	9	4	9	2500.	5	12500.	5	108	202	11 15	1	2					99	322	26.989
	562	4	8	4	9	50.	20	1000.	3	110	205	11 81							99	312	0.772
	562	4	9	4	9	500.	10	5000.	3	110	202	11 91							99	320	3.859
	562	4	12	4	12	50.	15	750.	3	115	202	11 91							99	359	0.579
	562	4	14	4	14	50.	5	250.	1	115	202	11							99	381	0.038
	563	3	30	4	5	75.	50	3750.	1	102	202	81							99	251	0.574
	566	4	12	4	13	100.	50	5000.	1	112	210	15 81							99	361	0.766
	566	4	14	4	14	75.	5	375.	1	115	204	20 81							99	382	0.057
	569	4	8	4	9	800.	5	4000.	3	110	202	11 81							99	313	3.087
	571	4	8	4	9	150.	20	3000.	5	110	103	11 20	1	2					99	310	6.477
	571	4	8	4	12	200.	10	2000.	5	110	205	11 20							99	311	4.318
	571	4	9	4	9	300.	8	2400.	5	108	205	11							99	321	5.182
	571	4	13	4	13	300.	100	30000.	3	112	101	20							99	377	23.153
	1464	4	9	4	10	300.	15	4500.	3	112	202	11							99	324	3.473
	1465	4	10	4	10	200.	100	20000.	3	108	104	11 20 81							99	325	15.435
	1465	4	14	4	15	100.	50	5000.	1	104	204	20							99	384	0.766
	1466	4	10	4	12	200.	5	1000.	3	112	204	11 15 41							99	329	0.772
	1468	4	12	4	13	100.	15	1500.	3	112	104	20							99	366	1.158
															TOTAL FOR SECT.				76:		216.928
82	587	3	18	4	2	1500.	20	30000.	2	106	100	11	3	50					110	390	13.874
	587	3	18	4	2	3000.	2	6000.	3	106	100	11	3	50					110	391	4.631
	587	3	18	4	2	7000.	2	14000.	3	106	100	11	3	50					110	392	10.805
															TOTAL FOR SECT.				82:		29.309
83	597	3	24	4	2	6000.	2	12000.	3	110	100	11 91	1	5	3	10			110	393	9.261
	597	3	24	4	2	10000.	2	20000.	3	110	100	11 91	1	5	3	10			110	394	15.435
	598	3	17	4	1	800.	2	1600.	1	110	102	11	3	20					110	386	0.245
	598	3	17	4	1	1200.	2	2400.	1	110	102	11	3	20					110	387	0.368
	598	3	17	4	1	1600.	2	3200.	3	110	102	11	3	40					110	388	2.470
	598	3	17	4	1	9000.	1	9000.	1	110	102	11	3	20					110	389	1.378
	598	4	17	4	1	5400.	2	10800.	1	110	102	11	3	20					110	385	1.654
															TOTAL FOR SECT.				83:		30.811
84	607	5	19	6	2	80.	2	160.	3	105	210	11 91	9	7					110	425	0.123
	607	5	20	6	2	2000.	5	10000.	6	105	210	11 91	9	7					110	423	33.934
	607	5	22	6	2	2000.	3	6000.	6	105	210	11 91	9	7					110	424	20.360
	607	5	22	6	2	500.	3	1500.	6	105	210	11 91	9	7					110	426	5.090
	607	5	22	6	2	200.	20	4000.	6	105	210	11 91	9	7					110	427	13.574
	607	5	22	6	2	1000.	3	3000.	9	105	210	11 91	9	7					110	428	28.676
	607	5	22	6	2	500.	3	1500.	4	105	210	11 91	9	7					110	429	2.198
	607	5	22	6	2	250.	6	1500.	6	105	210	11 91	9	7					110	430	5.090
	607	5	22	6	2	1000.	3	3000.	5	105	210	11 91	9	7					110	431	6.477

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES		MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
84	607	5	22	6	2	1000.	3	3000.	5	105	210	11	91	9	7		110	432	6.477
	607	5	25	6	2	200.	20	4000.	6	105	210	11	91	9	7		110	433	13.574
	607	5	25	6	2	400.	3	1200.	6	105	210	11	91	9	7		110	434	4.072
	607	5	25	6	2	2600.	5	13000.	5	105	210	11	91	9	7		110	435	28.069
	607	5	26	6	2	3800.	3	11400.	5	105	210	11	91	9	7		110	441	24.614
	607	5	27	6	2	1900.	5	9500.	3	105	210	11	91	9	7		110	436	7.332
	607	5	27	6	2	5.	2	10.	5	105	210	11	91	9	7		110	437	0.022
	607	5	27	6	2	1620.	5	8100.	5	105	210	11	91	9	7		110	438	17.489
	607	5	27	6	2	1675.	5	8375.	5	105	210	11	91	9	7		110	439	18.083
	607	5	29	6	2	500.	20	10000.	6	105	210	11	91	9	7		110	442	33.934
	607	5	29	6	2	50.	10	500.	9	105	210	11	91	9	7		110	443	4.779
	607	5	29	6	2	200.	10	2000.	4	105	210	11	91	9	7		110	444	2.931
	607	5	29	6	2	200.	10	2000.	6	105	210	11	91	9	7		110	445	6.787
	607	5	29	6	2	150.	1	150.	3	105	210	11	91	9	7		110	446	0.116
	607	5	29	6	2	350.	5	1750.	5	105	210	11	91	9	7		110	447	3.779
	607	5	29	6	2	2400.	3	7200.	5	105	210	11	91	9	7		110	448	15.546
	607	5	30	6	2	1100.	3	3300.	4	105	210	11	91	9	7		110	440	4.836
	607	6	4	6	7	1600.	3	4800.	3	105	210	11	91	9	7		110	449	3.705
	607	6	4	6	7	1800.	3	5400.	3	105	210	11	91	9	7		110	450	4.168
	607	6	4	6	7	750.	4	3000.	7	105	210	11	91	9	7		110	451	13.874
	607	6	4	6	7	400.	3	1200.	5	105	210	11	91	9	7		110	452	2.591
	607	6	4	6	7	300.	4	1200.	6	105	210	11	91	9	7		110	453	4.072
	607	6	4	6	7	1400.	4	5600.	6	105	210	11	91	9	7		110	454	19.003
	607	6	4	6	7	1100.	3	3300.	5	105	210	11	91	9	7		110	455	7.125
	607	6	4	6	7	500.	3	1500.	5	105	210	11	91	9	7		110	456	3.239
	607	6	7	6	10	2050.	3	6150.	5	105	210	11	91	9	7		110	457	13.279
	607	6	7	6	10	400.	3	1200.	5	105	210	11	91	9	7		110	458	2.591
	607	6	7	6	10	1000.	3	3000.	5	105	210	11	91	9	7		110	459	6.477
	607	6	7	6	10	300.	3	900.	3	105	210	11	91	9	7		110	460	0.695
	607	6	7	6	10	2000.	3	6000.	5	105	210	11	91	9	7		110	461	12.955
	607	6	10	6	15	300.	4	1200.	7	105	210	11	91	9	7		110	462	5.550
	607	6	28	7	1	250.	4	1000.	5	105	210	11	91	9	7		110	463	2.159
	607	6	28	7	1	25.	4	100.	5	105	210	11	91	9	7		110	464	0.216
	607	6	28	7	1	100.	4	400.	5	105	210	11	91	9	7		110	465	0.864
	607	6	30	7	1	1000.	4	4000.	5	105	210	11	91	9	7		110	466	8.637
																TOTAL FOR SECT.		841	419.160
85	576	4	10	4	13	2000.	5	10000.	5	110	202	11		9	10		110	405	21.592
	576	4	10	4	13	200.	25	5000.	6	110	202	11	81	9	10		110	406	16.967
	576	4	10	4	13	1500.	5	7500.	6	110	202	11		9	10		110	407	25.450
	576	4	10	4	13	600.	5	3000.	6	110	202	11		9	10		110	408	10.180
	576	4	10	4	13	1700.	5	8500.	6	110	202	11		9	10		110	409	28.844
	603	4	9	4	14	60.	30	1800.	1	110	204	11		9	10		110	410	0.276
	603	4	9	4	14	50.	30	1500.	5	110	204	11		9	10		110	411	3.239
	603	4	9	4	14	30.	20	600.	5	110	204	11		9	10		110	412	1.295
	603	4	9	4	14	70.	30	2100.	6	110	204	11		9	10		110	413	7.126
	603	4	9	4	14	50.	20	1000.	6	110	204	11		9	10		110	414	3.393
	603	4	9	4	14	20.	10	200.	6	110	204	11		9	10		110	415	0.679
	603	4	9	4	14	10.	10	100.	6	110	204	11		9	10		110	416	0.339
	603	4	9	4	14	400.	2	800.	1	110	204	11		9	10		110	417	0.123

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
85	603	4	9	4	14	1000.	2	2000.	1	110	204	11	9	10					110	418	0.306
	603	4	9	4	14	600.	1	600.	1	110	204	11	9	10					110	419	0.092
	603	4	9	4	14	1000.	1	1000.	1	110	204	11	9	10					110	420	0.153
	604	4	9	4	14	500.	1	500.	1	110	204	11	9	10					110	421	0.077
	604	4	9	4	14	80.	30	2400.	1	110	204	11	9	10					110	422	0.368
	1363	4	10	4	13	700.	5	3500.	5	110	202	11 81	9	10					110	395	7.557
	1363	4	10	4	13	500.	5	2500.	5	110	202	11	9	10					110	396	5.398
	1363	4	10	4	13	200.	200	40000.	5	110	202	11 81	9	10					110	397	86.366
	1363	4	10	4	13	800.	15	12000.	7	110	202	11 81	9	10					110	398	55.495
	1363	4	10	4	13	700.	5	3500.	6	110	202	11	9	10					110	399	11.877
	1363	4	10	4	13	200.	5	1000.	6	110	202	11	9	10					110	400	3.393
	1363	4	10	4	13	400.	5	2000.	6	110	202	11	9	10					110	401	6.787
	1363	4	10	4	13	700.	5	3500.	6	110	202	11	9	10					110	402	11.877
	1363	4	10	4	13	1200.	15	18000.	6	110	202	11	9	10					110	403	61.081
	1363	4	10	4	13	400.	5	2000.	3	110	202	11	9	10					110	404	1.544
																	TOTAL FOR SECT.			85:	371.874
92	617	4	9	4	15	400.	150	60000.	3	101	101	11 81							121	482	46.306
93	626	4	10	4	13	3000.	3	9000.	3	100	100	11							121	480	6.946
	626	4	10	4	13	2000.	2	4000.	5	101	101	11							121	481	8.637
	626	4	10	4	13	200.	60	12000.	5	100	100	11							121	485	25.910
	626	4	10	4	13	600.	2	1200.	7	101	101	11 20 81							121	486	5.550
	630	3	23	4	3	600.	3	1800.	1	201	201	11							121	467	0.276
	630	3	23	4	3	400.	2	800.	1	102	102	11							121	468	0.123
	630	3	23	4	3	2000.	3	6000.	3	102	102	11							121	469	4.631
	630	3	23	4	3	6900.	2	13800.	3	103	103	11							121	470	10.650
	630	3	23	4	3	1500.	20	30000.	3	100	100	11	3	10					121	471	23.153
	630	3	23	4	3	200.	23	4600.	5	100	100		1	10	103				121	472	9.932
	630	3	23	4	3	2300.	2	4600.	5	101	101	11 81							121	473	9.932
	630	3	23	4	3	300.	3	900.	5	101	101	11							121	474	1.943
	631	3	23	4	3	4100.	2	8200.	1	101	101	11							121	477	1.256
	631	3	23	4	3	1000.	3	3000.	3	101	101	11							121	478	2.315
	631	3	23	4	3	700.	2	1400.	5	101	101	11							121	479	3.023
	632	3	23	4	3	2600.	3	7800.	1	101	101	11							121	475	1.195
	632	3	23	4	3	100.	2	200.	3	102	102	11							121	476	0.154
	633	4	20	4	25	500.	3	1500.	5	102	102	11	1	15					121	483	3.239
	633	4	20	4	25	1200.	3	3600.	1	102	102	11							121	484	0.551
																	TOTAL FOR SECT.			93:	119.415
102	653	3	30	4	2	1000.	3	3000.	1	204	204	11 20 81	1	10					121	487	0.459
	653	4	2	4	8	16.	2	32.	1	100	100	11 20							121	488	0.005
	653	4	2	4	8	200.	4	800.	3	201	201	20 81							121	489	0.617
	653	4	2	4	8	300.	4	1200.	5	204	204	11 20	1	5					121	490	2.591
	653	4	2	4	8	800.	8	6400.	5	203	203	11 20							121	491	13.819
	653	4	2	4	8	400.	6	2400.	5	204	204	20							121	492	5.182
	653	4	2	4	8	10.	7	70.	5	202	202	20							121	493	0.151
	653	4	2	4	8	300.	8	2400.	5	205	205	11 20	1	5					121	494	5.182
	653	4	2	4	8	400.	7	2800.	5	203	203	20 81							121	495	6.046
	653	4	2	4	8	50.	6	300.	7	207	207	11 81							121	496	1.387
																	TOTAL FOR SECT.			102:	35.440

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES		MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
103	649	4	8	4	14	4000.	2	8000.	3	101	101	11					121	497	6.174
112	659	3	20	3	28	400.	1	400.	3	102	202	11	90	1 30	353		92	498	0.309
	659	3	20	3	28	1500.	1	1500.	3	101	201	11	90	1 30	353		92	499	1.158
	659	3	20	3	28	700.	1	700.	1	102	100	11	90	1 30	353		92	500	0.107
	659	3	20	3	28	100.	1	100.	5	101	201	11	90	1 25	253		92	501	0.216
	659	4	8	4	20	800.	1	800.	1	102	100	11	90	1 35	353		92	503	0.123
	659	4	8	4	20	1600.	1	1600.	1	101	201	11	90	1 35	3 35		92	504	0.245
	659	4	8	4	20	1900.	1	1900.	3	102	201	11	90	1 35	3 35		92	505	1.466
	659	4	8	4	20	2000.	1	2000.	7	102	201	11	90	1 35	3 35		92	506	9.249
	1469	4	5	4	6	50.	2	100.	3	101	205	11	90	1 25	253		92	502	0.077
															TOTAL FOR SECT.		112:		12.950
122	687	4	4	4	16	200.	3	600.	7	100	212	20		1 35	353		92	537	2.775
	687	4	4	4	16	400.	8	3200.	5	100	215	20		3 35	353		92	538	6.909
															TOTAL FOR SECT.		122:		9.684
123	705	3	30	3	30	2100.	18	37800.	7	101	210	11	80	1 5			78	526	174.811
	717	5	2	5	4	1000.	3	3000.	3	102	205	11	80	1 5			78	536	2.315
															TOTAL FOR SECT.		123:		177.126
124	739	3	24	3	25	1200.	45	54000.	5	103	206	11		1 10			78	525	116.595
125	738	2	23			100.	30	3000.	3	102	206						78	507	2.315
	738	3	11	3	15	200.	15	3000.	3	102	206	11	80	1 10			78	508	2.315
	738	3	11	3	15	700.	8	5600.	5	102	206	11	80	1 10			78	509	12.091
	738	3	11	3	15	400.	10	4000.	7	102	208	11	80	1 10			78	510	18.498
	738	4	7	4	12	400.	4	1600.	3	102	206	11	80	1 10			78	511	1.235
	747	3	23	3	28	500.	5	2500.	5	103	207	11		1 5			78	518	5.398
	747	3	23	3	28	500.	5	2500.	5	103	206	11		1 10			78	519	5.398
	747	3	24	3	29	1000.	5	5000.	7	103	208	11		1 10			78	520	23.123
															TOTAL FOR SECT.		125:		70.374
126	720	3	20	3	25	1000.	10	10000.	5	102	208	11	20	1 10			78	527	21.592
	720	4	5	4	5	500.	30	15000.	7	101	208	11	20	1 10			78	528	69.369
	722	4	2	4	5	500.	20	10000.	7	101	206	11		1 10			78	534	46.246
	722	4	2	4	5	800.	10	8000.	7	104	206	11		1 10			78	535	36.997
	757	3	25	3	27	4000.	10	40000.	5	102	206	11		1 5			78	529	86.366
	757	4	4	4	6	3000.	10	30000.	7	102	208	11	20	1 10			78	530	138.739
	757	4	9	4	13	10000.	3	30000.	5	103	206	11		1 10			78	531	64.775
															TOTAL FOR SECT.		126:		464.084
127	749	3	21	3	23	1000.	50	50000.	3	105	206	11	80	1 20			78	521	38.589
	749	3	21	3	23	2000.	150	300000.	5	105	208	11	80	1 20			78	522	647.748
	749	3	23	3	23	3000.	3	9000.	3	102	210	11	80	1 20			78	512	6.946
	749	3	23	3	23	1000.	8	8000.	7	103	210	11	80	1 20			78	513	36.997
	749	3	23	3	25	3000.	3	9000.	3	102	206	11		1 20			78	514	6.946
	749	3	23	3	26	3000.	3	9000.	5	103	206	11	20	1 10			78	515	19.432
	749	3	23	3	26	1000.	3	3000.	5	103	210	11	20	1 10			78	516	6.477

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
127	749	3	23	3	26	200.	2	400.	3	102	206	11 20	1 10			78	517	0.309
	749	3	23	3	27	3000.	3	9000.	5	102	206	11	1 10			78	523	19.432
	749	3	27	3	28	3000.	3	9000.	5	102	206	11	1 10			78	524	19.432
	749	3	30	4	4	3000.	3	9000.	5	103	204	11	1 5			78	532	19.432
	749	3	30	4	4	2000.	3	6000.	5	103	204	11	1 5			78	533	12.955
															TOTAL FOR SECT.	127:		834.696
128	1383	5	16	5	20	50.	3	150.	3	104	206	11 80	1 60			92	539	0.116
132	764	4	7	4	8	50.	50	2500.	3	110	201	11 90				55	562	1.929
	764	4	21	4	26	300.	25	7500.	5	110	201	11				55	563	16.194
	766	4	3	4	7	600.	6	3600.	5	109	100	11 80	1			55	546	7.773
	766	4	3	4	7	825.	2	1650.	5	108	100	11	1			55	547	3.563
	766	4	3	4	7	450.	3	1350.	3	109	101	11	1			55	548	1.042
	766	4	3	4	7	250.	10	2500.	5	109	101	11	1			55	549	5.398
	766	4	3	4	7	250.	10	2500.	3	110	100	80	1			55	550	1.929
	766	4	3	4	7	620.	2	1240.	3	109	103	11 80	1			55	551	0.957
	798	4	21	4	26	850.	7	5950.	5	110	102	11 90	1			55	565	12.847
	798	4	21	4	26	1300.	7	9100.	7	110	102	11	1	3		55	566	42.084
	800	4	21	4	26	15.	15	225.	5	110	100	11 90	1			55	564	0.486
															TOTAL FOR SECT.	132:		94.202
133	774	4	16	4	21	1100.	4	4400.	5	108	202	11				55	552	9.500
134	781	3	23	3	24	3600.	4	14400.	3	109	101	11 90	1			55	543	11.114
	781	3	24	3	25	1400.	4	5600.	1	109	102	11 90	1			55	544	0.858
	781	3	24	3	25	1000.	4	4000.	1	108	102	11 90	1			55	545	0.613
	785	3	21	3	22	3600.	2	7200.	1	108	103	11 90	1			55	540	1.103
	785	3	22	3	23	3000.	4	12000.	1	108	102	11 90	1			55	541	1.838
	785	3	23	3	23	200.	4	800.	1	108	102	11 90	1			55	542	0.123
															TOTAL FOR SECT.	134:		15.647
137	789	4	2	4	7	50.	3	150.	7	110	100	11				55	553	0.694
	804	3	30	4	2	200.	20	4000.	5	110	202	11 80	1			55	556	8.637
	804	3	31	4	2	100.	100	10000.	7	110	202	80	1			55	558	46.246
	804	4	2	4	2	25.	10	250.	7	110	202	16	3			55	554	1.156
	804	4	2	4	2	150.	4	600.	5	108	201	11	1			55	555	1.295
	804	4	2	4	2	100.	100	10000.	3	108	202	15	1			55	557	7.718
	804	4	2	4	2	80.	8	640.	5	110	202	11	1	3		55	559	1.382
	804	4	9	4	15	200.	10	2000.	5	109	100	11	1			55	560	4.318
	1470	4	11	4	15	50.	10	500.	3	108	100	80				55	561	0.386
															TOTAL FOR SECT.	137:		71.832
142	826	5	10	5	12	30.	5	150.	3	103	202	11 80	1 10			25	579	0.039
	827	5	9	5	10	600.	10	6000.	4	104	203	11 80	1 10			25	577	2.928
	828	5	10	5	12	100.	10	1000.	3	104	203	11 80	1 10			25	578	0.257
															TOTAL FOR SECT.	142:		3.224
143	810	3	23	3	23	7000.	20	140000.	4	109	100	11 15	1 10	2 10		25	574	68.320
	835	3	14	3	15	1760.	30	52800.	5	108	210	11 15	1 10	2 10		25	575	37.963

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
143	835	3	15	3	15	3400.	100	340000.	4	110	210	11 15	1	10	2	10			25	576	165.920
																			TOTAL FOR SECT.	143:	272.203
144	823	3	12	3	12	3250.	30	97500.	5	104	206	16 82	1	15	2				25	589	70.103
	823	3	13	3	13	400.	100	40000.	7	108	210	11 16 20	1	20	2				25	582	61.600
	823	3	14	3	14	1700.	25	42500.	1	108	100	11 16	1	20	2				25	585	2.168
	823	3	14	3	14	1300.	20	26000.	4	108	100	16 82	1	20	2				25	586	12.688
	823	3	14	3	18	350.	5	1750.	7	110	100	11 82	1	20	2				25	587	2.695
	823	3	14	3	14	2000.	175	350000.	4	104	208	82	1	15	2				25	588	170.800
	823	3	16	3	18	700.	25	17500.	5	100	210	16 20	1	10	2				25	583	12.583
	823	3	16	3	18	2200.	25	55000.	3	110	202	11 16	1	20	2				25	584	14.135
	824	3	14	3	18	1100.	25	27500.	5	100	210	16 20	1	10	2				25	581	19.772
	824	3	18	3	18	900.	25	22500.	3	100	215	16 20	1	10	2				25	580	5.782
	834	3	10	3	10	3000.	50	150000.	7	108	205	11 15	1	10	2	10			25	570	231.000
	834	3	14	3	15	300.	350	105000.	9	110	210	11 15	1	10	2	10			25	571	334.215
	834	3	14	3	15	2900.	200	580000.	6	110	210	11 15	1	10	2	10			25	573	655.400
	834	3	26	3	26	300.	10	3000.	4											572	1.464
	1415	3	7	3	12	1350.	200	270000.	6	100	215	16	1	10	2				25	591	305.100
	1415	3	12	3	12	3480.	20	69600.	5	110	100	11 16	1	20	2				25	590	50.042
	1415	3	13	3	15	2450.	150	367500.	3	108	210	11 15	1	10	2	10			25	569	94.447
	1415	3	15	3	15	350.	100	35000.	7	100	215	16	1	10	2				25	592	53.900
	1415	3	18	3	20	1100.	75	82500.	5	108	205	11 15	1	10	2	10			25	567	59.317
	1415	3	20	3	20	1075.	100	107500.	3	108	205	11 15	1	10	2	10			25	568	27.627
																			TOTAL FOR SECT.	144:	2184.839
152	845	3	18	3	29	1000.	500	500000.	5			11 80	1	10	2				109	604	1079.580
	845	3	18	3	29	1200.	20	24000.	5			11 80	1	10	2				109	605	51.820
	845	3	18	3	29	600.	100	60000.	5			11 80	1	10	2				109	606	129.550
	845	3	18	3	29	1500.	100	150000.	5			11 80	1	10	2				109	607	323.874
	845	3	18	3	29	800.	75	60000.	4			11 80	1	10	2				109	608	87.928
	853	3	22	3	29	500.	50	25000.	1			11	9	5					109	610	3.829
	853	3	22	3	29	200.	150	30000.	4			11	9	5					109	611	43.964
	854	3	29	3	29	600.	30	18000.	1			80	2	10					109	609	2.757
	856	3	24	3	29	850.	3	2550.	3			11	9	5					109	593	1.968
	856	3	24	3	29	400.	5	2000.	3			11	9	5					109	594	1.544
	856	3	24	3	29	150.	5	750.	5			11	9	5					109	595	1.619
	856	3	24	3	29	100.	5	500.	6			11	9	5					109	596	1.697
	856	3	24	3	29	600.	4	2400.	6			11	9	5					109	597	8.144
	856	3	24	3	29	200.	10	2000.	7			11	9	5					109	598	9.249
	856	3	24	3	29	350.	10	3500.	6			11	9	5					109	599	11.877
	856	3	24	3	29	100.	100	10000.	6			11	9	5					109	600	33.934
	858	3	22	3	29	1400.	20	28000.	5			11	9	5					109	601	60.456
	858	3	22	3	29	1200.	400	480000.	3			11	9	5					109	602	370.450
	858	3	22	3	29	600.	15	9000.	4			11	9	5					109	603	13.189
																			TOTAL FOR SECT.	152:	2237.428
163	884	3	11	3	12	30.	1	30.	4	105	210	11	1	25					57	612	0.044
	901	4	2	4	3	150.	6	900.	5	110	220	11	1	10					57	613	1.943
																			TOTAL FOR SECT.	163:	1.987
164	882	4	5	4	6	800.	10	8000.	5	110	205	11 80	1	25					57	617	17.273

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	C1 PCT	C2	C2 PCT	C3	C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
164	882	4	5	4	6	2500.	3	7500.	1		210	80	1	25					57	618	1.149
	882	4	5	4	6	3400.	3	10200.	1		210	80	1	25					57	619	1.562
	882	4	5	4	6	300.	3	900.	3	110	210	80	1	10					57	620	0.695
	1505	4	5	4	6	400.	25	10000.	3	110	210	11 80	1	25					57	616	7.718
																		TOTAL FOR SECT.	164:		28.396
165	875	4	5	4	8	500.	2	1000.	5	110	210	11	1	25					57	614	2.159
	875	4	5	4	8	500.	10	5000.	1		205	80	1	10					57	615	0.766
																		TOTAL FOR SECT.	165:		2.925
172	920	3	20	3	24	650.	10	6500.	3	106	7	11 81	1	13	2	12			1	638	5.017
	930	3	15	3	19	600.	20	12000.	5	106	6	11 81	1	15	2	15			1	637	25.910
	930	3	17	3	18	2000.	30	60000.	3	103	4	11 50	1	30	2	30			1	642	46.306
	997	3	16	3	22	2100.	75	157500.	7	100	8	81	1	13		122			1	647	728.378
	997	3	16	3	22	2100.	50	105000.	3	106	100	11 81	1	20		202			1	648	81.036
	997	3	18	3	22	1600.	125	200000.	7	104	6	11 81	1	25					1	650	924.925
	997	3	18	3	22	1600.	25	40000.	1	107	100	11 81	1	15		152			1	651	6.126
	999	3	9	3	10	500.	150	75000.	7	108	101	81	1	20		202			1	652	346.847
	999	3	13	3	20	1000.	125	125000.	3	108	100	11 81	1	20		202			1	653	96.471
	999	3	13	3	20	1450.	15	21750.	5	105	3	81	1	25					1	654	46.962
	999	3	13	3	20	1700.	15	25500.	1	104	4	81	1	20					1	655	3.905
	1000	3	16	3	22	1900.	15	28500.	1	103	5	11 81	1	15		152			1	649	4.365
	1002	3	14	3	14	3000.	20	60000.	5	102	8	11 20 50	1	25	2	25			1	643	129.550
	1002	3	14	3	14	1000.	500	500000.	5	101	8	11 15 20 50	1	23	2	22			1	644	1079.580
	1002	3	15	3	22	2000.	75	150000.	7			11 20 50	1	20		202			1	645	693.694
	1002	3	15	3	22	2300.	75	172500.	3	108	1	11 20 50	1	28		272			1	646	133.131
																		TOTAL FOR SECT.	172:		4352.202
173	940	4	5	4	8	600.	10	6000.	3	109	104	41 81	1	20					1	622	4.631
	941	3	18	3	20	3600.	20	72000.	5	107	3	11 81	1	10	2	10			1	629	155.459
	944	3	31	4	4	3500.	5	17500.	5	108	100	15	1	15					1	621	37.785
	949	3	2	3	7	500.	1	500.	1	108	102	11	1	13	2	12			1	623	0.077
	953	3	16	3	20	150.	3	450.	5	109	1	11	1	15	2	15			1	624	0.972
	953	3	17	3	20	350.	3	1050.	5	109	2	11	1	13	2	12			1	625	2.267
	953	3	17	3	20	800.	20	16000.	5	108	100	81	1	15	2	15			1	626	34.547
	954	3	18	3	20	2400.	10	24000.	5	108	4	11 81	1	10	2	10			1	630	51.820
	954	3	25	3	29	1000.	50	50000.	5	108	4	11 81	1	10	2	10			1	631	107.958
	954	3	25	3	29	500.	20	10000.	5	109	2	11 81	1	10	2	10			1	632	21.592
	954	3	25	3	29	200.	100	20000.	5	106	4	11 81	1	8	2	70			1	633	43.183
	954	3	25	3	29	600.	20	12000.	5	106	5	11 81	1	10	2	10			1	634	25.910
	955	3	20	3	21	250.	50	12500.	7	109	101	11 81	1	13	2	12			1	635	57.808
	955	3	20	3	22	2000.	25	50000.	9	104	2	11 50 81	1	25	2	25			1	639	477.928
	955	3	20	3	22	1000.	25	25000.	7	104	3	11 50	1	25	2	25			1	640	115.616
	955	3	28	3	28	700.	10	7000.	3	101	4	11 50	1	20	2	20			1	641	5.402
	956	3	28	3	31	800.	20	16000.	3	108	3	11 81	1	13	2	12			1	636	12.348
	988	3	17	3	21	1000.	10	10000.	3	109	1	11 81	1	15	2	15			1	627	7.718
	988	3	17	3	21	2000.	15	30000.	5	108	2	41 81	1	13	2	12			1	628	64.775
	988	3	17	3	21	500.	30	15000.	5	109	1	11 81	1	15		152			1	656	32.387
																		TOTAL FOR SECT.	173:		1260.182
182	1050	3	3	3	4	100.	2	200.	1	102	5	11 81	1	20					113	666	0.031

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
182	1050	3	4	3	5	100.	10	1000.	3	100	6	81	1 20			113	667	0.772
	1050	3	8	3	10	300.	10	3000.	5	102	5	11 90	1 20			113	671	6.477
	1050	3	8	3	10	50.	3	150.	3	102	2	11 90	1 20			113	672	0.116
	1050	3	11	3	12	150.	5	750.	3	100	6	81	1 20			113	674	0.579
	1050	3	15	3	16	50.	3	150.	3	101	1	11	1 20			113	675	0.116
	1050	3	15	3	16	50.	2	100.	3	101	1	11	1 20			113	676	0.077
	1050	3	19	3	22	100.	2	200.	3	102	3	11 81	1 20			113	683	0.154
	1050	3	27	3	29	600.	75	45000.	3	102	10	81	1 20			113	686	34.730
	1050	3	28	3	29	100.	5	500.	3	102	2	81	1 20			113	687	0.386
	1051	2	20	2	23	100.	10	1000.	1	104	6	81	1 20			113	658	0.153
	1051	3	1	3	2	250.	2	500.	1	104	2	81	1 20			113	665	0.077
	1051	3	10	3	12	100.	2	200.	3	101	1	81	1 20			113	673	0.154
	1051	3	17	3	18	100.	5	500.	3	104	2	90				113	680	0.386
	1051	3	17	3	18	75.	3	225.	3	104	2	90				113	681	0.174
	1051	3	22	3	24	100.	3	300.	3	100	5	81	1 20			113	685	0.232
	1053	2	25	2	26	300.	2	600.	1	104	2	11 90	1 20			113	663	0.092
	1053	3	22	3	24	200.	100	20000.	3	100	10	81	1 20			113	684	15.435
	1054	2	23	2	25	200.	15	3000.	3	104	2	11	1 20			113	661	2.315
	1055	2	25	2	26	400.	3	1200.	1	104	2	11 90	1 20			113	662	0.184
	1055	3	5	3	6	150.	2	300.	5	102	100	11 90	1 20			113	669	0.648
	1057	3	5	3	6	75.	2	150.	3	104	100	11 90	1 20			113	668	0.116
	1058	3	17	3	17	200.	5	1000.	3	102	2	11 81	1 20			113	678	0.772
	1058	3	17	3	17	50.	3	150.	3	102	2	11				113	679	0.116
	1430	3	16	3	17	1500.	10	15000.	5	104	10	11 81	1 20			113	677	32.387
	1430	3	18	3	19	150.	3	450.	5	102	5	11 81				113	682	0.972
														TOTAL FOR SECT.		182:		97.649
183	1021	2	22	2	23	150.	15	2250.	1	100	15	81	1 20			113	659	0.345
	1041	2	15	2	25	40.	10	400.	1	103	5	15 81	1 20			113	657	0.061
	1041	2	22	2	23	150.	20	3000.	1	103	5	11	1 20			113	660	0.459
	1486	3	1	3	2	300.	5	1500.	3	100	10	11 81	1 20			113	664	1.158
	1486	3	8	3	9	150.	10	1500.	3	110	15	81	1 20			113	670	1.158
														TOTAL FOR SECT.		183:		3.181
232	1142	3	4	3	15	695.	3	2085.	3	1	10	11 81				118	690	0.536
	1142	3	4	3	15	560.	10	5600.	5	1	6	11 81				118	691	4.026
	1142	3	4	3	15	610.	9	5490.	7	1	8	11 81				118	692	8.455
	1143	3	5	3	15	1425.	3	4275.	7	102	2	81	1 10			118	726	6.584
	1143	3	5	3	15	800.	30	24000.	7	104	8	11 81	1 10			118	727	36.960
	1143	3	5	3	15	150.	20	3000.	3	104	8	11 81	1 10			118	728	0.771
	1143	3	15	3	15	750.	20	15000.	3	104	8	15 81	1 5			118	731	3.855
	1144	3	5	3	9	1000.	150	150000.	7	4	15	11 15 81				118	709	231.000
	1144	3	5	3	9	500.	100	50000.	5	6	12	11 15 81				118	710	35.950
	1144	3	5	3	9	300.	125	37500.	3	2	10	11 15 81				118	711	9.638
	1144	3	5	3	9	100.	50	5000.	3	102	4	11 15 81				118	712	1.285
	1144	3	5	3	9	300.	10	3000.	5	102	5	11 50 81	1 15			118	713	2.157
	1144	3	5	3	9	650.	75	48750.	7	104	15	11 50 81	1 15			118	714	75.075
	1144	3	5	3	9	400.	75	30000.	5	103	10	11 50 81	1 15			118	715	21.570
	1144	3	5	3	9	1350.	50	67500.	5	104	19	11 50 81	1 15			118	716	48.532
	1144	3	5	3	9	1000.	75	75000.	7	105	18	11 50 81	1 10			118	717	115.500

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
232	1144	3	5	3	9	350.	75	26250.	7	105	28	50 81	1	10			118	718	40.425
	1144	3	5	3	9	1050.	150	157500.	5	105	28	50 81	1	10			118	719	113.243
	1144	3	5	3	9	950.	150	142500.	5	105	29	50 81	1	10			118	720	102.457
	1144	3	5	3	9	600.	150	90000.	3	107	29	50 81	1	10			118	721	23.130
	1144	3	5	3	9	1300.	150	195000.	5	105	19	50 81	1	10			118	722	140.205
	1144	3	5	3	9	450.	200	90000.	7	104	11	50 81	1	10			118	723	138.600
	1144	3	5	3	9	300.	180	54000.	3	10	12	81					118	724	13.878
	1144	3	6	3	9	1300.	10	13000.	3	103	24	11 81	1	10			118	729	3.341
	1144	3	9	3	9	200.	5	1000.	3	102	9	11 81	1	10			118	730	0.257
	1145	3	5	3	9	1150.	30	34500.	5	103	25	11 81					118	725	24.806
	1148	3	5	3	15	330.	100	33000.	5	103	1	11 15 81	1	10			118	708	23.727
	1150	3	3	3	9	2230.	15	33450.	5	103	17	11 15 81					118	694	24.051
	1155	3	1	3	9	830.	10	8300.	5	2	21	11 15 81					118	688	5.968
	1156	3	3	3	9	500.	10	5000.	5	2	10	11 15 81					118	693	3.595
	1159	3	5	3	9	1735.	30	52050.	7	108	20	11 15 81					118	695	80.157
	1471	3	1	3	9	500.	10	5000.	5	2	8	11 15 81					118	689	3.595
															TOTAL FOR SECT.			232:	1343.327
233	1149	3	5	3	9	50.	10	500.	5	102	5	11 15 81	1	5			118	696	0.360
	1149	3	5	3	9	50.	3	150.	3	102	2	11 15 81	1	5			118	697	0.039
	1149	3	5	3	9	300.	10	3000.	5	103	2	11 15 81	1	5			118	698	2.157
	1149	3	5	3	9	1165.	5	5825.	5	303	5	11 15 81	1	10			118	699	4.188
	1149	3	5	3	9	100.	20	2000.	5	2	100	11 15 81	1	10			118	700	1.438
	1149	3	5	3	9	100.	20	2000.	3	102	100	11 15 81	1	10			118	701	0.514
	1149	3	5	3	9	75.	10	750.	5	102	101	11 15 81	1	10			118	702	0.539
	1149	3	5	3	9	200.	140	28000.	5	103	1	11 15 81	1	10			118	703	20.132
	1149	3	5	3	9	75.	15	1125.	5	101	1	11 15 81	1	10			118	704	0.809
	1149	3	5	3	9	75.	10	750.	7	101	6	11 15 81	1	5			118	705	1.155
	1149	3	5	3	9	50.	10	500.	7	2	3	11 15 81					118	706	0.770
	1149	3	5	3	9	10.	10	100.	3	101	1	11 15 81	1	5			118	707	0.026
															TOTAL FOR SECT.			233:	32.126
235	1122	3	15	3	29	60.	60	3600.	3	101	1	81	1	5			118	732	2.778
	1122	3	15	3	29	365.	15	5475.	3	101	1	81	1	5			118	733	4.225
	1122	3	15	3	29	60.	30	1800.	3	101	1	81	1	5			118	734	1.389
	1126	4	6	4	8	675.	200	135000.	9	102	36	11 20 81					118	735	1290.405
	1126	4	6	4	8	950.	10	9500.	7	108	6	11 81	1	5			118	736	43.934
	1126	4	6	4	8	1000.	10	10000.	7	108	6	11 81	1	5			118	737	46.246
	1126	4	6	4	8	1000.	100	100000.	5	101	2	11 81	1	5			118	738	215.916
	1126	4	6	4	8	1400.	10	14000.	5	108	6	11 81	1	5			118	739	30.228
	1126	4	6	4	8	3520.	10	35200.	5	108	8	11 81	1	5			118	740	76.002
	1128	4	6	4	8	165.	130	21450.	1	100	9	15 81	1	10			118	741	3.285
	1128	4	6	4	8	430.	365	156950.	1	100	9	15 81	1	10			118	742	24.037
															TOTAL FOR SECT.			235:	1738.448
243	1206	3	13	3	17	800.	10	8000.	5	4	15	11 81	1	5			120	744	17.273
	1206	3	13	3	17	400.	5	2000.	5	4	15	11 81	1	5			120	745	4.318
	1206	3	13	3	17	500.	100	50000.	5	4	15	11 81	1	5			120	746	107.958
	1206	3	13	3	17	40.	5	200.	5	4	15	11 81	1	5			120	747	0.432
	1209	3	11	3	17	30.	2	60.	3	103	3	11					120	743	0.046

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
243	1209	4	10	4	13	40.	15	600.	7	106	214	81				120	831	2.775
	1209	4	10	4	13	35.	3	105.	7	106	214	81				120	832	0.486
	1209	4	10	4	13	15.	1	15.	7	106	214	81				120	833	0.069
	1212	3	11	3	25	15.	15	225.	7	104	213	11 81				120	804	1.041
	1212	3	11	3	25	15.	10	150.	7	104	213	11 81				120	805	0.694
	1212	3	11	3	25	30.	10	300.	7	104	213	11 81				120	806	1.387
	1212	3	11	3	25	40.	20	800.	5	104	213	11 81				120	807	1.727
	1212	3	11	3	25	150.	15	2250.	5	104	213	11 81				120	808	4.858
	1423	3	11	3	25	150.	5	750.	5	103	209	11 81	1	10		120	796	1.619
	1423	3	11	3	25	500.	20	10000.	7	103	209	11 81	1	10		120	797	46.246
	1423	3	11	3	25	200.	25	5000.	5	103	209	11 81	1	10		120	798	10.796
	1423	3	11	3	25	25.	5	125.	3	103	209	11 81	1	10		120	799	0.096
	1423	3	11	3	25	30.	3	90.	3	103	209	11 81	1	10		120	800	0.069
	1423	3	11	3	25	30.	6	180.	5	103	209	11 81	1	10		120	801	0.389
	1423	3	11	3	25	250.	10	2500.	5	103	209	11 81	1	10		120	802	5.398
	1423	3	11	3	25	25.	25	625.	3	103	209	11 81	1	10		120	803	0.482
	1431	4	10	4	13	100.	15	1500.	7	107	203	81	1	5		120	830	6.937
															TOTAL FOR SECT.	243:		215.098
244	1182	4	16	4	18	50.	6	300.	7	101	204	81	1	20		120	817	1.387
	1182	4	16	4	18	70.	10	700.	3	101	204	81	1	20		120	818	0.540
	1182	4	16	4	18	70.	70	4900.	3	101	204	81	1	20		120	819	3.782
	1192	3	11	3	19	1600.	50	80000.	7	100	215	11 20 81	1	15		120	771	369.970
	1200	4	8	4	12	40.	3	120.	5	100	206	11 81	1	5		120	825	0.259
	1200	4	8	4	12	18.	18	324.	5	100	206	11 81	1	5		120	826	0.700
	1200	4	8	4	12	25.	6	150.	3	100	206	11 81	1	5		120	827	0.116
	1200	4	8	4	12	17.	17	289.	5	100	206	11 81	1	5		120	828	0.624
	1200	4	8	4	12	30.	5	150.	5	100	206	11 81	1	5		120	829	0.324
	1433	4	3	4	6	200.	25	5000.	3	102	202	11 81				120	816	3.859
	1434	4	5	4	8	100.	12	1200.	5	103	205	81				120	820	2.591
															TOTAL FOR SECT.	244:		384.151
245	1195	3	9	3	17	200.	50	10000.	3	10	20	11 20 81	1	15		120	748	7.718
	1195	3	9	3	17	575.	30	17250.	5	10	20	11 20 81	1	15		120	749	37.245
	1195	3	9	3	17	100.	50	5000.	5	12	24	11 20 81	1	15		120	750	10.796
	1195	3	9	3	17	100.	50	5000.	5	12	24	11 20 81	1	15		120	751	10.796
	1197	3	9	3	22	150.	100	15000.	3	101	211	81	1	20		120	786	11.577
	1197	3	9	3	22	300.	50	15000.	5	101	211	81	1	20		120	787	32.387
	1197	3	9	3	22	400.	400	160000.	3	101	211	81	1	20		120	788	123.483
	1197	3	9	3	22	150.	20	3000.	3	101	211	81	1	20		120	789	2.315
	1197	3	9	3	22	70.	8	560.	5	101	211	81	1	20		120	790	1.209
	1197	3	9	3	22	75.	15	1125.	7	101	211	81	1	20		120	791	5.203
	1198	3	11	3	19	40.	10	400.	7	100	215	11 20 81	1	15		120	767	1.850
	1198	3	11	3	19	100.	100	10000.	7	100	215	11 20 81	1	15		120	768	46.246
	1198	3	11	3	19	900.	400	360000.	7	100	215	11 20 81	1	15		120	769	1664.865
	1198	3	11	3	19	1600.	150	240000.	5	100	215	11 20 81	1	15		120	770	518.198
	1201	3	11	3	19	250.	175	43750.	7	107	208	11 81	1	10		120	774	202.327
	1201	3	11	3	19	200.	15	3000.	5	107	208	11 81	1	10		120	775	6.477
	1201	3	11	3	19	200.	10	2000.	3	107	208	11 81	1	10		120	776	1.544
	1201	3	11	3	19	125.	20	2500.	7	107	208	11 81	1	10		120	777	11.562

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
245	1201	3	11	3	19	50.	8	400.	3	107	208	11 81	1	10					120	778	0.309
	1201	3	11	3	19	50.	5	250.	7	107	208	11 81	1	10					120	779	1.156
	1219	3	11	3	18	50.	2	100.	3	201	202	20 81							120	765	0.077
	1220	3	11	3	18	400.	200	80000.	5	204	217	81	1	10					120	766	172.733
	1222	3	11	3	18	300.	200	60000.	5	106	213	11 81	1	10					120	762	129.550
	1222	3	11	3	18	600.	100	60000.	5	106	213	11 81	1	10					120	763	129.550
	1222	3	11	3	18	200.	30	6000.	3	106	213	11 81	1	10					120	764	4.631
	1222	4	6	4	12	50.	2	100.	3	105	205	11 20 81	1	5					120	821	0.077
	1222	4	6	4	12	100.	30	3000.	5	105	205	11 20 81	1	5					120	822	6.477
	1222	4	6	4	12	100.	15	1500.	5	105	205	11 20 81	1	5					120	823	3.239
	1222	4	6	4	12	70.	20	1400.	5	105	205	11 20 81	1	5					120	824	3.023
	1225	3	11	3	17	600.	125	75000.	7	101	214	11 81	1	20					120	752	346.847
	1225	3	11	3	17	900.	150	135000.	5	101	214	11 81	1	20					120	753	291.486
	1225	3	11	3	17	1100.	75	82500.	3	101	214	11 81	1	20					120	754	63.671
	1225	3	11	3	17	400.	200	80000.	3	101	214	11 81	1	20					120	755	61.742
	1377	3	11	3	18	200.	100	20000.	7	101	210	11 81	1	15					120	756	92.492
	1377	3	11	3	18	100.	40	4000.	3	101	210	11 81	1	15					120	757	3.087
	1377	3	11	3	18	70.	30	2100.	5	101	210	11 81	1	15					120	758	4.534
	1377	3	11	3	18	25.	2	50.	3	101	210	11 81	1	15					120	759	0.039
	1377	3	11	3	18	50.	6	300.	5	101	210	11 81	1	15					120	760	0.648
	1377	3	11	3	18	100.	30	3000.	3	101	210	11 81	1	15					120	761	2.315
	1377	4	3	4	6	75.	20	1500.	3	102	206	20 81							120	809	1.158
	1377	4	3	4	6	50.	10	500.	3	102	206	20 81							120	810	0.386
	1377	4	3	4	6	150.	15	2250.	3	102	206	20 81							120	811	1.736
	1377	4	3	4	6	35.	17	595.	3	102	206	20 81							120	812	0.459
	1377	4	3	4	6	50.	50	2500.	3	102	206	20 81							120	813	1.929
	1377	4	3	4	6	30.	6	180.	3	102	206	20 81							120	814	0.139
	1377	4	3	4	6	40.	6	240.	5	102	206	20 81							120	815	0.518
	1404	3	12	3	22	400.	200	80000.	5	103	219	81	1	20					120	792	172.733
	1404	3	12	3	22	400.	50	20000.	7	103	219	81	1	20					120	793	92.492
	1404	3	12	3	22	500.	25	12500.	7	103	219	81	1	20					120	794	57.808
	1404	3	12	3	22	100.	30	3000.	7	103	219	81	1	20					120	795	13.874
	1407	3	12	3	20	150.	20	3000.	3	101	217	11 81	1	20					120	780	2.315
	1407	3	12	3	20	100.	100	10000.	3	101	217	11 81	1	20					120	781	7.718
	1407	3	12	3	20	40.	15	600.	5	101	217	11 81	1	20					120	782	1.295
	1407	3	12	3	20	50.	7	350.	5	101	217	11 81	1	20					120	783	0.756
	1407	3	12	3	20	150.	75	11250.	5	101	217	11 81	1	20					120	784	24.291
	1407	3	12	3	20	300.	10	3000.	5	101	217	11 81	1	20					120	785	6.477
	1421	3	11	3	19	125.	20	2500.	7	204	212	81							120	772	11.562
	1421	3	11	3	19	225.	15	3375.	7	204	212	81							120	773	15.608
																TOTAL FOR SECT.			245:		4426.735
252	1281	4	21	4	27	100.	10	1000.	1	200	215	20							46	852	0.153
	1282	4	21	4	27	200.	10	2000.	3	100	210	20 81							46	847	1.544
	1282	4	21	4	27	300.	30	9000.	5	210	230	81							46	848	19.432
	1282	4	21	4	27	100.	30	3000.	3	210	230	81							46	849	2.315
	1282	4	21	4	27	30.	10	300.	5	205	215	20							46	850	0.648
	1282	4	21	4	27	200.	10	2000.	5	205	215	20 81							46	851	4.318
																TOTAL FOR SECT.			252:		28.411
253	1262	3	3	3	6	1500.	20	30000.	3	110	220	81	1	15					46	835	23.153

TABLE 7. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1976

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1	MORTALITY C1 PCT	MORTALITY C2	MORTALITY C2 PCT	MORTALITY C3	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
253	1262	3	3	3	7	200.	35	7000.	7	100	120	81							46	836	32.372
	1262	3	3	3	7	450.	30	13500.	7	100	220	81 91							46	837	62.432
	1262	3	3	3	7	2500.	25	62500.	5	210	225	81							46	838	134.947
	1262	3	3	3	7	100.	25	2500.	7	210	220	81 91							46	839	11.562
	1263	3	6	3	6	250.	20	5000.	7	205	210	81							46	846	23.123
	1263	3	9	3	12	300.	100	30000.	5	201	205	81	1	50					46	840	64.775
	1263	3	9	3	12	400.	50	20000.	7	201	205	20 81	1	20					46	841	92.492
	1263	3	9	3	12	100.	30	3000.	5	201	206	20 81							46	842	6.477
	1263	3	9	3	12	300.	50	15000.	3	201	210	20 81							46	843	11.577
	1263	3	9	3	12	350.	30	10500.	3	205	215	20 81							46	844	8.104
	1263	3	9	3	12	400.	150	60000.	3	205	210	20 81							46	845	46.306
															TOTAL FOR SECT.					253:	517.321
254	1472	3	3	3	3	4000.	30	120000.	5	205	215	20	2	80					46	834	259.099
262	1296	3	3	3	3	800.	10	8000.	5	105	210	81							46	853	17.273
	1296	3	10	3	12	600.	20	12000.	7	210	225	20 81	1	15					46	854	55.495
															TOTAL FOR SECT.					262:	72.769
273	1320	2	23	2	25	250.	25	6250.	3	205	208	11 81	1	15					114	856	4.824
	1320	3	19	3	19	575.	25	14375.	5	205	206	11 81	1	15					114	855	31.038
	1320	3	19	3	19	180.	50	9000.	3	203	206	81	1	10					114	857	6.946
	1320	3	19	3	19	25.	25	625.	3	100	208	81	1	5					114	858	0.482
	1320	3	19	3	19	50.	25	1250.	3	100	208	81	1	5					114	859	0.965
															TOTAL FOR SECT.					273:	44.255
274	1331	4	13	4	14	400.	30	12000.	3	100	204	81	1	10					114	860	9.261
	1331	4	13	4	14	450.	30	13500.	3	100	204	81	1	10					114	861	10.419
															TOTAL FOR SECT.					274:	19.680
290	1351	2	18	2	20	500.	100	50000.	1	100	206	81	1	20					119	862	7.658
	1351	3	10	3	15	10560.	100	1056000.	1	100	210	81							119	863	161.730
	1351	3	29	4	5	2000.	100	200000.	1	100	206	81	1	20					119	864	30.631
	1490	3	19	3	23	100.	100	10000.	3	100	210	81							77	865	7.718
															TOTAL FOR SECT.					290:	207.736

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
2	60					300.	6	1800.	1								622	0.276
	60					1200.	4	4800.	1								623	0.735
	60					250.	8	2000.	1								624	0.306
																TOTAL FOR SECT.	2:	1.317
3	92					250.	10	2500.	4								670	3.664
	92					1000.	3	3000.	3								671	2.315
	93					900.	3	2700.	1								664	0.414
	97					100.	5	500.	3								708	0.386
	97					800.	5	4000.	3								709	3.087
	97					100.	6	600.	3								710	0.463
	97					150.	8	1200.	3								712	0.926
																TOTAL FOR SECT.	3:	11.255
4	67					1200.	12	14400.	1								711	2.205
5	80					100.	20	2000.	5								665	4.318
	80					1300.	15	19500.	5								666	42.104
	80					250.	30	7500.	5								667	16.194
	80					4700.	12	56400.	5								668	121.777
	80					1500.	10	15000.	5								669	32.387
																TOTAL FOR SECT.	5:	216.780
6	76					500.	4	2000.	3								84	1.544
	76					1000.	4	4000.	3								183	3.087
	76					400.	5	2000.	3								360	1.544
	76					500.	4	2000.	1								414	0.306
	76					1500.	5	7500.	3								419	5.788
	76					1200.	3	3600.	3								422	2.778
	76					1500.	4	6000.	3								423	4.631
	76					1600.	6	9600.	5								424	20.728
	76					1000.	5	5000.	3								425	3.859
	76					300.	5	1500.	5								435	3.239
	76					800.	20	16000.	5								436	34.547
	76					300.	2	600.	1								437	0.092
	76					800.	3	2400.	3								438	1.852
	76					450.	3	1350.	3								445	1.042
	77					500.	8	4000.	1								543	0.613
	77					200.	5	1000.	1								544	0.153
																TOTAL FOR SECT.	6:	85.802
12	53					200.	100	20000.	1								15	1.020
	53					300.	10	3000.	1								16	0.153
	53					225.	15	3375.	5								34	2.427
	53					800.	100	80000.	1								35	4.080
	53					275.	15	4125.	5								38	2.966
	53					700.	100	70000.	3								39	17.990
	53					1900.	150	285000.	3								40	73.245
	53					600.	600	360000.	3								61	92.520

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
12	53					900.	400	360000.	3								62	92.520
	53					500.	10	5000.	1								63	0.255
	53					400.	200	80000.	1								83	4.080
	53					1000.	25	25000.	3								122	6.425
	53					300.	15	4500.	3								123	1.156
	53					200.	20	4000.	1								124	0.204
	53					400.	15	6000.	3								125	1.542
	53					1000.	25	25000.	3								376	6.425
	53					800.	50	40000.	3								379	10.280
	1361					450.	20	9000.	3								2	2.313
	1361					200.	20	4000.	3								3	1.028
	1361					450.	20	9000.	3								4	2.313
	1361					250.	20	5000.	3								5	1.285
	1361					400.	20	8000.	3								7	2.056
	1361					100.	10	1000.	3								8	0.257
	1361					1500.	20	30000.	1								9	1.530
	1497					200.	10	2000.	1								6	0.102
															TOTAL FOR SECT.		12:	328.172
22	99					300.	10	3000.	3								761	2.315
	99					300.	10	3000.	3								762	2.315
	99					2400.	40	96000.	3								799	74.090
	99					1100.	10	11000.	3								801	8.489
	99					1400.	10	14000.	5								802	30.228
	101					1000.	15	15000.	7								826	69.369
	101					900.	10	9000.	5								827	19.432
	113					2000.	15	30000.	5								825	64.775
	118					200.	30	6000.	3								853	4.631
															TOTAL FOR SECT.		22:	275.646
23	157					800.	20	16000.	3								819	12.348
	157					900.	10	9000.	1								820	1.378
	157					2000.	10	20000.	7								821	92.492
	158					1000.	10	10000.	5								797	21.592
	158					4300.	8	34400.	5								798	74.275
	160					100.	10	1000.	3								515	0.772
	160					1100.	5	5500.	1								661	0.842
	160					1500.	5	7500.	1								662	1.149
	160					900.	10	9000.	7								663	41.622
	162					2600.	15	39000.	5								541	84.207
	162					4600.	10	46000.	5								542	99.321
	1523					1000.	50	50000.	3								747	38.589
	1523					1000.	50	50000.	1								822	7.658
															TOTAL FOR SECT.		23:	476.245
25	164					5200.	10	52000.	4								421	76.204
	165					1400.	5	7000.	3								464	5.402
	168					3200.	5	16000.	5								434	34.547
	168					3700.	5	18500.	3								462	14.278
	168					1200.	7	8400.	7								466	38.847

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO. DAY	SURVEY MO. DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
25	168			1800.	20	36000.	4								514	52.757
	168			1000.	10	10000.	5								516	21.592
	168			1800.	5	9000.	3								517	6.946
	168			5400.	15	81000.	3								518	62.514
	170			800.	5	4000.	3								380	3.087
	172			4000.	10	40000.	6								465	135.736
	176			1200.	5	6000.	3								571	4.631
	176			2000.	10	20000.	3								660	15.435
	179			1200.	10	12000.	5								463	25.910
														TOTAL FOR SECT.	25:	497.884
33	211			600.	300	180000.	2								467	83.243
	211			300.	15	4500.	3								468	3.473
	211			500.	30	15000.	3								469	11.577
	211			400.	10	4000.	3								470	3.087
	211			3000.	10	30000.	1								471	4.595
	215			600.	30	18000.	2								813	8.324
	215			300.	30	9000.	1								814	1.378
	215			500.	40	20000.	2								815	9.249
	215			300.	40	12000.	1								816	1.838
														TOTAL FOR SECT.	33:	126.764
42	239			100.	30	3000.	1								768	0.459
	239			75.	30	2250.	2								769	1.041
	239			30.	30	900.	2								770	0.416
	239			100.	20	2000.	1								771	0.306
	239			50.	10	500.	1								772	0.077
	239			100.	15	1500.	1								773	0.230
	239			100.	10	1000.	1								774	0.153
	239			30.	5	150.	2								775	0.069
	239			100.	30	3000.	2								817	1.387
	239			200.	50	10000.	2								818	4.625
	260			900.	15	13500.	1								473	2.068
	260			2400.	150	360000.	2								481	166.486
	260			600.	30	18000.	2								519	8.324
	260			400.	100	40000.	2								520	18.498
	260			800.	30	24000.	1								718	3.676
	260			1000.	30	30000.	1								719	4.595
	260			1200.	20	24000.	1								722	3.676
	262			100.	5	500.	3								472	0.386
	262			10.	5	50.	3								474	0.039
	262			400.	50	20000.	4								476	29.309
	262			50.	50	2500.	3								477	1.929
	262			300.	15	4500.	2								478	2.081
	262			300.	25	7500.	3								479	5.788
	262			300.	50	15000.	3								482	11.577
	266			300.	50	15000.	2								446	6.937
	266			20.	15	300.	2								447	0.139
	266			300.	10	3000.	3								448	2.315
	266			100.	30	3000.	2								449	1.387

SECT.	LOC.	SPAWNED MO. DAY	SURVEY MO. DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER LOWER	SUBSTRATES	MORTALITY C1 PCT C2 PCT C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
42	266			20.	5	100.	3					450	0.077
	266			30.	10	300.	3					451	0.232
	266			80.	30	2400.	2					452	1.110
	269			600.	30	18000.	1					720	2.757
	269			300.	5	1500.	1					721	0.230
	279			100.	50	5000.	3					837	3.859
	279			150.	25	3750.	2					838	1.734
	1441			1200.	400	480000.	3					475	370.450
	1441			100.	20	2000.	3					480	1.544
	1441			100.	5	500.	3					483	0.386
										TOTAL FOR SECT.		42:	660.352
43	235			80.	2	160.	2					830	0.074
	235			100.	2	200.	2					831	0.092
	235			150.	100	15000.	3					832	11.577
	235			400.	20	8000.	3					833	6.174
	235			250.	2	500.	2					834	0.231
	235			150.	75	11250.	1					835	1.723
	235			175.	2	350.	2					836	0.162
	1452			75.	5	375.	2					828	0.173
	1452			50.	5	250.	1					829	0.038
										TOTAL FOR SECT.		43:	20.245
52	339			400.	200	80000.	4					800	117.237
	344			20.	10	200.	1					727	0.031
	344			200.	10	2000.	3					753	1.544
	344			200.	20	4000.	3					756	3.087
	344			200.	20	4000.	5					790	8.637
	345			300.	30	9000.	3					751	6.946
	345			150.	20	3000.	2					754	1.387
	347			200.	10	2000.	3					750	1.544
	347			250.	15	3750.	3					752	2.894
	347			400.	10	4000.	3					755	3.087
	347			600.	20	12000.	3					757	9.261
	347			250.	10	2500.	4					783	3.664
	347			125.	75	9375.	3					784	7.235
	347			250.	10	2500.	4					787	3.664
	347			1450.	10	14500.	4					788	21.249
	347			750.	10	7500.	3					789	5.788
	347			450.	5	2250.	4					791	3.297
	347			450.	10	4500.	4					792	6.595
	347			400.	10	4000.	3					794	3.087
	348			450.	250	112500.	4					759	164.865
	348			200.	25	5000.	3					760	3.859
	349			3000.	65	195000.	5					766	421.036
	349			300.	20	6000.	5					779	12.955
	354			100.	5	500.	3					746	0.386
	354			500.	30	15000.	3					763	11.577
	354			400.	250	100000.	7					764	462.462
	354			500.	5	2500.	3					765	1.929

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO. DAY	SURVEY MO. DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
52	354			500.	10	5000.	3								767	3.859
	354			750.	20	15000.	3								776	11.577
	354			1000.	20	20000.	5								777	43.183
	354			2000.	20	40000.	4								785	58.619
	354			450.	20	9000.	5								793	19.432
	354			150.	20	3000.	4								795	4.396
	354			850.	20	17000.	6								796	57.688
	355			25.	25	625.	3								426	0.482
	356			20.	10	200.	1								572	0.031
	356			30.	10	300.	1								728	0.046
	356			150.	20	3000.	4								782	4.396
	356			100.	10	1000.	3								786	0.772
	1524			1300.	10	13000.	3								778	10.033
	1524			65.	15	975.	3								780	0.752
	1524			70.	20	1400.	3								781	1.080
	1525			30.	2	60.	5								847	0.130
	1525			1000.	1	1000.	4								848	1.465
														TOTAL FOR SECT.	52:	1507.245
53	1526			70.	2	140.	4								850	0.205
	1526			70.	3	210.	4								851	0.308
														TOTAL FOR SECT.	53:	0.513
54	351			100.	6	600.	5								823	1.295
	351			1500.	3	4500.	4								824	6.595
														TOTAL FOR SECT.	54:	7.890
63	413			1400.	10	14000.	1								85	2.144
	414			200.	10	2000.	1								86	0.306
														TOTAL FOR SECT.	63:	2.450
65	385			250.	3	750.	4								725	1.099
67	424			1165.	8	9320.	6								738	31.626
	424			1500.	5	7500.	6								739	25.450
	424			665.	6	3990.	6								740	13.540
	424			2335.	3	7005.	6								741	23.771
	425			600.	30	18000.	3								323	13.892
	425			2500.	10	25000.	3								333	19.294
	426			1750.	5	8750.	2								334	4.047
	430			700.	30	21000.	3								336	16.207
	431			600.	10	6000.	2								688	2.775
	433			4600.	8	36800.	2								335	17.019
	1456			3000.	3	9000.	2								402	4.162
	1456			1000.	4	4000.	3								403	3.087
	1456			900.	5	4500.	3								404	3.473
	1456			3750.	10	37500.	5								439	80.968
														TOTAL FOR SECT.	67:	259.311
72	491			200.	10	2000.	5								563	4.318

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO. DAY	SURVEY MO. DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
72	491			200.	15	3000.	6								649	10.180
	496			500.	15	7500.	6								654	25.450
	499			800.	10	8000.	6								632	27.147
	499			2000.	10	20000.	6								633	67.868
	499			2800.	15	42000.	6								639	142.523
	529			1000.	5	5000.	4								347	7.327
	529			1500.	15	22500.	4								348	32.973
	529			1100.	10	11000.	5								545	23.751
	529			800.	10	8000.	5								562	17.273
													TOTAL FOR SECT.	72:		358.811
73	477			1800.	5	9000.	3								433	6.946
	1527			900.	10	9000.	5								581	19.432
													TOTAL FOR SECT.	73:		26.378
74	498			800.	3	2400.	4								705	3.517
	536			200.	3	600.	3								420	0.463
	536			400.	2	800.	1								522	0.123
	536			300.	15	4500.	7								523	20.811
	536			500.	4	2000.	3								529	1.544
	536			300.	5	1500.	3								530	1.158
	536			400.	3	1200.	5								533	2.591
	536			100.	20	2000.	7								534	9.249
	536			150.	2	300.	1								535	0.046
	536			70.	15	1050.	5								536	2.267
	536			600.	5	3000.	3								537	2.315
	536			350.	10	3500.	3								538	2.701
	536			200.	75	15000.	5								625	32.387
	536			100.	50	5000.	7								628	23.123
	536			100.	12	1200.	3								631	0.926
	536			200.	50	10000.	3								646	7.718
	539			800.	20	16000.	4								694	23.447
	540			250.	4	1000.	3								427	0.772
	540			100.	1	100.	1								428	0.015
	540			250.	100	25000.	7								430	115.616
	540			15.	10	150.	5								431	0.324
	540			150.	2	300.	3								432	0.232
	540			150.	5	750.	7								484	3.468
	540			150.	3	450.	1								485	0.069
	540			225.	20	4500.	7								486	20.811
	540			300.	5	1500.	5								489	3.239
	540			250.	3	750.	7								490	3.468
	540			300.	2	600.	3								491	0.463
	540			100.	3	300.	3								495	0.232
	540			200.	2	400.	3								496	0.309
	540			250.	2	500.	5								497	1.080
	540			170.	3	510.	5								498	1.101
	540			200.	20	4000.	5								499	8.637
	540			150.	4	600.	5								500	1.295
	540			25.	4	100.	7								501	0.462

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
74	540					500.	4	2000.	3								634	1.544
	540					100.	50	5000.	5								651	10.796
	543					100.	50	5000.	4								405	7.327
	543					200.	10	2000.	3								406	1.544
	543					150.	10	1500.	5								407	3.239
	543					1000.	5	5000.	4								408	7.327
	543					500.	10	5000.	3								440	3.859
	543					400.	10	4000.	3								441	3.087
	543					550.	10	5500.	3								443	4.245
	543					100.	10	1000.	3								488	0.772
	543					100.	5	500.	3								492	0.386
	543					300.	2	600.	4								689	0.879
	546					180.	60	10800.	3								442	8.335
	546					100.	50	5000.	7								494	23.123
	546					250.	8	2000.	3								502	1.544
	546					200.	4	800.	3								521	0.617
	546					15.	8	120.	3								524	0.093
	546					150.	50	7500.	5								525	16.194
	546					200.	50	10000.	3								526	7.718
	546					75.	4	300.	5								531	0.648
	546					150.	10	1500.	3								550	1.158
	546					100.	4	400.	5								561	0.864
	546					150.	40	6000.	7								642	27.748
	546					200.	8	1600.	5								643	3.455
	546					200.	3	600.	3								644	0.463
	546					400.	6	2400.	3								645	1.852
	546					300.	6	1800.	3								678	1.389
	546					100.	50	5000.	7								682	23.123
	546					100.	2	200.	3								683	0.154
	1395					100.	2	200.	1								415	0.031
	1395					200.	4	800.	3								454	0.617
	1395					100.	3	300.	3								455	0.232
	1467					1500.	5	7500.	5								699	16.194
	1467					6000.	5	30000.	4								702	43.964
	1528					2000.	20	40000.	5								693	86.366
															TOTAL FOR SECT.		74:	606.863
75	445					300.	7	2100.	4								453	3.077
	445					50.	5	250.	3								493	0.193
	445					50.	5	250.	5								527	0.540
	445					50.	10	500.	3								564	0.386
	445					300.	20	6000.	5								636	12.955
	445					700.	5	3500.	3								650	2.701
	445					1800.	5	9000.	3								653	6.946
	445					1200.	20	24000.	5								672	51.820
	445					650.	5	3250.	5								673	7.017
	445					175.	60	10500.	5								679	22.671
	445					550.	10	5500.	5								681	11.875
	445					200.	2	400.	3								690	0.309
	445					1100.	5	5500.	5								691	11.875

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
75	445					200.	10	2000.	3								695	1.544
	445					150.	5	750.	5								696	1.619
	445					400.	5	2000.	5								697	4.318
	445					300.	5	1500.	5								700	3.239
	445					350.	10	3500.	5								703	7.557
	445					350.	4	1400.	3								704	1.080
	478					500.	8	4000.	5								456	8.637
	478					250.	10	2500.	5								640	5.398
	505					150.	5	750.	3								487	0.579
	505					100.	20	2000.	5								532	4.318
	505					50.	10	500.	3								674	0.386
	505					200.	7	1400.	5								676	3.023
	505					950.	25	23750.	5								698	51.280
	505					100.	20	2000.	3								706	1.544
	505					50.	10	500.	3								715	0.386
															TOTAL FOR SECT.		75:	227.273
76	497					1400.	5	7000.	4								731	10.258
	497					600.	10	6000.	4								732	8.793
	497					800.	5	4000.	4								733	5.862
	551					110.	10	1100.	5								551	2.375
	551					275.	10	2750.	5								553	5.938
	551					50.	20	1000.	5								554	2.159
	551					320.	25	8000.	5								556	17.273
	551					75.	8	600.	5								560	1.295
	551					100.	70	7000.	7								565	32.372
	551					210.	30	6300.	7								566	29.135
	551					80.	20	1600.	5								567	3.455
	551					150.	100	15000.	5								574	32.387
	551					1000.	70	70000.	5								575	151.141
	551					500.	50	25000.	5								576	53.979
	551					100.	100	10000.	5								577	21.592
	551					85.	5	425.	5								635	0.918
	551					160.	15	2400.	5								648	5.182
	552					400.	3	1200.	4								734	1.759
	555					900.	3	2700.	5								701	5.830
	556					150.	10	1500.	3								161	1.158
	556					400.	10	4000.	3								185	3.087
	560					100.	5	500.	1								361	0.077
	560					250.	100	25000.	3								548	19.294
	560					175.	5	875.	5								557	1.889
	560					500.	30	15000.	5								558	32.387
	560					165.	15	2475.	5								559	5.344
	560					200.	50	10000.	1								579	1.532
	560					250.	10	2500.	5								580	5.398
	560					1000.	20	20000.	5								584	43.183
	560					90.	15	1350.	3								629	1.042
	560					125.	10	1250.	3								630	0.965
	560					35.	10	350.	3								637	0.270
	560					175.	5	875.	3								638	0.675

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
76	560					65.	8	520.	3								641	0.401
	560					50.	5	250.	5								647	0.540
	560					200.	10	2000.	5								652	4.318
	560					50.	5	250.	3								675	0.193
	560					110.	5	550.	5								680	1.188
	561					320.	20	6400.	7								677	29.598
	563					150.	5	750.	1								429	0.115
	563					150.	5	750.	1								528	0.115
	569					150.	30	4500.	3								549	3.473
	569					1800.	25	45000.	3								552	34.730
	569					300.	15	4500.	5								555	9.716
	569					40.	15	600.	3								573	0.463
	569					50.	50	2500.	3								578	1.929
	569					65.	15	975.	3								626	0.752
	569					210.	20	4200.	5								627	9.068
	570					100.	5	500.	3								337	0.386
	571					1500.	10	15000.	3								162	11.577
	571					100.	5	500.	3								184	0.386
	571					120.	10	1200.	1								248	0.184
	571					50.	10	500.	5								546	1.080
	571					100.	100	10000.	5								547	21.592
	571					50.	20	1000.	3								582	0.772
	571					50.	25	1250.	5								583	2.699
	571					475.	15	7125.	5								692	15.384
	571					210.	5	1050.	5								713	2.267
	1466					310.	5	1550.	1								714	0.237
																TOTAL FOR SECT.	76:	661.166
83	597					610.	20	12200.	3								50	9.416
	597					610.	20	12200.	1								51	1.868
	597					1820.	2	3640.	1								52	0.557
	597					50.	2	100.	1								53	0.015
	597					900.	9	8100.	3								54	6.251
	597					1820.	3	5460.	1								55	0.836
	597					2025.	3	6075.	2								56	2.809
	597					1215.	2	2430.	4								57	3.561
	597					2230.	2	4460.	1								58	0.683
	597					2230.	3	6690.	1								59	1.025
																TOTAL FOR SECT.	83:	27.023
84	607					3000.	2	6000.	5								839	12.955
	607					4000.	2	8000.	5								840	17.273
	607					7200.	2	14400.	5								841	31.092
	607					800.	3	2400.	5								842	5.182
	607					14080.	3	42240.	4								843	61.901
	607					4000.	3	12000.	5								844	25.910
	607					5500.	2	11000.	4								845	16.120
	607					4000.	3	12000.	6								846	40.721
	607					100.	3	300.	4								849	0.440
	607					10000.	3	30000.	5								852	64.775
																TOTAL FOR SECT.	84:	276.369

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
85	573					1000.	20	20000.	4								595	29.309
	573					500.	2	1000.	3								597	0.772
	573					150.	2	300.	3								598	0.232
	573					100.	2	200.	3								599	0.154
	573					600.	2	1200.	3								601	0.926
	573					200.	1	200.	3								606	0.154
	576					150.	5	750.	3								707	0.579
	603					200.	200	40000.	3								587	30.871
	603					200.	20	4000.	5								590	8.637
	603					200.	4	800.	3								596	0.617
	603					300.	4	1200.	3								600	0.926
	603					150.	2	300.	3								602	0.232
	603					150.	150	22500.	3								604	17.365
	603					150.	2	300.	4								607	0.440
	603					300.	3	900.	4								608	1.319
	603					200.	150	30000.	3								609	23.153
	604					100.	10	1000.	3								591	0.772
	604					150.	100	15000.	4								592	21.982
	604					200.	4	800.	3								593	0.617
	604					150.	50	7500.	4								603	10.991
	604					400.	3	1200.	1								612	0.184
	1363					150.	2	300.	3								585	0.232
	1363					150.	2	300.	3								586	0.232
	1363					150.	20	3000.	6								588	10.180
	1363					300.	2	600.	3								589	0.463
	1363					200.	200	40000.	5								594	86.366
	1363					100.	1	100.	1								610	0.015
	1363					50.	30	1500.	4								611	2.198
	1529					75.	15	1125.	3								605	0.868
	1529					150.	5	750.	3								613	0.579
	1529					100.	20	2000.	1								614	0.306
															TOTAL FOR SECT.		85:	251.671
92	613					750.	2	1500.	3								730	1.158
	617					100.	2	200.	3								729	0.154
															TOTAL FOR SECT.		92:	1.312
93	626					200.	3	600.	4								503	0.879
	626					100.	4	400.	5								504	0.864
	626					500.	5	2500.	5								505	5.398
	626					600.	3	1800.	6								506	6.108
	626					600.	3	1800.	1								507	0.276
	626					500.	2	1000.	5								508	2.159
	626					100.	6	600.	7								509	2.775
	626					1400.	2	2800.	3								510	2.161
	626					400.	80	32000.	3								511	24.697
	630					7200.	3	21600.	3								87	16.670
	630					800.	5	4000.	5								88	8.637
	630					2000.	2	4000.	3								89	3.087

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
93	630					800.	3	2400.	5								90	5.182
	630					1000.	3	3000.	5								91	6.477
	630					3000.	5	15000.	3								92	11.577
	630					1800.	5	9000.	5								93	19.432
	630					130.	40	5200.	1								94	0.796
	630					150.	60	9000.	1								95	1.378
	630					3300.	5	16500.	3								96	12.734
	630					1800.	3	5400.	1								97	0.827
	630					5400.	2	10800.	1								98	1.654
	630					300.	3	900.	7								101	4.162
	630					700.	3	2100.	7								103	9.712
	630					4000.	5	20000.	1								105	3.063
	630					1000.	4	4000.	1								107	0.613
	631					2300.	6	13800.	2								102	6.382
	631					100.	4	400.	7								381	1.850
	631					1900.	3	5700.	6								382	19.342
	631					600.	4	2400.	5								383	5.182
	631					3700.	3	11100.	3								384	8.567
	631					2200.	2	4400.	1								385	0.674
	632					600.	16	9600.	1								99	1.470
	632					1800.	4	7200.	1								100	1.103
	632					400.	3	1200.	7								104	5.550
	632					800.	10	8000.	1								106	1.225
															TOTAL FOR SECT.		93:	202.663
102	653					1150.	2	2300.	3								803	1.775
	653					800.	3	2400.	3								804	1.852
	653					500.	9	4500.	3								805	3.473
	653					1200.	2	2400.	1								806	0.368
															TOTAL FOR SECT.		102:	7.468
103	1372					1200.	2	2400.	1								808	0.368
	1372					2250.	3	6750.	3								810	5.209
	1372					550.	2	1100.	1								811	0.168
	1372					300.	4	1200.	3								812	0.926
															TOTAL FOR SECT.		103:	6.672
112	659					1800.	1	1800.	4								249	2.638
	659					100.	1	100.	5								386	0.216
	659					3700.	1	3700.	4								684	5.422
	659					185.	1	185.	3								685	0.143
															TOTAL FOR SECT.		112:	8.419
122	687					2000.	5	10000.	5								655	21.592
123	705					2000.	20	40000.	5								410	86.366
	1384					500.	5	2500.	3								457	1.929
															TOTAL FOR SECT.		123:	88.296
124	739					500.	20	10000.	5								416	21.592

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
125	738					3000.	10	30000.	7								458	138.739
126	757					2000.	5	10000.	5								163	21.592
	757					6200.	5	31000.	5								417	66.934
	757					12800.	5	64000.	5								539	138.186
																TOTAL FOR SECT.	126:	226.712
127	749					4000.	3	12000.	5								362	25.910
	749					3000.	200	600000.	3								363	463.063
	749					3200.	3	9600.	5								364	20.728
	749					5000.	4	20000.	7								370	92.492
	749					2000.	3	6000.	5								387	12.955
	749					5000.	3	15000.	3								409	11.577
	749					2000.	2	4000.	3								411	3.087
																TOTAL FOR SECT.	127:	629.812
132	764					1500.	8	12000.	7								743	55.495
	764					200.	50	10000.	3								744	7.718
	766					300.	4	1200.	5								723	2.591
	766					50.	5	250.	5								724	0.540
	798					20.	20	400.	3								726	0.309
	798					1000.	7	7000.	5								742	15.114
	798					450.	10	4500.	5								748	9.716
	798					150.	3	450.	5								749	0.972
	800					800.	7	5600.	7								745	25.898
																TOTAL FOR SECT.	132:	118.353
133	774					300.	2	600.	3								658	0.463
134	781					8170.	3	24510.	3								324	18.916
	781					2700.	3	8100.	3								418	6.251
	781					200.	3	600.	3								540	0.463
	781					1000.	3	3000.	3								617	2.315
	781					40.	1	40.	3								618	0.031
																TOTAL FOR SECT.	134:	27.977
137	804					200.	5	1000.	1								459	0.153
	804					100.	5	500.	1								512	0.077
	804					25.	10	250.	1								513	0.038
	804					200.	3	600.	3								568	0.463
	804					700.	10	7000.	3								569	5.402
	804					1600.	7	11200.	5								615	24.183
	804					200.	5	1000.	3								616	0.772
	804					70.	70	4900.	4								656	7.181
	804					200.	5	1000.	7								657	4.625
																TOTAL FOR SECT.	137:	42.893
142	811					1100.	55	60500.	5								391	43.500
	811					900.	60	54000.	7								392	83.160

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
142	813					1400.	30	42000.	3								389	10.794
	813					2800.	50	140000.	5								397	100.660
	817					550.	40	22000.	1								371	1.122
	817					1500.	100	150000.	4								372	73.200
	817					700.	80	56000.	3								373	14.392
	817					1700.	75	127500.	3								374	32.768
	820					900.	20	18000.	1								570	0.918
	826					3700.	75	277500.	5								394	199.523
	827					800.	60	48000.	6								71	54.240
	827					4000.	60	240000.	5								72	172.560
	827					700.	75	52500.	5								809	37.748
	828					1450.	75	108750.	5								758	78.191
	830					1700.	30	51000.	1								807	2.601
	833					1000.	75	75000.	5								390	53.925
	833					2800.	60	168000.	5								398	120.792
	837					600.	75	45000.	8								388	106.290
	837					1650.	65	107250.	4								393	52.338
	837					800.	50	40000.	4								395	19.520
	837					1300.	30	39000.	5								396	28.041
	837					625.	75	46875.	7								399	72.188
	1530					1500.	30	45000.	5								188	32.355
															TOTAL FOR SECT.		142:	1390.824
143	810					2000.	45	90000.	6								250	101.700
	810					6000.	30	180000.	5								251	129.420
	825					1800.	30	54000.	1								111	2.754
	825					350.	80	28000.	1								112	1.428
	825					1200.	65	78000.	5								115	56.082
	825					1500.	60	90000.	5								116	64.710
	831					275.	30	8250.	7								110	12.705
	831					300.	30	9000.	5								113	6.471
	831					550.	30	16500.	3								114	4.240
	831					900.	55	49500.	7								126	76.230
	831					400.	30	12000.	3								128	3.084
	831					900.	75	67500.	5								187	48.532
	831					1000.	40	40000.	3								326	10.280
	831					600.	60	36000.	5								327	25.884
	831					900.	25	22500.	1								328	1.147
	831					575.	80	46000.	7								329	70.840
	831					900.	75	67500.	5								330	48.532
	835					650.	75	48750.	7								127	75.075
	835					450.	40	18000.	4								129	8.784
	835					550.	50	27500.	9								130	87.533
	835					1150.	60	69000.	5								186	49.611
	835					850.	35	29750.	5								325	21.390
	835					800.	50	40000.	3								338	10.280
	835					1000.	50	50000.	1								339	2.550
	1483					1100.	55	60500.	1								108	3.086
	1483					850.	50	42500.	3								109	10.922
	1483					550.	50	27500.	3								117	7.067
															TOTAL FOR SECT.		143:	940.339

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
144	823					300.	50	15000.	7								164	23.100
	823					4000.	500	2000000.	1								165	102.000
	824					200.	100	20000.	7								166	30.800
	834					4000.	200	800000.	6								252	904.000
	1415					2500.	125	312500.	5								298	224.688
																TOTAL FOR SECT.	144:	1284.587
152	845					600.	200	120000.	5								257	259.099
	854					1200.	50	60000.	1								299	9.189
	854					2000.	100	200000.	1								301	30.631
	858					1000.	600	600000.	7								253	2774.775
	858					1100.	20	22000.	5								254	47.502
	858					1800.	100	180000.	5								256	388.649
	859					1000.	20	20000.	1								300	3.063
	861					2500.	6	15000.	4								255	21.982
																TOTAL FOR SECT.	152:	3534.889
163	883					150.	15	2250.	3								355	1.736
	883					100.	3	300.	3								356	0.232
	884					200.	4	800.	3								340	0.617
	898					100.	1	100.	1								47	0.015
	1531					350.	15	5250.	6								331	17.815
																TOTAL FOR SECT.	163:	20.416
164	882					250.	5	1250.	1								258	0.191
	882					200.	5	1000.	1								365	0.153
	882					400.	40	16000.	3								716	12.348
																TOTAL FOR SECT.	164:	12.693
165	875					500.	10	5000.	1								717	0.766
172	920					300.	20	6000.	3								366	8.913
	927					100.	35	3500.	3								192	5.199
	995					1700.	25	42500.	3								190	63.136
	995					1200.	25	30000.	3								195	44.566
	995					600.	25	15000.	3								196	22.283
	997					600.	50	30000.	3								189	44.566
	997					2800.	50	140000.	3								193	207.977
	997					900.	25	22500.	3								197	33.425
	999					1350.	15	20250.	3								77	30.082
	999					2800.	15	42000.	3								194	62.393
	1002					1500.	35	52500.	3								191	77.991
	1002					1125.	50	56250.	3								259	83.562
	1002					1750.	40	70000.	3								341	103.988
	1002					2700.	25	67500.	3								342	100.275
	1002					1500.	30	45000.	3								343	66.850
																TOTAL FOR SECT.	172:	955.208
173	941					3200.	1	3200.	1								168	0.245

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
173	941					150.	1	150.	3								171	0.058
	947					1000.	250	250000.	9								174	1194.820
	949					200.	25	5000.	3								69	1.929
	953					300.	75	22500.	3								367	8.682
	953					350.	60	21000.	1								460	1.608
	954					600.	5	3000.	3								169	1.158
	954					250.	40	10000.	5								170	10.796
	954					1100.	1	1100.	3								172	0.424
	954					1200.	1	1200.	1								175	0.092
	969					900.	30	27000.	1								412	2.068
	1504					500.	20	10000.	3								118	3.859
	1504					500.	30	15000.	5								167	16.194
	1504					200.	30	6000.	3								173	2.315
	1532					200.	10	2000.	3								68	0.772
															TOTAL FOR SECT.		1738	1245.020
181	1027					60.	5	300.	1								461	0.046
182	1050					250.	10	2500.	1								21	0.127
	1050					75.	10	750.	3								33	0.193
	1050					50.	5	250.	3								36	0.064
	1050					50.	5	250.	3								37	0.064
	1050					200.	75	15000.	5								64	10.785
	1050					390.	7	2730.	3								65	0.702
	1050					400.	150	60000.	3								78	15.420
	1050					300.	50	15000.	3								80	3.855
	1050					300.	15	4500.	3								81	1.156
	1050					120.	10	1200.	3								119	0.308
	1050					325.	10	3250.	3								120	0.835
	1050					525.	5	2625.	3								176	0.675
	1050					75.	3	225.	3								177	0.058
	1050					150.	10	1500.	3								178	0.386
	1050					350.	10	3500.	1								375	0.179
	1050					250.	10	2500.	1								377	0.127
	1050					600.	100	60000.	1								400	3.060
	1050					575.	7	4025.	1								444	0.205
	1051					75.	3	225.	3								349	0.058
	1051					50.	2	100.	3								350	0.026
	1053					200.	5	1000.	4								23	0.488
	1053					60.	5	300.	1								48	0.015
	1053					100.	5	500.	1								60	0.026
	1053					75.	3	225.	3								79	0.058
	1053					50.	3	150.	3								82	0.039
	1054					100.	4	400.	1								17	0.020
	1055					100.	3	300.	4								19	0.146
	1055					150.	10	1500.	1								20	0.077
	1055					50.	3	150.	5								24	0.108
	1055					20.	2	40.	1								28	0.002
	1055					40.	2	80.	3								31	0.021
	1058					200.	5	1000.	4								619	0.488

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
182	1058					75.	9	675.	7								620	1.039
	1058					100.	12	1200.	7								621	1.848
																TOTAL FOR SECT.	1821	42.658
183	1021					135.	10	1350.	1								11	0.207
	1021					800.	5	4000.	4								32	5.862
	1021					150.	3	450.	3								75	0.347
	1021					175.	5	875.	1								198	0.134
	1034					700.	25	17500.	1								686	2.680
	1041					300.	20	6000.	5								30	12.955
	1041					40.	4	160.	3								49	0.123
	1041					100.	10	1000.	1								413	0.153
	1486					50.	15	750.	1								22	0.115
																TOTAL FOR SECT.	1831	22.577
232	1132					1200.	25	30000.	9								132	95.490
	1142					1200.	15	18000.	4								121	8.784
	1142					800.	20	16000.	6								133	18.080
	1143					500.	7	3500.	7								199	5.390
	1143					2300.	300	690000.	6								200	779.700
	1143					500.	35	17500.	3								201	4.497
	1144					1000.	35	35000.	5								131	25.165
	1144					1300.	25	32500.	6								134	36.725
	1144					2800.	150	420000.	6								180	474.600
	1144					700.	150	105000.	6								263	118.650
	1144					1800.	150	270000.	7								264	415.800
	1144					2300.	60	138000.	6								304	155.940
	1144					1600.	15	24000.	4								305	11.712
	1145					900.	15	13500.	6								266	15.255
	1148					1400.	30	42000.	3								353	10.794
	1148					1400.	30	42000.	2								359	6.468
	1148					2640.	15	39600.	6								687	44.748
	1150					750.	15	11250.	5								265	8.089
	1155					300.	10	3000.	4								306	1.464
	1156					300.	15	4500.	3								307	1.156
	1159					800.	20	16000.	3								302	4.112
																TOTAL FOR SECT.	2321	2242.620
233	1130					2100.	17	35700.	6								30	40.341
	1130					300.	20	6000.	6								351	6.780
	1141					900.	15	13500.	6								179	15.255
	1141					900.	60	54000.	5								181	38.826
	1141					1000.	20	20000.	9								182	63.660
	1149					300.	50	15000.	2								352	2.310
	1149					300.	10	3000.	4								358	1.464
	1149					600.	50	30000.	5								378	21.570
	1151					1800.	10	18000.	7								260	27.720
	1151					650.	15	9750.	3								261	2.506
	1151					750.	15	11250.	4								262	5.490
	1151					1400.	20	28000.	6								267	31.640

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
233	1151					900.	30	27000.	5								357	19.413
	1152					500.	100	50000.	4								332	24.400
																TOTAL FOR SECT.	233:	301.375
234	1123					500.	200	100000.	5								401	215.916
235	1533					2640.	6	15840.	4								659	23.213
242	1217					200.	20	4000.	3								41	3.087
	1217					100.	25	2500.	3								42	1.929
	1217					300.	20	6000.	3								43	4.631
	1217					150.	30	4500.	3								44	3.473
	1217					800.	100	80000.	3								45	61.742
	1217					100.	25	2500.	3								46	1.929
																TOTAL FOR SECT.	242:	76.791
243	1212					15.	10	150.	3								308	0.116
	1212					30.	10	300.	3								312	0.232
	1212					25.	8	200.	3								313	0.154
	1212					20.	10	200.	3								316	0.154
	1212					25.	8	200.	5								317	0.432
	1212					30.	10	300.	5								318	0.648
	1212					15.	10	150.	3								319	0.116
	1212					25.	15	375.	5								322	0.810
																TOTAL FOR SECT.	243:	2.661
244	1186					40.	10	400.	3								207	0.309
	1186					15.	6	90.	3								214	0.069
	1186					18.	6	108.	3								224	0.083
	1186					50.	10	500.	3								233	0.386
	1186					20.	4	80.	3								236	0.062
	1186					20.	6	120.	5								238	0.259
	1186					200.	150	30000.	7								240	138.739
	1186					18.	10	180.	3								242	0.139
	1186					50.	6	300.	5								244	0.648
	1186					15.	6	90.	7								245	0.416
	1190					20.	4	80.	3								205	0.062
	1190					15.	3	45.	3								206	0.035
	1190					200.	40	8000.	3								210	6.174
	1190					15.	5	75.	3								217	0.058
	1190					20.	5	100.	3								218	0.077
	1190					25.	5	125.	3								219	0.096
	1190					25.	5	125.	3								234	0.096
	1190					12.	4	48.	3								237	0.037
	1190					25.	5	125.	5								239	0.270
	1190					25.	5	125.	3								246	0.096
	1200					15.	10	150.	5								208	0.324
	1200					75.	8	600.	3								211	0.463
	1200					50.	15	750.	7								212	3.468
	1200					30.	8	240.	5								213	0.518

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO. DAY	SURVEY MO. DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
244	1200			30.	10	300.	5								215	0.648
	1200			20.	6	120.	5								216	0.259
	1200			20.	5	100.	3								222	0.077
	1200			15.	4	60.	7								223	0.277
														TOTAL FOR SECT.	244:	154.147
245	1195			300.	75	22500.	3								230	17.365
	1195			75.	15	1125.	3								231	0.868
	1195			450.	3	1350.	5								268	2.915
	1195			40.	10	400.	7								271	1.850
	1195			150.	75	11250.	7								275	52.027
	1195			200.	50	10000.	5								276	21.592
	1195			450.	4	1800.	5								277	3.886
	1195			300.	125	37500.	5								278	80.968
	1195			60.	6	360.	7								280	1.665
	1195			150.	75	11250.	7								283	52.027
	1195			75.	12	900.	5								284	1.943
	1195			400.	12	4800.	3								285	3.705
	1195			450.	3	1350.	5								288	2.915
	1195			300.	30	9000.	3								289	6.946
	1198			150.	100	15000.	7								135	69.369
	1198			50.	30	1500.	7								136	6.937
	1198			50.	7	350.	5								137	0.756
	1198			100.	15	1500.	7								138	6.937
	1198			600.	200	120000.	5								139	259.099
	1198			600.	75	45000.	5								140	97.162
	1198			50.	10	500.	7								141	2.312
	1198			800.	200	160000.	5								142	345.465
	1198			75.	12	900.	5								202	1.943
	1198			50.	6	300.	5								203	0.648
	1198			70.	20	1400.	5								220	3.023
	1198			50.	6	300.	3								221	0.232
	1198			100.	25	2500.	5								225	5.398
	1198			150.	125	18750.	7								247	86.712
	1198			250.	8	2000.	5								309	4.318
	1198			150.	20	3000.	5								310	6.477
	1198			75.	10	750.	7								311	3.468
	1198			150.	15	2250.	5								314	4.858
	1198			150.	12	1800.	3								315	1.389
	1198			250.	10	2500.	5								320	5.398
	1198			35.	16	560.	7								321	2.590
	1201			75.	10	750.	3								232	0.579
	1220			1200.	15	18000.	3								229	13.892
	1220			600.	175	105000.	7								241	485.586
	1220			1100.	35	38500.	5								243	83.128
	1222			100.	20	2000.	3								269	1.544
	1222			600.	75	45000.	3								274	34.730
	1222			60.	20	1200.	3								279	0.926
	1222			15.	5	75.	5								287	0.162
	1222			250.	150	37500.	3								291	28.941

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
245	1224					100.	6	600.	5								204	1.295
	1224					40.	4	160.	5								209	0.345
	1224					200.	15	3000.	5								228	6.477
	1225					1000.	350	350000.	5								226	755.706
	1225					100.	50	5000.	3								227	3.859
	1225					200.	200	40000.	7								235	184.985
	1227					75.	15	1125.	3								270	0.868
	1227					125.	10	1250.	3								272	0.965
	1227					50.	10	500.	5								273	1.080
	1227					50.	20	1000.	5								281	2.159
	1227					100.	30	3000.	5								282	6.477
	1227					80.	20	1600.	3								286	1.235
	1227					200.	10	2000.	3								290	1.544
															TOTAL FOR SECT.		245:	2781.646
252	1282					50.	50	2500.	5								735	5.398
	1282					200.	75	15000.	3								736	11.577
	1282					50.	50	2500.	1								737	0.383
															TOTAL FOR SECT.		252:	17.357
253	1262					500.	300	150000.	7								25	693.694
	1262					900.	300	270000.	5								26	582.973
	1262					500.	300	150000.	3								27	115.766
	1263					1300.	500	650000.	1								143	99.550
	1263					350.	50	17500.	5								144	37.785
	1263					200.	50	10000.	1								147	1.532
	1263					175.	50	8750.	1								148	1.340
	1263					200.	20	4000.	1								149	0.613
	1263					100.	100	10000.	5								151	21.592
	1263					175.	75	13125.	7								152	60.698
	1263					50.	10	500.	5								153	1.080
	1263					25.	25	625.	1								157	0.096
	1263					150.	20	3000.	1								158	0.459
	1266					300.	25	7500.	1								292	1.149
	1266					100.	40	4000.	3								293	3.087
	1266					750.	50	37500.	1								294	5.743
	1266					50.	50	2500.	3								295	1.929
	1266					700.	50	35000.	1								296	5.360
	1266					25.	25	625.	3								297	0.482
	1268					2900.	100	290000.	1								145	44.414
	1268					150.	50	7500.	3								146	5.788
	1268					300.	50	15000.	3								150	11.577
	1268					100.	100	10000.	5								154	21.592
	1268					150.	100	15000.	1								155	2.297
	1268					100.	100	10000.	3								156	7.718
															TOTAL FOR SECT.		253:	1728.313
262	1296					1500.	50	75000.	1								10	11.486
	1300					100.	50	5000.	3								344	3.859
	1300					80.	40	3200.	3								345	2.470
															TOTAL FOR SECT.		262:	17.815

TABLE 8. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1977

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
273	1320					500.	15	7500.	1								12	1.149
	1320					300.	20	6000.	1								70	0.919
	1320					200.	15	3000.	3								159	2.315
	1320					400.	10	4000.	5								160	8.637
	1321					200.	30	6000.	2								13	2.775
	1321					600.	15	9000.	3								29	6.946
	1328					400.	20	8000.	1								346	1.225
	1330					500.	20	10000.	1								14	1.532
	1330					350.	30	10500.	7								368	48.559
	1330					800.	15	12000.	5								369	25.910
															TOTAL FOR SECT.	273:		99.965
274	1323					150.	15	2250.	1								66	0.345
	1323					100.	10	1000.	1								67	0.153
	1325					200.	20	4000.	3								73	3.087
	1325					200.	10	2000.	5								74	4.318
	1534					200.	20	4000.	3								76	3.087
															TOTAL FOR SECT.	274:		10.990
290	1351					2000.	100	200000.	1								18	30.631
	1351					4000.	100	400000.	1								354	61.261
															TOTAL FOR SECT.	290:		91.892

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
1	64	4	14			2200.	5	11000.	5								103	23.751
3	91	4	5			800.	2	1600.	1								74	0.245
	91	4	5			800.	5	4000.	1								75	0.613
	91	4	5			800.	2	1600.	1								76	0.245
	91	4	5			1500.	7	10500.	1								77	1.608
	97	4	9			150.	4	600.	3								78	0.463
	97	4	9			300.	8	2400.	7								79	11.099
	97	4	9			350.	4	1400.	7								80	6.474
	97	4	9			500.	4	2000.	4								81	2.931
	97	4	9			600.	6	3600.	3								82	2.778
	97	4	9			700.	6	4200.	1								83	0.643
	97	4	9			200.	4	800.	5								84	1.727
	97	4	9			200.	4	800.	5								85	1.727
	97	4	9			1300.	4	5200.	5								86	11.228
	97	4	9			1100.	6	6600.	4								87	9.672
																TOTAL FOR SECT.	3:	51.454
5	80	3	31			2700.	4	10800.	3								88	8.335
	80	3	31			300.	30	9000.	5								89	19.432
	80	3	31			2800.	2	5600.	3								90	4.322
	80	3	31			2000.	4	8000.	3								91	6.174
																TOTAL FOR SECT.	5:	38.264
6	76	3	17			250.	30	7500.	3								92	5.788
	76	3	17			250.	50	12500.	3								93	9.647
	76	3	18			800.	10	8000.	3								94	6.174
	76	3	18			550.	5	2750.	3								95	2.122
	76	3	18			900.	5	4500.	3								96	3.473
	76	3	18			350.	20	7000.	5								97	15.114
	76	3	22			900.	5	4500.	1								98	0.689
	76	3	22			400.	10	4000.	3								99	3.087
	76	3	22			400.	10	4000.	3								100	3.087
	76	4	14			300.	12	3600.	3								101	2.778
	77	4	3			1000.	20	20000.	3								102	15.435
																TOTAL FOR SECT.	6:	67.396
12	53	2	1			300.	10	3000.	3								15	0.454
	53	2	6			600.	500	300000.	4								16	86.118
	53	2	6			900.	500	450000.	4								17	129.176
	53	2	8			400.	10	4000.	1								18	0.120
	53	2	9			300.	10	3000.	3								19	0.454
	53	2	9			1000.	20	20000.	3								20	3.024
	53	2	9			300.	30	9000.	1								21	0.270
	53	2	9			750.	50	37500.	4								22	10.765
	53	2	13			350.	200	70000.	3								23	10.542
	53	2	13			1000.	30	30000.	3								24	4.535
	53	2	15			1000.	300	300000.	1								25	9.000
	53	2	15			400.	30	12000.	1								26	0.360

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
12	53	2	15			700.	30	21000.	1								27	0.630
	53	2	19			900.	500	450000.	5								28	190.324
	53	3	13			700.	300	210000.	3								29	31.747
	53	3	13			400.	100	40000.	4								30	11.482
	53	3	14			260.	65	16900.	3								31	2.555
	53	3	14			100.	80	8000.	4								32	2.296
	53	3	14			750.	150	112500.	3								33	17.007
	53	4	1			2000.	900	1800000.	1								34	54.000
																TOTAL FOR SECT.	12:	564.899
22	99	5	11			4260.	10	42600.	3								11	32.877
	106	4	17			2050.	10	20500.	4								2	30.042
	106	5	11			750.	12	9000.	4								7	13.189
	113	6	6			180.	15	2700.	4								12	3.957
	115	4	23			3800.	10	38000.	1								14	5.820
	120	4	22			1000.	5	5000.	4								3	7.327
	120	4	26			175.	5	875.	3								4	0.675
	120	5	25			900.	12	10800.	4								10	15.827
	123	4	27			650.	8	5200.	7								5	24.048
	126	5	3			370.	7	2590.	1								6	0.397
	132	5	9			1150.	20	23000.	6								8	78.048
	132	5	9			200.	10	2000.	7								9	9.249
	1550	6	3			750.	10	7500.	4								13	10.991
																TOTAL FOR SECT.	22:	232.448
23	156	4	15			4200.	20	84000.	4								114	123.099
	157	5	12			1800.	20	36000.	1								111	5.514
	157	5	24			700.	20	14000.	1								112	2.144
	158	4	1			400.	8	3200.	1								108	0.490
	158	4	1			1600.	20	32000.	3								109	24.697
	158	5	24			200.	200	40000.	7								113	184.985
	160	4	2			700.	8	5600.	4								115	8.207
	1460	5	12			3700.	15	55500.	3								110	42.833
	1523	4	20			100.	20	2000.	4								105	2.931
	1523	4	20			500.	5	2500.	3								106	1.929
	1523	4	20			400.	25	10000.	1								107	1.532
																TOTAL FOR SECT.	23:	398.360
24	136	4	19			1800.	7	12600.	1								104	1.930
25	164	3	24			600.	20	12000.	7								41	55.495
	164	3	28			500.	10	5000.	5								42	10.796
	164	4	15			4000.	10	40000.	5								43	86.366
	164	4	15			2500.	20	50000.	7								44	231.231
	167	3	23			50.	10	500.	3								45	0.386
	168	4	18			100.	10	1000.	3								62	0.772
	168	4	18			300.	20	6000.	5								63	12.955
	168	4	18			300.	10	3000.	3								64	2.315
	168	4	18			700.	5	3500.	3								65	2.701
	168	4	18			200.	10	2000.	3								66	1.544

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
25	168	4	18			200.	10	2000.	5								67	4.318
	168	4	18			100.	10	1000.	3								68	0.772
	168	4	18			100.	30	3000.	3								69	2.315
	168	4	18			500.	50	25000.	3								70	19.294
	168	4	18			100.	50	5000.	3								71	3.859
	168	4	18			1000.	6	6000.	5								72	12.955
	168	4	18			400.	30	12000.	3								73	9.261
	170	3	29			1500.	15	22500.	5								53	48.581
	170	3	29			1000.	10	10000.	3								54	7.718
	172	3	27			100.	20	2000.	5								47	4.318
	175	4	14			500.	100	50000.	1								55	7.658
	176	3	30			500.	10	5000.	5								37	10.796
	176	3	30			400.	100	40000.	5								38	86.366
	176	4	18			50.	50	2500.	5								40	5.398
	178	4	3			1500.	10	15000.	3								56	11.577
	178	4	21			1200.	10	12000.	5								57	25.910
	182	4	18			400.	15	6000.	4								39	8.793
	184	4	24			400.	20	8000.	4								58	11.724
	185	3	30			2000.	5	10000.	3								35	7.718
	185	3	30			1500.	20	30000.	3								36	23.153
	1536	3	23			100.	20	2000.	5								46	4.318
	1536	4	16			300.	100	30000.	5								48	64.775
	1536	4	16			1000.	5	5000.	5								49	10.796
	1536	4	16			700.	20	14000.	3								50	10.805
	1536	4	16			350.	10	3500.	7								51	16.186
	1536	4	16			2250.	10	22500.	4								52	32.973
	1552	4	18			2600.	15	39000.	4								59	57.153
	1553	4	18			800.	10	8000.	7								60	36.997
	1553	4	18			1400.	15	21000.	4								61	30.775
															TOTAL FOR SECT.	25:		981.823
32	1554	5	17			2640.	5	13200.	3								116	10.187
	1554	5	17			200.	2	400.	2								117	0.185
															TOTAL FOR SECT.	32:		10.372
42	260	3	26			125.	125	15625.	1								118	2.393
	262	3	26			750.	20	15000.	3								128	11.577
	262	3	26			100.	10	1000.	1								129	0.153
	262	3	26			20.	10	200.	1								130	0.031
	265	3	26			500.	20	10000.	3								126	7.718
	265	3	26			600.	20	12000.	3								127	9.261
	265	4	5			400.	200	80000.	3								131	61.742
	269	3	26			250.	325	81250.	1								120	12.444
	282	6	2			5.	5	25.	1								150	0.004
	282	6	2			10.	10	100.	1								151	0.015
	282	6	2			50.	10	500.	1								152	0.077
	282	6	2			100.	10	1000.	1								153	0.153
	1444	3	26			250.	20	5000.	2								122	2.312
	1444	3	26			150.	5	750.	1								123	0.115
	1444	3	26			150.	5	750.	1								124	0.115

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
42	1444	3	26			150.	50	7500.	4								125	10.991
	1447	3	26			150.	300	45000.	1								121	6.892
	1448	3	26			100.	125	12500.	1								119	1.914
																TOTAL FOR SECT.	42:	127.906
43	286	4	17			2000.	5	10000.	3								132	7.718
	286	4	17			600.	8	4800.	5								134	10.364
	286	4	17			500.	5	2500.	3								135	1.929
	286	4	18			1800.	5	9000.	3								133	6.946
	286	5	23			300.	5	1500.	2								143	0.694
	286	5	23			100.	5	500.	2								144	0.231
	293	4	19			800.	3	2400.	1								136	0.368
	293	4	19			100.	5	500.	3								137	0.386
	293	4	19			200.	3	600.	1								138	0.092
	293	5	23			70.	10	700.	2								145	0.324
	294	5	23			25.	5	125.	2								148	0.058
	294	5	23			10.	5	50.	2								149	0.023
	1452	5	23			50.	25	1250.	2								146	0.578
	1452	5	23			50.	50	2500.	2								147	1.156
	1454	5	1			1400.	5	7000.	1								139	1.072
	1454	5	1			400.	2	800.	3								140	0.617
	1454	5	1			600.	10	6000.	3								141	4.631
	1454	5	1			800.	2	1600.	3								142	1.235
																TOTAL FOR SECT.	43:	38.421
45	227	6	2			100.	25	2500.	1								154	0.383
	227	6	2			20.	2	40.	1								155	0.006
	227	6	2			20.	50	1000.	4								156	1.465
																TOTAL FOR SECT.	45:	1.854
52	339	4	24			300.	15	4500.	3								189	3.473
	339	4	24			200.	20	4000.	4								190	5.862
	339	4	24			200.	150	30000.	2								191	13.874
	339	4	24			200.	200	40000.	4								192	58.619
	339	4	24			50.	15	750.	3								193	0.579
	344	4	12			800.	15	12000.	2								169	5.550
	344	4	12			1200.	25	30000.	3								170	23.153
	344	4	15			200.	50	10000.	6								171	33.934
	344	4	15			300.	200	60000.	2								172	27.748
	346	3	28			50.	50	2500.	3								160	1.929
	346	3	28			700.	100	70000.	3								161	54.024
	347	4	22			40.	40	1600.	4								180	2.345
	347	4	22			40.	20	800.	4								181	1.172
	347	4	22			50.	20	1000.	5								182	2.159
	347	4	22			100.	20	2000.	1								183	0.306
	347	4	22			100.	50	5000.	2								184	2.312
	347	4	22			200.	10	2000.	3								185	1.544
	347	4	22			80.	50	4000.	4								186	5.862
	347	4	22			40.	10	400.	4								187	0.586
	347	4	22			100.	10	1000.	4								188	1.465

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
52	353	4	22			200.	15	3000.	1								173	0.459
	353	4	22			300.	40	12000.	3								174	9.261
	354	4	10			100.	5	500.	3								167	0.386
	354	4	12			400.	30	12000.	4								168	17.586
	355	3	28			400.	300	120000.	3								157	92.613
	355	3	28			1500.	50	75000.	3								159	57.883
	355	3	29			100.	25	2500.	3								158	1.929
	358	3	28			700.	40	28000.	4								162	41.033
	358	3	28			600.	20	12000.	3								163	9.261
	358	3	29			600.	80	48000.	4								164	70.342
	358	3	29			100.	5	500.	3								165	0.386
	358	3	29			40.	25	1000.	3								166	0.772
	1524	4	23			50.	20	1000.	4								175	1.465
	1524	4	23			300.	20	6000.	4								176	8.793
	1524	4	23			30.	20	600.	3								177	0.463
	1524	4	23			50.	25	1250.	4								178	1.832
	1524	4	23			20.	10	200.	3								179	0.154
	1524	5	7			400.	100	40000.	2								194	18.498
	1524	5	8			300.	50	15000.	2								195	6.937
															TOTAL FOR SECT.		52:	586.550
63	414	2	28			300.	7	2100.	1								262	0.322
67	425	4	1			275.	6	1650.	1								211	0.253
	425	4	2			100.	12	1200.	5								207	2.591
	425	4	2			300.	8	2400.	3								208	1.852
	425	4	2			100.	6	600.	3								209	0.463
	425	4	2			350.	4	1400.	3								210	1.080
	425	4	3			500.	18	9000.	6								204	30.541
	425	4	3			200.	4	800.	1								205	0.123
	425	4	3			175.	10	1750.	3								206	1.351
	425	4	4			425.	20	8500.	6								200	28.844
	425	4	4			350.	4	1400.	3								201	1.080
	425	4	4			50.	8	400.	3								202	0.309
	425	4	4			80.	8	640.	3								203	0.494
	426	4	1			325.	4	1300.	1								212	0.199
	426	4	1			200.	4	800.	5								213	1.727
	426	4	1			725.	6	4350.	6								214	14.761
	426	4	1			750.	8	6000.	3								215	4.631
	426	4	1			125.	8	1000.	3								216	0.772
	426	4	2			1200.	14	16800.	6								217	57.009
	426	4	2			625.	10	6250.	5								218	13.495
	426	4	2			900.	8	7200.	5								219	15.546
	426	4	3			250.	8	2000.	3								220	1.544
	426	4	7			700.	10	7000.	5								261	15.114
	430	4	4			300.	25	7500.	6								196	25.450
	430	4	4			175.	14	2450.	6								197	8.314
	430	4	4			350.	16	5600.	6								198	19.003
	430	4	4			225.	50	11250.	5								199	24.291
	433	4	3			350.	8	2800.	3								221	2.161

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
67	433	4	3			125.	10	1250.	5								222	2.699
	433	4	4			100.	10	1000.	5								223	2.159
	433	4	4			250.	12	3000.	3								224	2.315
	433	4	5			300.	10	3000.	3								225	2.315
	433	4	5			175.	10	1750.	5								226	3.779
	433	4	5			350.	4	1400.	3								227	1.080
	433	4	5			100.	8	800.	5								228	1.727
	433	4	5			75.	4	300.	1								229	0.046
	433	4	5			150.	8	1200.	5								230	2.591
	433	4	5			300.	10	3000.	3								231	2.315
	433	4	5			350.	8	2800.	5								232	6.046
	1456	3	25			100.	5	500.	3								234	0.386
	1456	3	25			80.	8	640.	7								235	2.960
	1456	3	25			45.	8	360.	7								236	1.665
	1456	3	25			40.	5	200.	3								237	0.154
	1456	3	25			40.	8	320.	3								238	0.247
	1456	3	25			30.	4	120.	1								245	0.018
	1456	3	25			60.	5	300.	3								246	0.232
	1456	3	25			25.	6	150.	3								247	0.116
	1456	3	25			60.	5	300.	3								248	0.232
	1456	3	25			50.	5	250.	3								249	0.193
	1456	3	25			100.	10	1000.	5								250	2.159
	1456	3	25			40.	6	240.	5								251	0.518
	1456	3	25			40.	5	200.	5								252	0.432
	1456	3	25			40.	4	160.	1								253	0.025
	1456	3	25			60.	4	240.	3								254	0.185
	1456	3	28			70.	6	420.	5								233	0.907
	1456	3	30			185.	6	1110.	3								255	0.857
	1456	3	30			425.	8	3400.	5								256	7.341
	1456	3	30			125.	8	1000.	3								257	0.772
	1456	3	30			70.	6	420.	5								258	0.907
	1456	3	30			200.	10	2000.	3								259	1.544
	1456	3	30			300.	10	3000.	3								260	2.315
	1540	3	25			100.	5	500.	3								239	0.386
	1540	3	25			40.	5	200.	3								240	0.154
	1540	3	25			20.	5	100.	5								241	0.216
	1540	3	25			200.	6	1200.	3								242	0.926
	1540	3	25			40.	6	240.	3								243	0.185
	1540	3	25			20.	3	60.	1								244	0.009
															TOTAL FOR SECT.		67:	326.109
72	453	3	30			300.	5	1500.	3								295	1.158
	471	3	31			100.	50	5000.	3								321	3.859
	471	3	31			100.	15	1500.	3								322	1.158
	491	3	21			500.	100	50000.	5								268	107.958
	496	3	31			100.	10	1000.	5								313	2.159
	499	3	31			700.	15	10500.	5								314	22.671
	499	3	31			1200.	5	6000.	3								315	4.631
	529	3	31			400.	75	30000.	3								310	23.153
	529	3	31			400.	5	2000.	3								311	1.544

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
72	529	3	31			150.	5	750.	1								312	0.115
																TOTAL FOR SECT.	72:	168.405
74	438	3	25			1200.	4	4800.	2								272	2.220
	438	3	25			300.	20	6000.	4								273	8.793
	438	3	25			700.	4	2800.	1								274	0.429
	438	3	25			250.	20	5000.	5								275	10.796
	438	3	25			100.	10	1000.	7								276	4.625
	438	3	25			150.	4	600.	1								277	0.092
	438	3	25			100.	30	3000.	5								278	6.477
	438	3	25			200.	4	800.	1								279	0.123
	438	3	25			600.	6	3600.	1								280	0.551
	498	4	13			800.	10	8000.	4								353	11.724
	540	3	28			200.	50	10000.	3								289	7.718
	540	3	28			100.	30	3000.	3								290	2.315
	540	4	1			75.	15	1125.	1								335	0.172
	540	4	1			250.	80	20000.	7								336	92.492
	540	4	1			125.	10	1250.	1								337	0.191
	542	3	7			25.	6	150.	1								264	0.023
	542	3	8			10.	4	40.	3								265	0.031
	542	3	17			50.	10	500.	3								266	0.386
	542	3	30			50.	25	1250.	7								291	5.781
	542	3	30			600.	10	6000.	3								292	4.631
	542	3	30			200.	4	800.	1								293	0.123
	542	3	30			150.	3	450.	3								294	0.347
	542	4	6			800.	4	3200.	1								349	0.490
	542	4	6			425.	10	4250.	3								350	3.280
	543	3	25			4000.	14	56000.	4								281	82.066
	543	4	10			600.	15	9000.	3								351	6.946
	543	4	10			300.	10	3000.	3								352	2.315
	546	3	28			100.	3	300.	1								288	0.046
	546	3	31			50.	4	200.	3								304	0.154
	546	3	31			400.	30	12000.	5								305	25.910
	546	3	31			100.	10	1000.	3								306	0.772
	546	3	31			100.	60	6000.	7								307	27.748
	546	3	31			200.	20	4000.	1								308	0.613
	546	3	31			150.	50	7500.	3								309	5.788
	1467	4	4			2200.	10	22000.	5								342	47.502
	1528	4	1			350.	10	3500.	3								341	2.701
																TOTAL FOR SECT.	74:	366.370
75	505	3	17			100.	8	800.	3								267	0.617
	505	3	24			150.	5	750.	3								269	0.579
	505	3	24			50.	5	250.	3								270	0.193
	505	3	24			150.	15	2250.	5								271	4.858
	505	3	27			50.	10	500.	4								282	0.733
	505	3	27			125.	2	250.	3								283	0.193
	505	3	27			20.	40	800.	5								284	1.727
	505	3	27			100.	10	1000.	5								285	2.159
	505	3	27			150.	10	1500.	5								286	3.239

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	MILLIONS OF EGGS
75	505	3	27			100.	15	1500.	1								287	0.230
	505	3	30			100.	5	500.	5								296	1.080
	505	3	30			700.	10	7000.	4								297	10.258
	505	4	1			1500.	10	15000.	3								328	11.577
	505	4	1			400.	10	4000.	3								329	3.087
	505	4	1			100.	100	10000.	1								330	1.532
	505	4	1			500.	20	10000.	4								338	14.655
	505	4	1			200.	10	2000.	3								339	1.544
	505	4	1			200.	5	1000.	3								340	0.772
	1459	4	13			800.	20	16000.	7								354	73.994
	1459	4	13			1200.	15	18000.	5								355	38.865
	1459	4	13			400.	30	12000.	7								356	55.495
	1459	4	13			800.	20	16000.	7								357	73.994
	1459	4	13			700.	15	10500.	5								358	22.671
	1459	4	13			400.	15	6000.	5								359	12.955
	1459	4	13			600.	10	6000.	3								360	4.631
																TOTAL FOR SECT.	75:	341.636
76	554	3	31			150.	50	7500.	2								316	3.468
	554	3	31			150.	25	3750.	3								317	2.894
	559	3	6			50.	5	250.	3								263	0.193
	559	3	31			100.	8	800.	3								301	0.617
	559	3	31			200.	5	1000.	3								302	0.772
	559	3	31			150.	5	750.	3								303	0.579
	559	4	1			50.	10	500.	4								333	0.733
	559	4	1			150.	3	450.	3								334	0.347
	560	3	31			50.	2	100.	3								318	0.077
	560	3	31			350.	3	1050.	3								319	0.810
	560	3	31			100.	75	7500.	5								320	16.194
	560	4	1			600.	3	1800.	3								332	1.389
	562	4	1			700.	5	3500.	3								327	2.701
	562	4	4			100.	15	1500.	5								343	3.239
	562	4	4			25.	2	50.	3								344	0.039
	562	4	4			25.	2	50.	3								345	0.039
	562	4	4			25.	2	50.	3								346	0.039
	562	4	4			10.	3	30.	3								347	0.023
	562	4	4			800.	10	8000.	3								348	6.174
	569	3	30			175.	75	13125.	3								298	10.130
	569	3	30			100.	25	2500.	1								299	0.383
	569	3	30			100.	15	1500.	3								300	1.158
	569	4	1			125.	40	5000.	4								323	7.327
	569	4	1			175.	50	8750.	5								324	18.893
	569	4	1			175.	250	43750.	1								325	6.700
	569	4	1			50.	25	1250.	3								326	0.965
	569	4	1			100.	50	5000.	2								331	2.312
																TOTAL FOR SECT.	76:	88.195
82	587	3	7			1000.	20	20000.	1								397	3.063
83	597	3	1			100.	5	500.	3								361	0.386

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
83	597	3	1			75.	2	150.	3								362	0.116
	597	3	1			50.	5	250.	3								363	0.193
	597	3	1			100.	5	500.	3								380	0.386
	597	3	1			200.	4	800.	1								381	0.123
	597	3	1			15.	5	75.	3								382	0.058
	597	3	1			50.	5	250.	4								383	0.366
	597	3	1			25.	3	75.	4								384	0.110
	597	3	1			350.	2	700.	4								385	1.026
	597	3	1			50.	2	100.	4								386	0.147
	597	3	1			50.	4	200.	3								387	0.154
	597	3	1			200.	2	400.	4								388	0.586
	597	3	1			200.	3	600.	4								389	0.879
	597	3	1			200.	3	600.	4								390	0.879
	597	3	1			500.	3	1500.	4								391	2.198
	597	3	1			200.	1	200.	1								392	0.031
	597	3	1			250.	1	250.	3								393	0.193
	597	3	1			50.	2	100.	3								394	0.077
	597	3	1			50.	2	100.	1								395	0.015
	597	3	1			50.	3	150.	3								396	0.116
	597	3	25			75.	5	375.	1								364	0.057
	597	3	25			100.	10	1000.	1								365	0.153
	597	3	25			2650.	6	15900.	1								366	2.435
	597	3	25			250.	3	750.	2								367	0.347
	597	3	25			100.	5	500.	1								368	0.077
	597	3	25			100.	10	1000.	1								369	0.153
	597	3	25			450.	5	2250.	1								370	0.345
	597	3	25			150.	5	750.	1								371	0.115
	597	3	25			40.	5	200.	1								372	0.031
	597	3	25			50.	2	100.	2								373	0.046
	597	3	25			150.	4	600.	1								374	0.092
																TOTAL FOR SECT.	83:	11.889
85	576	4	5			2100.	12	25200.	5								404	54.411
	576	4	5			100.	10	1000.	7								405	4.625
	576	4	5			250.	8	2000.	5								406	4.318
	576	4	5			60.	2	120.	3								407	0.093
	576	4	5			100.	6	600.	4								408	0.879
	576	4	5			6500.	8	52000.	5								409	112.276
	602	4	3			200.	75	15000.	3								375	11.577
	602	4	3			200.	75	15000.	3								376	11.577
	602	4	3			200.	50	10000.	3								377	7.718
	602	4	3			35.	15	525.	3								378	0.405
	602	4	3			25.	10	250.	1								379	0.038
	1363	4	5			200.	8	1600.	3								398	1.235
	1363	4	5			100.	20	2000.	5								399	4.318
	1363	4	5			120.	10	1200.	4								400	1.759
	1363	4	5			75.	8	600.	4								401	0.879
	1363	4	5			50.	5	250.	4								402	0.366
	1363	4	5			120.	30	3600.	2								403	1.665
																TOTAL FOR SECT.	85:	218.138

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
92	628	4	19			300.	3	900.	4								430	1.319
93	626	4	4			300.	2	600.	3								416	0.463
	626	4	4			30.	20	600.	3								417	0.463
	626	4	4			200.	3	600.	3								418	0.463
	626	4	4			150.	200	30000.	3								419	23.153
	626	4	4			50.	50	2500.	1								420	0.383
	626	4	4			100.	2	200.	3								421	0.154
	626	4	4			150.	3	450.	3								422	0.347
	626	4	4			100.	3	300.	5								423	0.648
	626	4	4			200.	3	600.	3								431	0.463
	630	3	12			2800.	3	8400.	3								412	6.483
	630	3	12			3850.	5	19250.	3								413	14.857
	630	3	12			1150.	30	34500.	1								414	5.284
	630	3	12			1100.	15	16500.	1								415	2.527
	631	3	10			4300.	3	12900.	3								410	9.956
	631	3	10			1100.	5	5500.	3								411	4.245
	632	4	3			2800.	8	22400.	4								427	32.826
	633	4	3			1400.	5	7000.	4								428	10.258
	634	4	4			400.	2	800.	3								424	0.617
	634	4	4			1100.	3	3300.	5								425	7.125
	634	4	4			800.	3	2400.	1								426	0.368
	1556	4	3			2000.	2	4000.	3								429	3.087
															TOTAL FOR SECT.		93:	124.171
102	641	3	30			100.	2	200.	3								442	0.154
	641	3	30			200.	4	800.	7								443	3.700
	641	3	30			20.	10	200.	7								444	0.925
	641	3	30			150.	3	450.	5								445	0.972
	641	3	30			150.	7	1050.	5								446	2.267
	641	3	30			50.	7	350.	5								447	0.756
	641	3	30			200.	3	600.	5								448	1.295
	641	3	30			250.	6	1500.	3								449	1.158
	641	3	30			300.	100	30000.	3								450	23.153
	641	3	30			100.	3	300.	5								451	0.648
	641	3	30			150.	5	750.	5								452	1.619
	641	3	30			350.	3	1050.	5								453	2.267
	641	3	30			50.	3	150.	3								454	0.116
	641	3	30			50.	2	100.	3								455	0.077
	641	3	30			150.	3	450.	5								456	0.972
	641	3	30			100.	15	1500.	5								457	3.239
	641	3	30			400.	4	1600.	5								458	3.455
	641	3	30			150.	2	300.	3								459	0.232
	642	3	30			50.	2	100.	7								460	0.462
	642	3	30			50.	2	100.	5								461	0.216
	642	3	30			50.	2	100.	1								462	0.015
	642	3	30			400.	6	2400.	3								463	1.852
	642	3	30			30.	3	90.	3								464	0.069
	642	3	30			50.	3	150.	3								465	0.116

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
102	642	3	30			150.	3	450.	3								466	0.347
	642	3	30			100.	2	200.	5								467	0.432
	642	3	30			350.	5	1750.	1								468	0.268
	652	3	31			300.	3	900.	3								432	0.695
	652	3	31			750.	4	3000.	5								433	6.477
	652	3	31			250.	3	750.	7								434	3.468
	652	3	31			100.	3	300.	5								435	0.648
	652	3	31			400.	3	1200.	3								436	0.926
	652	3	31			50.	2	100.	3								437	0.077
	652	3	31			150.	3	450.	1								438	0.069
	652	3	31			350.	3	1050.	5								439	2.267
	652	3	31			100.	9	900.	5								440	1.943
	652	3	31			250.	3	750.	5								441	1.619
	653	4	3			200.	50	10000.	3								469	7.718
																TOTAL FOR SECT.	102:	76.690
103	648	4	11			100.	1	100.	3								470	0.077
	648	4	11			425.	2	850.	5								471	1.835
	648	4	11			300.	3	900.	6								472	3.054
	648	4	11			675.	2	1350.	5								473	2.915
	648	4	11			200.	2	400.	3								474	0.309
	648	4	11			200.	1	200.	3								475	0.154
	648	4	11			200.	3	600.	5								476	1.295
	648	4	11			200.	3	600.	3								477	0.463
	648	4	11			200.	2	400.	3								478	0.309
	648	4	11			275.	3	825.	5								479	1.781
	648	4	11			350.	3	1050.	7								480	4.856
	648	4	11			100.	2	200.	3								481	0.154
	648	4	11			150.	3	450.	3								482	0.347
	648	4	11			125.	2	250.	5								483	0.540
	648	4	11			650.	1	650.	3								484	0.502
																TOTAL FOR SECT.	103:	18.592
112	659	3	24			2700.	1	2700.	3								485	2.084
	659	4	2			3300.	1	3300.	3								486	2.547
																TOTAL FOR SECT.	112:	4.631
125	738	3	31			1000.	5	5000.	6								490	16.967
	738	4	1			300.	5	1500.	5								491	3.239
	747	3	22			1000.	7	7000.	6								488	23.754
																TOTAL FOR SECT.	125:	43.959
126	757	3	14			5000.	5	25000.	5								489	53.979
	757	4	10			8000.	3	24000.	5								496	51.820
	1557	3	16			400.	7	2800.	7								487	12.949
																TOTAL FOR SECT.	126:	118.748
127	749	3	20			3500.	3	10500.	5								495	22.671
	749	3	22			2000.	50	100000.	3								492	77.177
	749	3	22			6000.	3	18000.	5								493	38.865

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
127	749	3	22			1000.	3	3000.	5								494	6.477
																TOTAL FOR SECT.	127:	145.191
132	764	4	21			2000.	4	8000.	5								509	17.273
	798	4	21			30.	10	300.	3								511	0.232
	799	4	22			200.	75	15000.	5								510	32.387
																TOTAL FOR SECT.	132:	49.892
133	774	4	3			1200.	3	3600.	3								507	2.778
	774	4	26			100.	3	300.	5								508	0.648
																TOTAL FOR SECT.	133:	3.426
134	781	3	10			200.	20	4000.	3								503	3.087
	781	3	10			100.	10	1000.	3								505	0.772
	781	3	12			300.	2	600.	5								497	1.295
	781	3	14			200.	2	400.	5								498	0.864
	781	3	15			300.	2	600.	5								499	1.295
	781	3	16			200.	2	400.	5								500	0.864
	781	3	16			300.	1	300.	3								501	0.232
	781	3	17			1800.	2	3600.	3								502	2.778
	781	3	18			2000.	2	4000.	5								506	8.637
	781	3	22			100.	2	200.	3								504	0.154
																TOTAL FOR SECT.	134:	19.978
137	803	3	23			1750.	4	7000.	3								512	5.402
	804	3	20			200.	75	15000.	5								513	32.387
	804	3	23			280.	50	14000.	5								516	30.228
	804	3	25			500.	10	5000.	3								515	3.859
	805	3	23			1180.	15	17700.	3								514	13.660
	1470	3	26			800.	10	8000.	3								517	6.174
																TOTAL FOR SECT.	137:	91.711
142	812	3	5			1200.	40	48000.	5								543	24.651
	820	3	10			3500.	375	1312500.	7								531	1443.750
	820	3	17			4500.	150	675000.	7								529	742.500
	827	4	2			3000.	75	225000.	2								528	24.750
	828	4	2			1000.	100	100000.	3								527	18.357
	830	3	11			1875.	450	843750.	7								530	928.125
	837	2	28			2000.	30	60000.	5								535	30.814
	837	3	1			2000.	75	150000.	5								536	77.036
	839	3	5			500.	30	15000.	5								541	7.704
	840	3	1			4000.	175	700000.	5								534	359.500
	840	3	2			3500.	50	175000.	5								533	89.875
	1558	5	28			150.	150	22500.	3								532	4.130
	1559	2	28			1500.	30	45000.	6								537	36.321
	1559	3	4			400.	30	12000.	6								538	9.686
	1559	3	4			31.	30	930.	3								539	0.171
	1559	3	31			2000.	25	50000.	3								540	9.179
	1560	3	5			800.	25	20000.	5								542	10.271
																TOTAL FOR SECT.	142:	3816.820

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
143	831	3	13			4000.	75	300000.	5								521	215.700
	831	3	13			3500.	75	262500.	3								522	67.462
	831	3	14			5200.	100	520000.	6								524	587.600
	831	4	1			2000.	150	300000.	5								526	215.700
	835	3	13			4000.	80	320000.	6								523	361.600
	1483	3	14			300.	25	7500.	3								525	1.928
																TOTAL FOR SECT.	143:	1449.990
144	834	3	13			3500.	100	350000.	6								520	395.500
	1415	3	10			850.	100	85000.	7								519	130.900
	1500	3	10			500.	30	15000.	5								518	10.785
																TOTAL FOR SECT.	144:	537.185
152	845	3	10			500.	150	75000.	5								545	161.937
	845	3	10			200.	300	60000.	4								546	87.928
	845	3	10			750.	25	18750.	4								547	27.477
	845	3	10			900.	20	18000.	4								548	26.378
	845	3	10			400.	300	120000.	5								549	259.099
	845	3	10			300.	75	22500.	3								550	17.365
	851	3	10			600.	35	21000.	6								544	71.261
	856	4	3			200.	4	800.	3								557	0.617
	856	4	20			200.	5	1000.	5								558	2.159
	858	3	9			500.	30	15000.	5								551	32.387
	858	3	9			350.	20	7000.	4								552	10.258
	858	3	9			600.	30	18000.	6								553	61.081
	858	3	9			1000.	700	700000.	5								554	1511.411
	858	3	11			1500.	25	37500.	3								555	28.941
	861	3	10			500.	7	3500.	3								556	2.701
																TOTAL FOR SECT.	152:	2301.003
164	882	3	14			400.	1	400.	3								559	0.309
172	922	3	16			50.	50	2500.	5								590	1.798
	922	3	16			100.	50	5000.	7								591	7.700
	922	3	16			200.	25	5000.	3								597	1.285
	922	4	7			500.	20	10000.	7								593	15.400
	927	3	13			1200.	25	30000.	7								617	46.200
	930	3	18			850.	75	63750.	7								586	98.175
	930	4	6			800.	75	60000.	9								592	190.980
	931	3	16			150.	75	11250.	1								589	0.574
	931	4	6			1000.	20	20000.	5								594	14.380
	995	3	10			300.	15	4500.	1								609	0.230
	995	3	10			700.	15	10500.	1								610	0.536
	995	3	10			400.	50	20000.	3								611	5.140
	995	3	10			550.	400	220000.	3								612	56.540
	995	3	13			300.	15	4500.	1								605	0.230
	997	3	13			5400.	15	81000.	1								600	4.131
	997	3	13			1400.	20	28000.	5								602	20.132
	998	3	13			375.	20	7500.	3								601	1.928

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	MILLIONS OF EGGS
172	998	3	13			700.	20	14000.	5								603	10.066
	998	3	13			500.	50	25000.	3								608	6.425
	998	3	16			500.	75	37500.	5								604	26.963
	1001	3	8			175.	150	26250.	9								613	83.554
	1001	3	12			225.	25	5625.	5								615	4.044
	1001	3	12			1750.	15	26250.	1								616	1.339
	1001	3	14			300.	25	7500.	7								614	11.550
	1002	3	16			1400.	125	175000.	5								596	125.825
	1002	3	16			1250.	100	125000.	5								598	89.875
	1002	3	16			1200.	100	120000.	5								599	86.280
	1367	3	13			200.	50	10000.	1								606	0.510
	1367	3	13			300.	75	22500.	1								607	1.147
	1563	3	16			400.	50	20000.	1								587	1.020
	1563	3	16			300.	50	15000.	5								588	10.785
	1563	4	8			250.	20	5000.	5								595	3.595
																TOTAL FOR SECT.	172:	928.334
173	940	3	22			800.	10	8000.	3								560	3.087
	941	3	18			500.	10	5000.	1								564	0.383
	941	3	18			2700.	40	108000.	5								568	116.595
	941	3	26			1600.	50	80000.	5								572	86.366
	943	3	20			500.	5	2500.	3								581	0.965
	949	2	28			150.	3	450.	3								561	0.174
	953	4	6			700.	35	24500.	7								567	56.652
	954	3	8			100.	3	300.	1								575	0.023
	954	3	13			1300.	50	65000.	5								576	70.173
	956	3	18			1000.	400	400000.	3								578	154.354
	956	3	25			900.	200	180000.	3								580	69.459
	974	3	17			2500.	15	37500.	5								583	40.484
	974	3	23			800.	10	8000.	5								584	8.637
	976	3	17			100.	5	500.	5								585	0.540
	978	3	21			600.	8	4800.	5								569	5.182
	978	3	21			50.	5	250.	1								570	0.019
	978	3	22			250.	5	1250.	5								571	1.349
	978	3	26			1000.	10	10000.	1								573	0.766
	978	3	26			2500.	10	25000.	5								574	26.989
	978	4	6			1200.	100	120000.	5								566	129.550
	985	3	18			75.	75	5625.	3								565	2.171
	985	4	6			1200.	100	120000.	5								563	129.550
	987	3	18			3200.	20	64000.	5								579	69.093
	988	3	16			1000.	50	50000.	5								562	53.979
	1532	3	18			200.	5	1000.	3								582	0.386
	1561	3	24			600.	8	4800.	5								577	5.182
																TOTAL FOR SECT.	173:	1032.107
182	1050	2	27			200.	15	3000.	3								627	0.771
	1050	2	28			125.	10	1250.	3								628	0.321
	1050	3	1			55.	10	550.	3								630	0.141
	1050	3	2			75.	10	750.	3								632	0.193
	1050	3	3			30.	10	300.	3								634	0.077

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
182	1050	3	4			400.	50	20000.	2								636	3.080
	1050	3	7			200.	50	10000.	3								641	2.570
	1050	3	7			150.	100	15000.	1								642	0.765
	1050	3	7			200.	50	10000.	1								647	0.510
	1050	3	8			450.	75	33750.	1								645	1.721
	1050	3	8			75.	10	750.	3								646	0.193
	1050	3	9			700.	100	70000.	3								648	17.990
	1050	3	9			750.	35	26250.	3								649	6.746
	1050	3	9			1100.	75	82500.	2								650	12.705
	1050	3	9			25.	10	250.	3								651	0.064
	1050	3	9			100.	10	1000.	3								652	0.257
	1050	3	9			250.	10	2500.	3								653	0.643
	1050	3	9			50.	5	250.	3								654	0.064
	1050	3	9			60.	5	300.	4								655	0.146
	1050	3	12			100.	10	1000.	3								658	0.257
	1050	3	12			150.	15	2250.	1								659	0.115
	1050	3	13			125.	10	1250.	1								660	0.064
	1050	3	13			75.	10	750.	3								661	0.193
	1050	3	14			60.	5	300.	1								662	0.015
	1050	3	14			25.	5	125.	1								663	0.006
	1050	3	14			100.	10	1000.	3								664	0.257
	1050	3	17			150.	50	7500.	1								668	0.383
	1050	3	17			100.	50	5000.	1								669	0.255
	1050	3	19			75.	15	1125.	1								670	0.057
	1050	3	19			100.	25	2500.	1								671	0.127
	1050	3	22			100.	20	2000.	3								679	0.514
	1050	3	22			120.	25	3000.	3								680	0.771
	1050	3	25			25.	25	625.	3								681	0.161
	1051	3	7			100.	20	2000.	3								643	0.514
	1051	3	7			100.	25	2500.	3								644	0.643
	1053	3	3			75.	10	750.	3								635	0.193
	1053	3	5			30.	5	150.	1								637	0.008
	1053	3	5			50.	20	1000.	3								638	0.257
	1053	3	17			75.	30	2250.	1								667	0.115
	1053	3	20			100.	10	1000.	3								672	0.257
	1053	3	21			75.	10	750.	5								674	0.539
	1053	3	21			75.	10	750.	5								675	0.539
	1054	3	5			60.	10	600.	3								639	0.154
	1054	3	5			50.	10	500.	3								640	0.128
	1054	3	17			850.	4	3400.	3								666	0.874
	1054	3	21			550.	5	2750.	5								676	1.977
	1054	3	21			200.	5	1000.	5								677	0.719
	1054	3	25			650.	5	3250.	3								683	0.835
	1055	3	20			200.	50	10000.	1								673	0.510
	1055	3	27			750.	10	7500.	3								684	1.928
	1057	2	16			500.	50	25000.	1								618	1.275
	1057	2	18			100.	10	1000.	1								619	0.051
	1058	2	24			1000.	5	5000.	3								621	1.285
	1058	2	27			200.	10	2000.	3								625	0.514
	1058	2	27			150.	10	1500.	3								626	0.386

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
182	1058	3	2			75.	15	1125.	5								633	0.809
	1564	3	28			600.	10	6000.	3								685	1.542
	1564	3	28			200.	10	2000.	3								686	0.514
																TOTAL FOR SECT.	182:	68.698
183	1021	2	19			150.	10	1500.	1								620	0.230
	1021	2	25			250.	100	25000.	1								622	3.829
	1021	2	25			200.	50	10000.	1								623	1.532
	1041	2	25			200.	30	6000.	1								624	0.919
	1041	2	27			25.	10	250.	3								629	0.193
	1041	3	10			25.	5	125.	3								657	0.096
	1041	4	6			200.	30	6000.	3								687	4.631
	1486	3	1			25.	10	250.	3								631	0.193
	1486	3	10			50.	15	750.	3								656	0.579
																TOTAL FOR SECT.	183:	12.201
184	1007	3	14			350.	75	26250.	3								665	20.259
	1007	3	21			600.	85	51000.	5								678	110.117
	1007	3	25			250.	10	2500.	3								682	1.929
																TOTAL FOR SECT.	184:	132.306
232	1132	3	10			200.	5	1000.	3								701	0.257
	1132	3	10			400.	10	4000.	3								702	1.028
	1132	3	10			100.	5	500.	4								703	0.244
	1142	3	10			400.	1	400.	1								695	0.020
	1142	3	10			400.	10	4000.	3								696	1.028
	1142	3	10			250.	5	1250.	1								697	0.064
	1142	3	10			350.	5	1750.	1								698	0.089
	1142	3	10			500.	20	10000.	3								699	2.570
	1142	3	10			350.	10	3500.	1								704	0.179
	1142	3	10			200.	15	3000.	3								705	0.771
	1142	3	10			200.	100	20000.	4								706	9.760
	1142	3	10			400.	150	60000.	3								707	15.420
	1142	3	10			375.	250	93750.	6								708	105.938
	1143	3	10			1200.	3	3600.	3								688	0.925
	1143	3	10			600.	4	2400.	3								689	0.617
	1143	3	10			700.	3	2100.	4								690	1.025
	1143	3	10			400.	3	1200.	4								691	0.586
	1144	3	10			400.	3	1200.	1								692	0.061
	1144	3	10			1600.	25	40000.	3								693	10.280
	1144	3	10			1800.	10	18000.	4								694	8.784
	1144	3	10			600.	50	30000.	3								716	7.710
	1144	3	10			225.	40	9000.	1								717	0.459
	1144	3	10			550.	20	11000.	3								718	2.827
	1144	3	10			625.	20	12500.	3								719	3.213
	1144	3	10			400.	100	40000.	3								720	10.280
	1144	3	10			1500.	250	375000.	3								721	96.375
	1150	3	10			250.	10	2500.	1								712	0.127
	1150	3	10			550.	10	5500.	4								713	2.684
	1155	3	10			450.	5	2250.	4								709	1.098

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
232	1156	3	10			250.	5	1250.	5								711	0.899
	1159	3	10			2900.	30	87000.	4								714	42.456
	1159	3	10			1800.	6	10800.	3								715	2.776
	1471	3	10			300.	5	1500.	4								710	0.732
	1551	3	15			500.	10	5000.	5								700	3.595
																TOTAL FOR SECT.	232:	334.875
233	1130	3	19			100.	10	1000.	3								722	0.257
	1149	3	19			300.	200	60000.	3								723	15.420
																TOTAL FOR SECT.	233:	15.677
234	1123	3	18			600.	250	150000.	3								724	115.766
	1123	3	18			70.	50	3500.	3								725	2.701
																TOTAL FOR SECT.	234:	118.467
235	1122	3	26			3117.	6	18702.	1								726	2.864
	1122	3	26			1084.	6	6504.	4								727	9.531
	1128	3	26			2200.	4	8800.	5								728	19.001
																TOTAL FOR SECT.	235:	31.396
242	1217	3	10			500.	30	15000.	5								731	32.387
	1217	3	10			400.	100	40000.	7								732	184.985
	1217	3	10			400.	25	10000.	5								733	21.592
	1217	3	10			250.	40	10000.	3								734	7.718
	1217	3	10			75.	15	1125.	7								735	5.203
	1217	3	10			50.	10	500.	3								736	0.386
	1217	3	10			30.	10	300.	5								737	0.648
	1217	3	10			100.	10	1000.	3								738	0.772
	1217	3	10			125.	10	1250.	7								739	5.781
	1217	3	10			300.	15	4500.	7								740	20.811
	1217	3	10			100.	10	1000.	7								741	4.625
	1217	3	10			400.	20	8000.	5								742	17.273
	1217	3	10			300.	20	6000.	7								743	27.748
	1217	3	10			150.	15	2250.	5								744	4.858
	1217	3	10			50.	15	750.	7								745	3.468
	1217	3	10			400.	15	6000.	7								746	27.748
	1217	3	10			100.	50	5000.	3								747	3.859
	1217	3	10			75.	50	3750.	7								748	17.342
	1217	3	10			100.	50	5000.	3								749	3.859
	1217	3	10			200.	50	10000.	3								750	7.718
	1217	3	10			150.	50	7500.	5								751	16.194
	1217	3	10			1200.	50	60000.	3								752	46.306
	1217	3	10			400.	200	80000.	1								753	12.252
	1217	3	10			200.	50	10000.	3								754	7.718
																TOTAL FOR SECT.	242:	481.249
244	1182	3	20			50.	15	750.	5								730	1.619
	1200	3	29			75.	25	1875.	5								729	4.048
																TOTAL FOR SECT.	244:	5.668
245	1195	3	8			70.	10	700.	5								797	1.511

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
245	1195	3	8			150.	20	3000.	5								798	6.477
	1195	3	8			220.	3	660.	5								799	1.425
	1195	3	8			200.	3	600.	3								800	0.463
	1195	3	8			60.	10	600.	5								801	1.295
	1195	3	8			25.	8	200.	3								802	0.154
	1197					40.	10	400.	3								829	0.309
	1197					800.	200	160000.	3								830	123.483
	1198	3	5			75.	15	1125.	5								818	2.429
	1198	3	5			75.	20	1500.	5								819	3.239
	1198	3	5			20.	10	200.	5								820	0.432
	1198	3	5			150.	30	4500.	3								821	3.473
	1198	3	5			1500.	100	150000.	3								831	115.766
	1198	3	5			1500.	100	150000.	5								832	323.874
	1198	3	5			1400.	300	420000.	5								833	906.847
	1198	3	5			15.	7	105.	3								834	0.081
	1198	3	5			20.	5	100.	3								835	0.077
	1198	3	7			75.	50	3750.	7								809	17.342
	1198	3	7			50.	20	1000.	5								810	2.159
	1198	3	7			30.	10	300.	5								814	0.648
	1198	3	7			400.	10	4000.	3								817	3.087
	1219	3	8			100.	15	1500.	3								773	1.158
	1219	3	8			250.	5	1250.	5								774	2.699
	1219	3	8			400.	10	4000.	3								775	3.087
	1219	3	8			300.	10	3000.	3								776	2.315
	1219	3	8			100.	10	1000.	1								777	0.153
	1219	3	8			300.	10	3000.	3								778	2.315
	1219	3	8			150.	10	1500.	3								779	1.158
	1219	3	8			150.	10	1500.	1								780	0.230
	1219	3	8			250.	10	2500.	1								781	0.383
	1220	3	8			250.	150	37500.	1								766	5.743
	1220	3	8			70.	40	2800.	3								767	2.161
	1221	3	12			30.	6	180.	5								768	0.389
	1221	3	12			120.	20	2400.	5								769	5.182
	1221	3	12			125.	20	2500.	5								770	5.398
	1221	3	12			60.	2	120.	3								771	0.093
	1221	3	12			20.	2	40.	3								772	0.031
	1222	3	8			100.	10	1000.	3								788	0.772
	1222	3	8			100.	30	3000.	5								789	6.477
	1222	3	8			75.	15	1125.	5								790	2.429
	1222	3	8			75.	10	750.	5								791	1.619
	1222	3	8			125.	100	12500.	5								792	26.989
	1222	3	8			150.	20	3000.	3								793	2.315
	1222	3	8			400.	40	16000.	5								794	34.547
	1222	3	8			75.	15	1125.	5								795	2.429
	1222	3	8			100.	75	7500.	5								796	16.194
	1224	3	8			100.	30	3000.	3								765	2.315
	1224	3	8			100.	50	5000.	3								766	3.859
	1225	3	5			150.	30	4500.	7								822	20.811
	1225	3	5			400.	350	140000.	3								823	108.048
	1225	3	5			300.	175	52500.	5								824	113.356

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
245	1225	3	5			400.	350	140000.	7								825	647.447
	1227	3	8			200.	8	1600.	3								782	1.235
	1227	3	8			75.	10	750.	3								783	0.579
	1227	3	8			60.	10	600.	3								784	0.463
	1227	3	8			100.	10	1000.	3								785	0.772
	1227	3	8			75.	15	1125.	3								786	0.868
	1227	3	8			100.	8	800.	3								787	0.617
	1228	3	8			75.	10	750.	5								803	1.619
	1228	3	8			70.	10	700.	5								804	1.511
	1228	3	8			150.	30	4500.	3								805	3.473
	1228	3	8			125.	30	3750.	5								806	8.097
	1228	3	8			200.	50	10000.	5								807	21.592
	1228	3	8			40.	4	160.	3								808	0.123
	1369	3	8			50.	7	350.	3								758	0.270
	1369	3	8			150.	75	11250.	3								759	8.682
	1369	3	8			250.	10	2500.	3								760	1.929
	1404					125.	25	3125.	3								826	2.412
	1404					125.	30	3750.	3								827	2.894
	1404					600.	150	90000.	3								828	69.459
	1407	3	8			50.	30	1500.	3								755	1.158
	1407	3	8			15.	75	1125.	3								756	0.868
	1407	3	8			100.	20	2000.	3								757	1.544
	1421	3	7			100.	80	8000.	5								811	17.273
	1421	3	7			80.	15	1200.	3								812	0.926
	1421	3	7			200.	60	12000.	5								813	25.910
	1421	3	7			150.	25	3750.	7								815	17.342
	1421	3	7			250.	10	2500.	3								816	1.929
	1438	3	8			250.	100	25000.	3								761	19.294
	1438	3	8			100.	25	2500.	1								762	0.383
	1438	3	8			150.	15	2250.	1								763	0.345
															TOTAL FOR SECT.		245:	2750.244
253	1262	2	28			600.	100	60000.	7								836	277.477
	1262	2	28			250.	75	18750.	7								837	86.712
	1262	2	28			350.	50	17500.	3								838	13.506
	1262	2	28			500.	30	15000.	7								839	69.369
	1262	2	28			400.	30	12000.	7								840	55.495
	1262	2	28			300.	40	12000.	5								841	25.910
	1262	2	28			300.	30	9000.	7								842	41.622
	1262	2	28			900.	30	27000.	5								843	58.297
	1262	2	28			950.	30	28500.	6								844	96.712
	1262	2	28			200.	20	4000.	6								845	13.574
	1263	3	16			100.	10	1000.	5								846	2.159
	1263	3	16			500.	10	5000.	5								847	10.796
	1263	3	16			1000.	10	10000.	5								848	21.592
	1263	3	16			2000.	15	30000.	5								849	64.775
	1268	3	2			1000.	100	100000.	5								850	215.916
	1268	3	2			1000.	200	200000.	6								851	678.679
	1268	3	16			500.	30	15000.	5								852	32.387
	1268	3	16			400.	35	14000.	5								853	30.228
															TOTAL FOR SECT.		253:	1795.206

TABLE 9. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1978

SECT.	LOC.	SPAWNED MO.	SPAWNED DAY	SURVEY MO.	SURVEY DAY	LENGTH YDS.	WIDTH YDS.	AREA SQ.YDS.	INT.	DEPTH (FT.) UPPER	DEPTH (FT.) LOWER	SUBSTRATES	MORTALITY C1 PCT	MORTALITY C2 PCT	MORTALITY C3 PCT	F.O.	NO.OF SAMPS	BILLIONS OF EGGS
272	1311	3	14			100.	50	5000.	4								861	3.664
	1311	3	14			150.	50	7500.	4								862	5.495
	1311	3	14			300.	125	37500.	4								863	27.477
	1313	3	14			1050.	150	157500.	4								864	115.405
	1313	3	14			1675.	200	335000.	4								865	245.465
	1313	3	14			200.	50	10000.	4								866	7.327
	1313	3	14			150.	75	11250.	4								867	8.243
	1314	3	14			250.	125	31250.	4								860	22.898
	1562	3	14			210.	100	21000.	4								858	15.387
	1562	3	14			475.	475	225625.	4								859	165.323
																TOTAL FOR SECT.	272:	616.686
273	1319	3	9			1600.	150	240000.	5								856	172.560
	1319	3	9			1000.	250	250000.	5								885	179.750
	1319	3	9			750.	150	112500.	3								887	28.912
	1319	3	12			500.	100	50000.	4								854	24.400
	1319	3	12			500.	150	75000.	3								886	19.275
	1319	3	14			400.	100	40000.	4								855	19.520
	1319	3	14			750.	200	150000.	3								857	38.550
	1319	3	14			700.	250	175000.	3								884	44.975
	1320	3	10			400.	50	20000.	5								881	14.380
	1320	3	10			1000.	50	50000.	4								883	24.400
	1320	3	12			700.	100	70000.	4								880	34.160
	1320	3	12			600.	50	30000.	4								882	14.640
	1321	3	10			1300.	50	65000.	5								878	46.735
	1321	3	10			700.	200	140000.	5								879	100.660
	1328	3	28			500.	150	75000.	3								873	19.275
	1329	3	22			500.	50	25000.	3								871	6.425
	1329	3	22			500.	75	37500.	4								872	18.300
	1330	3	12			700.	50	35000.	4								874	17.080
	1330	3	14			1200.	100	120000.	3								875	30.840
	1330	3	28			1000.	50	50000.	4								876	24.400
	1330	3	28			300.	100	30000.	5								877	21.570
																TOTAL FOR SECT.	273:	900.807
274	1331	4	23			200.	50	10000.	4								868	14.655
	1331	4	23			50.	50	2500.	4								869	3.664
	1331	4	23			100.	50	5000.	4								870	7.327
																TOTAL FOR SECT.	274:	25.646
290	1351	2	20			1500.	50	75000.	1								888	11.486

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	MILLIONS OF EGGS
1	61	12/4	12/4	350	5	3	1.0	30	1.0/100								1.351
	61	12/4	12/4	100	5	3	1.0	20	1.0/100								0.386
	61	12/4	12/4	20	20	3	2.0	0	2.0/100								0.309
	64	12/4	12/4	1300	10	6	2.0	20	3.0/ 40	2.0/ 60							44.114
	64	12/4	12/4	300	45	5	3.0	0	3.0/100								29.149
	64	12/4	12/4	500	20	5	3.0	10	3.0/ 60	2.0/ 40							21.592
	64	12/4	12/4	100	20	3	1.0	30	1.0/ 60	1.0/ 40							1.544
	64	12/4	12/4	1000	10	5	3.0	20	3.0/ 60	2.0/ 40							21.592
	64	12/4	12/4	50	10	3	1.0	10	1.0/ 60	1.0/ 40							0.386
	64	22/4	22/4	300	5	6	3.0	10	3.0/ 50	3.0/ 50							5.090
	64	22/4	22/4	500	5	4	1.0	60	1.0/ 60	2.0/ 40							3.664
	64	22/4	22/4	100	5	4	1.0	20	1.0/ 40	1.0/ 60							0.733
	64	22/4	22/4	60	10	4	1.0	30	1.0/ 70	2.0/ 30							0.879
	64	22/4	22/4	75	5	6	3.0	10	3.0/ 50	3.0/ 50							1.273
														TOTAL FOR SECT.		1:	132.059
2	60	27/3	4/4	200	15	1	0.3	30		0.3/100							0.459
	60	4/4	4/4	50	20	5	2.0	30		2.0/100							2.159
	60	4/4	4/4	20	20	1	0.3	0	0.3/100								0.061
														TOTAL FOR SECT.		2:	2.680
3	92	15/4	15/4	150	20	6	3.0	10	4.0/ 70		2.0/ 30						10.180
	92	15/4	15/4	250	20	6	3.0	20	4.0/ 70		1.0/ 30						16.967
	92	15/4	15/4	200	20	3	1.0	15	1.0/ 50	0.3/ 20	0.3/ 30						3.087
	92	15/4	15/4	100	10	3	1.0	40	0.3/ 20	1.0/ 60	0.3/ 20						0.772
	92	15/4	15/4	200	20	4	2.0	10	2.0/ 20	2.0/ 30	2.0/ 50						5.862
	92	15/4	15/4	200	20	3	1.0	10	1.0/ 50		1.0/ 50						3.087
	93	15/4	15/4	800	20	5	2.0	20	2.0/ 10	2.0/ 20	1.0/ 70						34.547
	93	15/4	15/4	80	20	3	1.0	20	1.0/100								1.235
	93	15/4	15/4	150	20	1	0.3	10	0.3/ 70	0.3/ 10	0.3/ 20						0.459
	93	15/4	15/4	100	20	5	2.0	15	3.0/ 70	2.0/ 20	1.0/ 10						4.318
	97	9/4	9/4	50	20	5	2.0	5	3.0/ 50	1.0/ 10	1.0/ 40						2.159
	97	9/4	9/4	20	20	3	1.0	0	3.0/100								0.309
	97	9/4	9/4	20	20	3	1.0	0	1.0/100								0.309
														TOTAL FOR SECT.		3:	83.291
4	67	17/4	17/4	400	3	1	0.3	0			0.3/100						0.184
	67	17/4	17/4	300	3	1	0.3	0			0.3/100						0.138
														TOTAL FOR SECT.		4:	0.322
5	80	29/3	29/3	10	10	1	0.3	40			0.3/100						0.015
	80	29/3	29/3	50	20	4	2.0	50		2.0/100							1.465
	80	29/3	29/3	100	10	4	2.0	20	3.0/ 60	2.0/ 40							1.465
	80	29/3	29/3	200	10	4	2.0	60	2.0/ 80	2.0/ 20							2.931
	80	29/3	29/3	200	20	4	2.0	60	2.0/ 80	2.0/ 20							5.862
	80	29/3	29/3	200	10	5	3.0	30	3.0/ 30	3.0/ 55	1.0/ 15						4.318
	80	29/3	29/3	100	30	5	2.0	50	3.0/ 20	2.0/ 20	1.0/ 10				1.0/ 50		6.477
	80	29/3	29/3	100	5	5	3.0	10	3.0/ 15	3.0/ 80	1.0/ 5						1.080
	86	29/3	29/3	80	10	2	0.5	80	0.5/ 30	0.5/ 70							0.370

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
5	86	29/3	29/3	30	10	5	2.0	10		3.0/ 80	1.0/ 20						0.648
	86	29/3	29/3	30	5	1	0.3	0	0.3/100								0.023
														TOTAL FOR SECT.		5:	24.655
6	76	29/3	29/3	100	15	3	1.0	20	1.0/ 85	1.0/ 5	1.0/ 5	0.3/ 5					1.158
	76	4/4	4/4	600	40	6	4.0	5	2.0/ 5	2.0/ 5	4.0/ 90						81.441
	76	5/4	5/4	1800	15	5	2.0	10	1.0/ 5	1.0/ 10	2.0/ 85						58.297
	76	6/4	6/4	20	20	1	0.3	60			0.3/100						0.061
	76	6/4	6/4	600	20	5	2.0	20	1.0/ 20	1.0/ 15	3.0/ 65						25.910
	76	6/4	6/4	20	20	1	0.3	80			0.3/100						0.061
	76	6/4	6/4	50	20	1	0.3	40			0.3/100						0.153
	77	4/4	4/4	40	50	5	2.0	10			2.0/100						4.318
	77	4/4	4/4	100	20	5	2.0	10	2.0/100								4.318
														TOTAL FOR SECT.		6:	175.719
12	1359	4/4	4/4	200	20	3	1.5	25		1.0/ 10	2.0/ 50		0.5/ 10	1.0/ 20	0.5/ 10		3.087
	1359	5/4	5/4	150	4	3	0.3	15		0.3/ 40	0.4/ 20			1.0/ 4	0.3/ 30		0.463
	1359	5/4	5/4	100	8	1	0.5	15	1.0/ 20	0.4/ 20	0.5/ 25			0.2/ 2	0.2/ 25		0.123
	1359	5/4	5/4	250	10	1	0.3	5	0.2/ 10	0.3/ 30	0.8/ 40			0.1/ 3	0.2/ 15		0.383
	1361	4/2	4/2	600	5	1	0.3	20	0.3/ 5	0.3/ 95							0.459
	1361	16/2	16/2	575	50	1	0.2	30	0.2/ 70	0.2/ 30							4.403
	1574	4/2	4/2	1000	5	1	0.3	20	0.3/ 5	0.3/ 95							0.766
	1574	7/2	7/2	30	20	1	0.3	15	0.3/ 90	0.3/ 10							0.092
	1574	22/2	22/2	900	30	1	0.1	50	0.2/ 30	0.1/ 20					0.1/ 50		4.135
	1574	28/3	28/3	350	75	1	0.5	60	0.5/ 60	0.5/ 20			0.8/ 10	1.0/ 10			4.020
	1574	29/3	29/3	675	20	3	0.2	60	0.2/ 75	0.2/ 5	0.1/ 5			0.5/ 15			10.419
	1574	10/4	10/4	1350	30	1	0.2	60	0.3/ 30	0.1/ 25	0.3/ 10			0.3/ 35			6.203
	1575	4/2	4/2	2900	5	1	0.3	20	0.3/ 5	0.3/ 95							2.221
	1575	29/3	29/3	990	20	3	0.4	60	0.8/ 75	0.2/ 5	0.1/ 5			0.5/ 15			15.281
	1576	16/2	16/2	2475	50	1	0.2	30	0.2/ 70	0.2/ 30							18.953
	1576	30/3	30/3	1140	40	1	0.5	40	0.5/ 80	0.1/ 15				0.3/ 5			6.984
	1577	22/2	22/2	1450	40	1	0.1	50	0.2/ 30	0.1/ 20					0.1/ 50		8.883
	1577	28/3	28/3	1350	75	1	0.5	60	0.5/ 50	0.5/ 20			0.8/ 15	1.0/ 15			15.507
														TOTAL FOR SECT.		12:	102.381
22	101	13/5	14/5	400	15	3	3.0	0	1.0/ 5		3.0/ 95						4.631
	101	13/5	14/5	400	25	4	4.0	0		1.0/ 5	4.0/ 90			4.0/ 5			14.655
	120	6/5	7/5	1100	15	4	4.0	0	0.5/ 10		4.0/ 75			4.0/ 15			24.180
	121	12/5	12/5	200	75	1	0.5	0	0.5/ 95		0.5/ 5						2.297
	123	6/5	7/5	1050	15	4	4.0	0			4.0/ 75			5.0/ 25			23.081
	132	4/5	5/5	350	10	1	0.5	0	0.5/100								0.536
	132	4/5	4/5	100	50	5	5.0	0			5.0/100						10.796
	132	4/5	4/5	700	15	5	5.0	0			5.0/100						22.671
	1550	11/5	11/5	250	5	1	1.0	0			1.0/100						0.191
	1550	12/5	12/5	200	15	3	1.5	10			1.0/ 20			2.0/ 80			2.315
	1550	12/5	12/5	50	10	3	1.5	0	1.0/ 30		2.0/ 70						0.386
	1584	9/5	9/5	50	10	1	1.0	0	0.5/ 5		0.5/ 35			1.0/ 60			0.077
														TOTAL FOR SECT.		22:	105.816
23	157	22/5	22/5	200	70	2	2.0	15	4.0/ 30	2.0/ 30	1.0/ 30				1.0/ 10		6.474

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% MARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
23	157	22/5	22/5	200	7	2	2.0	20	3.0/ 60		1.0/ 40						0.647
	157	22/5	22/5	250	25	2	2.0	15	2.0/ 80	2.0/ 10	1.0/ 10						2.890
	157	25/5	25/5	175	15	3	1.0	30	1.0/ 40	0.5/ 10	1.0/ 50						2.026
	157	25/5	25/5	175	10	4	4.0	15	4.0/ 10		4.0/ 90						2.565
	157	25/5	25/5	150	20	3	0.5	40	0.5/ 40		0.5/ 60						2.315
	158	0/4	0/4	50	10	5	5.0	20		5.0/ 70					5.0/ 30		1.080
	158	12/4	12/4	180	10	1	0.5	0	0.5/100								0.276
	158	17/4	20/4	400	15	3	3.0	20	3.0/100								4.631
	158	17/4	20/4	300	6	6	5.5	50		6.0/ 60					4.0/ 40		6.108
	158	17/4	20/4	800	10	4	4.0	30	4.0/100								11.724
	158	17/4	20/4	70	10	5	5.0	10	5.0/100								1.511
	158	17/4	20/4	100	30	2	2.0	20	2.0/ 80	2.0/ 20							1.387
	158	20/4	27/4	250	5	7	7.0	0	7.0/100								5.781
	158	20/4	27/4	800	15	6	6.0	10	6.0/100								40.721
	158	21/5	21/5	150	30	5	5.0	20	5.0/ 80	5.0/ 20							9.716
	158	21/5	21/5	200	10	5	5.0	15	5.0/100								4.318
	158	21/5	21/5	800	10	3	3.0	10	3.0/ 90	2.0/ 10							6.174
	158	21/5	21/5	200	7	4	4.0	10	4.0/ 60	4.0/ 40							2.052
	158	22/5	22/5	550	15	1	1.0	5	1.0/ 95	1.0/ 5							1.264
	158	23/5	23/5	150	5	2	2.0	70	2.0/ 90		1.0/ 10						0.347
	158	23/5	23/5	225	10	2	2.0	15	2.0/ 95	1.0/ 5							1.041
	160	17/4	17/4	20	10	5	5.0	10	5.0/ 75		5.0/ 25						0.432
	160	17/4	17/4	50	50	3	3.0	10	3.0/100								1.929
	160	17/4	17/4	50	10	3	3.0	20			3.0/100						0.386
	160	17/4	17/4	1200	10	5	5.0	20			5.0/100						25.910
	160	17/4	17/4	600	25	4	4.0	20			4.0/100						21.982
	160	17/4	17/4	600	5	3	3.0	20	3.0/100								2.315
	160	17/4	17/4	800	30	4	4.0	10	4.0/ 10		4.0/ 90						35.171
	160	17/4	17/4	100	75	1	1.0	80	1.0/ 20		1.0/ 80						1.149
	1460	29/4	29/4	200	10	8	7.0	5		8.0/ 70					6.0/ 30		14.186
	1460	1/6	4/6	400	5	7	7.0	15	6.0/ 10		7.0/ 90						9.249
	1523	21/5	21/5	100	45	2	2.0	5	2.0/100								2.081
														TOTAL FOR SECT.		23:	229.838
24	138	15/4	15/4	300	10	3	0.5	30	0.5/ 60		0.5/ 40						2.315
	139	28/4	28/4	300	4	1	0.5	10	0.5/ 10		0.5/ 90						0.184
	139	28/4	28/4	50	10	1	0.5	0	0.5/ 10	0.5/ 90							0.077
	139	28/4	28/4	350	4	1	0.5	0	0.5/ 90	0.5/ 10							0.214
	139	28/4	28/4	75	5	1	0.5	0	0.5/100								0.057
	139	28/4	28/4	100	6	3	3.0	10	3.0/100								0.463
	139	28/4	28/4	400	4	5	5.0	20	5.0/ 10	5.0/ 70							3.455
	139	28/4	28/4	100	50	5	5.0	10	5.0/ 50		5.0/ 50						10.796
	139	28/4	28/4	250	5	1	0.5	20	0.5/ 70								0.191
	139	28/4	28/4	200	5	3	2.5	15	3.0/ 80								0.772
	139	28/4	28/4	100	15	3	3.0	30	3.0/100								1.158
	139	28/4	28/4	250	5	5	5.0	0	5.0/100								2.699
	139	28/4	28/4	850	5	2	2.0	0	2.0/100								1.965
	1585	29/4	29/4	1000	5	2	1.0	0	1.0/100								2.312
	1588	28/4	28/4	150	10	1	0.5	0	0.5/ 50		0.5/ 50						0.230
	1588	28/4	28/4	200	20	3	3.0	10	3.0/ 20		3.0/ 70						3.087
														TOTAL FOR SECT.		24:	29.975

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
25	164	7/4	9/4	260	25	4	3.0	0	2.0/ 35		4.0/ 65						9.526
	164	7/4	9/4	1520	9	6	3.0	5	4.0/ 45	1.0/ 15	3.0/ 30		1.0/ 1	2.0/ 8			46.422
	164	11/4	11/4	630	6	2	1.5	0			1.5/100						1.748
	164	13/4	15/4	75	80	1	0.5	20	0.5/100								0.919
	164	13/4	15/4	50	60	1	0.5	20	0.5/100								0.459
	164	13/4	15/4	3242	3	3	3.0	0	0.5/ 3		3.0/ 95			0.5/ 3			7.506
	167	1/4	1/4	100	9	2	0.9	10	1.0/ 10	0.6/ 30	1.4/ 25		0.5/ 35				0.416
	167	6/4	7/4	1580	7	6	3.0	0	5.0/ 20	1.5/ 25	2.5/ 15			4.0/ 35	2.0/ 1		37.531
	167	9/4	9/4	810	12	8	5.5	0	8.0/ 2	4.0/ 10		4.0/ 33		1.0/ 39	2.0/ 8		68.945
	167	10/4	10/4	75	50	5	4.0	0			4.0/100						8.097
	167	10/4	10/4	500	14	4	3.1	0		2.0/ 8	5.5/ 52	2.0/ 8		5.0/ 30			10.258
	167	10/4	10/4	920	11	4	0.0	0									14.831
	167	13/4	13/4	990	13	2	2.0	0	1.5/ 24		2.0/ 75			3.0/ 1			5.952
	178	6/4	9/4	550	7	4	3.5	0	3.0/ 45	3.0/ 5	5.0/ 30			5.0/ 10	3.0/ 5		5.642
	178	6/4	9/4	220	20	4	4.0	20	4.0/ 90		5.0/ 10						6.448
	178	6/4	9/4	60	40	5	5.0	10	6.0/ 75	4.0/ 10				4.0/ 5	3.0/ 10		5.182
	178	6/4	9/4	70	30	7	7.0	0	7.0/100								9.712
	178	6/4	9/4	110	10	5	5.5	10	5.0/ 20	4.0/ 5	5.0/ 40			6.0/ 10	4.0/ 20		2.375
	178	6/4	9/4	420	10	5	5.5	0	6.0/ 15	4.0/ 5	6.0/ 50	4.0/ 5		7.0/ 10	4.0/ 10		9.068
	178	8/4	8/4	130	10	4	3.5	70	0.3/ 15		4.0/ 80	0.1/ 5					1.905
	178	9/4	9/4	400	2	1	0.5	50			0.5/100						0.123
	1536	8/4	10/4	1620	14	4	4.0	10	6.5/ 65	2.0/ 35							33.237
	1536	8/4	9/4	1525	9	5	5.0	20	5.0/100								29.634
	1536	10/4	12/4	1920	15	4	4.0	5	4.0/100								42.205
	1553	8/4	9/4	700	5	1	1.0	70	0.8/ 60		0.8/ 25		3.0/ 15				0.536
	1553	8/4	8/4	300	10	1	0.5	80	0.5/ 80		0.5/ 20						0.459
	1553	8/4	8/4	300	5	1	0.3	70	0.3/100								0.230
	1582	8/4	8/4	300	5	1	0.5	95	0.5/100								0.230
	1583	6/4	9/4	500	10	6	5.5	5	5.0/ 5	4.0/ 5	6.0/ 75			5.0/ 5	5.0/ 5		16.967
	1583	9/4	9/4	300	10	4	0.8	70		0.5/ 5	0.8/ 85						4.396
	1583	10/4	10/4	100	100	1	1.0	10			1.0/100						1.532
	1583	10/4	10/4	220	10	1	0.8	80		0.5/ 5	0.8/ 85						0.337
	1586	9/4	9/4	570	13	5	3.8	40	4.5/ 30	4.0/ 3	3.5/ 60	4.0/ 1		5.5/ 4	1.5/ 2		15.999
	1586	10/4	10/4	950	7	4	3.0	10			3.0/100						9.745
	1587	13/4	13/4	610	10	2	1.5	10			1.5/100						2.821
														TOTAL FOR SECT.		25:	411.394
33	211	31/3	31/3	50	40	3	1.0	75		1.0/ 5				1.0/ 5	1.0/ 90		1.544
	211	31/3	31/3	1300	4	4	2.2	20	4.0/ 20	2.0/ 25	1.0/ 10			3.0/ 10	1.0/ 35		7.620
	211	31/3	31/3	900	15	5	2.8	10	5.0/ 30	2.0/ 20	2.0/ 10			3.0/ 10	2.0/ 30		29.149
	211	31/3	31/3	800	5	4	2.3	25	3.0/ 15	2.0/ 35				2.0/ 10	2.0/ 40		5.862
	211	31/3	31/3	35	30	3	1.0	50	1.0/ 90					1.0/ 10			0.810
	211	31/3	31/3	150	20	6	3.8	10	5.0/ 40	5.0/ 30				3.0/ 10	2.0/ 20		10.180
	211	31/3	31/3	250	22	4	2.3	20	4.0/ 40	2.0/ 20			1.0/ 10		2.0/ 30		8.060
	211	31/3	31/3	3600	40	5	2.2	0	3.0/ 40	1.5/ 10	1.0/ 10	1.5/ 10		4.0/ 30			310.919
	213	31/3	31/3	2150	35	3	1.5	0	1.5/ 40		0.5/ 40			2.0/ 20			58.076
	214	1/4	3/4	1500	45	5	4.0	0	4.0/100								145.743
	214	1/4	3/4	1200	100	4	2.0	0	4.0/ 20	0.3/ 10	0.4/ 20	0.4/ 10	3.0/ 10	1.0/ 30			175.856
	216	31/3	31/3	2100	45	3	2.0	0	2.0/ 20	3.0/ 25	0.5/ 35			3.0/ 20	0.5/ 5		72.932

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
33	216	15/5	15/5	100	20	7	2.6	0	3.0/ 20	3.0/ 25	2.0/ 30			3.0/ 30	2.0/ 5		9.249
	216	15/5	15/5	10	20	5	2.3	0	2.0/ 60	1.0/ 20				4.0/ 10	2.0/ 10		0.432
	218	31/3	31/3	1000	30	3	2.0	0	1.0/ 60	0.5/ 20				4.0/ 20			23.153
	219	15/5	15/5	250	30	7	3.8	0	5.0/ 30	5.0/ 30				3.0/ 10	2.0/ 20		34.685
	220	15/5	15/5	600	20	5	2.3	15	3.0/ 10	3.0/ 35				2.0/ 15	1.0/ 45		25.910
	220	15/5	15/5	1000	200	7	3.8	15	5.0/ 10	5.0/ 35				4.0/ 15	1.0/ 45		924.925
	1591	31/3	31/3	150	20	3	2.0	40	2.0/ 60	2.0/ 10					2.0/ 30		2.315
	1591	31/3	31/3	40	10	3	1.6	0	3.0/ 20	3.0/ 20			0.5/ 10	1.0/ 10	2.0/ 40		0.309
	1591	31/3	31/3	880	60	7	4.0	0	4.0/ 70					4.0/ 30			244.180
														TOTAL FOR SECT.		33:	2091.909
42	265	1/4	3/4	1600	200	4	1.0	0	1.0/ 40		1.0/ 40		1.5/ 10	1.0/ 10			468.949
	266	1/4	3/4	1300	100	4	2.0	0	2.0/ 25		1.5/ 25	0.1/ 10	0.1/ 20	3.0/ 20			190.511
	266	1/4	3/4	1600	50	3	1.5	0	1.5/ 80		2.0/ 20						61.742
	279	7/5	7/5	400	15	1	0.4	0	0.4/100								0.919
														TOTAL FOR SECT.		42:	722.120
43	1580	20/4	20/4	2100	30	3	1.5	0	1.0/ 10		1.0/ 5	2.0/ 20	1.0/ 5				48.622
52	339	21/4	21/4	500	100	4	2.0	10	2.0/ 80	2.0/ 10				2.0/ 10			24.400
	345	21/4	21/4	600	15	4	2.0	15		2.0/ 90					1.0/ 10		4.392
	346	26/3	26/3	1235	75	3	1.8	30	2.0/ 45	1.0/ 25		1.0/ 10		2.0/ 20			23.805
	346	26/3	26/3	525	125	3	1.0	50	1.0/100								16.866
	353	18/4	18/4	150	100	6	4.0	5			0.5/ 15	0.5/ 5			4.5/ 80		16.950
	353	18/4	18/4	250	125	7	4.0	5			0.5/ 5	0.5/ 5		4.0/ 90			48.125
	353	18/4	18/4	250	125	7	4.0	5			0.5/ 5	0.5/ 5		4.0/ 90			48.125
	354	7/4	7/4	400	60	5	3.0	15		1.0/ 30	3.0/ 20			3.5/ 50			17.256
	354	7/4	7/4	300	75	5	3.5	15			2.0/ 30			4.0/ 70			16.177
	354	7/4	7/4	275	100	5	4.0	20		0.5/ 10	3.0/ 30			5.0/ 60			19.772
	354	7/4	7/4	200	100	7	4.5	10		0.5/ 15	2.0/ 20			5.0/ 65			30.800
	354	7/4	7/4	400	100	7	7.0	5	8.0/ 75	1.0/ 15	3.0/ 10						61.600
	354	7/4	7/4	475	200	7	5.0	5		1.0/ 10	3.0/ 15			6.0/ 75			146.300
	354	10/4	10/4	175	30	5	1.0	10			0.5/ 20			1.0/ 80			3.775
	354	10/4	10/4	100	50	6	1.8	5			0.5/ 20	0.5/ 5		2.0/ 75			5.650
	354	10/4	10/4	175	50	7	3.0	15			0.5/ 10			3.0/ 90			13.475
	354	10/4	10/4	75	75	5	3.0	5			1.0/ 10			3.0/ 90			4.044
	354	10/4	16/4	150	20	7	4.0	5			0.3/ 10			4.0/ 90			4.620
	354	10/4	16/4	200	30	6	3.0	10			0.5/ 5			3.0/ 95			6.780
	354	10/4	16/4	75	30	3	0.5	20			0.3/ 5	0.3/ 10		0.5/ 85			0.578
	354	10/4	16/4	150	50	4	0.2	10			0.3/ 5	0.3/ 5		0.2/ 90			3.660
	354	10/4	10/4	125	20	5	2.0	10			0.5/ 20			2.0/ 80			1.798
	354	21/4	28/4	200	50	9	4.8	10		5.0/ 55	1.0/ 10			5.0/ 10	4.0/ 25		31.830
	354	21/4	28/4	175	125	9	5.5	10		4.0/ 45				8.0/ 35	4.0/ 20		69.628
	354	21/4	28/4	75	75	9	5.5	10		4.0/ 45				8.0/ 35	4.0/ 20		17.904
	354	21/4	28/4	250	175	9	5.5	10		4.0/ 45				8.0/ 35	4.0/ 20		139.256
	358	26/3	26/3	350	100	4	1.8	30	2.0/ 65	1.0/ 15	0.5/ 10			2.0/ 10			17.080
	358	26/3	26/3	100	100	4	2.8	5	3.0/ 85			2.0/ 15					4.880
	1524	20/4	30/4	200	50	6	3.5	10		4.0/ 45	2.0/ 20			3.0/ 45			11.300
	1524	20/4	30/4	200	30	6	3.0	10	3.0/ 25	3.0/ 35	1.0/ 10			3.0/ 30			6.780
	1524	20/4	30/4	100	75	5	2.5	10	2.0/ 25	3.0/ 35	1.0/ 10			2.0/ 30			5.392

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
52	1581	20/4	30/4	350	15	4	1.0	20	1.0/ 40	1.0/ 50				0.5/ 10			2.562
														TOTAL FOR SECT.		52:	825.561
62	408	24/5	30/5	3600	3	4	3.5	5		2.5/ 20	3.0/ 5			4.5/ 70	3.0/ 5		15.827
	408	24/5	30/5	3950	3	2	1.8	50		1.5/ 20	1.5/ 5			2.0/ 70	2.0/ 5		5.480
	408	24/5	30/5	5800	4	1	1.0	60		1.0/ 20	1.5/ 5			1.0/ 65	1.0/ 10		3.553
	408	27/5	2/6	220	8	3	2.5	20		0.0/ 25	0.0/ 5			0.0/ 65	0.0/ 5		1.358
	408	27/5	2/6	9000	3	1	1.0	60		0.0/ 10	0.0/ 75			0.0/ 10	0.0/ 5		4.135
														TOTAL FOR SECT.		62:	30.354
66	368	4/5	7/5	500	5	4	3.5	25	3.0/ 5	2.0/ 10		4.0/ 25		4.0/ 15	4.0/ 40		3.664
67	425	4/4	7/4	200	5	2	1.5	50	2.0/ 20	2.0/ 70		0.0/ 10					0.462
	425	4/4	7/4	400	10	3	2.0	60	4.0/ 70	1.5/ 20	1.5/ 10						3.087
	425	4/4	7/4	200	8	3	2.3	60	4.0/ 70	1.5/ 20	1.5/ 10						1.235
	425	4/4	7/4	1000	5	1	1.0	60	1.5/ 20	1.0/ 40		0.0/ 25			1.0/ 15		0.766
	425	4/4	7/4	250	12	1	0.6	60		1.0/ 30		0.0/ 65			0.5/ 5		0.459
	425	4/4	7/4	200	20	1	0.8	75		1.0/ 50		0.0/ 20			1.0/ 30		0.613
	425	4/4	7/4	250	30	2	1.3	70	2.0/ 40	1.5/ 10				1.0/ 40	1.0/ 10		3.468
	425	4/4	7/4	75	5	4	3.0	50	2.0/ 40		4.0/ 60						0.550
	425	4/4	7/4	200	4	1	0.5	20	0.5/ 50		0.5/ 50						0.123
	426	4/4	8/4	225	5	3	2.0	50	3.0/ 70	1.0/ 30							0.868
	426	4/4	7/4	150	5	2	1.5	50	2.0/ 20	1.5/ 60					1.0/ 20		0.347
	426	4/4	7/4	100	4	1	0.8	60		1.0/ 70		0.0/ 10			1.0/ 20		0.061
	426	4/4	7/4	1350	5	1	0.8	60	1.0/ 80	1.0/ 10	0.5/ 10						1.034
	426	4/4	7/4	150	5	1	0.5	40	0.5/ 70		0.5/ 30						0.115
	426	4/4	7/4	50	8	3	2.6	75	2.0/ 60	1.0/ 10	0.2/ 5			3.0/ 25			0.309
	426	4/4	7/4	600	8	3	2.6	60	2.0/ 60	1.0/ 10	0.2/ 5			3.0/ 25			3.705
	426	4/4	7/4	100	5	2	1.6	70	1.0/ 60	1.0/ 30	2.0/ 5	1.0/ 5					0.231
	426	4/4	7/4	2250	8	2	1.6	60	2.0/ 60	2.0/ 35	1.0/ 5						8.324
	426	4/4	7/4	1200	5	1	0.5	40	0.5/ 70		0.5/ 30						0.919
	426	6/4	9/4	400	4	1	0.6	40	1.0/ 50	0.5/ 20	1.0/ 20	0.2/ 10					0.245
	426	6/4	9/4	1000	4	1	0.4	40	1.0/ 50	0.2/ 25	0.5/ 15	0.2/ 10					0.613
	429	5/4	7/4	600	8	2	1.6	60	1.0/ 10	2.0/ 60	2.0/ 10	1.0/ 10		2.0/ 10			2.220
	429	5/4	7/4	1300	15	5	4.5	70	5.0/ 70	4.0/ 30							42.104
	429	5/4	7/4	650	10	3	2.5	60	4.0/ 70	1.5/ 10				2.0/ 20			5.017
	429	5/4	7/4	750	5	2	1.5	50	2.0/ 70			1.0/ 30					1.734
	429	5/4	7/4	300	10	3	2.6	70	5.0/ 20	2.0/ 60		2.0/ 10		1.5/ 10			2.315
	430	6/4	9/4	125	5	2	1.3	50	2.0/ 50	2.0/ 30	1.0/ 20						0.289
	430	6/4	9/4	400	10	2	1.5	50	2.0/ 50	2.0/ 30		1.0/ 10			1.0/ 10		1.850
	430	6/4	9/4	350	10	2	1.5	70	2.0/ 40	1.0/ 30		1.0/ 10			2.0/ 20		1.619
	431	25/4	28/4	200	80	5	5.0	20	5.0/ 80		3.0/ 10			6.0/ 10			34.547
	433	4/4	7/4	1000	5	1	0.6	60	1.0/ 40	0.5/ 30	0.2/ 10	0.5/ 10		1.0/ 20			0.766
	433	5/4	7/4	600	12	3	2.2	70	5.0/ 50	2.0/ 20	1.0/ 5	1.0/ 5		2.0/ 5			5.557
	433	5/4	7/4	300	12	3	2.2	70	4.0/ 70	2.0/ 20	0.5/ 10						2.778
	1456	4/4	8/4	175	5	4	3.4	20	5.0/ 10	3.0/ 60	2.0/ 15			5.0/ 10	2.0/ 5		1.282
	1456	4/4	8/4	250	3	3	2.6	25	3.0/ 10	1.5/ 75	2.0/ 5			5.0/ 5	1.0/ 5		0.579
	1456	4/4	8/4	280	5	3	2.3	25	3.0/ 20	1.5/ 55	2.0/ 5			4.0/ 10	1.0/ 10		1.080
	1456	4/4	8/4	180	5	3	3.0	20	4.0/ 20	2.5/ 50	3.0/ 10			4.0/ 10	1.5/ 10		0.695
	1456	4/4	8/4	230	5	4	3.6	10	5.0/ 25	3.0/ 35	3.0/ 10			5.0/ 20	2.0/ 10		1.685

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
67	1456	4/4	8/4	150	50	4	3.8	20	6.0/ 60	3.0/ 20	3.0/ 10			5.0/ 5	2.0/ 5		10.991
	1456	4/4	8/4	90	7	3	2.2	10	5.0/ 15	2.0/ 10	2.0/ 15	2.0/ 5	1.0/ 5	5.0/ 20	1.5/ 20		0.486
	1456	4/4	8/4	100	20	4	3.2	20	5.0/ 40	2.0/ 10	2.0/ 10			5.0/ 10	2.0/ 30		2.931
	1456	4/4	8/4	610	12	4	2.4	10	2.0/ 25	1.6/ 60			2.0/ 3	4.0/ 3			10.727
														TOTAL FOR SECT.		67:	158.784
72	471	2/4	2/4	440	11	3	1.0	10	0.8/ 10	1.0/ 80					0.8/ 10		3.735
	471	8/4	8/4	440	11	3	1.0	10		1.3/ 90					0.5/ 10		3.735
	480	13/3	13/3	50	3	1	0.5	10	0.5/ 20	0.5/ 70					0.3/ 10		0.023
	499	27/3	30/3	980	60	6	3.0	0	4.0/ 30	2.3/ 30	2.8/ 10			5.3/ 10	1.0/ 20		199.532
	499	28/3	30/3	1030	60	4	2.0	0	2.5/ 30	1.5/ 30	0.8/ 5			2.0/ 10	1.0/ 25		90.566
	499	28/3	30/3	460	100	5	2.5	0	2.5/ 30	2.0/ 30	2.0/ 10			3.5/ 10	1.0/ 10		99.321
														TOTAL FOR SECT.		72:	396.912
73	451	4/4	4/4	160	25	3	1.0	5	0.5/ 30	1.5/ 60					1.0/ 10		3.087
74	539	13/3	13/3	200	3	3	1.0	5	1.0/ 60	1.5/ 30					1.0/ 10		0.463
	539	16/3	16/3	400	3	1	1.0	15		1.0/ 90					0.5/ 10		0.184
	542	8/3	8/3	300	5	3	0.8	10	0.5/ 10	1.0/ 60	1.0/ 10				0.5/ 20		1.158
	542	26/3	26/3	100	20	5	2.0	25	5.0/ 30	0.2/ 25	1.0/ 20				0.2/ 25		4.318
	542	27/3	28/3	50	10	7	4.0	5	6.0/ 70		1.0/ 30						2.312
	542	27/3	28/3	300	3	1	0.1	0		0.1/ 35				0.1/ 5	0.1/ 60		0.138
	542	27/3	29/3	30	10	3	0.4	10	1.0/ 40	0.1/ 20					0.1/ 40		0.232
	542	27/3	29/3	300	40	7	5.0	20	8.0/ 65		0.5/ 10			0.5/ 5	2.0/ 20		55.495
	542	27/3	29/3	1000	2	3	0.5	0		1.0/ 20	0.5/ 10			0.2/ 10	0.2/ 60		1.544
	542	27/3	28/3	250	3	1	0.3	0	0.5/ 5	0.6/ 30			0.1/ 5	0.5/ 5	0.2/ 50		0.115
	542	27/3	28/3	75	6	3	1.0	15	2.0/ 45		0.2/ 45	0.5/ 10					0.347
	542	27/3	28/3	400	4	3	0.2	0	2.0/ 5	1.0/ 5				0.2/ 10	0.1/ 80		1.235
	542	27/3	28/3	250	40	7	6.0	15	7.0/ 90		1.5/ 10						46.246
	542	29/3	30/3	125	60	4	1.5	25	4.0/ 10	1.0/ 25	1.5/ 30	2.0/ 5	0.5/ 5	1.0/ 5	1.0/ 20		10.991
	542	29/3	30/3	100	50	4	1.5	25	4.0/ 10	1.0/ 25	1.5/ 30	2.0/ 5	0.5/ 5	1.0/ 5	1.0/ 20		7.327
	542	29/3	30/3	400	100	3	0.4	20	0.2/ 5	0.2/ 15	1.0/ 40		1.0/ 15	1.5/ 10	0.1/ 15		30.871
	542	29/3	29/3	100	30	3	0.8	10	2.0/ 40	0.5/ 30	2.0/ 10				0.1/ 20		2.315
	542	29/3	29/3	150	5	1	0.2	0		0.2/ 40				0.2/ 10	0.2/ 50		0.115
	542	29/3	30/3	250	2	1	0.2	0		0.3/ 50				0.1/ 10	0.1/ 40		0.077
	542	29/3	30/3	150	20	1	0.5	30	1.0/ 15		0.3/ 60	1.0/ 20	0.1/ 5				0.459
	542	30/3	30/3	250	10	3	0.5	15	1.0/ 10	0.5/ 10	0.5/ 40	0.5/ 10	0.1/ 5	0.5/ 5	0.2/ 15		1.929
	542	3/4	3/4	200	10	3	0.5	15		0.2/ 15	1.5/ 70	0.5/ 5			0.1/ 5		1.544
	542	6/4	6/4	200	100	3	1.5	40	0.8/ 10	0.1/ 10	3.0/ 70			0.4/ 5	0.4/ 2		15.435
	542	7/4	9/4	500	10	3	0.4	50		0.2/ 15	0.5/ 80			0.1/ 5			3.859
	542	7/4	9/4	100	20	5	2.0	10	1.0/ 10	1.0/ 15	3.0/ 60		0.3/ 5				4.318
	543	26/3	26/3	100	6	3	1.0	10	1.0/ 40	2.0/ 20	1.0/ 40						0.463
	543	26/3	26/3	300	6	3	1.0	10	0.5/ 10	1.0/ 80	0.5/ 5				1.0/ 5		1.389
	543	26/3	26/3	300	20	3	1.0	5	1.0/ 80	1.5/ 10	1.0/ 10						4.631
	543	26/3	26/3	500	100	3	2.0	10	1.0/ 10	2.0/ 10	2.0/ 80						38.589
	546	15/3	16/3	100	50	2	0.9	15		1.2/ 30				1.0/ 1	0.8/ 69		2.312
	1395	9/4	9/4	150	40	3	1.0	10	1.5/ 40	1.0/ 20	1.0/ 10			2.0/ 5	0.5/ 25		4.631
	1395	10/4	10/4	100	3	3	0.8	10	0.5/ 20	1.0/ 60					1.0/ 20		0.232
	1477	24/3	24/3	300	4	3	1.5	5	1.0/ 20	2.0/ 60					0.5/ 20		0.926
	1477	24/3	24/3	200	8	5	3.0	0	5.0/ 40	3.0/ 40					2.0/ 20		3.455
														TOTAL FOR SECT.		74:	249.655

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
75	505	8/4	8/4	2400	3	3	0.0	30	0.5/ 40		2.5/ 50			1.5/ 10			5.557
	505	8/4	8/4	600	6	4	2.5	10	2.5/ 10	2.0/ 30	1.5/ 5			3.0/ 35	1.8/ 20		5.276
	505	8/4	8/4	600	4	3	1.5	20	0.6/ 10	1.0/ 30	3.0/ 20			1.5/ 20	0.8/ 20		1.852
	505	12/4	12/4	750	3	4	2.0	15	2.0/ 10		2.5/ 80				1.0/ 10		3.297
														TOTAL FOR SECT.		75:	15.982
76	551	8/4	8/4	60	5	1	0.5	50		0.5/100							0.046
	551	8/4	8/4	150	5	1	0.5	25	0.6/ 20	0.5/ 30					0.5/ 50		0.115
	554	8/4	8/4	100	70	7	6.0	0	8.0/ 50		6.0/ 10				0.3/ 30		32.372
	554	8/4	8/4	160	15	7	5.0	15	8.0/ 30	0.5/ 15	0.7/ 10			4.0/ 30	0.5/ 15		11.099
	554	8/4	8/4	40	10	3	1.0	50		1.0/ 80					1.0/ 20		0.309
	554	8/4	8/4	200	10	6	2.0	15	4.0/ 25	1.0/ 30	2.0/ 10			4.0/ 15	1.0/ 20		6.787
	554	8/4	8/4	1480	6	1	0.8	20	1.7/ 35	0.3/ 30	0.7/ 5			0.5/ 15	0.2/ 15		1.360
	555	21/3	23/3	300	10	3	1.0	5	1.0/ 10	1.0/ 45				1.0/ 5	1.0/ 40		2.315
	560	8/4	8/4	800	3	1	0.5	30		0.7/ 30	1.5/ 25				0.2/ 45		0.368
	560	8/4	8/4	400	5	3	1.0	50	1.5/ 50		1.0/ 15			1.2/ 35			1.540
	560	8/4	8/4	50	7	4	2.5	10	4.5/ 50	1.0/ 20				1.0/ 10	1.3/ 20		0.513
	569	8/4	8/4	200	3	3	1.5	5	3.0/ 20	1.0/ 30	1.0/ 20				0.5/ 30		0.463
	569	8/4	8/4	400	20	3	1.0	50	1.0/ 10	1.0/ 80					1.0/ 10		6.174
	569	8/4	8/4	385	5	1	0.7	15	0.5/ 20	1.0/ 50	0.2/ 10				0.5/ 20		0.295
	569	8/4	8/4	320	250	6	5.0	0	5.8/ 80	0.5/ 5	1.0/ 5			3.5/ 5	0.5/ 5		271.471
	569	8/4	8/4	500	5	3	1.3	30	3.5/ 20	1.0/ 30	0.3/ 10			2.0/ 10	0.7/ 30		1.929
	569	8/4	8/4	400	6	5	2.5	5	3.0/ 20	2.0/ 20	0.5/ 5			2.0/ 15	2.0/ 40		5.182
	569	8/4	8/4	1200	3	1	0.5	25	0.5/ 10	0.5/ 30	1.0/ 25		0.5/ 5	1.0/ 10	0.2/ 20		0.551
														TOTAL FOR SECT.		76:	342.893
83	597	6/3	10/3	4000	5	2	0.0	0		0.5/ 90					0.5/ 10		9.249
84	610	4/6	6/6	700	3	1	0.5	25			0.5/ 10		1.0/ 10	0.5/ 10	0.5/ 20		0.322
	610	4/6	6/6	700	4	3	2.5	20		1.0/ 5	0.5/ 5	1.0/ 10		4.0/ 50	2.0/ 30		2.161
	610	4/6	6/6	800	3	4	3.5	20					3.0/ 25	4.0/ 25	2.0/ 50		3.517
	610	4/6	6/6	700	3	1	0.5	25			0.5/ 10		1.0/ 10	0.5/ 10	0.5/ 20		0.322
	610	4/6	6/6	700	4	3	2.5	20		1.0/ 5	0.5/ 5	1.0/ 10		4.0/ 50	2.0/ 30		2.161
	610	4/6	6/6	800	3	4	3.5	20					3.0/ 25	4.0/ 25	2.0/ 50		3.517
	611	13/5	15/5	1800	1	1	1.0	25		1.0/ 50		0.5/ 35			1.0/ 15		0.276
	611	13/5	15/5	1800	1	1	1.0	25		1.0/ 50		0.5/ 35			1.0/ 15		0.276
	611	20/5	20/5	1000	4	3	3.0	25					3.0/ 25	3.0/ 50	2.0/ 25		3.087
	611	20/5	20/5	1200	2	1	1.0	20	1.5/ 25	1.0/ 10		1.0/ 25		1.0/ 40			0.368
	611	20/5	20/5	1000	4	3	3.0	25					3.0/ 25	3.0/ 50	2.0/ 25		3.087
	611	20/5	20/5	1200	2	1	1.0	20	1.5/ 25	1.0/ 10		1.0/ 25		1.0/ 40			0.368
	611	24/5	25/5	400	2	4	3.5	15		3.0/ 40			4.0/ 50		3.0/ 10		1.172
	611	24/5	25/5	3000	2	3	2.0	15		2.0/ 10			2.0/ 50	3.0/ 25	2.0/ 15		4.631
	611	24/5	25/5	400	2	4	3.5	15		3.0/ 40			4.0/ 50		3.0/ 10		1.172
	611	24/5	25/5	3000	2	2	2.0	15		2.0/ 10			2.0/ 50	3.0/ 25	2.0/ 15		2.775
	1589	12/5	13/5	400	5	4	4.0	10		3.0/ 10			4.0/ 90				2.931
	1589	12/5	13/5	800	2	3	2.0	10		2.0/ 10			2.0/ 90				1.235
	1589	12/5	13/5	500	5	1	0.5	50		0.5/ 25		0.5/ 50	1.0/ 10		0.5/ 15		0.383
	1589	12/5	13/5	800	2	3	3.0	25		3.0/ 30		4.0/ 50	3.0/ 10		2.0/ 10		1.235
	1589	12/5	13/5	1200	3	4	3.0	10		3.0/ 30			3.0/ 60		2.0/ 10		5.276

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% RARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
84	1589	12/5	13/5	3000	2	3	2.0	30		1.0/ 20			2.0/ 70		1.0/ 10		4.631
	1589	12/5	13/5	1200	2	3	1.5	10		1.0/ 15			2.0/ 80		1.0/ 5		1.852
	1589	12/5	13/5	300	2	5	4.0	0					4.0/ 90		4.0/ 10		1.295
	1589	12/5	13/5	400	2	2	1.5	5		2.0/ 5			1.5/ 90		2.0/ 5		0.370
	1589	12/5	13/5	500	5	1	0.5	50		0.5/ 25		0.5/ 50	1.0/ 10		0.5/ 15		0.383
	1589	12/5	13/5	800	2	3	3.0	25		3.0/ 30		4.0/ 50	3.0/ 10		2.0/ 10		1.235
	1589	12/5	13/5	1200	3	3	3.0	10		3.0/ 30			3.0/ 60		2.0/ 10		2.778
	1589	12/5	13/5	3000	2	2	2.0	20		1.5/ 20			2.0/ 70		1.0/ 10		2.775
	1589	12/5	13/5	1200	2	2	1.5	10		1.0/ 15			2.0/ 80		1.0/ 5		1.110
	1589	12/5	13/5	300	2	4	4.0	0					4.0/ 90		4.0/ 10		0.879
	1589	12/5	13/5	400	2	2	1.5	5		2.0/ 5			1.5/ 90		2.0/ 5		0.370
	1589	12/5	13/5	400	5	4	4.0	10		3.0/ 10			4.0/ 90				2.931
	1589	12/5	13/5	800	2	2	2.0	10		2.0/ 10			2.0/ 90				0.740
	1590	18/5	18/5	3000	3	5	4.0	10		3.5/ 25			4.0/ 50		3.0/ 25		19.432
	1590	18/5	18/5	3000	3	4	4.0	10		3.5/ 25			4.0/ 50		3.0/ 25		13.189
														TOTAL FOR SECT.		84:	94.240
85	576	23/3	25/3	1700	3	1	1.0	10			1.0/ 5			2.0/ 35	1.0/ 60		0.781
	576	23/3	25/3	980	2	4	4.0	50			1.0/ 40			6.0/ 25	2.0/ 10		2.872
	576	23/3	25/3	100	5	1	1.0	30		0.5/ 15				1.0/ 40	1.0/ 45		0.077
	576	23/3	25/3	1500	5	1	1.0	25			0.5/ 20			1.0/ 80			1.149
	576	23/3	25/3	700	2	1	1.0	50			1.0/ 10				1.0/ 90		0.214
	576	23/3	25/3	2020	5	5	4.0	10			2.0/ 20			5.0/ 30	5.0/ 50		21.808
	576	23/3	25/3	100	15	3	3.0	20			3.0/100						1.158
	576	23/3	25/3	400	5	1	1.0	50			0.5/ 10	1.0/ 35		0.5/ 15	1.0/ 40		0.306
	576	23/3	25/3	500	7	3	3.0	10			0.5/ 10	2.0/ 20		5.0/ 20	2.0/ 50		2.701
	604	1/4	2/4	75	20	1	0.3	30	2.5/100								0.230
	604	1/4	2/4	200	60	2	2.0	5		2.0/100							5.550
	604	1/4	1/4	50	10	1	0.5	10		0.3/ 25				0.5/ 75			0.077
	604	1/4	4/4	400	15	1	1.0	45		1.0/ 55	1.0/ 10	0.5/ 35					0.919
	604	1/4	4/4	100	15	2	2.0	40						2.0/100			0.694
	604	1/4	2/4	400	50	1	0.5	20	0.5/100								3.063
	604	3/4	4/4	50	10	2	2.0	50			2.0/100						0.231
	1363	23/3	25/3	300	3	2	1.0	50	2.0/ 25					1.0/ 25	1.0/ 25		0.416
	1363	23/3	25/3	500	10	2	2.0	25	3.0/ 25		1.0/ 20			2.0/ 20	1.0/ 20		2.312
	1363	23/3	25/3	200	100	3	3.0	25			3.0/100						15.435
	1363	23/3	25/3	500	10	2	2.0	25	2.0/ 35		2.0/ 35			3.0/ 15	1.0/ 15		2.312
	1363	23/3	25/3	100	3	1	0.5	50						0.5/ 40	0.5/ 60		0.046
	1363	23/3	25/3	200	2	1	0.5	50	1.0/ 35					0.5/ 65			0.061
	1363	23/3	25/3	200	25	2	2.0	50	2.0/ 50		0.5/ 10			2.0/ 15	1.0/ 20		2.312
	1363	23/3	25/3	200	100	2	2.0	50	3.0/ 20		1.0/ 40			2.0/ 15	1.0/ 10		9.249
	1568	23/3	25/3	700	7	3	2.0	10			2.0/ 20			2.0/ 10	1.0/ 70		3.782
	1569	23/3	25/3	400	5	1	1.0	50			2.0/ 35			1.0/ 30	1.0/ 30		0.306
	1569	23/3	25/3	100	15	3	3.0	30			2.0/ 35			5.0/ 30	2.0/ 35		1.158
	1569	23/3	25/3	350	15	2	2.0	50			2.0/ 60			2.0/ 30			2.428
	1569	23/3	25/3	150	40	1	1.0	50			2.0/ 40			1.0/ 60			0.919
	1569	23/3	25/3	400	10	4	4.0	10			2.0/ 20			5.0/ 30	5.0/ 50		5.862
														TOTAL FOR SECT.		85:	88.428
92	613	10/4	16/4	500	1	7	4.0	60		4.0/100							2.312

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
92	613	10/4	16/4	50	5	7	4.0	15							4.0/100		1.156
	613	10/4	16/4	10	5	3	0.5	10							0.5/100		0.039
	613	10/4	16/4	25	5	7	4.0	15							4.0/100		0.578
	613	10/4	16/4	25	5	7	4.0	15							4.0/100		0.578
	613	10/4	16/4	20	1	3	1.0	20		1.0/ 30				1.0/ 70			0.015
	613	10/4	16/4	130	5	7	4.0	15		4.0/ 50				4.0/ 50			3.006
	613	10/4	16/4	50	5	7	3.5	10		0.5/ 20				4.0/ 80			1.156
	613	10/4	16/4	100	5	5	3.0	0		3.0/ 60				3.0/ 40			1.080
	617	10/4	16/4	540	35	5	2.0	20	2.0/100								40.808
	617	10/4	16/4	540	35	3	0.5	50	0.5/100								14.586
	628	10/4	16/4	75	3	7	4.0	35		4.0/100							1.041
	628	10/4	16/4	25	1	3	0.5	40		0.5/100							0.019
	628	10/4	16/4	100	2	3	1.0	30		1.0/100							0.154
														TOTAL FOR SECT.		92:	66.529
93	631	10/4	16/4	1100	3	3	0.5	60		0.5/ 60					0.5/ 40		2.547
102	652	5/4	5/4	800	3	3	1.0	20		2.0/ 20				0.5/ 10	0.5/ 40		1.852
	652	5/4	5/4	300	2	3	0.5	15		1.0/ 45				0.5/ 5	1.0/ 20		0.463
	652	5/4	5/4	250	4	3	1.0	50		0.5/ 60				0.5/ 5	2.0/ 30		0.772
	652	5/4	5/4	700	3	3	1.0	40		2.0/ 60				0.5/ 10	1.0/ 20		1.621
	1578	27/4	27/4	200	100	5	2.0	35	2.0/ 25			1.0/ 20	1.0/ 20	3.0/ 35			43.183
	1579	27/4	27/4	850	3	3	2.0	30		2.0/100							1.968
														TOTAL FOR SECT.		102:	49.859
103	1372	5/4	5/4	100	5	3	1.0	50		1.0/100							0.386
	1372	5/4	5/4	100	5	3	0.5	50		0.5/100							0.386
														TOTAL FOR SECT.		103:	0.772
112	658	30/3	5/4	1500	2	3	0.5	40		0.5/ 75					0.5/ 25		2.315
	658	30/3	5/4	1500	3	5	4.0	30		3.0/ 75					6.0/ 25		9.716
	658	18/4	19/4	3500	2	4	2.0	30		2.0/ 50					2.0/ 50		10.258
	658	29/4	1/5	2000	2	4	1.5	25		2.0/ 50					1.0/ 50		5.862
	659	6/4	8/4	100	20	6	3.0	33			2.0/ 50	2.0/ 50					6.787
														TOTAL FOR SECT.		112:	34.938
121	666	12/4	12/4	75	25	4	2.0	40		1.5/ 60							2.748
122	682	7/4	10/4	400	3	3	0.5	30	0.5/100								0.926
	687	22/3	25/3	100	25	5	2.3	10	1.4/ 35		2.0/ 40			3.5/ 25			5.398
	687	22/3	25/3	75	25	5	2.3	5	2.3/ 40		1.5/ 20			3.0/ 40			4.048
	687	22/3	25/3	75	20	3	1.9	5	2.1/ 45		0.5/ 10			3.2/ 45			1.158
	687	22/3	25/3	70	18	4	3.8	0	1.0/ 20					3.8/ 80			1.846
														TOTAL FOR SECT.		122:	13.377
125	738	10/3	10/3	200	1	1	0.6	70		0.4/100							0.031
126	756	3/4	3/4	3000	1	3	0.8	50		0.8/100							2.315
	757	16/3	16/3	800	3	5	1.3	25		2.0/ 60					1.0/ 25		5.182
	757	16/3	16/3	2000	2	3	1.0	50		1.0/100							3.087

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
126	757	16/3	16/3	1400	1	1	0.5	50		0.5/ 65		0.5/ 25					0.214
	757	16/3	16/3	2600	3	3	1.0	30		1.0/ 90							6.020
	757	20/3	20/3	2200	1	3	1.0	50		1.0/ 50					1.0/ 50		1.698
	757	5/4	5/4	5000	1	3	1.0	50		1.0/ 50		1.0/ 10			1.0/ 25		3.859
														TOTAL FOR SECT.		126:	22.375
127	749	12/3	12/3	1100	1	3	1.0	10		1.0/100							0.849
	749	12/3	12/3	1000	4	1	0.2	50		0.2/100							0.613
	749	12/3	12/3	2000	1	1	0.2	10		0.2/100							0.306
	749	12/3	12/3	800	1	3	0.2	10		0.2/100							0.617
	749	13/3	13/3	2000	1	1	0.2	50		0.2/100							0.306
	749	13/3	13/3	6500	1	1	0.2	60		0.2/100							0.995
	749	13/3	13/3	2000	1	3	1.5	10		1.5/100							1.544
	749	13/3	13/3	2200	1	1	0.2	50		0.2/100							0.337
	749	17/3	17/3	1100	3	3	0.8	50		0.8/100							2.547
	749	17/3	17/3	500	1	3	1.2	10		1.2/100							0.386
	749	30/3	30/3	8000	1	3	1.0	40		1.0/100							6.174
														TOTAL FOR SECT.		127:	14.674
132	764	7/4	7/4	75	5	3	1.0	50		1.0/100							0.289
	764	11/4	11/4	300	10	3	2.0	15	2.0/100								2.315
	764	13/4	13/4	300	300	5	5.0	10			5.0/ 40	5.0/ 60					194.324
	764	13/4	13/4	1300	4	5	4.0	5		4.0/100							11.228
	800	7/4	7/4	600	3	4	2.0	0		2.0/ 90				2.0/ 10			2.638
	800	13/4	13/4	50	20	3	2.0	10	2.0/ 60		2.0/ 30	2.0/ 10					0.772
	800	14/4	14/4	40	20	3	1.0	0									0.617
														TOTAL FOR SECT.		132:	212.184
133	778	25/3	26/3	2000	5	5	3.0	15		4.0/ 80					1.0/ 20		21.592
134	781	16/3	16/3	75	25	3	2.0	0	2.0/100								1.447
	781	16/3	16/3	50	25	3	2.0	5		2.0/ 95					1.0/ 5		0.965
	781	16/3	16/3	1000	2	3	2.0	25		2.0/ 95					1.0/ 5		1.544
	781	20/3	20/3	100	1	5	4.0	20		4.0/100							0.216
	781	22/3	22/3	1500	1	3	2.0	25		2.0/ 95					1.0/ 5		1.158
	781	23/3	23/3	700	10	5	3.0	10		3.0/ 95					1.0/ 5		15.114
	781	23/3	23/3	1800	15	3	2.0	10	2.0/ 90	2.0/ 10							20.838
	781	23/3	23/3	150	2	4	3.0	5		3.0/ 95					1.0/ 5		0.440
	781	24/3	24/3	500	2	5	3.0	10		3.0/ 90					2.0/ 10		2.159
	781	24/3	24/3	300	1	3	2.0	10		2.0/ 90					1.0/ 10		0.232
	781	25/3	25/3	400	3	3	2.0	15		2.0/ 90					1.0/ 10		0.926
	781	25/3	25/3	600	2	3	2.0	10		2.0/ 95					1.0/ 5		0.926
	781	26/3	26/3	1000	2	3	2.0	5		2.0/ 90					2.0/ 10		1.544
														TOTAL FOR SECT.		134:	47.507
137	803	14/3	15/3	1760	20	5	2.5	25		2.0/ 20		2.5/ 40	2.5/ 20	3.0/ 20			76.002
	804	10/4	10/4	200	100	1	0.5	25	0.5/100								3.063
	805	25/3	25/3	40	25	3	1.0	5	1.0/ 75			1.0/ 25					0.772
	805	25/3	25/3	100	2	3	1.0	0		1.0/100							0.154
	805	25/3	25/3	700	2	4	2.0	0		2.0/100							2.052

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	MILLIONS OF EGGS
137	805	25/3	25/3	100	10	4	2.0	10	2.0/ 50			2.0/ 50					1.465
	1470	3/4	3/4	25	20	3	1.0	0									0.386
	1470	3/4	3/4	200	5	3	1.0	5				1.0/ 80		1.0/ 20			0.772
	1470	3/4	3/4	50	25	3	1.0	25						1.0/ 10			0.965
	1470	3/4	3/4	50	20	3	1.0	0	1.0/100								0.772
	1470	3/4	3/4	300	5	5	3.0	50				3.0/100					3.239
														TOTAL FOR SECT.		137:	89.642
142	811	8/3	11/3	4500	200	7	2.5	50	2.5/ 16	2.5/ 33			2.0/ 16	3.0/ 33			990.000
	813	8/3	9/3	100	150	6	1.0	0		1.0/100							12.107
	814	10/3	11/3	1000	700	7	2.4	50	1.5/ 18	2.0/ 18			2.0/ 29	4.0/ 35			770.000
	817	11/3	11/3	2000	700	6	1.1	40	0.6/ 19	0.9/ 14				1.8/ 67			1130.000
	817	11/3	11/3	1000	600	6	1.3	40	0.3/ 6			4.0/ 6	0.3/ 19	1.6/ 65			484.286
	820	10/3	11/3	3500	800	7	2.7	50	2.5/ 18	2.0/ 18		4.0/ 5	2.5/ 14	4.0/ 25	1.0/ 18		3080.000
	837	1/3	11/3	1000	600	6	2.1	60	2.0/ 13		2.5/ 12		2.0/ 25	2.0/ 50			484.286
	837	1/3	11/3	4500	550	7	2.4	25	1.4/ 24	2.0/ 15	2.0/ 7	3.8/ 30		3.0/ 24			2722.500
	837	1/3	11/3	1500	700	7	2.0	75	2.0/ 13		2.0/ 12		2.0/ 25	2.0/ 50			1155.000
	840	9/3	11/3	3700	600	7	2.0	40	3.0/ 10		1.0/ 5		2.3/ 40	2.8/ 40	1.0/ 5		2442.000
														TOTAL FOR SECT.		142:	13270.179
143	810	11/3	11/3	3000	80	5	2.0	40		1.5/ 15		2.0/ 60		2.0/ 25			172.560
	810	11/3	11/3	800	60	4	1.0	5				2.0/ 49			1.0/ 50		23.424
	810	11/3	11/3	300	100	5	3.0	0		3.0/ 25		3.0/ 75					21.570
	825	11/3	11/3	2500	60	5	4.0	40		4.0/ 10			1.0/ 10	4.0/ 80			107.850
	825	11/3	11/3	1500	20	5	2.0	10		2.0/ 20				2.0/ 40	2.0/ 20		21.570
	831	11/3	11/3	2400	10	4	1.0	5		1.0/ 10		1.0/ 10		2.0/ 10	1.0/ 70		11.712
	832	10/3	11/3	3700	350	7	2.4	10		4.0/ 11			0.8/ 29	2.5/ 60			1994.300
														TOTAL FOR SECT.		143:	2352.986
144	823	31/3	31/3	250	15	5	2.0	20	2.0/ 60	2.0/ 10	2.0/ 30						2.696
	823	31/3	31/3	100	50	5	2.5	25	2.0/ 70	3.0/ 30							3.595
	823	31/3	31/3	300	25	5	2.0	20		2.5/ 80	1.5/ 20						5.392
	834	9/3	9/3	3600	15	5	1.5	10		1.5/ 30				2.0/ 30	1.0/ 35		38.826
	834	11/3	11/3	1200	10	4	1.5	10		2.0/ 35				2.0/ 5	1.0/ 60		5.856
	1415	9/3	9/3	2600	20	4	1.5	95	1.0/ 5	1.0/ 5		2.0/ 90					25.376
														TOTAL FOR SECT.		144:	81.742
152	845	4/3	4/3	1000	200	7	5.0	0	7.0/ 30	4.0/ 50	4.0/ 20						308.000
	845	4/3	4/3	1500	600	6	4.0	0	5.0/ 30	3.0/ 50	3.0/ 20						1017.000
	845	4/3	4/3	1800	800	4	4.0	0	5.0/ 30	3.0/ 50	2.0/ 20						702.720
	854	11/3	11/3	2000	200	4	3.8	0	4.0/ 80	3.0/ 10					3.0/ 10		195.200
	856	12/4	12/4	100	2	3	2.0	0		2.0/100							0.051
	858	4/3	4/3	1000	400	5	4.0	0	4.0/ 40	4.0/ 40					4.0/ 20		287.600
	858	4/3	4/3	2000	100	6	4.5	0	5.0/ 40	4.0/ 40					5.0/ 20		226.000
	858	4/3	4/3	850	700	6	3.0	0	5.0/ 40	2.0/ 40					2.0/ 20		672.350
	860	11/3	11/3	3000	3	4	3.5	0	4.0/ 30	3.0/ 60					5.0/ 10		4.392
														TOTAL FOR SECT.		152:	3413.313
162	904	19/3	19/3	8000	2	3	2.5	0	3.0/ 50	2.0/ 50							12.348
	909	11/3	11/3	4000	4	4	4.0	0	4.0/ 30	4.0/ 70							23.447

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% HARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
162	909	12/3	12/3	2000	3	5	3.5	0	5.0/ 20	3.0/ 30							12.955
														TOTAL FOR SECT.		162:	48.751
172	997	12/3	12/3	1700	125	3	1.0	75	0.5/ 40	3.0/ 10		1.0/ 30		1.0/ 20			50.613
	999	11/3	13/3	850	75	5	3.0	50	3.0/ 75	3.0/ 25							45.836
	999	11/3	13/3	1400	75	3	0.5	75	0.5/ 60	0.5/ 40							26.985
	999	29/3	29/3	600	50	3	0.5	10	0.5/ 80				0.5/ 20				7.710
	1000	11/3	13/3	175	40	3	1.0	50	1.0/100								1.799
	1000	11/3	13/3	225	40	5	3.0	60	3.0/100								6.471
	1000	11/3	13/3	1500	40	5	3.0	50	3.0/100								43.140
	1573	12/3	13/3	1550	160	5	2.0	30		2.0/ 45	2.0/ 10	1.0/ 20	1.0/ 15		2.0/ 10		178.312
	1573	12/3	13/3	1200	100	3	1.0	40		0.5/ 50		1.0/ 20	0.5/ 10		2.0/ 20		30.840
	1573	12/3	13/3	450	75	3	1.5	30		2.0/ 45		1.0/ 15		1.0/ 20	2.0/ 20		8.674
														TOTAL FOR SECT.		172:	404.379
173	940	7/3	7/3	100	5	2	1.5	20	1.5/ 50	2.0/ 20	0.5/ 20		0.5/ 10				0.116
	940	7/3	7/3	1000	5	2	2.5	15	2.5/ 30	3.0/ 60			0.5/ 5	0.5/ 5			1.156
	940	9/3	9/3	1000	5	2	2.0	20	2.5/ 40	2.5/ 30	0.5/ 20		0.5/ 10				1.156
	940	10/3	10/3	1500	5	3	1.5	20	2.0/ 55	1.5/ 15	1.0/ 15		0.5/ 15				2.894
	943	10/3	10/3	700	5	2	1.0	35	1.5/ 50	1.0/ 20		0.5/ 20	0.5/ 10				0.809
	944	13/3	13/3	1000	5	3	2.5	15			0.5/ 10	2.5/ 20		3.0/ 60	0.5/ 10		1.929
	944	17/3	17/3	1000	5	3	2.0	25			0.5/ 10	1.0/ 20		2.0/ 20	2.5/ 40		1.929
	944	17/3	17/3	1000	5	3	1.5	20			0.5/ 10	1.5/ 20		2.0/ 20	2.0/ 40		1.929
	944	18/3	18/3	2500	3	2	1.5	30			0.5/ 10	1.0/ 20		1.0/ 20	1.5/ 40		1.734
	944	20/3	21/3	3500	10	3	2.0	25	3.5/ 10			2.5/ 15		1.0/ 60	0.5/ 15		13.506
	944	21/3	21/3	500	300	3	3.0	15	2.0/ 10			1.5/ 15		3.5/ 60	0.5/ 15		57.883
	944	22/3	22/3	500	300	3	3.5	15	1.5/ 10			1.0/ 15		4.0/ 60	0.5/ 15		57.883
	944	22/3	22/3	3500	10	3	2.5	20	2.5/ 10			2.0/ 15		2.0/ 60	0.5/ 15		13.506
	944	23/3	23/3	500	300	2	3.0	15	3.5/ 50	2.5/ 20	1.0/ 10						34.685
	944	23/3	23/3	3500	10	2	2.5	15	2.0/ 10			1.5/ 15		3.0/ 60	0.5/ 15		8.093
	953	12/3	12/3	500	10	3	2.5	30	3.0/ 60	2.0/ 20	0.5/ 10		1.0/ 10				1.929
	953	13/3	13/3	1000	10	4	2.0	30	2.5/ 55	1.5/ 10		0.5/ 15	0.5/ 20				7.327
	953	13/3	13/3	2000	5	3	1.5	35	2.0/ 50	1.0/ 25		0.5/ 10	0.5/ 15				3.859
	953	14/3	14/3	2000	5	3	1.5	30	2.0/ 55	1.0/ 10		0.5/ 15	0.5/ 20				3.859
	954	11/3	11/3	1000	5	2	1.0	20	1.5/ 40	1.5/ 30		1.0/ 20	0.5/ 10				1.156
	954	13/3	13/3	700	5	3	1.5	25	2.0/ 40	1.5/ 30		1.0/ 20	0.5/ 10				1.351
	954	14/3	14/3	800	5	3	1.5	30	2.0/ 35	1.5/ 35		1.0/ 15	0.5/ 15				1.544
	956	13/3	13/3	800	5	3	2.0	30	2.5/ 45	1.5/ 25		1.0/ 15	0.5/ 15				1.544
	969	18/3	18/3	2500	5	3	2.0	25			0.5/ 10	2.5/ 20		2.0/ 50	1.5/ 20		4.824
	969	19/3	19/3	1000	5	5	3.0	15	4.0/ 30			2.0/ 20		2.0/ 30	1.5/ 20		5.398
	969	19/3	19/3	2500	3	2	1.5	20			0.5/ 10	2.0/ 20		1.5/ 50	0.5/ 20		1.734
	969	20/3	20/3	2000	5	3	2.5	20	3.0/ 30		0.5/ 10	1.0/ 20		2.0/ 40			3.859
	969	21/3	21/3	2000	15	3	3.0	15	3.0/ 10			4.0/ 20			1.0/ 10		11.577
	969	22/3	22/3	2000	5	2	2.0	25	2.5/ 30		0.5/ 10	1.0/ 20		2.0/ 40			2.312
	969	25/3	25/3	500	15	3	2.5	20	3.0/ 60			2.0/ 20		0.5/ 10	0.5/ 10		2.894
	970	14/3	14/3	1500	10	3	2.0	20	3.0/ 60			1.5/ 10		0.5/ 20			5.788
	970	14/3	14/3	1000	5	3	2.0	25	3.5/ 60			1.0/ 10		1.0/ 20			1.929
	970	15/3	15/3	300	5	3	1.5	30	3.0/ 60			1.5/ 10		0.5/ 20			0.579
	973	10/3	10/3	1000	10	3	2.0	20	2.5/ 60			1.5/ 10		1.0/ 20			3.859
	973	10/3	10/3	3500	5	2	2.0	15	3.0/ 60			1.5/ 20		1.0/ 10			4.047

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
173	973	14/3	14/3	2500	10	3	1.5	20	2.5/ 60			0.5/ 20		0.5/ 10			9.647
	973	16/3	16/3	1500	10	3	1.0	30	2.0/ 60			1.0/ 20		0.5/ 10			5.788
	985	11/3	11/3	1000	5	2	1.0	25	1.5/ 60	1.0/ 20			0.5/ 20				1.156
	985	12/3	12/3	500	5	2	1.0	30	1.0/ 60	0.5/ 10			1.0/ 20	0.5/ 10			0.578
	985	14/3	14/3	1000	20	3	1.0	30	1.0/ 65	1.0/ 10			0.5/ 20	0.5/ 5			7.718
	985	15/3	15/3	1000	20	2	1.0	35	1.0/ 70				0.5/ 20	0.5/ 10			4.625
	988	28/3	28/3	1000	5	4	2.5	15	3.0/ 50	1.5/ 10		1.0/ 20	1.0/ 20				3.664
	988	28/3	28/3	1300	8	4	2.5	20	2.5/ 55	2.0/ 10		1.0/ 15	0.5/ 20				7.620
	988	28/3	29/3	500	30	3	2.0	15	2.5/ 45	1.5/ 20		0.5/ 20	0.5/ 15				5.788
	988	28/3	30/3	1000	100	3	2.0	30	3.0/ 50	1.0/ 20		0.5/ 15	0.5/ 15				38.589
	1572	15/3	15/3	1500	5	3	2.5	20			0.5/ 10	2.0/ 20		3.5/ 60	0.5/ 10		2.894
	1572	17/3	17/3	2000	5	3	1.5	15			0.5/ 10	1.5/ 20		2.5/ 60	0.5/ 10		3.859
	1572	18/3	18/3	1500	10	3	2.0	25			0.5/ 10	1.0/ 20		2.0/ 40	1.0/ 30		5.788
														TOTAL FOR SECT.		173:	368.292
182	1050	1/3	1/3	250	125	3	0.4	80				0.2/ 20		0.4/ 80			8.031
	1050	1/3	2/3	125	65	3	0.8	80	0.8/100								2.088
	1050	1/3	2/3	300	200	3	0.7	80	0.7/100								15.420
	1050	3/3	4/3	200	100	3	0.5	80	0.5/100								5.140
	1050	3/3	4/3	350	100	3	1.5	75	1.5/100								8.995
	1050	6/3	7/3	200	50	3	0.7	80	0.7/100								2.570
	1050	6/3	7/3	300	75	3	0.6	80	0.6/100								5.782
	1050	6/3	6/3	150	50	1	0.2	75	0.2/100								0.383
	1050	7/3	7/3	500	125	3	0.4	75						0.4/ 20			16.063
	1050	7/3	7/3	150	75	3	0.3	60						0.4/ 30			2.891
	1050	8/3	8/3	125	30	1	0.3	50					0.3/100				0.191
	1050	8/3	9/3	200	40	3	1.0	80	1.0/ 80				1.0/ 20				2.056
	1050	8/3	9/3	225	60	5	3.0	75	3.0/100								9.707
	1050	15/3	15/3	110	50	3	0.6	50	0.6/100								1.413
	1050	19/3	19/3	100	30	1	0.3	80	0.3/100								0.153
	1051	10/3	11/3	125	50	3	0.5	70					0.4/ 50	0.6/ 50			1.606
	1051	10/3	11/3	200	40	3	0.4	60					0.4/100				2.056
	1051	12/3	12/3	600	125	4	1.3	70	0.5/ 15	0.5/ 10			0.5/ 15	2.0/ 60			36.600
	1051	14/3	15/3	600	40	5	1.5	80		2.0/ 75			0.5/ 25				17.256
	1051	14/3	14/3	250	150	1	0.3	75	0.3/ 50				0.3/ 50				1.912
	1051	15/3	15/3	150	15	3	0.5	75	0.5/100								0.578
	1051	1/4	3/4	300	35	7	6.0	20		7.0/ 60		5.0/ 3	6.0/ 15	6.0/ 4	4.0/ 8		16.170
	1053	5/3	5/3	75	20	1	0.3	50	0.3/100								0.077
	1053	7/3	7/3	60	30	1	0.4	30		0.4/100							0.092
	1053	14/3	14/3	150	65	3	0.3	50	0.3/100								2.506
	1053	14/3	14/3	110	50	3	0.3	60					0.3/ 70	0.3/ 30			1.413
	1053	20/3	21/3	70	15	5	2.0	50		1.0/ 30				0.3/ 70			0.755
	1053	24/3	25/3	125	20	3	0.5	50					0.5/ 30				0.643
	1054	20/3	20/3	40	5	1	0.2	70									0.010
	1054	20/3	20/3	50	15	3	0.5	75	0.5/ 60								0.193
	1054	22/3	22/3	75	30	3	0.5	50	0.5/100								0.578
	1054	24/3	25/3	110	30	3	0.6	60		0.6/ 30			0.6/ 50	0.6/ 20			0.848
	1054	28/3	28/3	80	10	3	0.3	60		0.3/ 20			0.3/ 40	0.3/ 40			0.206
	1055	28/3	28/3	100	10	3	0.4	70		0.4/100							0.257
														TOTAL FOR SECT.		182:	164.639

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
183	1021	6/3	6/3	50	25	1	0.3	80	0.3/100								0.191
	1022	8/3	8/3	80	50	3	0.3	70	0.3/100								3.087
	1022	9/3	9/3	200	50	3	0.7	70	0.8/ 80	0.5/ 20							7.718
	1041	27/2	27/2	100	25	1	0.2	70	0.2/100								0.383
	1041	22/3	22/3	60	20	3	0.5	50	0.5/ 90					0.5/ 10			0.926
	1041	24/3	24/3	70	25	1	0.4	50	0.4/100								0.268
	1041	28/3	28/3	50	20	1	0.4	60	0.4/100								0.153
														TOTAL FOR SECT. 183:			12.726
232	1132	10/3	12/3	425	8	7	4.7	0	6.0/ 40					5.0/ 50	3.0/ 10		5.236
	1132	10/3	12/3	30	7	7	5.0	40	3.0/ 50					7.0/ 50			0.323
	1132	10/3	12/3	55	5	7	5.0	70	6.0/ 70					4.0/ 30			0.424
	1132	10/3	12/3	275	50	7	4.5	15				6.0/ 70	3.0/ 30				21.175
	1132	10/3	12/3	250	7	5	3.2	0	1.0/ 10				3.5/ 40	5.0/ 50			1.258
	1132	10/3	12/3	25	3	5	2.0	20				2.0/ 20		2.0/ 80			0.054
	1132	10/3	12/3	75	8	5	1.4	10				2.0/ 20	0.3/ 10	2.0/ 70			0.431
	1142	10/3	12/3	250	10	5	4.0	75				4.0/ 50		4.0/ 50			1.798
	1142	10/3	12/3	950	3	5	2.0	70				2.0/ 50		2.0/ 50			2.049
	1142	10/3	12/3	375	15	5	2.3	10				4.0/ 50	1.0/ 10	2.0/ 40			4.044
	1142	10/3	12/3	425	5	5	2.3	0				4.0/ 50	1.0/ 40	2.0/ 10			1.528
	1142	10/3	12/3	300	33	5	2.5	50	2.5/ 10			4.0/ 70	1.0/ 10				7.118
	1142	10/3	12/3	50	3	5	3.0	5				5.0/ 90	1.0/ 10				0.108
	1142	10/3	12/3	100	2	3	0.5	60						1.0/ 60	0.0/ 40		0.051
	1142	10/3	12/3	350	3	4	2.0	60				2.0/ 20	2.0/ 10	2.0/ 70			0.512
	1142	10/3	12/3	300	8	5	2.5	10				4.0/ 55	0.5/ 10	3.0/ 35			1.726
	1142	10/3	12/3	250	10	4	1.8	40	2.0/ 90			1.5/ 10					1.220
	1142	10/3	12/3	500	2	5	1.6	10	2.0/ 15			2.0/ 20	0.3/ 5	2.0/ 60			0.719
	1142	10/3	12/3	100	7	4	1.8	30	4.0/ 10			2.0/ 10		1.0/ 70			0.342
	1144	10/3	12/3	1600	300	3	1.0	15	1.0/ 70	1.0/ 5				1.0/ 25			123.360
	1144	10/3	12/3	600	250	4	3.0	80	5.0/ 75					1.0/ 25			73.200
	1144	10/3	12/3	275	250	3	2.0	80	2.0/100								17.669
	1144	10/3	12/3	650	150	3	1.5	30	2.0/ 80					1.0/ 20			25.058
	1144	10/3	12/3	1550	50	5	1.7	25	3.0/ 20				1.0/ 5	1.0/ 75			55.722
	1144	10/3	12/3	1450	125	5	4.0	75	4.0/ 80					4.0/ 20			130.319
	1144	10/3	12/3	850	200	7	6.7	25	6.0/ 40					10.0/ 40	4.0/ 10		261.800
	1144	10/3	12/3	625	75	5	3.0	50	2.0/ 50					4.0/ 50			33.703
	1144	10/3	12/3	300	75	5	3.5	0	4.0/ 50					3.0/ 50			16.177
	1144	10/3	12/3	500	125	1	0.3	70	0.3/100								3.188
	1144	10/3	12/3	675	75	7	5.0	45	5.0/100								77.962
	1144	10/3	12/3	1000	25	5	1.8	25	0.5/ 45			4.0/ 10		2.5/ 40			17.975
	1144	10/3	12/3	800	100	3	1.0	50	1.0/100								20.560
	1144	10/3	12/3	225	50	3	1.5	50	1.0/ 50					2.0/ 50			2.891
	1144	10/3	12/3	600	100	4	2.0	50	2.0/ 50					2.0/ 50			29.280
	1144	10/3	12/3	850	50	3	2.5	50	2.5/100								10.922
	1145	10/3	12/3	525	50	5	3.5	15	4.0/ 90					3.0/ 10			18.874
	1145	10/3	12/3	425	50	7	7.0	25	7.0/ 25					7.0/ 75			32.725
	1150	10/3	12/3	125	50	5	3.5	85	3.0/ 85					4.0/ 15			4.494
	1150	10/3	12/3	200	35	4	4.0	50	4.0/ 50					4.0/ 50			7.910
	1150	10/3	12/3	150	25	5	3.0	85	5.0/ 50					1.0/ 50			2.696

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	MILLIONS OF EGGS
232	1150	10/3	12/3	175	25	7	4.0	0	5.0/ 70					5.0/ 25	2.0/ 5		6.738
	1150	10/3	12/3	200	50	5	4.5	20	4.0/ 75					5.0/ 25			7.190
	1155	10/3	12/3	175	5	5	2.5	50	2.0/ 10					3.0/ 90			0.629
	1155	10/3	12/3	100	6	5	3.5	20	4.0/ 40					3.0/ 60			0.431
	1155	10/3	12/3	200	15	7	7.5	5						10.0/ 90	5.0/ 10		4.620
	1155	10/3	12/3	225	8	6	4.7	20	5.0/ 40			4.0/ 20		5.0/ 40			2.034
	1155	10/3	12/3	150	12	5	4.7	30	4.0/ 25			4.0/ 45		6.0/ 30			1.294
	1156	10/3	12/3	150	15	7	7.0	20	8.0/ 70					6.0/ 30			3.465
	1156	10/3	12/3	175	5	6	4.7	50	6.0/ 50			4.0/ 10		4.0/ 40			0.989
	1159	10/3	12/3	350	5	5	4.0	50	4.0/ 50					4.0/ 50			1.258
	1159	10/3	12/3	1200	25	7	6.0	50	5.0/ 70			8.0/ 10		5.0/ 20			46.200
	1159	10/3	12/3	1500	25	7	5.5	25	6.0/ 75					5.0/ 25			57.750
	1159	10/3	12/3	350	25	5	4.0	25						4.0/100			6.291
	1390	10/3	12/3	150	5	5	2.1	40	4.0/ 30					2.0/ 60			0.539
	1390	10/3	12/3	150	10	6	4.3	50	4.0/ 40	4.0/ 30				5.0/ 30			1.695
	1390	10/3	12/3	75	5	1	0.5	90						0.5/ 95			0.019
	1390	10/3	12/3	25	3	3	0.8	85	1.0/ 40					1.0/ 40			0.019
	1390	10/3	12/3	250	5	1	0.5	90	0.5/ 40					0.5/ 60			0.064
	1390	10/3	12/3	30	3	3	0.8	80		0.5/ 60				1.0/ 40			0.023
	1390	10/3	12/3	100	10	3	1.1	90	1.0/ 30					2.0/ 60			0.257
	1471	10/3	12/3	50	5	1	0.5	20						0.5/100			0.013
	1471	10/3	12/3	175	8	5	4.0	20	5.0/ 30					3.0/ 70			1.007
	1471	10/3	12/3	75	10	5	4.3	30	5.0/ 20			4.0/ 40		4.0/ 40			0.559
														TOTAL FOR SECT. 232:			1159.667
233	1141	9/4	10/4	250	25	1	0.4	50	0.5/ 25	0.5/ 25				0.3/ 50			0.319
	1141	9/4	10/4	750	50	3	0.8	50	1.0/ 25				0.3/ 30	1.0/ 45			9.638
	1141	9/4	10/4	750	50	5	1.8	50	2.0/ 25	2.0/ 25				1.5/ 50			26.963
	1141	9/4	10/4	500	50	3	1.0	50	1.0/ 25	1.0/ 25				1.0/ 50			6.425
														TOTAL FOR SECT. 233:			43.344
235	1122	10/3	12/3	400	10	1	0.3	50					0.3/100				0.613
	1122	10/3	12/3	475	8	1	0.3	50					0.3/100				0.582
	1122	10/3	12/3	300	10	5	3.5	50	3.5/100								6.477
	1122	10/3	12/3	175	10	1	0.1	60	0.3/ 50								0.268
	1122	10/3	12/3	325	10	3	0.6	60	0.5/ 40				0.3/ 20				2.508
	1122	10/3	12/3	275	75	3	1.3	60	1.0/ 50								15.918
	1122	10/3	12/3	360	10	1	0.3	80	0.3/100								0.551
	1122	10/3	12/3	375	10	1	0.5	80	0.5/100								0.574
	1122	10/3	12/3	450	10	1	0.3	80	0.3/100								0.689
	1122	10/3	12/3	400	10	3	2.0	60	2.0/100								3.087
	1122	10/3	12/3	190	10	3	1.0	60	1.0/100								1.466
	1122	10/3	12/3	190	10	1	0.3	50	0.5/ 40	0.3/ 20			0.3/ 40				0.291
	1122	10/3	12/3	475	10	1	0.3	50	0.3/100								0.727
														TOTAL FOR SECT. 235:			33.753
242	1217	6/3	6/3	350	75	3	4.0	10			4.0/100						20.259
243	1206	6/3	6/3	300	75	3	4.0	15	4.0/100								17.365
	1206	6/3	6/3	300	80	3	4.0	20	4.0/100								18.523

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
243	1206	6/3	6/3	250	30	3	4.0	25	4.0/100								5.788
	1206	6/3	6/3	500	100	3	4.0	0	4.0/ 90					4.0/ 10			38.589
	1206	10/3	10/3	20	5	3	4.0	0	4.0/100								0.077
	1206	10/3	10/3	15	4	3	4.0	0	4.0/100								0.046
	1206	10/3	10/3	25	7	3	4.0	0	4.0/100								0.135
	1206	10/3	10/3	200	7	5	6.0	10	6.0/ 75	6.0/ 25							3.023
	1206	10/3	10/3	15	5	3	4.0	0			4.0/100						0.058
	1206	10/3	10/3	80	8	3	4.0	10	4.0/100								0.494
														TOTAL FOR SECT. 243:			84.097
245	1195	12/3	12/3	525	100	7	10.0	10	10.0/100								121.396
	1195	12/3	12/3	540	100	3	4.0	15	4.0/100								20.838
	1195	12/3	12/3	225	150	5	6.0	20	6.0/100								36.436
	1195	12/3	12/3	125	15	5	6.0	5	6.0/100								2.024
	1195	12/3	12/3	80	20	5	6.0	5	6.0/100								1.727
	1195	12/3	12/3	150	15	5	6.0	0	6.0/100								2.429
	1195	12/3	12/3	150	5	5	6.0	0	6.0/100								0.810
	1195	12/3	12/3	150	20	7	10.0	5	10.0/100								6.937
	1197	9/3	9/3	250	100	3	4.0	10	4.0/100								9.647
	1197	9/3	9/3	400	150	7	10.0	5	10.0/100								138.739
	1197	9/3	9/3	200	70	7	10.0	20	10.0/100								32.372
	1197	9/3	9/3	150	60	7	10.0	50	10.0/100								20.811
	1197	9/3	9/3	250	70	5	6.0	10	6.0/100								18.893
	1197	9/3	9/3	100	100	7	10.0	15	10.0/100								23.123
	1197	9/3	9/3	30	12	7	10.0	5	10.0/100								0.832
	1197	9/3	9/3	500	250	5	6.0	5	6.0/100								134.947
	1197	9/3	9/3	500	250	3	4.0	20	4.0/100								48.236
	1198	12/3	12/3	200	40	3	4.0	20	4.0/100								3.087
	1198	12/3	12/3	200	200	3	4.0	15	4.0/100								15.435
	1198	12/3	12/3	1000	150	5	6.0	5	6.0/100								161.937
	1198	12/3	12/3	125	50	5	6.0	10	6.0/100								6.747
	1198	12/3	12/3	100	100	7	10.0	35	10.0/100								23.123
	1198	12/3	12/3	400	100	7	10.0	15	10.0/100								92.492
	1198	12/3	12/3	100	100	7	10.0	10	10.0/100								23.123
	1198	12/3	12/3	200	150	7	10.0	10	10.0/100								69.369
	1198	12/3	12/3	100	20	3	4.0	20	4.0/100								0.772
	1219	9/3	9/3	100	30	7	8.0	0	8.0/100								6.937
	1219	9/3	9/3	100	75	7	8.0	0	8.0/100								17.342
	1219	9/3	9/3	200	50	3	4.0	0	4.0/100								3.859
	1219	9/3	9/3	400	200	5	6.0	0						6.0/100			86.366
	1219	9/3	9/3	200	100	5	6.0	0	6.0/100								21.592
	1219	9/3	9/3	25	6	5	6.0	0	6.0/100								0.162
	1219	9/3	9/3	35	15	3	2.0	0	2.0/100								0.203
	1219	9/3	9/3	100	25	3	2.0	0	2.0/100								0.965
	1220	12/3	12/3	500	300	3	2.0	60	2.0/100								57.883
	1220	12/3	12/3	60	20	5	6.0	0	6.0/100								1.295
	1220	12/3	12/3	50	15	3	4.0	10	4.0/100								0.289
	1220	12/3	12/3	100	20	7	8.0	5	8.0/100								4.625
	1220	12/3	12/3	100	10	5	6.0	5	6.0/100								1.080
	1220	12/3	12/3	35	10	5	6.0	0	6.0/100								0.378

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
245	1220	12/3	12/3	30	5	5	6.0	5	6.0/100								0.162
	1220	12/3	12/3	200	10	5	6.0	20	6.0/100								2.159
	1225	9/3	9/3	400	10	3	4.0	0	4.0/100								1.544
	1225	9/3	9/3	40	10	7	10.0	0	10.0/100								0.925
	1225	9/3	9/3	70	5	5	6.0	0			6.0/100						0.378
	1225	9/3	9/3	15	15	7	12.0	0	12.0/ 80		12.0/ 20						0.520
	1225	9/3	9/3	40	10	7	10.0	0	10.0/100								0.925
	1225	9/3	9/3	200	100	7	8.0	0	8.0/100								46.246
	1225	9/3	9/3	40	10	3	2.0	10	2.0/100								0.154
	1225	9/3	9/3	300	30	3	2.0	20	2.0/100								3.473
	1225	9/3	9/3	125	30	3	2.0	10	2.0/100								1.447
	1225	9/3	9/3	150	30	3	2.0	5	2.0/100								1.736
	1225	9/3	9/3	1200	800	3	2.0	40	2.0/100								370.450
	1226	10/3	10/3	300	20	5	6.0	30	6.0/100								6.477
	1226	10/3	10/3	50	10	5	6.0	15	6.0/ 80	6.0/ 20							0.540
	1226	10/3	10/3	100	15	5	6.0	0	6.0/ 90	6.0/ 5	6.0/ 5						1.619
	1226	10/3	10/3	200	5	5	6.0	5	6.0/ 80	6.0/ 10	6.0/ 10						1.080
	1226	10/3	10/3	100	10	5	6.0	5	6.0/ 80	6.0/ 10	6.0/ 10						1.080
	1226	10/3	10/3	500	10	5	8.0	0	8.0/ 50	8.0/ 20	8.0/ 30						5.398
	1226	10/3	10/3	200	30	9	8.0	0	14.0/ 50	8.0/ 20	6.0/ 30						28.676
	1226	10/3	10/3	80	3	5	8.0	0		8.0/ 20	8.0/ 80						0.259
	1226	10/3	10/3	200	30	7	10.0	10	10.0/100								13.874
	1226	10/3	10/3	16	2	5	6.0	0		6.0/100							0.035
	1226	10/3	10/3	20	5	7	10.0	5	10.0/100								0.231
	1226	10/3	10/3	20	8	9	12.0	0			12.0/100						0.765
	1404	12/3	12/3	300	100	3	2.0	20	2.0/100								11.577
	1405	14/3	14/3	80	40	3	4.0	20	4.0/100								1.235
	1407	12/3	12/3	175	50	3	4.0	15	4.0/100								3.377
	1414	21/3	21/3	40	30	7	10.0	0	10.0/ 50		10.0/ 50						2.775
	1414	21/3	21/3	150	5	7	10.0	0			10.0/100						1.734
														TOTAL FOR SECT.		245:	1730.110
253	1262	7/3	20/3	190	30	4	3.8	30	4.0/ 90	2.0/ 10							4.177
	1262	7/3	20/3	560	15	4	4.0	30	4.0/100								6.155
	1262	7/3	20/3	140	40	1	0.5	80	0.5/100								0.429
	1262	7/3	20/3	60	50	1	0.5	80	0.5/100								0.230
	1262	7/3	20/3	450	75	1	0.1	80	0.1/100								2.584
	1262	7/3	20/3	125	100	3	3.0	80	3.0/100								4.824
	1262	7/3	20/3	100	50	6	6.0	0	6.0/100								8.483
	1262	7/3	20/3	260	100	4	4.0	0	4.0/100								19.051
	1262	10/3	15/3	1300	10	1	0.1	90	0.1/100								0.995
	1262	10/3	15/3	140	60	3	3.0	30	3.0/100								3.241
	1262	10/3	15/3	200	50	1	0.8	30	1.0/ 80		0.2/ 20						0.766
	1262	10/3	20/3	120	60	1	0.2	30	0.2/ 34	0.2/ 33				0.2/ 33			0.551
	1262	10/3	20/3	130	40	3	2.5	30	2.5/ 90					2.5/ 10			2.007
	1262	10/3	20/3	260	50	2	1.5	30	1.5/ 80	1.5/ 10					1.5/ 10		3.006
	1262	10/3	20/3	630	25	2	2.0	30	2.0/ 90				2.0/ 10				3.642
	1262	10/3	20/3	150	30	1	1.0	30	1.0/100								0.345
	1263	7/3	9/3	180	100	4	4.0	0	4.0/100								13.189
	1263	8/3	10/3	900	400	1	1.0	50	1.0/ 90		1.0/ 10						27.568

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
253	1263	8/3	10/3	570	240	1	0.1	30	0.1/100								10.476
	1263	8/3	10/3	130	50	1	0.5	0	0.5/100								0.498
	1263	8/3	10/3	230	120	4	4.0	30	4.0/100								20.223
	1263	8/3	10/3	220	100	4	4.0	30	4.0/100								16.120
	1263	9/3	10/3	430	100	1	0.5	80	0.5/ 40		0.5/ 40	0.5/ 10	0.5/ 10				3.293
	1263	9/3	10/3	200	50	1	0.2	30	0.2/100								0.766
	1263	9/3	10/3	130	80	1	0.1	0	0.1/100								0.796
	1263	9/3	10/3	300	100	2	2.0	30	2.0/100								6.937
	1263	9/3	10/3	100	100	4	4.0	0	4.0/100								7.327
	1266	10/3	10/3	160	130	2	1.5	30	2.0/ 50		1.0/ 50						4.810
	1266	10/3	10/3	170	80	2	2.0	0	2.0/ 50		2.0/ 10	2.0/ 20	2.0/ 20				3.145
	1266	10/3	10/3	180	100	1	1.0	30					1.0/ 50	1.0/ 50			1.378
	1266	10/3	10/3	280	130	9	10.0	30	10.0/100								173.966
	1266	10/3	10/3	150	50	3	2.5	30			2.5/ 70		2.5/ 30				2.894
	1266	10/3	10/3	360	180	6	5.5	30	5.5/ 60		5.5/ 40						109.946
	1266	10/3	10/3	190	160	2	1.5	30			1.5/100						7.029
	1268	10/3	15/3	330	110	2	1.7	80	2.0/ 60		0.2/ 15			2.0/ 25			8.394
	1268	10/3	15/3	900	320	1	0.5	80	0.5/100								22.054
	1268	10/3	15/3	200	100	1	1.1	0	1.5/ 60	0.5/ 40							1.532
	1268	10/3	15/3	50	50	1	0.5	30	0.5/ 40	0.5/ 30				0.5/ 30			0.191
	1268	10/3	15/3	720	250	1	0.3	30	0.3/100								13.784
	1268	10/3	15/3	220	70	2	2.4	30	2.5/ 70					2.0/ 30			3.561
	1268	10/3	15/3	240	110	6	6.0	30	6.0/ 90					6.0/ 10			44.793
	1268	10/3	15/3	350	60	2	2.0	30	2.0/ 80		2.0/ 20						4.856
	1268	15/3	15/3	1200	70	2	2.0	30	2.0/ 80	2.0/ 20							19.423
	1268	15/3	15/3	450	200	4	4.0	30	4.0/100								65.946
	1268	15/3	15/3	200	180	2	2.0	30	2.0/100								8.324
	1268	15/3	15/3	150	100	1	1.0	30	1.0/100								1.149
	1570	11/3	15/3	450	200	3	3.0	30	3.0/ 80		3.0/ 20						34.730
	1570	11/3	15/3	900	400	2	2.0	30	2.0/ 20	2.0/ 10	2.0/ 50	2.0/ 10	2.0/ 10				83.243
	1570	11/3	15/3	400	150	5	5.0	30	5.0/ 75	5.0/ 25							64.775
														TOTAL FOR SECT.		253:	847.601
254	1472	24/3	24/3	3000	700	4	4.0	0	4.0/ 40	4.0/ 60							1024.800
	1472	24/3	24/3	3003	999	3	1.0	0	1.0/ 85	1.0/ 5	1.0/ 10						770.999
														TOTAL FOR SECT.		254:	1795.799
272	1311	9/3	9/3	750	125	4	4.0	15	4.0/ 80	4.0/ 10	4.0/ 10						45.750
	1313	8/3	9/3	2300	200	4	4.0	20	4.0/ 50	4.0/ 20	3.0/ 10	4.0/ 5		4.0/ 10			224.480
	1313	9/3	9/3	400	20	4	4.0	15	4.0/ 20	4.0/ 20	4.0/ 50			4.0/ 10			3.904
	1313	9/3	9/3	1500	100	4	4.0	20	4.0/ 5	4.0/ 60	4.0/ 20			4.0/ 10	3.0/ 5		73.200
	1313	9/3	9/3	150	50	4	4.0	15	4.0/ 80	4.0/ 20							3.660
														TOTAL FOR SECT.		272:	350.994
273	1319	8/3	10/3	1000	15	6	6.0	5	6.0/ 90			6.0/ 10					16.950
	1319	8/3	10/3	100	25	4	4.0	20	4.0/ 75		4.0/ 5	4.0/ 20					1.220
	1319	8/3	10/3	750	50	4	4.0	20	4.0/ 75		4.0/ 5	4.0/ 20					18.300
	1319	8/3	10/3	600	100	4	4.0	5	4.0/ 90	4.0/ 10							29.280
	1319	8/3	10/3	650	200	4	4.0	30	4.0/ 75	4.0/ 10	4.0/ 15						63.440
	1319	8/3	10/3	250	200	4	4.0	10	4.0/ 50		4.0/ 50						24.400

TABLE 10. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	MID. YDS.	IN.	AV. LYR.	% RARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
273	1319	8/3	10/3	300	75	3	3.0	10	3.0/ 50		3.0/ 50						5.782
	1319	8/3	10/3	450	125	6	6.0	75	6.0/ 75	6.0/ 25							63.563
	1319	9/3	10/3	350	25	3	3.0	20	3.0/ 80			3.0/ 10			3.0/ 10		2.249
	1319	9/3	10/3	250	25	3	3.0	20	3.0/ 80			3.0/ 10			3.0/ 10		1.606
	1320	21/3	21/3	1500	30	6	6.0	10	6.0/ 75	6.0/ 20					6.0/ 5		50.850
	1321	10/3	13/3	300	25	4	4.0	15		4.0/ 20	4.0/ 60				4.0/ 20		3.660
	1321	10/3	13/3	700	20	4	4.0	20		4.0/ 20	4.0/ 50	4.0/ 10			4.0/ 20		6.832
	1321	10/3	13/3	500	50	4	4.0	15	4.0/ 80		4.0/ 20						12.200
	1321	10/3	13/3	650	100	4	4.0	20	4.0/ 40	4.0/ 5	4.0/ 50				4.0/ 5		31.720
	1321	10/3	13/3	500	100	3	2.0	30	2.0/ 20	2.0/ 40		2.0/ 30			2.0/ 10		12.850
	1321	10/3	13/3	1000	30	5	5.0	25	6.0/ 40		6.0/ 50		4.0/ 8		4.0/ 2		21.570
	1571	10/3	11/3	1500	100	5	5.0	10	5.0/ 30	4.0/ 20	6.0/ 50						107.850
	1571	10/3	11/3	2800	100	4	4.0	25	4.0/ 30	4.0/ 20	4.0/ 50						136.640
	1571	10/3	11/3	800	75	4	4.0	20		4.0/ 25	4.0/ 60		4.0/ 15				29.280
	1571	13/3	13/3	400	50	6	6.0	25	6.0/ 10	6.0/ 30	6.0/ 50				6.0/ 10		22.600
	1571	13/3	13/3	250	50	5	5.0	5	5.0/ 90		5.0/ 10						8.987
	1571	13/3	13/3	300	25	4	4.0	10		4.0/ 80	4.0/ 20						3.660
														TOTAL FOR SECT.		273:	675.489

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	SPAWN DATE TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
1	61	12/4	12/4	350	5	3	1.0	30	1.0/100								1.113
	61	12/4	12/4	100	5	3	1.0	20	1.0/100								0.364
	61	12/4	12/4	20	20	3	2.0	0	2.0/100								0.587
	64	12/4	12/4	1300	10	6	2.0	20	3.0/ 40	2.0/ 60							27.230
	64	12/4	12/4	300	45	5	3.0	0	3.0/100								27.049
	64	12/4	12/4	500	20	5	3.0	10	3.0/ 60	2.0/ 40							21.721
	64	12/4	12/4	100	20	3	1.0	30	1.0/ 60	1.0/ 40							1.635
	64	12/4	12/4	1000	10	5	3.0	20	3.0/ 60	2.0/ 40							19.307
	64	12/4	12/4	50	10	3	1.0	10	1.0/ 60	1.0/ 40							0.526
	64	22/4	22/4	300	5	6	3.0	10	3.0/ 50	3.0/ 50							4.405
	64	22/4	22/4	500	5	4	1.0	60	1.0/ 60	2.0/ 40							1.757
	64	22/4	22/4	100	5	4	1.0	20	1.0/ 40	1.0/ 60							0.519
	64	22/4	22/4	60	10	4	1.0	30	1.0/ 70	2.0/ 30							0.649
	64	22/4	22/4	75	5	6	3.0	10	3.0/ 50	3.0/ 50							1.101
														TOTAL FOR SECT.		1:	107.961
2	60	27/3	4/4	200	15	1	0.3	30		0.3/100							0.915
	60	4/4	4/4	50	20	5	2.0	30		2.0/100							2.120
	60	4/4	4/4	20	20	1	0.3	0	0.3/100								0.180
														TOTAL FOR SECT.		2:	3.215
3	92	15/4	15/4	150	20	6	3.0	10	4.0/ 70		2.0/ 30						5.966
	92	15/4	15/4	250	20	6	3.0	20	4.0/ 70		1.0/ 30						8.115
	92	15/4	15/4	200	20	3	1.0	15	1.0/ 50	0.3/ 20	0.3/ 30						2.117
	92	15/4	15/4	100	10	3	1.0	40	0.3/ 20	1.0/ 60	0.3/ 20						0.647
	92	15/4	15/4	200	20	4	2.0	10	2.0/ 20	2.0/ 30	2.0/ 50						6.848
	92	15/4	15/4	200	20	3	1.0	10	1.0/ 50		1.0/ 50						3.073
	93	15/4	15/4	800	20	5	2.0	20	2.0/ 10	2.0/ 20	1.0/ 70						16.783
	93	15/4	15/4	80	20	3	1.0	20	1.0/100								1.163
	93	15/4	15/4	150	20	1	0.3	10	0.3/ 70	0.3/ 10	0.3/ 20						1.114
	93	15/4	15/4	100	20	5	2.0	15	3.0/ 70	2.0/ 20	1.0/ 10						3.550
	97	9/4	9/4	50	20	5	2.0	5	3.0/ 50	1.0/ 10	1.0/ 40						1.403
	97	9/4	9/4	20	20	3	1.0	0	3.0/100								0.801
	97	9/4	9/4	20	20	3	1.0	0	1.0/100								0.364
														TOTAL FOR SECT.		3:	51.943
4	67	17/4	17/4	400	3	1	0.3	0			0.3/100						0.324
	67	17/4	17/4	300	3	1	0.3	0			0.3/100						0.243
														TOTAL FOR SECT.		4:	0.567
5	80	29/3	29/3	10	10	1	0.3	40			0.3/100						0.016
	80	29/3	29/3	50	20	4	2.0	50		2.0/100							1.514
	80	29/3	29/3	100	10	4	2.0	20	3.0/ 60	2.0/ 40							1.931
	80	29/3	29/3	200	10	4	2.0	60	2.0/ 80	2.0/ 20							1.423
	80	29/3	29/3	200	20	4	2.0	60	2.0/ 80	2.0/ 20							2.846
	80	29/3	29/3	200	10	5	3.0	30	3.0/ 30	3.0/ 55	1.0/ 15						4.491
	80	29/3	29/3	100	30	5	2.0	50	3.0/ 20	2.0/ 20	1.0/ 10				1.0/ 50		2.270
	80	29/3	29/3	100	5	5	3.0	10	3.0/ 15	3.0/ 80	1.0/ 5						1.781
	86	29/3	29/3	80	10	2	0.5	80	0.5/ 30	0.5/ 70							0.127

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
5	86	29/3	29/3	30	10	5	2.0	10		3.0/ 80	1.0/ 20						1.020
	86	29/3	29/3	30	5	1	0.3	0	0.3/100								0.067
														TOTAL FOR SECT.		5:	17.486
6	76	29/3	29/3	100	15	3	1.0	20	1.0/ 85	1.0/ 5	1.0/ 5	0.3/ 5					1.126
	76	4/4	4/4	600	40	6	4.0	5	2.0/ 5	2.0/ 5	4.0/ 90						58.140
	76	5/4	5/4	1800	15	5	2.0	10	1.0/ 5	1.0/ 10	2.0/ 85						33.825
	76	6/4	6/4	20	20	1	0.3	60			0.3/100						0.043
	76	6/4	6/4	600	20	5	2.0	20	1.0/ 20	1.0/ 15	3.0/ 65						16.442
	76	6/4	6/4	20	20	1	0.3	80			0.3/100						0.022
	76	6/4	6/4	50	20	1	0.3	40			0.3/100						0.162
	77	4/4	4/4	40	50	5	2.0	10			2.0/100						2.522
	77	4/4	4/4	100	20	5	2.0	10	2.0/100								2.639
														TOTAL FOR SECT.		6:	114.922
12	1359	4/4	4/4	200	20	3	1.5	25		1.0/ 10	2.0/ 50		0.5/ 10	1.0/ 20	0.5/ 10		3.601
	1359	5/4	5/4	150	4	3	0.3	15		0.3/ 40	0.4/ 20			1.0/ 4	0.3/ 30		0.215
	1359	5/4	5/4	100	8	1	0.5	15	1.0/ 20	0.4/ 20	0.5/ 25			0.2/ 2	0.2/ 25		0.369
	1359	5/4	5/4	250	10	1	0.3	5	0.2/ 10	0.3/ 30	0.8/ 40			0.1/ 3	0.2/ 15		1.151
	1361	4/2	4/2	600	5	1	0.3	20	0.3/ 5	0.3/ 95							1.048
	1361	16/2	16/2	575	50	1	0.2	30	0.2/ 70	0.2/ 30							7.681
	1574	4/2	4/2	1000	5	1	0.3	20	0.3/ 5	0.3/ 95							1.746
	1574	7/2	7/2	30	20	1	0.3	15	0.3/ 90	0.3/ 10							0.229
	1574	22/2	22/2	900	30	1	0.1	50	0.2/ 30	0.1/ 20					0.1/ 50		3.966
	1574	28/3	28/3	350	75	1	0.5	60	0.5/ 60	0.5/ 20			0.8/ 10	1.0/ 10			8.181
	1574	29/3	29/3	675	20	3	0.2	60	0.2/ 75	0.2/ 5	0.1/ 5			0.5/ 15			2.272
	1574	10/4	10/4	1350	30	1	0.2	60	0.3/ 30	0.1/ 25	0.3/ 10			0.3/ 35			5.460
	1575	4/2	4/2	2900	5	1	0.3	20	0.3/ 5	0.3/ 95							5.064
	1575	29/3	29/3	990	20	3	0.4	60	0.8/ 75	0.2/ 5	0.1/ 5			0.5/ 15			5.674
	1576	16/2	16/2	2475	50	1	0.2	30	0.2/ 70	0.2/ 30							33.060
	1576	30/3	30/3	1140	40	1	0.5	40	0.5/ 80	0.1/ 15				0.3/ 5			15.562
	1577	22/2	22/2	1450	40	1	0.1	50	0.2/ 30	0.1/ 20					0.1/ 50		8.519
	1577	28/3	28/3	1350	75	1	0.5	60	0.5/ 50	0.5/ 20			0.8/ 15	1.0/ 15			33.582
														TOTAL FOR SECT.		12:	137.381
22	101	13/5	14/5	400	15	3	3.0	0	1.0/ 5		3.0/ 95						11.650
	101	13/5	14/5	400	25	4	4.0	0		1.0/ 5	4.0/ 90			4.0/ 5			25.986
	120	6/5	7/5	1100	15	4	4.0	0	0.5/ 10		4.0/ 75			4.0/ 15			42.692
	121	12/5	12/5	200	75	1	0.5	0	0.5/ 95		0.5/ 5						9.382
	123	6/5	7/5	1050	15	4	4.0	0			4.0/ 75			5.0/ 25			49.530
	132	4/5	5/5	350	10	1	0.5	0	0.5/100								2.215
	132	4/5	4/5	100	50	5	5.0	0			5.0/100						12.918
	132	4/5	4/5	700	15	5	5.0	0			5.0/100						27.128
	1550	11/5	11/5	250	5	1	1.0	0			1.0/100						0.998
	1550	12/5	12/5	200	15	3	1.5	10			1.0/ 20			2.0/ 80			4.851
	1550	12/5	12/5	50	10	3	1.5	0	1.0/ 30		2.0/ 70						0.627
	1584	9/5	9/5	50	10	1	1.0	0	0.5/ 5		0.5/ 35			1.0/ 60			0.429
														TOTAL FOR SECT.		22:	188.406
23	157	22/5	22/5	200	70	2	2.0	15	4.0/ 30	2.0/ 30	1.0/ 30				1.0/ 10		23.801

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% MARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
23	157	22/5	22/5	200	7	2	2.0	20	3.0/ 60		1.0/ 40						1.704
	157	22/5	22/5	250	25	2	2.0	15	2.0/ 80	2.0/ 10	1.0/ 10						8.265
	157	25/5	25/5	175	15	3	1.0	30	1.0/ 40	0.5/ 10	1.0/ 50						1.560
	157	25/5	25/5	175	10	4	4.0	15	4.0/ 10		4.0/ 90						3.839
	157	25/5	25/5	150	20	3	0.5	40	0.5/ 40		0.5/ 60						0.982
	158	0/4	0/4	50	10	5	5.0	20		5.0/ 70					5.0/ 30		2.206
	158	12/4	12/4	180	10	1	0.5	0	0.5/100								1.139
	158	17/4	20/4	400	15	3	3.0	20	3.0/100								9.617
	158	17/4	20/4	300	6	6	5.5	50		6.0/ 60					4.0/ 40		4.496
	158	17/4	20/4	800	10	4	4.0	30	4.0/100								14.314
	158	17/4	20/4	70	10	5	5.0	10	5.0/100								1.958
	158	17/4	20/4	100	30	2	2.0	20	2.0/ 80	2.0/ 20							4.269
	158	20/4	27/4	250	5	7	7.0	0	7.0/100								5.270
	158	20/4	27/4	800	15	6	6.0	10	6.0/100								39.563
	158	21/5	21/5	150	30	5	5.0	20	5.0/ 80	5.0/ 20							13.307
	158	21/5	21/5	200	10	5	5.0	15	5.0/100								5.284
	158	21/5	21/5	800	10	3	3.0	10	3.0/ 90	2.0/ 10							15.164
	158	21/5	21/5	200	7	4	4.0	10	4.0/ 60	4.0/ 40							4.981
	158	22/5	22/5	550	15	1	1.0	5	1.0/ 95	1.0/ 5							7.377
	158	23/5	23/5	150	5	2	2.0	70	2.0/ 90		1.0/ 10						0.315
	158	23/5	23/5	225	10	2	2.0	15	2.0/ 95	1.0/ 5							2.813
	160	17/4	17/4	20	10	5	5.0	10	5.0/ 75		5.0/ 25						0.536
	160	17/4	17/4	50	50	3	3.0	10	3.0/100								4.508
	160	17/4	17/4	50	10	3	3.0	20			3.0/100						0.798
	160	17/4	17/4	1200	10	5	5.0	20			5.0/100						24.803
	160	17/4	17/4	600	25	4	4.0	20			4.0/100						31.003
	160	17/4	17/4	600	5	3	3.0	20	3.0/100								4.809
	160	17/4	17/4	800	30	4	4.0	10	4.0/ 10		4.0/ 90						55.747
	160	17/4	17/4	100	75	1	1.0	40	1.0/ 20		1.0/ 80						3.692
	1460	29/4	29/4	200	10	8	7.0	5		8.0/ 70					6.0/ 30		10.964
	1460	1/6	4/6	400	5	7	7.0	15	6.0/ 10		7.0/ 90						4.576
	1523	21/5	21/5	100	45	2	2.0	5	2.0/100								6.268
														TOTAL FOR SECT.		23:	319.928
24	138	15/4	15/4	300	10	3	0.5	30	0.5/ 60		0.5/ 40						1.206
	139	28/4	28/4	300	4	1	0.5	10	0.5/ 10		0.5/ 90						0.542
	139	28/4	28/4	50	10	1	0.5	0	0.5/ 10	0.5/ 90							0.420
	139	28/4	28/4	350	4	1	0.5	0	0.5/ 90	0.5/ 10							0.918
	139	28/4	28/4	75	5	1	0.5	0	0.5/100								0.237
	139	28/4	28/4	100	6	3	3.0	10	3.0/100								1.082
	139	28/4	28/4	400	4	5	5.0	20	5.0/ 10	5.0/ 70							7.366
	139	28/4	28/4	100	50	5	5.0	10	5.0/ 50		5.0/ 50						12.807
	139	28/4	28/4	250	5	1	0.5	20	0.5/ 70								0.702
	139	28/4	28/4	200	5	3	2.5	15	3.0/ 80								1.509
	139	28/4	28/4	100	15	3	3.0	30	3.0/100								2.104
	139	28/4	28/4	250	5	5	5.0	0	5.0/100								3.885
	139	28/4	28/4	850	5	2	2.0	0	2.0/100								6.232
	1585	29/4	29/4	1000	5	2	1.0	0	1.0/100								4.545
	1588	28/4	28/4	150	10	1	0.5	0	0.5/ 50		0.5/ 50						0.840
	1588	28/4	28/4	200	20	3	3.0	10	3.0/ 20		3.0/ 70						8.101
														TOTAL FOR SECT.		24:	52.496

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
25	164	7/4	9/4	260	25	4	3.0	0	2.0/ 35		4.0/ 65						14.252
	164	7/4	9/4	1520	9	6	3.0	5	4.0/ 45	1.0/ 15	3.0/ 30		1.0/ 1	2.0/ 8			28.277
	164	11/4	11/4	630	6	2	1.5	0			1.5/100						4.166
	164	13/4	15/4	75	80	1	0.5	20	0.5/100								3.037
	164	13/4	15/4	50	60	1	0.5	20	0.5/100								1.519
	164	13/4	15/4	3242	3	3	3.0	0	0.5/ 3		3.0/ 95			0.5/ 3			18.804
	167	1/4	1/4	100	9	2	0.9	10	1.0/ 10	0.6/ 30	1.4/ 25		0.5/ 35				0.762
	167	6/4	7/4	1580	7	6	3.0	0	5.0/ 20	1.5/ 25	2.5/ 15			4.0/ 35	2.0/ 1		33.284
	167	9/4	9/4	810	12	8	5.5	0	8.0/ 2	4.0/ 10		4.0/ 33		1.0/ 39	2.0/ 8		24.187
	167	10/4	10/4	75	50	5	4.0	0			4.0/100						9.689
	167	10/4	10/4	500	14	4	3.1	0		2.0/ 8	5.5/ 52	2.0/ 8		5.0/ 30			22.347
	167	10/4	10/4	920	11	4	0.0	0									0.000
	167	13/4	13/4	990	13	2	2.0	0	1.5/ 24		2.0/ 75			3.0/ 1			17.576
	178	6/4	9/4	550	7	4	3.5	0	3.0/ 45	3.0/ 5	5.0/ 30			5.0/ 10	3.0/ 5		10.261
	178	6/4	9/4	220	20	4	4.0	20	4.0/ 90		5.0/ 10						9.007
	178	6/4	9/4	60	40	5	5.0	10	6.0/ 75	4.0/ 10				4.0/ 5	3.0/ 10		8.216
	178	6/4	9/4	70	30	7	7.0	0	7.0/100								8.853
	178	6/4	9/4	110	10	5	5.5	10	5.0/ 20	4.0/ 5	5.0/ 40			6.0/ 10	4.0/ 20		3.333
	178	6/4	9/4	420	10	5	5.5	0	6.0/ 15	4.0/ 5	6.0/ 50	4.0/ 5		7.0/ 10	4.0/ 10		14.343
	178	8/4	8/4	130	10	4	3.5	70	0.3/ 15		4.0/ 80	0.1/ 5					0.851
	178	9/4	9/4	400	2	1	0.5	50			0.5/100						0.195
	1536	8/4	10/4	1620	14	4	4.0	10	6.5/ 65	2.0/ 35							73.901
	1536	8/4	9/4	1525	9	5	5.0	20	5.0/100								34.130
	1536	10/4	12/4	1920	15	4	4.0	5	4.0/100								69.932
	1553	8/4	9/4	700	5	1	1.0	70	0.8/ 60		0.8/ 25		3.0/ 15				1.257
	1553	8/4	8/4	300	10	1	0.5	80	0.5/ 80		0.5/ 20						0.362
	1553	8/4	8/4	300	5	1	0.3	70	0.3/100								0.202
	1582	8/4	8/4	300	5	1	0.5	95	0.5/100								0.047
	1583	6/4	9/4	500	10	6	5.5	5	5.0/ 5	4.0/ 5	6.0/ 75			5.0/ 5	5.0/ 5		14.259
	1583	9/4	9/4	300	10	4	0.8	70		0.5/ 5	0.8/ 85						0.695
	1583	10/4	10/4	100	100	1	1.0	10			1.0/100						7.186
	1583	10/4	10/4	220	10	1	0.8	80		0.5/ 5	0.8/ 85						0.340
	1586	9/4	9/4	570	13	5	3.8	40	4.5/ 30	4.0/ 3	3.5/ 60	4.0/ 1		5.5/ 4	1.5/ 2		11.847
	1586	10/4	10/4	950	7	4	3.0	10			3.0/100						11.947
	1587	13/4	13/4	610	10	2	1.5	10			1.5/100						6.051
														TOTAL FOR SECT.		25:	465.114
33	211	31/3	31/3	50	40	3	1.0	75		1.0/ 5				1.0/ 5	1.0/ 90		0.450
	211	31/3	31/3	1300	4	4	2.2	20	4.0/ 20	2.0/ 25	1.0/ 10			3.0/ 10	1.0/ 35		8.092
	211	31/3	31/3	900	15	5	2.8	10	5.0/ 30	2.0/ 20	2.0/ 10			3.0/ 10	2.0/ 30		30.238
	211	31/3	31/3	800	5	4	2.3	25	3.0/ 15	2.0/ 35				2.0/ 10	2.0/ 40		6.744
	211	31/3	31/3	35	30	3	1.0	50	1.0/ 90					1.0/ 10			0.487
	211	31/3	31/3	150	20	6	3.8	10	5.0/ 40	5.0/ 30				3.0/ 10	2.0/ 20		9.984
	211	31/3	31/3	250	22	4	2.3	20	4.0/ 40	2.0/ 20			1.0/ 10		2.0/ 30		10.035
	211	31/3	31/3	3600	40	5	2.2	0	3.0/ 40	1.5/ 10	1.0/ 10	1.5/ 10		4.0/ 30			348.902
	213	31/3	31/3	2150	35	3	1.5	0	1.5/ 40		0.5/ 40			2.0/ 20			81.206
	214	1/4	3/4	1500	45	5	4.0	0	4.0/100								172.530
	214	1/4	3/4	1200	100	4	2.0	0	4.0/ 20	0.3/ 10	0.4/ 20	0.4/ 10	3.0/ 10	1.0/ 30			171.330
	216	31/3	31/3	2100	45	3	2.0	0	2.0/ 20	3.0/ 25	0.5/ 35			3.0/ 20	0.5/ 5		209.048

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SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
33	216	15/5	15/5	100	20	7	2.6	0	3.0/ 20	3.0/ 25	2.0/ 30			3.0/ 30	2.0/ 5		5.863
	216	15/5	15/5	10	20	5	2.3	0	2.0/ 60	1.0/ 20				4.0/ 10	2.0/ 10		0.351
	218	31/3	31/3	1000	30	3	2.0	0	1.0/ 60	0.5/ 20				4.0/ 20			44.999
	219	15/5	15/5	250	30	7	3.8	0	5.0/ 30	5.0/ 30				3.0/ 10	2.0/ 20		25.401
	220	15/5	15/5	600	20	5	2.3	15	3.0/ 10	3.0/ 35				2.0/ 15	1.0/ 45		25.236
	220	15/5	15/5	1000	200	7	3.8	15	5.0/ 10	5.0/ 35				4.0/ 15	1.0/ 45		577.725
	1591	31/3	31/3	150	20	3	2.0	40	2.0/ 60	2.0/ 10					2.0/ 30		3.051
	1591	31/3	31/3	40	10	3	1.6	0	3.0/ 20	3.0/ 20			0.5/ 10	1.0/ 10	2.0/ 40		0.872
	1591	31/3	31/3	880	60	7	4.0	0	4.0/ 70					4.0/ 30			156.394
														TOTAL FOR SECT.		33:	1888.937
42	265	1/4	3/4	1600	200	4	1.0	0	1.0/ 40		1.0/ 40		1.5/ 10	1.0/ 10			316.563
	266	1/4	3/4	1300	100	4	2.0	0	2.0/ 25		1.5/ 25	0.1/ 10	0.1/ 20	3.0/ 20			182.118
	266	1/4	3/4	1600	50	3	1.5	0	1.5/ 80		2.0/ 20						98.424
	279	7/5	7/5	400	15	1	0.4	0	0.4/100								3.248
														TOTAL FOR SECT.		42:	600.353
43	1580	20/4	20/4	2100	30	3	1.5	0	1.0/ 10		1.0/ 5	2.0/ 20	1.0/ 5				118.296
52	339	21/4	21/4	500	100	4	2.0	10	2.0/ 80	2.0/ 10				2.0/ 10			25.182
	345	21/4	21/4	600	15	4	2.0	15		2.0/ 90					1.0/ 10		7.160
	346	26/3	26/3	1235	75	3	1.8	30	2.0/ 45	1.0/ 25		1.0/ 10		2.0/ 20			34.196
	346	26/3	26/3	525	125	3	1.0	50	1.0/100								9.931
	353	18/4	18/4	150	100	6	4.0	5			0.5/ 15	0.5/ 5			4.5/ 80		15.187
	353	18/4	18/4	250	125	7	4.0	5			0.5/ 5	0.5/ 5		4.0/ 90			35.558
	353	18/4	18/4	250	125	7	4.0	5			0.5/ 5	0.5/ 5		4.0/ 90			35.558
	354	7/4	7/4	400	60	5	3.0	15		1.0/ 30	3.0/ 20			3.5/ 50			17.589
	354	7/4	7/4	300	75	5	3.5	15			2.0/ 30			4.0/ 70			20.105
	354	7/4	7/4	275	100	5	4.0	20		0.5/ 10	3.0/ 30			5.0/ 60			26.243
	354	7/4	7/4	200	100	7	4.5	10		0.5/ 15	2.0/ 20			5.0/ 65			21.268
	354	7/4	7/4	400	100	7	7.0	5	8.0/ 75	1.0/ 15	3.0/ 10						50.755
	354	7/4	7/4	475	200	7	5.0	5		1.0/ 10	3.0/ 15			6.0/ 75			143.163
	354	10/4	10/4	175	30	5	1.0	10			0.5/ 20			1.0/ 80			1.531
	354	10/4	10/4	100	50	6	1.8	5			0.5/ 20	0.5/ 5		2.0/ 75			2.667
	354	10/4	10/4	175	50	7	3.0	15			0.5/ 10			3.0/ 90			6.769
	354	10/4	10/4	75	75	5	3.0	5			1.0/ 10			3.0/ 90			4.919
	354	10/4	16/4	150	20	7	4.0	5			0.3/ 10			4.0/ 90			3.365
	354	10/4	16/4	200	30	6	3.0	10			0.5/ 5			3.0/ 95			5.139
	354	10/4	16/4	75	30	3	0.5	20			0.3/ 5	0.3/ 10		0.5/ 85			0.373
	354	10/4	16/4	150	50	4	0.2	10			0.3/ 5	0.3/ 5		0.2/ 90			0.505
	354	10/4	10/4	125	20	5	2.0	10			0.5/ 20			2.0/ 80			1.300
	354	21/4	28/4	200	50	9	4.8	10		5.0/ 55	1.0/ 10			5.0/ 10	4.0/ 25		14.215
	354	21/4	28/4	175	125	9	5.5	10		4.0/ 45				8.0/ 35	4.0/ 20		39.692
	354	21/4	28/4	75	75	9	5.5	10		4.0/ 45				8.0/ 35	4.0/ 20		10.206
	354	21/4	28/4	250	175	9	5.5	10		4.0/ 45				8.0/ 35	4.0/ 20		79.383
	358	26/3	26/3	350	100	4	1.8	30	2.0/ 65	1.0/ 15	0.5/ 10			2.0/ 10			11.748
	358	26/3	26/3	100	100	4	2.8	5	3.0/ 85			2.0/ 15					6.142
	1524	20/4	30/4	200	50	6	3.5	10		4.0/ 45	2.0/ 20			3.0/ 45			13.020
	1524	20/4	30/4	200	30	6	3.0	10	3.0/ 25	3.0/ 35	1.0/ 10			3.0/ 30			5.499
	1524	20/4	30/4	100	75	5	2.5	10	2.0/ 25	3.0/ 35	1.0/ 10			2.0/ 30			5.941

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SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
52	1581	20/4	30/4	350	15	4	1.0	20	1.0/ 40	1.0/ 50				0.5/ 10			1.681
														TOTAL FOR SECT.		52:	655.992
62	408	24/5	30/5	3600	3	4	3.5	5		2.5/ 20	3.0/ 5			4.5/ 70	3.0/ 5		41.355
	408	24/5	30/5	3950	3	2	1.8	50		1.5/ 20	1.5/ 5			2.0/ 70	2.0/ 5		12.003
	408	24/5	30/5	5800	4	1	1.0	60		1.0/ 20	1.5/ 5			1.0/ 65	1.0/ 10		10.796
	408	27/5	2/6	220	8	3	2.5	20		0.0/ 25	0.0/ 5			0.0/ 65	0.0/ 5		0.311
	408	27/5	2/6	9000	3	1	1.0	60		0.0/ 10	0.0/ 75			0.0/ 10	0.0/ 5		2.415
														TOTAL FOR SECT.		62:	66.881
66	368	4/5	7/5	500	5	4	3.5	25	3.0/ 5	2.0/ 10		4.0/ 25		4.0/ 15	4.0/ 40		5.892
67	425	4/4	7/4	200	5	2	1.5	50	2.0/ 20	2.0/ 70		0.0/ 10					1.253
	425	4/4	7/4	400	10	3	2.0	60	4.0/ 70	1.5/ 20	1.5/ 10						3.764
	425	4/4	7/4	200	8	3	2.3	60	4.0/ 70	1.5/ 20	1.5/ 10						1.506
	425	4/4	7/4	1000	5	1	1.0	60	1.5/ 20	1.0/ 40		0.0/ 25			1.0/ 15		2.446
	425	4/4	7/4	250	12	1	0.6	60		1.0/ 30		0.0/ 65			0.5/ 5		1.318
	425	4/4	7/4	200	20	1	0.8	75		1.0/ 50		0.0/ 20			1.0/ 30		1.222
	425	4/4	7/4	250	30	2	1.3	70	2.0/ 40	1.5/ 10				1.0/ 40	1.0/ 10		3.007
	425	4/4	7/4	75	5	4	3.0	50	2.0/ 40		4.0/ 60						0.401
	425	4/4	7/4	200	4	1	0.5	20	0.5/ 50		0.5/ 50						0.358
	426	4/4	8/4	225	5	3	2.0	50	3.0/ 70	1.0/ 30							1.052
	426	4/4	7/4	150	5	2	1.5	50	2.0/ 20	1.5/ 60					1.0/ 20		0.684
	426	4/4	7/4	100	4	1	0.8	60		1.0/ 70		0.0/ 10			1.0/ 20		0.217
	426	4/4	7/4	1350	5	1	0.8	60	1.0/ 80	1.0/ 10	0.5/ 10						2.515
	426	4/4	7/4	150	5	1	0.5	40	0.5/ 70		0.5/ 30						0.265
	426	4/4	7/4	50	8	3	2.6	75	2.0/ 60	1.0/ 10	0.2/ 5			3.0/ 25			0.179
	426	4/4	7/4	600	8	3	2.6	60	2.0/ 60	1.0/ 10	0.2/ 5			3.0/ 25			3.441
	426	4/4	7/4	100	5	2	1.6	70	1.0/ 60	1.0/ 30	2.0/ 5	1.0/ 5					0.172
	426	4/4	7/4	2250	8	2	1.6	60	2.0/ 60	2.0/ 35	1.0/ 5						14.253
	426	4/4	7/4	1200	5	1	0.5	40	0.5/ 70		0.5/ 30						2.121
	426	6/4	9/4	400	4	1	0.6	40	1.0/ 50	0.5/ 20	1.0/ 20	0.2/ 10					0.846
	426	6/4	9/4	1000	4	1	0.4	40	1.0/ 50	0.2/ 25	0.5/ 15	0.2/ 10					1.689
	429	5/4	7/4	600	8	2	1.6	60	1.0/ 10	2.0/ 60	2.0/ 10	1.0/ 10		2.0/ 10			4.566
	429	5/4	7/4	1300	15	5	4.5	70	5.0/ 70	4.0/ 30							23.344
	429	5/4	7/4	650	10	3	2.5	60	4.0/ 70	1.5/ 10				2.0/ 20			6.305
	429	5/4	7/4	750	5	2	1.5	50	2.0/ 70			1.0/ 30					2.631
	429	5/4	7/4	300	10	3	2.6	70	5.0/ 20	2.0/ 60		2.0/ 10		1.5/ 10			2.479
	430	6/4	9/4	125	5	2	1.3	50	2.0/ 50	2.0/ 30	1.0/ 20						0.563
	430	6/4	9/4	400	10	2	1.5	50	2.0/ 50	2.0/ 30		1.0/ 10			1.0/ 10		3.705
	430	6/4	9/4	350	10	2	1.5	70	2.0/ 40	1.0/ 30		1.0/ 10			2.0/ 20		1.597
	431	25/4	28/4	200	80	5	5.0	20	5.0/ 80		3.0/ 10			6.0/ 10			41.738
	433	4/4	7/4	1000	5	1	0.6	60	1.0/ 40	0.5/ 30	0.2/ 10	0.5/ 10		1.0/ 20			1.943
	433	5/4	7/4	600	12	3	2.2	70	5.0/ 50	2.0/ 20	1.0/ 5	1.0/ 5		2.0/ 5			5.108
	433	5/4	7/4	300	12	3	2.2	70	4.0/ 70	2.0/ 20	0.5/ 10						2.639
	1456	4/4	8/4	175	5	4	3.4	20	5.0/ 10	3.0/ 60	2.0/ 15			5.0/ 10	2.0/ 5		2.662
	1456	4/4	8/4	250	3	3	2.4	25	3.0/ 10	1.5/ 75	2.0/ 5			5.0/ 5	1.0/ 5		1.267
	1456	4/4	8/4	280	5	3	2.3	25	3.0/ 20	1.5/ 55	2.0/ 5			4.0/ 10	1.0/ 10		2.302
	1456	4/4	8/4	180	5	3	3.0	20	4.0/ 20	2.5/ 50	3.0/ 10			4.0/ 10	1.5/ 10		2.226
	1456	4/4	8/4	230	5	4	3.6	10	5.0/ 25	3.0/ 35	3.0/ 10			5.0/ 20	2.0/ 10		3.825

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
67	1456	4/4	8/4	150	50	4	3.8	20	6.0/ 60	3.0/ 20	3.0/ 10			5.0/ 5	2.0/ 5		21.772
	1456	4/4	8/4	90	7	3	2.2	10	5.0/ 15	2.0/ 10	2.0/ 15	2.0/ 5	1.0/ 5	5.0/ 20	1.5/ 20		1.333
	1456	4/4	8/4	100	20	4	3.2	20	5.0/ 40	2.0/ 10	2.0/ 10			5.0/ 10	2.0/ 30		4.290
	1456	4/4	8/4	610	12	4	2.4	10	2.0/ 25	1.6/ 60			2.0/ 3	4.0/ 3			13.244
														TOTAL FOR SECT.		67:	192.245
72	471	2/4	2/4	440	11	3	1.0	10	0.8/ 10	1.0/ 80					0.8/ 10		6.070
	471	8/4	8/4	440	11	3	1.0	10		1.3/ 90					0.5/ 10		7.954
	480	13/3	13/3	50	3	1	0.5	10	0.5/ 20	0.5/ 70					0.3/ 10		0.102
	499	27/3	30/3	980	60	6	3.0	0	4.0/ 30	2.3/ 30	2.8/ 10			5.3/ 10	1.0/ 20		156.956
	499	28/3	30/3	1030	60	4	2.0	0	2.5/ 30	1.5/ 30	0.8/ 5			2.0/ 10	1.0/ 25		102.073
	499	28/3	30/3	460	100	5	2.5	0	2.5/ 30	2.0/ 30	2.0/ 10			3.5/ 10	1.0/ 10		91.953
														TOTAL FOR SECT.		72:	365.108
73	451	4/4	4/4	160	25	3	1.0	5	0.5/ 30	1.5/ 60					1.0/ 10		6.209
74	539	13/3	13/3	200	3	3	1.0	5	1.0/ 60	1.5/ 30					1.0/ 10		0.747
	539	16/3	16/3	400	3	1	1.0	15		1.0/ 90					0.5/ 10		1.473
	542	8/3	8/3	300	5	3	0.8	10	0.5/ 10	1.0/ 60	1.0/ 10				0.5/ 20		1.569
	542	26/3	26/3	100	20	5	2.0	25	5.0/ 30	0.2/ 25	1.0/ 20				0.2/ 25		1.842
	542	27/3	28/3	50	10	7	4.0	5	6.0/ 70		1.0/ 30						1.332
	542	27/3	28/3	300	3	1	0.1	0		0.1/ 35				0.1/ 5	0.1/ 60		0.227
	542	27/3	29/3	30	10	3	0.4	10	1.0/ 40	0.1/ 20					0.1/ 40		0.139
	542	27/3	29/3	300	40	7	5.0	20	8.0/ 65		0.5/ 10			0.5/ 5	2.0/ 20		33.803
	542	27/3	29/3	1000	2	3	0.5	0		1.0/ 20	0.5/ 10			0.2/ 10	0.2/ 60		1.012
	542	27/3	28/3	250	3	1	0.3	0	0.5/ 5	0.6/ 30			0.1/ 5	0.5/ 5	0.2/ 50		0.365
	542	27/3	28/3	75	6	3	1.0	15	2.0/ 45		0.2/ 45	0.5/ 10					0.331
	542	27/3	28/3	400	4	3	0.2	0	2.0/ 5	1.0/ 5				0.2/ 10	0.1/ 80		0.544
	542	27/3	28/3	250	40	7	6.0	15	7.0/ 90		1.5/ 10						33.187
	542	29/3	30/3	125	60	4	1.5	25	4.0/ 10	1.0/ 25	1.5/ 30	2.0/ 5	0.5/ 5	1.0/ 5	1.0/ 20		7.435
	542	29/3	30/3	100	50	4	1.5	25	4.0/ 10	1.0/ 25	1.5/ 30	2.0/ 5	0.5/ 5	1.0/ 5	1.0/ 20		4.956
	542	29/3	30/3	400	100	3	0.4	20	0.2/ 5	0.2/ 15	1.0/ 40		1.0/ 15	1.5/ 10	0.1/ 15		25.237
	542	29/3	29/3	100	30	3	0.8	10	2.0/ 40	0.5/ 30	2.0/ 10				0.1/ 20		2.777
	542	29/3	29/3	150	5	1	0.2	0		0.2/ 40				0.2/ 10	0.2/ 50		0.192
	542	29/3	30/3	250	2	1	0.2	0		0.3/ 50				0.1/ 10	0.1/ 40		0.161
	542	29/3	30/3	150	20	1	0.5	30	1.0/ 15		0.3/ 60	1.0/ 20	0.1/ 5				1.190
	542	30/3	30/3	250	10	3	0.5	15	1.0/ 10	0.5/ 10	0.5/ 40	0.5/ 10	0.1/ 5	0.5/ 5	0.2/ 15		1.224
	542	3/4	3/4	200	10	3	0.5	15		0.2/ 15	1.5/ 70	0.5/ 5			0.1/ 5		1.534
	542	6/4	6/4	200	100	3	1.5	40	0.8/ 10	0.1/ 10	3.0/ 70			0.4/ 5	0.4/ 2		18.581
	542	7/4	9/4	500	10	3	0.4	50		0.2/ 15	0.5/ 80			0.1/ 5			1.120
	542	7/4	9/4	100	20	5	2.0	10	1.0/ 10	1.0/ 15	3.0/ 60		0.3/ 5				3.324
	543	26/3	26/3	100	6	3	1.0	10	1.0/ 40	2.0/ 20	1.0/ 40						0.696
	543	26/3	26/3	300	6	3	1.0	10	0.5/ 10	1.0/ 80	0.5/ 5				1.0/ 5		2.229
	543	26/3	26/3	300	20	3	1.0	5	1.0/ 80	1.5/ 10	1.0/ 10						5.891
	543	26/3	26/3	500	100	3	2.0	10	1.0/ 10	2.0/ 10	2.0/ 80						68.153
	546	15/3	16/3	100	50	2	0.9	15		1.2/ 30				1.0/ 1	0.8/ 69		4.395
	1395	9/4	9/4	150	40	3	1.0	10	1.5/ 40	1.0/ 20	1.0/ 10			2.0/ 5	0.5/ 25		5.806
	1395	10/4	10/4	100	3	3	0.8	10	0.5/ 20	1.0/ 60					1.0/ 20		0.332
	1477	24/3	24/3	300	4	3	1.5	5	1.0/ 20	2.0/ 60					0.5/ 20		2.376
	1477	24/3	24/3	200	8	5	3.0	0	3.0/ 40	3.0/ 40					2.0/ 20		4.723
														TOTAL FOR SECT.		74:	238.901

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% RARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
75	505	8/4	8/4	2400	3	3	0.0	30	0.5/ 40		2.5/ 50			1.5/ 10			6.358
	505	8/4	8/4	600	6	4	2.5	10	2.5/ 10	2.0/ 30	1.5/ 5			3.0/ 35	1.8/ 20		8.062
	505	8/4	8/4	600	4	3	1.5	20	0.6/ 10	1.0/ 30	3.0/ 20			1.5/ 20	0.8/ 20		2.661
	505	12/4	12/4	750	3	4	2.0	15	2.0/ 10		2.5/ 80				1.0/ 10		3.048
														TOTAL FOR SECT.		75:	20.129
76	551	8/4	8/4	60	5	1	0.5	50		0.5/100							0.130
	551	8/4	8/4	150	5	1	0.5	25	0.6/ 20	0.5/ 30					0.5/ 50		0.343
	554	8/4	8/4	100	70	7	6.0	0	8.0/ 50		6.0/ 10				0.3/ 30		19.043
	554	8/4	8/4	160	15	7	5.0	15	8.0/ 30	0.5/ 15	0.7/ 10			4.0/ 30	0.5/ 15		5.832
	554	8/4	8/4	40	10	3	1.0	50		1.0/ 80					1.0/ 20		0.283
	554	8/4	8/4	200	10	6	2.0	15	4.0/ 25	1.0/ 30	2.0/ 10			4.0/ 15	1.0/ 20		3.406
	554	8/4	8/4	1480	6	1	0.8	20	1.7/ 35	0.3/ 30	0.7/ 5			0.5/ 15	0.2/ 15		5.246
	555	21/3	23/3	300	10	3	1.0	5	1.0/ 10	1.0/ 45				1.0/ 5	1.0/ 40		3.385
	560	8/4	8/4	800	3	1	0.5	30		0.7/ 30	1.5/ 25				0.2/ 45		1.199
	560	8/4	8/4	400	5	3	1.0	50	1.5/ 50		1.0/ 15			1.2/ 35			1.164
	560	8/4	8/4	50	7	4	2.5	10	4.5/ 50	1.0/ 20				1.0/ 10	1.3/ 20		0.649
	569	8/4	8/4	200	3	3	1.5	5	3.0/ 20	1.0/ 30	1.0/ 20				0.5/ 30		0.659
	569	8/4	8/4	400	20	3	1.0	50	1.0/ 10	1.0/ 80					1.0/ 10		5.686
	569	8/4	8/4	385	5	1	0.7	15	0.5/ 20	1.0/ 50	0.2/ 10				0.5/ 20		1.656
	569	8/4	8/4	320	250	6	5.0	0	5.8/ 80	0.5/ 5	1.0/ 5			3.5/ 5	0.5/ 5		249.487
	569	8/4	8/4	500	5	3	1.3	30	3.5/ 20	1.0/ 30	0.3/ 10			2.0/ 10	0.7/ 30		2.334
	569	8/4	8/4	400	6	5	2.5	5	3.0/ 20	2.0/ 20	0.5/ 5			2.0/ 15	2.0/ 40		4.607
	569	8/4	8/4	1200	3	1	0.5	25	0.5/ 10	0.5/ 30	1.0/ 25		0.5/ 5	1.0/ 10	0.2/ 20		1.932
														TOTAL FOR SECT.		76:	307.039
83	597	6/3	10/3	4000	5	2	0.0	0		0.5/ 90					0.5/ 10		16.401
84	610	4/6	6/6	700	3	1	0.5	25			0.5/ 10		1.0/ 10	0.5/ 10	0.5/ 20		0.596
	610	4/6	6/6	700	4	3	2.5	20		1.0/ 5	0.5/ 5	1.0/ 10		4.0/ 50	2.0/ 30		6.036
	610	4/6	6/6	800	3	4	3.5	20					3.0/ 25	4.0/ 25	2.0/ 50		5.274
	610	4/6	6/6	700	3	1	0.5	25			0.5/ 10		1.0/ 10	0.5/ 10	0.5/ 20		0.596
	610	4/6	6/6	700	4	3	2.5	20		1.0/ 5	0.5/ 5	1.0/ 10		4.0/ 50	2.0/ 30		6.036
	610	4/6	6/6	800	3	4	3.5	20					3.0/ 25	4.0/ 25	2.0/ 50		5.274
	611	13/5	15/5	1800	1	1	1.0	25		1.0/ 50		0.5/ 35			1.0/ 15		1.735
	611	13/5	15/5	1800	1	1	1.0	25		1.0/ 50		0.5/ 35			1.0/ 15		1.735
	611	20/5	20/5	1000	4	3	3.0	25					3.0/ 25	3.0/ 50	2.0/ 25		8.502
	611	20/5	20/5	1200	2	1	1.0	20	1.5/ 25	1.0/ 10		1.0/ 25		1.0/ 40			2.312
	611	20/5	20/5	1000	4	3	3.0	25					3.0/ 25	3.0/ 50	2.0/ 25		8.502
	611	20/5	20/5	1200	2	1	1.0	20	1.5/ 25	1.0/ 10		1.0/ 25		1.0/ 40			2.312
	611	24/5	25/5	400	2	4	3.5	15		3.0/ 40			4.0/ 50		3.0/ 10		3.031
	611	24/5	25/5	3000	2	3	2.0	15		2.0/ 10			2.0/ 50	3.0/ 25	2.0/ 15		13.120
	611	24/5	25/5	400	2	4	3.5	15		3.0/ 40			4.0/ 50		3.0/ 10		3.031
	611	24/5	25/5	3000	2	2	2.0	15		2.0/ 10			2.0/ 50	3.0/ 25	2.0/ 15		13.120
	1589	12/5	13/5	400	5	4	4.0	10		3.0/ 10			4.0/ 90				8.567
	1589	12/5	13/5	800	2	3	2.0	10		2.0/ 10			2.0/ 90				3.723
	1589	12/5	13/5	500	5	1	0.5	50		0.5/ 25		0.5/ 50	1.0/ 10		0.5/ 15		1.202
	1589	12/5	13/5	800	2	3	3.0	25		3.0/ 30		4.0/ 50	3.0/ 10		2.0/ 10		3.619
	1589	12/5	13/5	1200	3	4	3.0	10		3.0/ 30			3.0/ 60		2.0/ 10		12.070

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
84	1589	12/5	13/5	3000	2	3	2.0	30		1.0/ 20			2.0/ 70		1.0/ 10		9.122
	1589	12/5	13/5	1200	2	3	1.5	10		1.0/ 15			2.0/ 80		1.0/ 5		4.979
	1589	12/5	13/5	300	2	5	4.0	0					4.0/ 90		4.0/ 10		2.789
	1589	12/5	13/5	400	2	2	1.5	5		2.0/ 5			1.5/ 90		2.0/ 5		1.526
	1589	12/5	13/5	500	5	1	0.5	50		0.5/ 25		0.5/ 50	1.0/ 10		0.5/ 15		1.202
	1589	12/5	13/5	800	2	3	3.0	25		3.0/ 30		4.0/ 50	3.0/ 10		2.0/ 10		3.619
	1589	12/5	13/5	1200	3	3	3.0	10		3.0/ 30			3.0/ 60		2.0/ 10		12.070
	1589	12/5	13/5	3000	2	2	2.0	20		1.5/ 20			2.0/ 70		1.0/ 10		11.105
	1589	12/5	13/5	1200	2	2	1.5	10		1.0/ 15			2.0/ 80		1.0/ 5		4.979
	1589	12/5	13/5	300	2	4	4.0	0					4.0/ 90		4.0/ 10		2.789
	1589	12/5	13/5	400	2	2	1.5	5		2.0/ 5			1.5/ 90		2.0/ 5		1.526
	1589	12/5	13/5	400	5	4	4.0	10		3.0/ 10			4.0/ 90				8.567
	1589	12/5	13/5	800	2	2	2.0	10		2.0/ 10			2.0/ 90				3.723
	1590	18/5	18/5	3000	3	5	4.0	10		3.5/ 25			4.0/ 50		3.0/ 25		35.270
	1590	18/5	18/5	3000	3	4	4.0	10		3.5/ 25			4.0/ 50		3.0/ 25		35.270
														TOTAL FOR SECT.		84:	248.929
85	576	23/3	25/3	1700	3	1	1.0	10			1.0/ 5			2.0/ 35	1.0/ 60		5.822
	576	23/3	25/3	980	2	4	4.0	50			1.0/ 40			6.0/ 25	2.0/ 10		2.630
	576	23/3	25/3	100	5	1	1.0	30		0.5/ 15				1.0/ 40	1.0/ 45		0.333
	576	23/3	25/3	1500	5	1	1.0	25			0.5/ 20			1.0/ 80			5.474
	576	23/3	25/3	700	2	1	1.0	50			1.0/ 10				1.0/ 90		0.594
	576	23/3	25/3	2020	5	5	4.0	10			2.0/ 20			5.0/ 30	5.0/ 50		35.114
	576	23/3	25/3	100	15	3	3.0	20			3.0/100						2.395
	576	23/3	25/3	400	5	1	1.0	50			0.5/ 10	1.0/ 35		0.5/ 15	1.0/ 40		0.920
	576	23/3	25/3	500	7	3	3.0	10			0.5/ 10	2.0/ 20		5.0/ 20	2.0/ 50		6.886
	604	1/4	2/4	75	20	1	0.3	30	2.5/100								1.822
	604	1/4	2/4	200	60	2	2.0	5		2.0/100							34.520
	604	1/4	1/4	50	10	1	0.5	10		0.3/ 25				0.5/ 75			0.252
	604	1/4	4/4	400	15	1	1.0	45		1.0/ 55	1.0/ 10	0.5/ 35					4.339
	604	1/4	4/4	100	15	2	2.0	40						2.0/100			1.842
	604	1/4	2/4	400	50	1	0.5	20	0.5/100								10.124
	604	3/4	4/4	50	10	2	2.0	50			2.0/100						0.350
	1363	23/3	25/3	300	3	2	1.0	50	2.0/ 25					1.0/ 25	1.0/ 25		0.481
	1363	23/3	25/3	500	10	2	2.0	25	3.0/ 25		1.0/ 20			2.0/ 20	1.0/ 20		5.138
	1363	23/3	25/3	200	100	3	3.0	25			3.0/100						29.941
	1363	23/3	25/3	500	10	2	2.0	25	2.0/ 35		2.0/ 35			3.0/ 15	1.0/ 15		5.921
	1363	23/3	25/3	100	3	1	0.5	50						0.5/ 40	0.5/ 60		0.075
	1363	23/3	25/3	200	2	1	0.5	50	1.0/ 35					0.5/ 65			0.142
	1363	23/3	25/3	200	25	2	2.0	50	2.0/ 50		0.5/ 10			2.0/ 15	1.0/ 20		3.257
	1363	23/3	25/3	200	100	2	2.0	50	3.0/ 20		1.0/ 40			2.0/ 15	1.0/ 10		12.420
	1568	23/3	25/3	700	7	3	2.0	10			2.0/ 20			2.0/ 10	1.0/ 70		4.773
	1569	23/3	25/3	400	5	1	1.0	50			2.0/ 35			1.0/ 30	1.0/ 30		1.091
	1569	23/3	25/3	100	15	3	3.0	30			2.0/ 35			5.0/ 30	2.0/ 35		2.663
	1569	23/3	25/3	350	15	2	2.0	50			2.0/ 60			2.0/ 30			4.045
	1569	23/3	25/3	150	40	1	1.0	50			2.0/ 40			1.0/ 60			3.652
	1569	23/3	25/3	400	10	4	4.0	10			2.0/ 20			5.0/ 30	5.0/ 50		13.906
														TOTAL FOR SECT.		85:	200.921
92	613	10/4	16/4	500	1	7	4.0	60		4.0/100							1.210

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	ID.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
92	613	10/4	16/4	50	5	7	4.0	15							4.0/100		0.726
	613	10/4	16/4	10	5	3	0.5	10							0.5/100		0.019
	613	10/4	16/4	25	5	7	4.0	15							4.0/100		0.363
	613	10/4	16/4	25	5	7	4.0	15							4.0/100		0.363
	613	10/4	16/4	20	1	3	1.0	20		1.0/ 30				1.0/ 70			0.020
	613	10/4	16/4	130	5	7	4.0	15		4.0/ 50				4.0/ 50			2.751
	613	10/4	16/4	50	5	7	3.5	10		0.5/ 20				4.0/ 80			0.743
	613	10/4	16/4	100	5	5	3.0	0		3.0/ 60				3.0/ 40			1.953
	617	10/4	16/4	540	35	5	2.0	20	2.0/100								22.171
	617	10/4	16/4	540	35	3	0.5	50	0.5/100								5.979
	628	10/4	16/4	75	3	7	4.0	35		4.0/100							0.885
	628	10/4	16/4	25	1	3	0.5	40		0.5/100							0.013
	628	10/4	16/4	100	2	3	1.0	30		1.0/100							0.218
														TOTAL FOR SECT.		92:	37.412
93	631	10/4	16/4	1100	3	3	0.5	60		0.5/ 60					0.5/ 40		0.909
102	652	5/4	5/4	800	3	3	1.0	20		2.0/ 20				0.5/ 10	0.5/ 40		2.104
	652	5/4	5/4	300	2	3	0.5	15		1.0/ 45				0.5/ 5	1.0/ 20		0.592
	652	5/4	5/4	250	4	3	1.0	50		0.5/ 60				0.5/ 5	2.0/ 30		0.552
	652	5/4	5/4	700	3	3	1.0	40		2.0/ 60				0.5/ 10	1.0/ 20		2.689
	1578	27/4	27/4	200	100	5	2.0	35	2.0/ 25			1.0/ 20	1.0/ 20	3.0/ 35			25.251
	1579	27/4	27/4	850	3	3	2.0	30		2.0/100							5.405
														TOTAL FOR SECT.		102:	36.592
103	1372	5/4	5/4	100	5	3	1.0	50		1.0/100							0.389
	1372	5/4	5/4	100	5	3	0.5	50		0.5/100							0.216
														TOTAL FOR SECT.		103:	0.605
112	658	30/3	5/4	1500	2	3	0.5	40		0.5/ 75					0.5/ 25		1.358
	658	30/3	5/4	1500	3	5	4.0	30		3.0/ 75					6.0/ 25		14.717
	658	18/4	19/4	3500	2	4	2.0	30		2.0/ 50					2.0/ 50		11.602
	658	29/4	1/5	2000	2	4	1.5	25		2.0/ 50					1.0/ 50		5.823
	659	6/4	8/4	100	20	6	3.0	33			2.0/ 50	2.0/ 50					2.004
														TOTAL FOR SECT.		112:	35.503
121	666	12/4	12/4	75	25	4	2.0	40		1.5/ 60							3.907
122	682	7/4	10/4	400	3	3	0.5	30	0.5/100								0.531
	687	22/3	25/3	100	25	5	2.3	10	1.4/ 35		2.0/ 40			3.5/ 25			4.091
	687	22/3	25/3	75	25	5	2.3	5	2.3/ 40		1.5/ 20			3.0/ 40			3.678
	687	22/3	25/3	75	20	3	1.9	5	2.1/ 45		0.5/ 10			3.2/ 45			3.076
	687	22/3	25/3	70	18	4	3.0	0	1.0/ 20					3.8/ 80			3.983
														TOTAL FOR SECT.		122:	15.358
125	738	10/3	10/3	200	1	1	0.6	70		0.4/100							0.039
126	756	3/4	3/4	3000	1	3	0.8	50		0.8/100							1.919
	757	16/3	16/3	800	3	5	1.3	25		2.0/ 60					1.0/ 25		4.075
	757	16/3	16/3	2000	2	3	1.0	50		1.0/100							3.113

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
126	757	16/3	16/3	1400	1	1	0.5	50		0.5/ 65		0.5/ 25					0.643
	757	16/3	16/3	2600	3	3	1.0	30		1.0/ 90							8.500
	757	20/3	20/3	2200	1	3	1.0	50		1.0/ 50					1.0/ 50		1.326
	757	5/4	5/4	5000	1	3	1.0	50		1.0/ 50		1.0/ 10			1.0/ 25		3.377
														TOTAL FOR SECT.		1261	22.953
127	749	12/3	12/3	1100	1	3	1.0	10		1.0/100							1.541
	749	12/3	12/3	1000	4	1	0.2	50		0.2/100							0.658
	749	12/3	12/3	2000	1	1	0.2	10		0.2/100							0.592
	749	12/3	12/3	800	1	3	0.2	10		0.2/100							0.237
	749	13/3	13/3	2000	1	1	0.2	50		0.2/100							0.329
	749	13/3	13/3	6500	1	1	0.2	60		0.2/100							0.855
	749	13/3	13/3	2000	1	3	1.5	10		1.5/100							4.077
	749	13/3	13/3	2200	1	1	0.2	50		0.2/100							0.362
	749	17/3	17/3	1100	3	3	0.8	50		0.8/100							2.111
	749	17/3	17/3	500	1	3	1.2	10		1.2/100							0.828
	749	30/3	30/3	8000	1	3	1.0	40		1.0/100							7.472
														TOTAL FOR SECT.		1271	19.062
132	764	7/4	7/4	75	5	3	1.0	50		1.0/100							0.292
	764	11/4	11/4	300	10	3	2.0	15	2.0/100								3.739
	764	13/4	13/4	300	300	5	5.0	10			5.0/ 40	5.0/ 60					208.419
	764	13/4	13/4	1300	4	5	4.0	5		4.0/100							29.880
	800	7/4	7/4	600	3	4	2.0	0		2.0/ 90				2.0/ 10			5.274
	800	13/4	13/4	50	20	3	2.0	10	2.0/ 60		2.0/ 30	2.0/ 10					1.313
	800	14/4	14/4	40	20	3	1.0	0									1.245
														TOTAL FOR SECT.		1321	250.162
133	778	25/3	26/3	2000	5	5	3.0	15		4.0/ 80					1.0/ 20		42.581
134	781	16/3	16/3	75	25	3	2.0	0	2.0/100								2.749
	781	16/3	16/3	50	25	3	2.0	5		2.0/ 95					1.0/ 5		3.467
	781	16/3	16/3	1000	2	3	2.0	25		2.0/ 95					1.0/ 5		4.379
	781	20/3	20/3	100	1	5	4.0	20		4.0/100							0.484
	781	22/3	22/3	1500	1	3	2.0	25		2.0/ 95					1.0/ 5		3.284
	781	23/3	23/3	700	10	5	3.0	10		3.0/ 95					1.0/ 5		27.333
	781	23/3	23/3	1800	15	3	2.0	10	2.0/ 90	2.0/ 10							39.426
	781	23/3	23/3	150	2	4	3.0	5		3.0/ 95					1.0/ 5		1.236
	781	24/3	24/3	500	2	5	3.0	10		3.0/ 90					2.0/ 10		3.816
	781	24/3	24/3	300	1	3	2.0	10		2.0/ 90					1.0/ 10		0.759
	781	25/3	25/3	400	3	3	2.0	15		2.0/ 90					1.0/ 10		2.867
	781	25/3	25/3	600	2	3	2.0	10		2.0/ 95					1.0/ 5		3.153
	781	26/3	26/3	1000	2	3	2.0	5		2.0/ 90					2.0/ 10		5.502
														TOTAL FOR SECT.		1341	98.456
137	803	14/3	15/3	1760	20	5	2.5	25		2.0/ 20		2.5/ 40	2.5/ 20	3.0/ 20			66.657
	804	10/4	10/4	200	100	1	0.5	25	0.5/100								9.491
	805	25/3	25/3	40	25	3	1.0	5	1.0/ 75			1.0/ 25					0.946
	805	25/3	25/3	100	2	3	1.0	0		1.0/100							0.311
	805	25/3	25/3	700	2	4	2.0	0		2.0/100							4.239

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
137	805	25/3	25/3	100	10	4	2.0	10	2.0/ 50			2.0/ 50					1.375
	1470	3/4	3/4	25	20	3	1.0	0									0.778
	1470	3/4	3/4	200	5	3	1.0	5				1.0/ 80		1.0/ 20			1.162
	1470	3/4	3/4	50	25	3	1.0	25						1.0/ 10			1.416
	1470	3/4	3/4	50	20	3	1.0	0	1.0/100								0.909
	1470	3/4	3/4	300	5	5	3.0	50				3.0/100					1.439
														TOTAL FOR SECT.		137:	88.723
142	811	8/3	11/3	4500	200	7	2.5	50	2.5/ 16	2.5/ 33			2.0/ 16	3.0/ 33			434.032
	813	8/3	9/3	100	150	6	1.0	0		1.0/100							7.776
	814	10/3	11/3	1000	700	7	2.4	50	1.5/ 18	2.0/ 18			2.0/ 29	4.0/ 35			333.624
	817	11/3	11/3	2000	700	6	1.1	40	0.6/ 19	0.9/ 14				1.8/ 67			440.027
	817	11/3	11/3	1000	600	6	1.3	40	0.3/ 6			4.0/ 6	0.3/ 19	1.6/ 65			161.604
	820	10/3	11/3	3500	800	7	2.7	50	2.5/ 18	2.0/ 18		4.0/ 5	2.5/ 14	4.0/ 25	1.0/ 18		1181.836
	837	1/3	11/3	1000	600	6	2.1	60	2.0/ 13		2.5/ 12		2.0/ 25	2.0/ 50			163.999
	837	1/3	11/3	4500	550	7	2.4	25	1.4/ 24	2.0/ 15	2.0/ 7	3.8/ 30		3.0/ 24			1355.948
	837	1/3	11/3	1500	700	7	2.0	75	2.0/ 13		2.0/ 12		2.0/ 25	2.0/ 50			176.213
	840	9/3	11/3	3700	600	7	2.0	40	3.0/ 10		1.0/ 5		2.3/ 40	2.8/ 40	1.0/ 5		1131.927
														TOTAL FOR SECT.		142:	5386.986
143	810	11/3	11/3	3000	80	5	2.0	40		1.5/ 15		2.0/ 60		2.0/ 25			86.548
	810	11/3	11/3	800	60	4	1.0	5				2.0/ 49			1.0/ 50		18.307
	810	11/3	11/3	300	100	5	3.0	0		3.0/ 25		3.0/ 75					25.666
	825	11/3	11/3	2500	60	5	4.0	40		4.0/ 10			1.0/ 10	4.0/ 80			116.064
	825	11/3	11/3	1500	20	5	2.0	10		2.0/ 20				2.0/ 40	2.0/ 20		21.320
	831	11/3	11/3	2400	10	4	1.0	5		1.0/ 10		1.0/ 10		2.0/ 10	1.0/ 70		8.226
	832	10/3	11/3	3700	350	7	2.4	10		4.0/ 11			0.8/ 29	2.5/ 60			976.053
														TOTAL FOR SECT.		143:	1252.184
144	823	31/3	31/3	250	15	5	2.0	20	2.0/ 60	2.0/ 10	2.0/ 30						1.601
	823	31/3	31/3	100	50	5	2.5	25	2.0/ 70	3.0/ 30							2.976
	823	31/3	31/3	300	25	5	2.0	20		2.5/ 80	1.5/ 20						6.392
	834	9/3	9/3	3600	15	5	1.5	10		1.5/ 30				2.0/ 30	1.0/ 35		25.766
	834	11/3	11/3	1200	10	4	1.5	10		2.0/ 35				2.0/ 5	1.0/ 60		6.022
	1415	9/3	9/3	2600	20	4	1.5	95	1.0/ 5	1.0/ 5		2.0/ 90					1.345
														TOTAL FOR SECT.		144:	44.102
152	845	4/3	4/3	1000	200	7	5.0	0	7.0/ 30	4.0/ 50	4.0/ 20						320.059
	845	4/3	4/3	1500	600	6	4.0	0	5.0/ 30	3.0/ 50	3.0/ 20						1076.738
	845	4/3	4/3	1800	800	4	4.0	0	5.0/ 30	3.0/ 50	2.0/ 20						1665.712
	854	11/3	11/3	2000	200	4	3.8	0	4.0/ 80	3.0/ 10					3.0/ 10		366.713
	856	12/4	12/4	100	2	3	2.0	0		2.0/100							0.202
	858	4/3	4/3	1000	400	5	4.0	0	4.0/ 40	4.0/ 40					4.0/ 20		549.418
	858	4/3	4/3	2000	100	6	4.5	0	5.0/ 40	4.0/ 40					5.0/ 20		300.795
	858	4/3	4/3	850	700	6	3.0	0	5.0/ 40	2.0/ 40					2.0/ 20		553.993
	860	11/3	11/3	3000	3	4	3.5	0	4.0/ 30	3.0/ 60					5.0/ 10		11.709
														TOTAL FOR SECT.		152:	4845.339
162	904	19/3	19/3	8000	2	3	2.5	0	3.0/ 50	2.0/ 50							40.253
	909	11/3	11/3	4000	4	4	4.0	0	4.0/ 30	4.0/ 70							80.013

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
162	909	12/3	12/3	2000	3	5	3.5	0	5.0/ 20	3.0/ 30							11.870
														TOTAL FOR SECT.		162:	132.135
172	997	12/3	12/3	1700	125	3	1.0	75	0.5/ 40	3.0/ 10		1.0/ 30		1.0/ 20			23.013
	999	11/3	13/3	850	75	5	3.0	50	3.0/ 75	3.0/ 25							27.950
	999	11/3	13/3	1400	75	3	0.5	75	0.5/ 60	0.5/ 40							6.338
	999	29/3	29/3	600	50	3	0.5	10	0.5/ 80				0.5/ 20				6.036
	1000	11/3	13/3	175	40	3	1.0	50	1.0/100								1.059
	1000	11/3	13/3	225	40	5	3.0	60	3.0/100								2.402
	1000	11/3	13/3	1500	40	5	3.0	50	3.0/100								20.016
	1573	12/3	13/3	1550	160	5	2.0	30		2.0/ 45	2.0/ 10	1.0/ 20	1.0/ 15		2.0/ 10		123.426
	1573	12/3	13/3	1200	100	3	1.0	40		0.5/ 50		1.0/ 20	0.5/ 10		2.0/ 20		26.542
	1573	12/3	13/3	450	75	3	1.5	30		2.0/ 45		1.0/ 15		1.0/ 20	2.0/ 20		16.610
														TOTAL FOR SECT.		172:	253.393
173	940	7/3	7/3	100	5	2	1.5	20	1.5/ 50	2.0/ 20	0.5/ 20		0.5/ 10				0.276
	940	7/3	7/3	1000	5	2	2.5	15	2.5/ 30	3.0/ 60			0.5/ 5	0.5/ 5			7.023
	940	9/3	9/3	1000	5	2	2.0	20	2.5/ 40	2.5/ 30	0.5/ 20		0.5/ 10				3.982
	940	10/3	10/3	1500	5	3	1.5	20	2.0/ 55	1.5/ 15	1.0/ 15		0.5/ 15				4.170
	943	10/3	10/3	700	5	2	1.0	35	1.5/ 50	1.0/ 20		0.5/ 20	0.5/ 10				1.370
	944	13/3	13/3	1000	5	3	2.5	15			0.5/ 10	2.5/ 20		3.0/ 60	0.5/ 10		4.743
	944	17/3	17/3	1000	5	3	2.0	25			0.5/ 10	1.0/ 20		2.0/ 20	2.5/ 40		2.930
	944	17/3	17/3	1000	5	3	1.5	20			0.5/ 10	1.5/ 20		2.0/ 20	2.0/ 40		2.851
	944	18/3	18/3	2500	3	2	1.5	30			0.5/ 10	1.0/ 20		1.0/ 20	1.5/ 40		2.706
	944	20/3	21/3	3500	10	3	2.0	25	3.5/ 10			2.5/ 15		1.0/ 60	0.5/ 15		15.909
	944	21/3	21/3	500	300	3	3.0	15	2.0/ 10			1.5/ 15		3.5/ 60	0.5/ 15		158.856
	944	22/3	22/3	500	300	3	3.5	15	1.5/ 10			1.0/ 15		4.0/ 60	0.5/ 15		173.189
	944	22/3	22/3	3500	10	3	2.5	20	2.5/ 10			2.0/ 15		2.0/ 60	0.5/ 15		23.852
	944	23/3	23/3	500	300	2	3.0	15	3.5/ 50	2.5/ 20	1.0/ 10						136.247
	944	23/3	23/3	3500	10	2	2.5	15	2.0/ 10			1.5/ 15		3.0/ 60	0.5/ 15		32.932
	953	12/3	12/3	500	10	3	2.5	30	3.0/ 60	2.0/ 20	0.5/ 10		1.0/ 10				3.494
	953	13/3	13/3	1000	10	4	2.0	30	2.5/ 55	1.5/ 10		0.5/ 15	0.5/ 20				5.279
	953	13/3	13/3	2000	5	3	1.5	35	2.0/ 50	1.0/ 25		0.5/ 10	0.5/ 15				4.402
	953	14/3	14/3	2000	5	3	1.5	30	2.0/ 55	1.0/ 10		0.5/ 15	0.5/ 20				4.514
	954	11/3	11/3	1000	5	2	1.0	20	1.5/ 40	1.5/ 30		1.0/ 20	0.5/ 10				2.976
	954	13/3	13/3	700	5	3	1.5	25	2.0/ 40	1.5/ 30		1.0/ 20	0.5/ 10				2.100
	954	14/3	14/3	800	5	3	1.5	30	2.0/ 35	1.5/ 35		1.0/ 15	0.5/ 15				2.265
	956	13/3	13/3	800	5	3	2.0	30	2.5/ 45	1.5/ 25		1.0/ 15	0.5/ 15				2.323
	969	18/3	18/3	2500	5	3	2.0	25			0.5/ 10	2.5/ 20		2.0/ 50	1.5/ 20		7.870
	969	19/3	19/3	1000	5	5	3.0	15	4.0/ 30			2.0/ 20		2.0/ 30	1.5/ 20		4.154
	969	19/3	19/3	2500	3	2	1.5	20			0.5/ 10	2.0/ 20		1.5/ 50	0.5/ 20		3.713
	969	20/3	20/3	2000	5	3	2.5	20	3.0/ 30		0.5/ 10	1.0/ 20		2.0/ 40			6.878
	969	21/3	21/3	2000	15	3	3.0	15	3.0/ 10			4.0/ 20			1.0/ 10		37.852
	969	22/3	22/3	2000	5	2	2.0	25	2.5/ 30		0.5/ 10	1.0/ 20		2.0/ 40			6.146
	969	25/3	25/3	500	15	3	2.5	20	3.0/ 60			2.0/ 20		0.5/ 10	0.5/ 10		4.869
	970	14/3	14/3	1500	10	3	2.0	20	3.0/ 60			1.5/ 10		0.5/ 20			9.309
	970	14/3	14/3	1000	5	3	2.0	25	3.5/ 60			1.0/ 10		1.0/ 20			3.373
	970	15/3	15/3	300	5	3	1.5	30	3.0/ 60			1.5/ 10		0.5/ 20			0.815
	973	10/3	10/3	1000	10	3	2.0	20	2.5/ 60			1.5/ 10		1.0/ 20			5.955
	973	10/3	10/3	3500	5	2	2.0	15	3.0/ 60			1.5/ 20		1.0/ 10			12.515

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
173	973	14/3	14/3	2500	10	3	1.5	20	2.5/ 60			0.5/ 20		0.5/ 10			14.040
	973	16/3	16/3	1500	10	3	1.0	30	2.0/ 60			1.0/ 20		0.5/ 10			6.707
	985	11/3	11/3	1000	5	2	1.0	25	1.5/ 60	1.0/ 20			0.5/ 20				2.230
	985	12/3	12/3	500	5	2	1.0	30	1.0/ 60	0.5/ 10			1.0/ 20	0.5/ 10			0.851
	985	14/3	14/3	1000	20	3	1.0	30	1.0/ 65	1.0/ 10			0.5/ 20	0.5/ 5			6.593
	985	15/3	15/3	1000	20	2	1.0	35	1.0/ 70				0.5/ 20	0.5/ 10			5.601
	988	28/3	28/3	1000	5	4	2.5	15	3.0/ 50	1.5/ 10		1.0/ 20	1.0/ 20				3.740
	988	28/3	28/3	1300	8	4	2.5	20	2.5/ 55	2.0/ 10		1.0/ 15	0.5/ 20				6.700
	988	28/3	29/3	500	30	3	2.0	15	2.5/ 45	1.5/ 20		0.5/ 20	0.5/ 15				10.034
	988	28/3	30/3	1000	100	3	2.0	30	3.0/ 50	1.0/ 20		0.5/ 15	0.5/ 15				55.979
	1572	15/3	15/3	1500	5	3	2.5	20			0.5/ 10	2.0/ 20		3.5/ 60	0.5/ 10		7.431
	1572	17/3	17/3	2000	5	3	1.5	15			0.5/ 10	1.5/ 20		2.5/ 60	0.5/ 10		8.014
	1572	18/3	18/3	1500	10	3	2.0	25			0.5/ 10	1.0/ 20		2.0/ 40	1.0/ 30		7.731
														TOTAL FOR SECT.		173:	837.487
182	1050	1/3	1/3	250	125	3	0.4	80				0.2/ 20		0.4/ 80			1.113
	1050	1/3	2/3	125	65	3	0.8	80	0.8/100								0.432
	1050	1/3	2/3	300	200	3	0.7	80	0.7/100								2.970
	1050	3/3	4/3	200	100	3	0.5	80	0.5/100								0.843
	1050	3/3	4/3	350	100	3	1.5	75	1.5/100								3.460
	1050	6/3	7/3	200	50	3	0.7	80	0.7/100								0.495
	1050	6/3	7/3	300	75	3	0.6	80	0.6/100								1.031
	1050	6/3	6/3	150	50	1	0.2	75	0.2/100								0.252
	1050	7/3	7/3	500	125	3	0.4	75						0.4/ 20			3.156
	1050	7/3	7/3	150	75	3	0.3	60						0.4/ 30			0.652
	1050	8/3	8/3	125	30	1	0.3	50					0.3/100				0.274
	1050	8/3	9/3	200	40	3	1.0	80	1.0/ 80				1.0/ 20				0.537
	1050	8/3	9/3	225	60	5	3.0	75	3.0/100								2.252
	1050	15/3	15/3	110	50	3	0.6	50	0.6/100								0.630
	1050	19/3	19/3	100	30	1	0.3	80	0.3/100								0.090
	1051	10/3	11/3	125	50	3	0.5	70					0.4/ 50	0.6/ 50			0.416
	1051	10/3	11/3	200	40	3	0.4	60					0.4/100				0.674
	1051	12/3	12/3	600	125	4	1.3	70	0.5/ 15	0.5/ 10			0.5/ 15	2.0/ 60			11.486
	1051	14/3	15/3	600	40	5	1.5	80		2.0/ 75			0.5/ 25				3.960
	1051	14/3	14/3	250	150	1	0.3	75	0.3/ 50				0.3/ 50				1.387
	1051	15/3	15/3	150	15	3	0.5	75	0.5/100								0.119
	1051	1/4	3/4	300	35	7	6.0	20		7.0/ 60		5.0/ 3	6.0/ 15	6.0/ 4	4.0/ 8		15.473
	1053	5/3	5/3	75	20	1	0.3	50	0.3/100								0.112
	1053	7/3	7/3	60	30	1	0.4	30		0.4/100							0.273
	1053	14/3	14/3	150	65	3	0.3	50	0.3/100								0.730
	1053	14/3	14/3	110	50	3	0.3	60					0.3/ 70	0.3/ 30			0.283
	1053	20/3	21/3	70	15	5	2.0	50		1.0/ 30				0.3/ 70			0.114
	1053	24/3	25/3	125	20	3	0.5	50					0.5/ 30				0.355
	1054	20/3	20/3	40	5	1	0.2	70									0.007
	1054	20/3	20/3	50	15	3	0.5	75	0.5/ 60								0.040
	1054	22/3	22/3	75	30	3	0.5	50	0.5/100								0.237
	1054	24/3	25/3	110	30	3	0.6	60		0.6/ 30			0.6/ 50	0.6/ 20			0.401
	1054	28/3	28/3	80	10	3	0.3	60		0.3/ 20			0.3/ 40	0.3/ 40			0.039
	1055	28/3	28/3	100	10	3	0.4	70		0.4/100							0.065
														TOTAL FOR SECT.		182:	54.358

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
183	1021	6/3	6/3	50	25	1	0.3	80	0.3/100								0.112
	1022	8/3	8/3	80	50	3	0.3	70	0.3/100								0.540
	1022	9/3	9/3	200	50	3	0.7	70	0.8/ 80	0.5/ 20							2.434
	1041	27/2	27/2	100	25	1	0.2	70	0.2/100								0.303
	1041	22/3	22/3	60	20	3	0.5	50	0.5/ 90					0.5/ 10			0.378
	1041	24/3	24/3	70	25	1	0.4	50	0.4/100								0.474
	1041	28/3	28/3	50	20	1	0.4	60	0.4/100								0.217
														TOTAL FOR SECT. 183:			4.458
232	1132	10/3	12/3	425	8	7	4.7	0	6.0/ 40					5.0/ 50	3.0/ 10		4.682
	1132	10/3	12/3	30	7	7	5.0	40	3.0/ 50					7.0/ 50			0.182
	1132	10/3	12/3	55	5	7	5.0	70	6.0/ 70					4.0/ 30			0.103
	1132	10/3	12/3	275	50	7	4.5	15				6.0/ 70	3.0/ 30				12.144
	1132	10/3	12/3	250	7	5	3.2	0	1.0/ 10				3.5/ 40	5.0/ 50			2.445
	1132	10/3	12/3	25	3	5	2.0	20				2.0/ 20		2.0/ 80			0.039
	1132	10/3	12/3	75	8	5	1.4	10				2.0/ 20	0.3/ 10	2.0/ 70			0.323
	1142	10/3	12/3	250	10	5	4.0	75				4.0/ 50		4.0/ 50			0.640
	1142	10/3	12/3	950	3	5	2.0	70				2.0/ 50		2.0/ 50			0.518
	1142	10/3	12/3	375	15	5	2.3	10				4.0/ 50	1.0/ 10	2.0/ 40			3.509
	1142	10/3	12/3	425	5	5	2.3	0				4.0/ 50	1.0/ 40	2.0/ 10			1.336
	1142	10/3	12/3	300	33	5	2.5	50	2.5/ 10			4.0/ 70	1.0/ 10				3.107
	1142	10/3	12/3	50	3	5	3.0	5				5.0/ 90	1.0/ 10				0.116
	1142	10/3	12/3	100	2	3	0.5	60						1.0/ 60	0.0/ 40		0.020
	1142	10/3	12/3	350	3	4	2.0	60				2.0/ 20	2.0/ 10	2.0/ 70			0.280
	1142	10/3	12/3	300	8	5	2.5	10				4.0/ 55	0.5/ 10	3.0/ 35			1.698
	1142	10/3	12/3	250	10	4	1.8	40	2.0/ 90			1.5/ 10					0.730
	1142	10/3	12/3	500	2	5	1.6	10	2.0/ 15			2.0/ 20	0.3/ 5	2.0/ 60			0.536
	1142	10/3	12/3	100	7	4	1.8	30	4.0/ 10			2.0/ 10		1.0/ 70			0.193
	1144	10/3	12/3	1600	300	3	1.0	15	1.0/ 70	1.0/ 5				1.0/ 25			134.200
	1144	10/3	12/3	600	250	4	3.0	80	5.0/ 75					1.0/ 25			26.024
	1144	10/3	12/3	275	250	3	2.0	80	2.0/100								6.714
	1144	10/3	12/3	650	150	3	1.5	30	2.0/ 80					1.0/ 20			31.636
	1144	10/3	12/3	1550	50	5	1.7	25	3.0/ 20				1.0/ 5	1.0/ 75			25.006
	1144	10/3	12/3	1450	125	5	4.0	75	4.0/ 80					4.0/ 20			42.652
	1144	10/3	12/3	850	200	7	6.7	25	6.0/ 40					10.0/ 40	4.0/ 10		205.274
	1144	10/3	12/3	625	75	5	3.0	50	2.0/ 50					4.0/ 50			20.978
	1144	10/3	12/3	300	75	5	3.5	0	4.0/ 50					3.0/ 50			20.750
	1144	10/3	12/3	500	125	1	0.3	70	0.3/100								2.809
	1144	10/3	12/3	675	75	7	5.0	45	5.0/100								28.821
	1144	10/3	12/3	1000	25	5	1.8	25	0.5/ 45			4.0/ 10		2.5/ 40			9.599
	1144	10/3	12/3	800	100	3	1.0	50	1.0/100								12.107
	1144	10/3	12/3	225	50	3	1.5	50	1.0/ 50					2.0/ 50			2.768
	1144	10/3	12/3	600	100	4	2.0	50	2.0/ 50					2.0/ 50			17.546
	1144	10/3	12/3	850	50	3	2.5	50	2.5/100								12.277
	1145	10/3	12/3	525	50	5	3.5	15	4.0/ 90					3.0/ 10			19.308
	1145	10/3	12/3	425	50	7	7.0	25	7.0/ 25					7.0/ 75			32.107
	1150	10/3	12/3	125	50	5	3.5	85	3.0/ 85					4.0/ 15			0.715
	1150	10/3	12/3	200	35	6	4.0	50	4.0/ 50					4.0/ 50			3.768
	1150	10/3	12/3	150	25	5	3.0	85	5.0/ 50					1.0/ 50			0.394

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% HARE	GRASS	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
245	1220	12/3	12/3	30	5	5	6.0	5	6.0/100								0.261
	1220	12/3	12/3	200	10	5	6.0	20	6.0/100								2.931
	1225	9/3	9/3	400	10	3	4.0	0	4.0/100								5.112
	1225	9/3	9/3	80	10	7	10.0	0	10.0/100								0.954
	1225	9/3	9/3	70	5	5	6.0	0			6.0/100						0.452
	1225	9/3	9/3	15	15	7	12.0	0	12.0/ 80		12.0/ 20						0.487
	1225	9/3	9/3	80	10	7	10.0	0	10.0/100								0.954
	1225	9/3	9/3	200	100	7	8.0	0	8.0/100								47.705
	1225	9/3	9/3	40	10	3	2.0	10	2.0/100								0.264
	1225	9/3	9/3	300	30	3	2.0	20	2.0/100								5.279
	1225	9/3	9/3	125	30	3	2.0	10	2.0/100								2.474
	1225	9/3	9/3	150	30	3	2.0	5	2.0/100								3.134
	1225	9/3	9/3	1200	800	3	2.0	40	2.0/100								422.298
	1226	10/3	10/3	300	20	5	6.0	30	6.0/100								7.693
	1226	10/3	10/3	50	10	5	6.0	15	6.0/ 80	6.0/ 20							0.880
	1226	10/3	10/3	100	15	5	6.0	0	6.0/ 90	6.0/ 5	6.0/ 5						2.796
	1226	10/3	10/3	200	5	5	6.0	5	6.0/ 80	6.0/ 10	6.0/ 10						1.802
	1226	10/3	10/3	100	10	5	6.0	5	6.0/ 80	6.0/ 10	6.0/ 10						1.802
	1226	10/3	10/3	500	10	5	8.0	0	8.0/ 50	8.0/ 20	8.0/ 30						10.925
	1226	10/3	10/3	200	30	9	8.0	0	14.0/ 50	8.0/ 20	6.0/ 30						13.110
	1226	10/3	10/3	80	3	5	8.0	0		8.0/ 20	8.0/ 80						0.393
	1226	10/3	10/3	200	30	7	10.0	10	10.0/100								12.880
	1226	10/3	10/3	16	2	5	6.0	0		6.0/100							0.097
	1226	10/3	10/3	20	5	7	10.0	5	10.0/100								0.227
	1226	10/3	10/3	20	8	9	12.0	0			12.0/100						0.207
	1404	12/3	12/3	300	100	3	2.0	20	2.0/100								17.596
	1405	14/3	14/3	80	40	3	4.0	20	4.0/100								3.272
	1407	12/3	12/3	175	50	3	4.0	15	4.0/100								9.505
	1414	21/3	21/3	40	30	7	10.0	0	10.0/ 50		10.0/ 50						2.206
	1414	21/3	21/3	150	5	7	10.0	0			10.0/100						0.969
														TOTAL FOR SECT. 245:			2283.398
253	1262	7/3	20/3	190	30	4	3.8	30	4.0/ 90	2.0/ 10							5.193
	1262	7/3	20/3	560	15	4	4.0	30	4.0/100								7.515
	1262	7/3	20/3	140	40	1	0.5	80	0.5/100								0.354
	1262	7/3	20/3	60	50	1	0.5	80	0.5/100								0.190
	1262	7/3	20/3	450	75	1	0.1	80	0.1/100								1.364
	1262	7/3	20/3	125	100	3	3.0	80	3.0/100								2.505
	1262	7/3	20/3	100	50	6	6.0	0	6.0/100								9.158
	1262	7/3	20/3	260	100	4	4.0	0	4.0/100								33.228
	1262	10/3	15/3	1300	10	1	0.1	90	0.1/100								0.263
	1262	10/3	15/3	140	60	3	3.0	30	3.0/100								5.891
	1262	10/3	15/3	200	50	1	0.8	30	1.0/ 80		0.2/ 20						2.696
	1262	10/3	20/3	120	60	1	0.2	30	0.2/ 30	0.2/ 33				0.2/ 33			0.770
	1262	10/3	20/3	130	40	3	2.5	30	2.5/ 90					2.5/ 10			3.300
	1262	10/3	20/3	260	50	2	1.5	30	1.5/ 80	1.5/ 10					1.5/ 10		5.936
	1262	10/3	20/3	630	25	2	2.0	30	2.0/ 90				2.0/ 10				8.673
	1262	10/3	20/3	150	30	1	1.0	30	1.0/100								1.432
	1263	7/3	9/3	180	100	4	4.0	0	4.0/100								23.004
	1263	8/3	10/3	900	400	1	1.0	50	1.0/ 90		1.0/ 10						80.808

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
253	1263	8/3	10/3	570	200	1	0.1	30	0.1/100								19.355
	1263	8/3	10/3	130	50	1	0.5	0	0.5/100								2.056
	1263	8/3	10/3	230	120	4	4.0	30	4.0/100								24.691
	1263	8/3	10/3	220	100	4	4.0	30	4.0/100								19.681
	1263	9/3	10/3	430	100	1	0.5	80	0.5/ 40		0.5/ 40	0.5/ 10	0.5/ 10				2.747
	1263	9/3	10/3	200	50	1	0.2	30	0.2/100								1.415
	1263	9/3	10/3	130	80	1	0.1	0	0.1/100								2.102
	1263	9/3	10/3	300	100	2	2.0	30	2.0/100								15.396
	1263	9/3	10/3	100	100	4	4.0	0	4.0/100								12.780
	1266	10/3	10/3	160	130	2	1.5	30	2.0/ 50		1.0/ 50						8.240
	1266	10/3	10/3	170	80	2	2.0	0	2.0/ 50		2.0/ 10	2.0/ 20	2.0/ 20				11.549
	1266	10/3	10/3	180	100	1	1.0	30					1.0/ 50	1.0/ 50			7.870
	1266	10/3	10/3	280	130	9	10.0	30	10.0/100								60.777
	1266	10/3	10/3	150	50	3	2.5	30			2.5/ 70		2.5/ 30				5.572
	1266	10/3	10/3	360	180	6	5.5	30	5.5/ 60		5.5/ 40						69.513
	1266	10/3	10/3	190	160	2	1.5	30			1.5/100						11.728
	1268	10/3	15/3	330	110	2	1.7	80	2.0/ 60		0.2/ 15			2.0/ 25			5.166
	1268	10/3	15/3	900	320	1	0.5	80	0.5/100								18.222
	1268	10/3	15/3	200	100	1	1.1	0	1.5/ 60	0.5/ 40							10.581
	1268	10/3	15/3	50	50	1	0.5	30	0.5/ 40	0.5/ 30				0.5/ 30			0.606
	1268	10/3	15/3	720	250	1	0.3	30	0.3/100								26.346
	1268	10/3	15/3	220	70	2	2.4	30	2.5/ 70					2.0/ 30			9.855
	1268	10/3	15/3	240	110	6	6.0	30	6.0/ 90					6.0/ 10			35.772
	1268	10/3	15/3	350	60	2	2.0	30	2.0/ 80		2.0/ 20						10.681
	1268	15/3	15/3	1200	70	2	2.0	30	2.0/ 80	2.0/ 20							52.293
	1268	15/3	15/3	450	200	4	4.0	30	4.0/100								80.514
	1268	15/3	15/3	200	180	2	2.0	30	2.0/100								18.476
	1268	15/3	15/3	150	100	1	1.0	30	1.0/100								4.772
	1570	11/3	15/3	450	200	3	3.0	30	3.0/ 80		3.0/ 20						63.067
	1570	11/3	15/3	900	400	2	2.0	30	2.0/ 20	2.0/ 10	2.0/ 50	2.0/ 10	2.0/ 10				215.348
	1570	11/3	15/3	400	150	5	5.0	30	5.0/ 75	5.0/ 25							80.712
														TOTAL FOR SECT. 253:			1102.166
254	1472	24/3	24/3	3000	700	4	4.0	0	4.0/ 40	4.0/ 60							3252.814
	1472	24/3	24/3	3003	999	3	1.0	0	1.0/ 85	1.0/ 5	1.0/ 10						929.324
														TOTAL FOR SECT. 254:			4182.138
272	1311	9/3	9/3	750	125	4	4.0	15	4.0/ 80	4.0/ 10	4.0/ 10						77.167
	1313	8/3	9/3	2300	200	4	4.0	20	4.0/ 50	4.0/ 20	3.0/ 10	4.0/ 5		4.0/ 10			409.528
	1313	9/3	9/3	400	20	4	4.0	15	4.0/ 20	4.0/ 20	4.0/ 50			4.0/ 10			7.707
	1313	9/3	9/3	1500	100	4	4.0	20	4.0/ 5	4.0/ 60	4.0/ 20			4.0/ 10	3.0/ 5		191.514
	1313	9/3	9/3	150	50	4	4.0	15	4.0/ 80	4.0/ 20							6.909
														TOTAL FOR SECT. 272:			692.825
273	1319	8/3	10/3	1000	15	6	6.0	5	6.0/ 90			6.0/ 10					17.015
	1319	8/3	10/3	100	25	4	4.0	20	4.0/ 75		4.0/ 5	4.0/ 20					1.662
	1319	8/3	10/3	750	50	4	4.0	20	4.0/ 75		4.0/ 5	4.0/ 20					24.926
	1319	8/3	10/3	600	100	4	4.0	5	4.0/ 90	4.0/ 10							55.145
	1319	8/3	10/3	650	200	4	4.0	30	4.0/ 75	4.0/ 10	4.0/ 15						68.164
	1319	8/3	10/3	250	200	4	4.0	10	4.0/ 50		4.0/ 50						38.509

TABLE 11. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1979

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
273	1319	8/3	10/3	300	75	3	3.0	10	3.0/ 50		3.0/ 50						13.486
	1319	8/3	10/3	450	125	6	6.0	75	6.0/ 75	6.0/ 25							19.947
	1319	9/3	10/3	350	25	3	3.0	20	3.0/ 80			3.0/ 10			3.0/ 10		4.780
	1319	9/3	10/3	250	25	3	3.0	20	3.0/ 80			3.0/ 10			3.0/ 10		3.415
	1320	21/3	21/3	1500	30	6	6.0	10	6.0/ 75	6.0/ 20					6.0/ 5		56.822
	1321	10/3	13/3	300	25	4	4.0	15		4.0/ 20	4.0/ 60				4.0/ 20		7.309
	1321	10/3	13/3	700	20	4	4.0	20		4.0/ 20	4.0/ 50	4.0/ 10			4.0/ 20		12.714
	1321	10/3	13/3	500	50	4	4.0	15	4.0/ 80		4.0/ 20						18.126
	1321	10/3	13/3	650	100	4	4.0	20	4.0/ 40	4.0/ 5	4.0/ 50				4.0/ 5		48.266
	1321	10/3	13/3	500	100	3	2.0	30	2.0/ 20	2.0/ 40		2.0/ 30			2.0/ 10		25.082
	1321	10/3	13/3	1000	30	5	5.0	25	6.0/ 40		6.0/ 50		4.0/ 8		4.0/ 7		24.038
	1571	10/3	11/3	1500	100	5	5.0	10	5.0/ 30	4.0/ 20	6.0/ 50						154.377
	1571	10/3	11/3	2800	100	4	4.0	25	4.0/ 30	4.0/ 20	4.0/ 50						228.554
	1571	10/3	11/3	800	75	4	4.0	20		4.0/ 25	4.0/ 60		4.0/ 15				60.422
	1571	13/3	13/3	400	50	6	6.0	25	6.0/ 10	6.0/ 30	6.0/ 50				6.0/ 10		19.905
	1571	13/3	13/3	250	50	5	5.0	5	5.0/ 90		5.0/ 10						12.084
	1571	13/3	13/3	300	25	4	4.0	10		4.0/ 80	4.0/ 20						12.038
														TOTAL FOR SECT.		273:	946.784

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
1	64	10/4	10/4	850	5	2	0.0	80	0.5/100								0.538
	64	10/4	10/4	225	3	2	0.0	90		0.5/100							0.058
	64	10/4	10/4	250	5	2	0.0	90		0.5/100							0.108
	64	10/4	10/4	300	5	2	0.0	90		0.5/100							0.130
	64	10/4	10/4	2700	5	5	0.0	90	3.0/100								2.705
	73	10/4	10/4	400	8	4	0.0	50	1.5/100								1.900
														TOTAL FOR SECT.		1:	5.439
2	60	29/3	29/3	250	5	3	0.0	15	1.0/ 70	1.5/ 30							1.398
	60	29/3	29/3	400	20	2	0.0	15	0.5/ 60	0.5/ 30		0.5/ 5	0.5/ 5				4.992
	60	29/3	29/3	750	5	2	0.0	25	0.5/ 40	0.5/ 40		0.3/ 5	0.3/ 5		0.3/ 5		1.979
	60	29/3	29/3	20	10	4	0.0	0	2.5/100								0.347
	60	29/3	29/3	1000	15	4	0.0	40	2.0/ 80		0.5/ 10				0.5/ 10		11.380
	1620	29/3	31/3	350	3	2	0.0	0	0.5/100								0.664
	1620	29/3	31/3	400	15	5	0.0	10	1.5/ 30	1.5/ 10	2.0/ 60						7.686
	1620	29/3	31/3	125	10	6	0.0	0	5.0/ 85	5.0/ 15							4.437
	1620	29/3	31/3	100	20	4	0.0	20	2.0/ 80	2.0/ 20							2.846
	1620	29/3	31/3	40	30	5	0.0	20	4.5/ 20		2.0/ 80						1.620
	1620	29/3	31/3	200	35	8	0.0	15	7.5/100								26.734
	1620	29/3	31/3	1900	10	5	0.0	20	2.5/ 40	2.5/ 10	2.0/ 40				1.5/ 10		26.673
														TOTAL FOR SECT.		2:	90.756
3	95	31/3	31/3	200	5	3	0.0	0	1.0/100								0.909
	95	31/3	31/3	800	4	3	0.0	0	1.0/ 70		1.0/ 30						2.802
	95	31/3	31/3	400	12	5	0.0	0	3.0/100								9.617
	95	31/3	31/3	300	12	5	0.0	0	3.0/100								7.213
	95	31/3	31/3	40	5	3	0.0	0		1.0/100							0.311
	95	31/3	31/3	50	3	3	0.0	0	1.0/ 50	1.0/ 50							0.185
	97	20/4	20/4	700	5	2	0.0	50	0.5/100								1.107
	97	20/4	20/4	450	5	2	0.0	50	0.5/ 50	0.5/ 50							0.842
	97	20/4	20/4	125	10	2	0.0	30	0.5/ 50	0.5/ 50							0.655
	97	20/4	20/4	100	10	2	0.0	30	0.5/ 50	0.5/ 50							0.524
	97	20/4	20/4	150	2	2	0.0	90	0.5/100								0.019
	97	20/4	20/4	550	5	1	0.0	30	0.3/ 60	0.1/ 40							0.773
	97	20/4	20/4	900	10	3	0.0	20	1.0/ 75	1.0/ 25							7.710
	97	20/4	20/4	200	2	2	0.0	50		0.5/100							0.173
	97	20/4	20/4	275	5	2	0.0	40	0.5/ 50	0.5/ 50							0.617
	98	30/3	30/3	2000	5	5	0.0	0	3.0/ 98	1.0/ 1	1.0/ 1						19.871
	98	30/3	30/3	400	5	3	0.0	0	1.0/ 60		1.0/ 40						1.729
	98	30/3	30/3	1100	2	3	0.0	0	1.0/ 95	1.0/ 5							2.071
														TOTAL FOR SECT.		3:	57.129
5	80	22/3	22/3	200	10	3	0.0	20	1.5/ 15	1.5/ 60	0.3/ 10				1.5/ 15		2.810
	80	26/3	26/3	450	4	6	0.0	0		5.0/100							10.887
	80	26/3	26/3	1000	5	6	0.0	5	4.0/ 30	4.0/ 70							23.754
	80	26/3	26/3	500	4	5	0.0	0		3.0/100							9.044
	80	26/3	26/3	1400	5	6	0.0	10	5.0/ 50	5.0/ 50							28.844
	80	26/3	26/3	700	5	5	0.0	10	3.0/ 50	3.0/ 50							10.278
	80	26/3	26/3	500	7	5	0.0	10	3.0/ 50	3.0/ 50							10.278

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
5	80	26/3	26/3	500	5	6	0.0	10	4.0/ 40	4.0/ 40	4.0/ 20						8.907
	80	26/3	26/3	800	7	6	0.0	10	3.0/ 60	2.0/ 10	3.0/ 30						10.603
	80	26/3	26/3	230	17	5	0.0	10	3.0/ 80	3.0/ 10	3.0/ 10						7.934
	80	3/4	3/4	270	15	5	0.0	10	3.0/100								7.303
	80	3/4	3/4	300	5	4	0.0	10	2.0/100								1.980
	80	3/4	3/4	230	5	5	0.0	10	3.0/100								2.074
														TOTAL FOR SECT.		5:	134.695
6	76	20/3	21/3	175	10	3	0.0	40	1.0/100								0.954
	76	21/3	21/3	300	10	3	0.0	60	2.0/ 50	2.0/ 5	1.0/ 45						1.493
	76	21/3	22/3	140	25	2	0.0	35		0.5/ 60				0.5/ 30	0.1/ 10		1.639
	76	21/3	22/3	325	40	3	0.0	45	1.0/ 30	2.0/ 40	0.5/ 10				0.2/ 20		11.263
	76	21/3	22/3	175	20	2	0.0	30	0.5/ 35	0.5/ 30				1.0/ 25	0.1/ 10		1.900
	76	21/3	21/3	100	75	3	0.0	40	1.0/ 30	1.0/ 20	1.0/ 50						4.425
	76	21/3	21/3	200	10	4	0.0	20	2.0/ 80	2.0/ 20							2.846
	76	21/3	21/3	100	75	7	0.0	60			3.0/100						5.988
	76	21/3	21/3	650	5	4	0.0	10	1.5/ 80	1.5/ 20							4.104
	76	21/3	21/3	100	100	4	0.0	45			1.5/100						6.062
	76	21/3	21/3	450	3	5	0.0	10	3.0/ 90	3.0/ 10							2.740
	76	21/3	21/3	300	25	5	0.0	50			2.0/100						5.254
	76	21/3	21/3	310	25	7	0.0	40			3.0/100						9.282
	76	22/3	24/3	300	35	1	0.0	60	0.5/ 25		0.3/ 75						1.515
	76	22/3	24/3	150	15	3	0.0	65	1.0/ 30	1.0/ 55	1.0/ 15						0.983
	76	22/3	24/3	130	20	4	0.0	60	0.5/ 20	2.0/ 70					0.2/ 10		2.358
	76	2/4	2/4	30	10	5	0.0	0	3.0/100								0.601
	77	8/4	8/4	2500	10	3	0.0	10	1.0/ 70	1.0/ 25	0.5/ 2				0.5/ 3		23.579
	1619	22/3	22/3	210	5	8	0.0	50			4.0/100						1.356
	1619	22/3	22/3	300	10	9	0.0	20	0.5/ 20		5.0/ 80						5.264
	1619	22/3	22/3	75	75	3	0.0	50	1.0/ 25		1.0/ 75						2.323
	1619	22/3	22/3	400	6	3	0.0	75	1.0/ 25		1.0/ 75						0.496
	1619	22/3	22/3	250	20	2	0.0	70			0.5/100						0.731
														TOTAL FOR SECT.		6:	97.158
12	1360	8/2	10/2	900	15	1	0.0	40		0.8/ 25	0.2/ 5			0.5/ 10	0.1/ 60		4.204
	1574	26/3	28/3	975	40	2	0.0	60	1.0/ 10	1.5/ 50				1.0/ 15	2.0/ 25		28.303
	1575	8/2	19/2	250	10	1	0.0	70	0.8/ 20	0.5/ 25				0.8/ 10	0.1/ 45		0.421
	1575	8/2	10/2	500	30	1	0.0	50	0.1/ 5	0.8/ 30				0.5/ 15	0.3/ 50		4.669
	1575	26/3	28/3	1000	50	3	0.0	50	1.5/ 10	2.0/ 55				4.0/ 10	2.0/ 25		65.049
	1576	2/2	4/2	300	40	1	0.0	40	0.5/ 5	0.5/ 40				0.3/ 5	0.1/ 50		3.579
	1576	2/2	4/2	1200	50	1	0.0	65	0.3/ 25	0.4/ 10				0.5/ 5	0.1/ 60		7.049
	1576	18/2	19/2	210	60	1	0.0	50	0.2/ 15	0.4/ 35				0.4/ 10	0.2/ 40		2.626
	1576	20/2	23/2	450	100	1	0.0	60		0.5/ 40				0.5/ 40	0.2/ 20		11.326
	1616	2/2	3/2	520	50	1	0.0	40	0.3/ 25	0.5/ 15				0.5/ 10	0.1/ 50		6.381
	1617	23/2	25/2	1500	60	2	0.0	40	0.5/ 15	1.5/ 50				4.0/ 15	2.0/ 20		116.378
	1617	25/3	26/3	1650	50	3	0.0	40	1.0/ 15	2.0/ 45				6.0/ 15	2.5/ 25		143.263
														TOTAL FOR SECT.		12:	393.247
24	133	15/4	18/4	1216	16	2	0.0	10	0.5/ 20	1.0/ 30	2.0/ 20			3.0/ 20	1.0/ 10		28.502
	133	15/4	18/4	1378	10	3	0.0	16	8.0/ 5	1.0/ 25	4.0/ 40			4.0/ 10	1.0/ 10		26.543
	133	15/4	18/4	1114	11	3	0.0	0	5.0/ 20	1.3/ 50				3.0/ 20	1.0/ 10		28.115

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
24	133	15/4	18/4	400	41	4	0.0	0	6.5/ 50	1.0/ 20				3.0/ 5	0.8/ 20		42.804
	133	15/4	18/4	415	21	3	0.0	0	5.0/ 30	2.0/ 25		3.0/ 10			2.0/ 20		23.330
	133	26/4	26/4	2500	4	2	0.0	0			2.0/100						14.010
	1608	2/4	2/4	425	20	1	0.0	0	0.8/ 20		0.8/ 80						5.940
	1608	2/4	2/4	250	20	1	0.0	0	0.8/ 20		0.8/ 80						3.494
														TOTAL FOR SECT.		24:	172.739
25	164	30/3	31/3	2020	11	3	0.0	33	3.0/ 20	2.0/ 10	4.0/ 40	1.0/ 10	0.5/ 5	1.0/ 5			10.481
	164	19/4	20/4	25	25	4	0.0	0			4.0/ 90						0.610
	164	26/4	26/4	35	10	1	0.0	0	1.0/ 10		1.0/ 90						0.094
	165	28/3	30/3	200	30	2	0.0	10			2.0/100						2.519
	165	28/3	30/3	100	10	1	0.0	10	1.0/ 40	1.0/ 40	0.5/ 20						0.325
	165	28/3	30/3	200	20	4	0.0	50			4.0/ 80		2.0/ 20				1.714
	165	31/3	2/4	1300	4	3	0.0	60	3.0/ 20		5.0/ 60						1.567
	165	31/3	2/4	150	10	3	0.0	10	3.0/ 15	2.0/ 10	4.0/ 65						1.162
	165	31/3	2/4	150	50	5	0.0	10	4.0/ 25		5.0/ 75						5.792
	165	31/3	4/4	250	15	4	0.0	10	3.0/ 33		6.0/ 34						3.974
	165	31/3	4/4	50	20	1	0.0	0			0.5/100						0.162
	165	31/3	2/4	50	10	7	0.0	0			7.0/100						0.430
	165	31/3	2/4	300	4	4	0.0	50	1.0/ 10		5.0/ 80						0.462
	165	31/3	2/4	300	5	5	0.0	20	4.0/ 20		5.0/ 60						1.307
	165	31/3	2/4	300	75	5	0.0	30	5.0/ 50		5.0/ 40			3.0/ 10			15.136
	165	31/3	2/4	100	13	4	0.0	5	2.0/ 40	2.0/ 10	5.0/ 40						1.040
	165	3/4	4/4	440	20	1	0.0	50			1.0/100						1.170
	165	3/4	4/4	200	20	1	0.0	5	0.5/ 10		1.0/ 90						0.989
	165	3/4	4/4	500	20	5	0.0	5	5.0/ 20	5.0/ 10	5.0/ 70						9.661
	165	3/4	4/4	400	30	3	0.0	20	3.0/ 90		2.0/ 10						6.213
	165	3/4	4/4	100	50	1	0.0	0	1.0/ 70		5.0/ 10						3.504
	165	3/4	4/4	600	4	6	0.0	0	5.0/ 50	4.0/ 10	5.0/ 10						3.382
	168	25/3	30/3	700	15	5	0.0	10	6.0/ 60		4.0/ 40						10.169
	168	25/3	30/3	700	30	5	0.0	10	6.0/ 80		4.0/ 20						21.697
	168	25/3	30/3	440	30	9	0.0	0	9.0/100								20.969
	168	25/3	30/3	150	50	5	0.0	80	6.0/ 80		4.0/ 20						1.722
	168	29/3	1/4	400	75	3	0.0	90	4.0/ 50		1.0/ 50						1.676
	168	29/3	1/4	200	50	6	0.0	50	4.0/ 40		8.0/ 50			2.0/ 5	2.0/ 5		4.166
	168	29/3	1/4	50	20	1	0.0	0			0.5/100						0.162
	168	29/3	1/4	800	20	5	0.0	90	6.0/ 80		3.0/ 20						1.774
	168	29/3	1/4	700	40	8	0.0	20	8.0/ 75	6.0/ 10	8.0/ 15						34.091
	168	29/3	1/4	440	20	6	0.0	10	6.0/ 40		6.0/ 60						7.953
	168	29/3	1/4	120	5	8	0.0	10	9.0/ 60		6.0/ 40						0.701
	168	29/3	1/4	150	15	1	0.0	80	0.5/ 50		0.5/ 50						0.084
	168	31/3	31/3	100	100	1	0.0	10	1.0/ 50		1.0/ 50						2.558
	168	1/4	2/4	200	50	4	0.0	0	4.0/ 20		4.0/ 80						8.585
	168	1/4	2/4	1000	100	3	0.0	30		4.0/ 20	5.0/ 70			2.0/ 5	2.0/ 5		74.730
	168	1/4	2/4	300	100	5	0.0	80	4.0/ 80		6.0/ 20						5.118
	168	1/4	2/4	100	50	5	0.0	0		4.0/ 15	6.0/ 85						5.167
	168	1/4	2/4	200	30	4	0.0	90		4.0/ 90	2.0/ 10						1.116
	168	1/4	4/4	200	20	5	0.0	0	4.0/ 25	4.0/ 25	6.0/ 50						4.586
	170	31/3	3/4	100	40	1	0.0	0			0.5/100						0.649
	170	31/3	3/4	75	5	1	0.0	0			1.0/100						0.100

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
25	170	31/3	3/4	125	5	2	0.0	0			2.0/100						0.292
	170	31/3	3/4	650	9	2	0.0	0			1.4/100						2.029
	170	31/3	3/4	500	14	4	0.0	10	5.0/ 25	0.8/ 10	4.5/ 20	2.0/ 10		5.0/ 20	2.0/ 15		5.879
	170	31/3	3/4	1214	18	5	0.0	4	6.0/ 10	1.6/ 25		3.5/ 35		6.0/ 25	1.0/ 5		22.201
	170	31/3	3/4	810	24	4	0.0	0	5.0/ 50	1.0/ 20	5.0/ 5			5.0/ 20	1.0/ 5		19.440
	170	31/3	3/4	912	17	3	0.0	0	4.5/ 30	2.0/ 25		1.5/ 10		4.0/ 25	2.0/ 10		14.957
	170	31/3	3/4	1256	18	4	0.0	3	4.0/100								18.666
	170	31/3	3/4	1054	24	5	0.0	8	4.7/100								22.805
	170	1/4	3/4	1013	18	5	0.0	15	5.0/100								16.043
	170	1/4	3/4	1215	10	3	0.0	0	4.0/ 10	1.0/ 20	2.0/ 30	0.5/ 10		4.0/ 30			9.177
	171	17/4	19/4	150	15	3	0.0	5		3.0/ 5	3.0/ 75			2.0/ 20			1.518
	171	17/4	19/4	400	10	1	0.0	5	1.0/ 10		1.0/ 90						1.024
	171	17/4	19/4	100	15	2	0.0	30			0.5/ 30			3.0/ 70			0.781
	171	17/4	19/4	25	3	3	0.0	5		3.0/ 10	0.5/ 10			3.0/ 80			0.069
	171	17/4	19/4	30	10	3	0.0	5	3.0/ 5	1.0/ 10			1.0/ 5	3.0/ 80			0.257
	171	17/4	19/4	75	15	2	0.0	20		1.0/ 25	0.5/ 25			3.0/ 50			0.600
	178	1/4	4/4	600	25	4	0.0	25	3.0/ 10	2.0/ 10	5.0/ 80						9.628
	178	1/4	4/4	300	25	2	0.0	50	2.0/100								1.831
	178	1/4	4/4	300	13	4	0.0	10	6.0/ 15		4.0/ 75				2.0/ 10		3.107
	178	1/4	4/4	50	20	5	0.0	90	6.0/ 30		4.0/ 40			2.0/ 15	2.0/ 15		0.090
	178	1/4	4/4	20	50	2	0.0	0		2.0/ 50							1.008
	178	1/4	4/4	200	13	5	0.0	0	6.0/ 30	2.0/ 5	4.0/ 55		1.0/ 3		2.0/ 5		2.476
	178	1/4	4/4	20	30	6	0.0	10	6.0/100								0.659
	178	1/4	4/4	100	15	2	0.0	10	2.0/100								0.659
	178	1/4	4/4	220	100	3	0.0	75	3.0/ 80		1.0/ 20						3.228
	178	4/4	6/4	450	10	3	0.0	10	3.0/ 10		3.0/ 90						2.693
	178	4/4	6/4	350	35	2	0.0	10	2.0/ 10		2.0/ 90						5.168
	178	4/4	6/4	350	15	2	0.0	10	2.0/ 10		2.0/ 90						2.215
	178	4/4	6/4	350	8	2	0.0	25	1.0/ 10	1.0/ 10	2.0/ 80						0.956
	182	9/3	13/3	4011	15	3	0.0	6	3.5/ 15	0.9/ 15	3.7/ 25	1.8/ 5		3.0/ 15	3.0/ 20		42.101
	182	9/3	13/3	2891	28	4	0.0	2	4.0/ 35	0.8/ 2	4.5/ 35	2.0/ 2	3.0/ 1	3.7/ 10	2.5/ 10		66.375
	182	9/3	13/3	1686	36	4	0.0	7	5.0/ 35	0.8/ 1	4.0/ 50	3.0/ 1	0.8/ 1	3.0/ 5	2.0/ 5		50.286
	182	9/3	13/3	1809	9	4	0.0	5	4.6/ 30	2.0/ 1	5.0/ 30	2.4/ 15		5.5/ 2	2.3/ 20		12.973
	182	17/3	17/3	2099	6	4	0.0	2	5.0/ 50	0.5/ 1	4.5/ 20	2.0/ 15			3.0/ 10		11.077
	1536	26/3	30/3	250	140	8	0.0	0			8.0/100						30.112
	1536	26/3	30/3	1756	31	3	0.0	3	2.7/ 25	1.3/ 10	4.5/ 30	2.0/ 10	0.5/ 5	2.0/ 10	1.0/ 5		33.841
	1536	26/3	27/3	467	34	4	0.0	0	5.0/ 35	1.0/ 2	2.5/ 60			1.0/ 2			11.479
	1536	28/3	29/3	3527	18	4	0.0	7	3.8/ 85	1.5/ 5	3.0/ 10						47.020
	1552	1/4	2/4	250	4	4	0.0	10	4.0/100								0.766
	1552	1/4	2/4	400	75	2	0.0	25			2.0/100						10.497
	1552	1/4	2/4	175	100	4	0.0	50			4.0/100						7.528
	1552	1/4	2/4	700	50	2	0.0	50	2.0/ 20		1.0/ 80						5.431
	1552	1/4	2/4	100	100	2	0.0	10	2.0/ 50		2.0/ 50						4.297
	1552	1/4	2/4	440	30	1	0.0	50	1.0/ 30		1.0/ 60			2.0/ 10			2.102
	1552	1/4	2/4	100	20	1	0.0	75	1.0/ 80		1.0/ 20						0.148
	1552	1/4	2/4	750	25	3	0.0	75			3.0/100						3.116
	1552	1/4	2/4	250	8	3	0.0	0	3.0/100								1.334
	1552	1/4	2/4	350	15	2	0.0	10	2.5/ 75		4.5/ 25						3.064
	1552	1/4	2/4	480	4	4	0.0	10	3.0/ 10		4.5/ 90						1.453
	1552	1/4	2/4	300	25	2	0.0	10	2.0/100								3.296

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
25	1552	1/4	2/4	200	25	3	0.0	30	3.0/100								2.335
	1552	1/4	2/4	250	15	1	0.0	5	1.5/100								1.439
	1552	1/4	2/4	350	20	1	0.0	30	0.6/100								1.123
	1552	1/4	2/4	200	20	3	0.0	30	3.0/ 90		3.0/ 10						1.867
	1552	2/4	3/4	1300	3	1	0.0	0	0.5/100								0.822
	1552	2/4	3/4	150	3	1	0.0	0	0.5/100								0.095
	1552	2/4	3/4	375	11	1	0.0	0	1.0/100								1.249
	1552	2/4	3/4	150	12	1	0.0	0	1.5/100								0.712
	1552	2/4	3/4	225	5	1	0.0	0	1.5/100								0.445
	1552	2/4	3/4	500	20	4	0.0	50	4.0/100								4.256
	1552	2/4	3/4	400	10	3	0.0	75	3.0/ 80		1.0/ 20						0.587
	1552	2/4	3/4	75	25	2	0.0	5	2.0/100								0.870
	1552	2/4	3/4	150	1	4	0.0	0			0.4/100						0.019
	1552	2/4	3/4	200	25	1	0.0	10	1.5/ 90		1.5/ 10						1.767
	1552	2/4	3/4	80	7	1	0.0	5		1.5/ 50		1.5/ 25	1.5/ 25				0.351
	1552	2/4	3/4	80	30	3	0.0	0	3.0/100								1.601
	1553	27/3	30/3	170	30	8	0.0	0	2.0/ 20		9.0/ 80						4.008
	1553	28/3	30/3	200	20	3	0.0	0	4.0/ 40	2.0/ 20	4.0/ 30				2.0/ 10		3.428
	1553	28/3	30/3	200	20	2	0.0	50	1.0/ 50		2.0/ 50						0.769
	1553	28/3	30/3	200	20	5	0.0	50	6.0/ 50		6.0/ 50						2.080
	1553	28/3	30/3	200	50	5	0.0	50	4.0/ 50		6.0/ 50						4.279
	1606	19/3	19/3	470	22	1	0.0	0	1.2/ 20	0.2/ 20	0.3/ 50				2.0/ 10		1.982
	1606	31/3	1/4	400	20	3	0.0	10	3.5/ 50		3.0/ 25	4.0/ 10			2.0/ 15		5.082
	1606	31/3	1/4	150	15	3	0.0	15	3.0/ 30		3.0/ 30	3.0/ 20	3.0/ 20				1.475
	1606	31/3	1/4	300	15	4	0.0	10	4.0/ 20		3.0/ 30	4.0/ 20	4.0/ 20		1.5/ 10		3.566
	1606	31/3	1/4	200	30	2	0.0	10				2.0/ 15	2.0/ 15		1.5/ 50		3.353
	1606	2/4	3/4	600	5	1	0.0	15			2.0/100						1.190
	1606	2/4	3/4	75	75	3	0.0	0			3.0/100						3.739
	1606	2/4	3/4	250	4	2	0.0	0			2.0/100						0.467
	1606	2/4	3/4	125	4	4	0.0	0			4.0/100						0.430
	1606	2/4	3/4	100	50	1	0.0	0			0.5/100						0.811
	1606	2/4	3/4	100	100	1	0.0	0			1.0/100						2.659
	1606	2/4	3/4	125	5	3	0.0	0			3.5/100						0.477
	1606	2/4	3/4	200	2	3	0.0	0			3.0/100						0.266
	1607	14/3	15/3	758	9	1	0.0	25	2.0/ 15	1.0/ 20	0.8/ 10	1.2/ 5			1.5/ 45		2.188
														TOTAL FOR SECT.		25:	858.941
32	198	7/4	7/4	700	20	7	0.0	30	8.0/ 20	2.0/ 10	6.0/ 20			6.0/ 10	3.0/ 40		33.051
33	190	31/3	31/3	150	75	1	0.0	0	0.3/ 20	0.3/ 15	1.0/ 25			0.5/ 40			2.233
	190	31/3	31/3	450	50	3	0.0	0	1.5/ 45	0.3/ 15	1.0/ 15			0.5/ 25			6.520
	190	31/3	31/3	225	8	1	0.0	0	0.3/ 20		0.5/ 30			0.8/ 50			0.411
	190	31/3	31/3	140	70	3	0.0	5		0.3/ 20	2.0/ 70			0.5/ 10			3.498
	190	31/3	31/3	560	8	1	0.0	10	0.8/ 20	0.3/ 5	0.5/ 25		0.3/ 5	0.5/ 45			0.801
	190	31/3	31/3	450	10	1	0.0	10	1.0/ 60		0.3/ 20			0.3/ 20			0.880
	190	31/3	31/3	350	20	1	0.0	5	1.0/ 60	0.5/ 10	0.5/ 5			0.8/ 25			1.950
	211	26/3	27/3	250	10	1	0.0	40		0.2/ 50				0.2/ 50			0.127
	211	26/3	27/3	200	150	1	0.0	0	0.8/ 70					0.4/ 30			6.884
	211	26/3	27/3	150	25	1	0.0	25	0.5/ 80	1.0/ 20							0.766
	211	26/3	27/3	1250	20	3	0.0	15	2.0/ 55	0.5/ 20	0.2/ 5			0.2/ 20			7.261

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
33	214	31/3	31/3	330	15	3	0.0	0	2.0/ 60	0.5/ 15	0.5/ 10			0.5/ 15			1.893
	216	26/3	27/3	250	40	1	0.0	10	0.5/ 25	1.0/ 35	0.5/ 15			0.5/ 15	0.5/ 10		2.725
	216	27/3	27/3	300	15	3	0.0	10	3.0/ 25	1.0/ 35				0.5/ 30	0.5/ 10		1.712
	216	27/3	27/3	2100	40	3	0.0	0	3.0/ 25	1.5/ 35			0.2/ 5	1.0/ 25	0.8/ 10		46.227
	216	27/3	27/3	950	50	3	0.0	0	0.5/ 25	1.5/ 40			0.5/ 5	0.5/ 25	1.0/ 5		20.542
	216	31/3	1/4	300	200	5	0.0	30		2.0/ 25			0.2/ 20	4.0/ 50	0.5/ 5		39.179
	217	25/3	25/3	1100	25	3	0.0	0	1.5/ 50	0.5/ 20	0.4/ 10			1.0/ 20			9.371
	217	25/3	25/3	1500	10	1	0.0	10	0.2/ 40	0.2/ 15	0.2/ 20			0.2/ 25			1.346
	218	25/3	25/3	1100	20	1	0.0	10	0.5/ 15	0.2/ 30	0.2/ 20			0.5/ 25	0.1/ 10		2.695
	218	25/3	25/3	1200	20	1	0.0	15	0.7/ 25	0.4/ 30	0.2/ 5			0.2/ 20	0.1/ 20		3.195
	218	25/3	25/3	350	15	1	0.0	0	0.5/ 25	0.4/ 30	0.2/ 15			0.5/ 30			0.990
	1488	2/4	5/4	700	20	3	0.0	0	2.0/ 20	0.5/ 10	0.2/ 50			1.0/ 20			3.294
														TOTAL FOR SECT.		33:	164.500
42	239	5/5	5/5	325	30	3	0.0	0	1.5/ 20		1.0/ 30			2.5/ 50			5.633
	239	7/5	7/5	650	10	3	0.0	0	0.8/ 10	0.1/ 10	0.8/ 10			2.5/ 70			4.202
	260	1/4	10/4	300	400	4	0.0	0	1.5/ 80		0.5/ 20						41.859
	260	1/4	3/4	150	5	3	0.0	0	1.5/100								0.297
	260	1/4	3/4	350	20	1	0.0	0						0.3/100			0.618
	260	1/4	3/4	150	40	3	0.0	0	0.8/100								1.595
	260	1/4	3/4	100	50	1	0.0	0		0.5/ 40				0.3/ 60			0.840
	260	1/4	3/4	300	40	2	0.0	0	1.0/ 50					0.5/ 50			3.020
	260	1/4	3/4	400	40	1	0.0	20		0.1/ 13				0.3/ 87			1.165
	260	1/4	3/4	500	50	4	0.0	10		1.5/ 33				2.0/ 67			15.872
	260	1/4	3/4	450	30	1	0.0	20	0.3/ 10	0.3/ 30				0.3/ 60			1.204
	260	1/4	3/4	750	50	3	0.0	20	1.5/100								11.864
	262	31/3	31/3	600	215	1	0.0	20			0.2/ 70			0.1/ 30			7.058
	262	31/3	31/3	450	70	4	0.0	35	2.0/100								9.998
	262	31/3	31/3	600	235	1	0.0	60			0.5/ 70		0.5/ 20	0.5/ 10			10.638
	266	31/3	31/3	750	50	4	0.0	20	2.0/100								14.648
	266	31/3	3/4	1600	50	4	0.0	20	1.5/ 60	1.0/ 20	0.8/ 10			5.0/ 10			33.548
	266	31/3	31/3	250	35	1	0.0	20		0.1/ 25	0.1/ 45			0.7/ 30			0.977
	266	31/3	31/3	500	70	1	0.0	20	4.0/ 35	0.1/ 24				0.8/ 41			12.510
	266	31/3	31/3	150	65	4	0.0	20	3.0/ 80	0.3/ 10				0.5/ 10			4.433
	266	31/3	31/3	250	25	1	0.0	0		2.0/ 25	0.2/ 50			0.5/ 25			2.114
	1362	8/5	8/5	1600	10	1	0.0	0	0.2/ 70		0.1/ 10			0.2/ 20			1.815
	1598	30/3	30/3	300	50	4	0.0	20	2.5/100								6.933
														TOTAL FOR SECT.		42:	192.842
43	291	20/4	23/4	100	20	3	0.0	30	2.0/ 70	0.1/ 15				0.3/ 15			0.520
	291	20/4	23/4	222	25	1	0.0	0		0.2/ 25	0.1/ 70	6.0/ 5					0.698
	291	20/4	23/4	100	70	5	0.0	0		0.8/ 5	3.0/ 90				0.2/ 5		4.362
	291	20/4	23/4	70	10	3	0.0	0	1.5/100								0.277
	291	20/4	23/4	205	30	5	0.0	0	2.0/ 5		3.0/ 80	4.0/ 10			0.1/ 5		3.902
	291	20/4	23/4	142	50	5	0.0	0		0.8/ 10	3.0/ 75	6.0/ 5					4.899
	291	20/4	23/4	24	25	3	0.0	50			0.1/ 40	3.5/ 50		0.1/ 10			0.114
	291	20/4	23/4	177	25	3	0.0	0	3.5/ 10		1.5/ 70	5.0/ 20					2.229
	291	20/4	23/4	132	25	1	0.0	5			0.5/100						0.509
	291	20/4	23/4	160	25	3	0.0	5			2.0/ 95	3.0/ 5					1.806
	291	20/4	23/4	30	25	1	0.0	0			0.3/100						0.067

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SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
43	291	20/4	23/4	192	25	3	0.0	5			2.0/ 95	0.5/ 5					2.103
	291	20/4	23/4	260	25	4	0.0	0		0.3/ 3	0.2/ 25	3.0/ 70		2.0/ 2			3.140
	291	20/4	23/4	314	25	4	0.0	0			2.5/ 95	1.2/ 5					4.400
	291	20/4	23/4	252	25	5	0.0	5			4.0/100						5.149
	291	20/4	23/4	102	25	3	0.0	0	1.8/ 45		0.4/ 40	2.0/ 10					0.910
	291	20/4	23/4	56	25	1	0.0	0			0.2/ 70	1.0/ 30					0.246
	291	20/4	23/4	800	25	3	0.0	0			1.5/ 75	2.0/ 25					8.152
	291	20/4	23/4	216	25	3	0.0	0	2.0/ 5		2.0/ 55	1.0/ 10		0.5/ 30			2.068
	291	20/4	23/4	646	25	5	0.0	0		0.1/ 10	3.5/ 80	4.5/ 7		0.5/ 3			11.031
	291	20/4	23/4	156	25	3	0.0	0		0.5/ 15	1.5/ 70	3.5/ 5		0.1/ 5	0.1/ 5		1.331
	291	20/4	23/4	100	30	4	0.0	50		0.1/ 10	0.7/ 50	3.5/ 40					0.585
														TOTAL FOR SECT.		43:	58.500
52	297	14/4	14/4	1500	15	4	0.0	10	2.0/ 10	1.5/ 20			1.0/ 10	1.5/ 60			11.349
	338	5/4	8/4	250	15	4	0.0	10		2.0/ 50	1.0/ 50						2.150
	338	5/4	8/4	250	15	4	0.0	5							2.0/ 90		2.008
	338	5/4	8/4	150	15	4	0.0	5							2.0/ 90		1.205
	339	22/4	23/4	300	150	4	0.0	5	2.0/100								20.874
	344	1/4	8/4	1550	50	5	0.0	5		3.0/ 35	2.0/ 25		2.0/ 10	4.0/ 25	2.0/ 5		79.662
	344	1/4	8/4	225	30	4	0.0	10		2.0/ 30	1.0/ 20		1.0/ 20	4.0/ 20	2.0/ 10		4.656
	344	1/4	8/4	2600	30	4	0.0	10		2.0/ 30	1.0/ 20		1.0/ 20	4.0/ 20	2.0/ 10		53.799
	344	1/4	8/4	2500	30	4	0.0	10		2.0/ 30	1.0/ 20		1.0/ 20	4.0/ 20	2.0/ 10		51.730
	344	1/4	8/4	700	30	4	0.0	10		2.0/ 30	1.0/ 20		1.0/ 20	4.0/ 20	2.0/ 10		14.484
	344	5/4	8/4	2000	30	5	0.0	10	2.0/ 5	4.0/ 25	2.0/ 70						46.145
	344	5/4	8/4	300	20	4	0.0	10	2.0/ 10	2.0/ 65	1.0/ 25						4.162
	344	7/4	11/4	600	50	4	0.0	5	2.0/ 10	2.0/ 20			1.0/ 30	2.0/ 40			18.903
	344	7/4	11/4	300	10	4	0.0	10		2.0/ 50			1.0/ 20	2.0/ 30			2.166
	345	2/4	4/4	600	15	3	0.0	15	2.0/ 30	1.0/ 20			1.0/ 10	2.0/ 40			4.356
	345	2/4	4/4	400	30	4	0.0	15	3.0/ 50	1.0/ 10			1.0/ 10	2.0/ 30			6.493
	345	2/4	4/4	400	200	5	0.0	10	5.0/ 60	4.0/ 5			4.0/ 20	6.0/ 15			95.575
	350	1/4	8/4	600	50	5	0.0	10		3.0/ 35	2.0/ 25		2.0/ 10	4.0/ 25	2.0/ 5		29.214
	350	5/4	8/4	750	15	5	0.0	0		4.0/ 80	2.0/ 20						19.177
	350	5/4	8/4	150	30	5	0.0	5		4.0/ 60	2.0/ 40						5.964
	350	5/4	8/4	400	20	5	0.0	10		4.0/ 70	2.0/ 30						11.159
	350	5/4	8/4	800	20	5	0.0	10		4.0/ 70	2.0/ 30						22.318
	350	5/4	8/4	1350	20	6	0.0	0	6.0/ 10	6.0/ 45	3.0/ 25				3.0/ 20		36.858
	350	5/4	8/4	250	15	5	0.0	5		4.0/ 75	2.0/ 25						5.797
	350	5/8	8/4	775	20	5	0.0	0	4.0/ 10	4.0/ 50	2.0/ 40						19.822
	350	5/8	8/4	350	20	6	0.0	0		6.0/ 50	3.0/ 40				3.0/ 10		9.508
	354	2/4	4/4	30	10	3	0.0	0		1.0/ 90					1.0/ 10		0.148
	354	7/4	9/4	150	75	4	0.0	5		2.0/ 40			1.0/ 10	2.0/ 50			8.451
	355	6/4	7/4	400	100	4	0.0	15	2.0/ 50	2.0/ 25				1.0/ 25			19.970
	356	2/4	4/4	300	50	3	0.0	5					1.0/ 10	2.0/ 90			9.405
	356	2/4	4/4	500	50	4	0.0	10	1.0/ 10				1.0/ 10	3.0/ 80			19.612
	356	2/4	4/4	400	50	3	0.0	15		1.0/ 10			1.0/ 10	2.0/ 80			10.943
	1524	2/5	2/5	175	10	5	0.0	0		3.0/ 90				2.0/ 10			2.491
	1597	1/4	8/4	850	50	5	0.0	10		3.0/ 35	2.0/ 25		2.0/ 10	4.0/ 25	2.0/ 5		41.386
	1597	1/4	8/4	1200	50	5	0.0	10		3.0/ 35	2.0/ 25		2.0/ 10	4.0/ 25	2.0/ 5		58.428
														TOTAL FOR SECT.		52:	750.370
66	368	8/5	13/5	2500	5	2	0.0	30	2.2/ 5	2.0/ 10				4.0/ 20	1.0/ 65		15.035

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
67	425	24/3	30/3	662	9	3	0.0	16	1.1/ 24	0.5/ 10	2.2/ 47		0.7/ 6	0.7/ 3			3.089
	425	26/3	30/3	1577	116	4	0.0	35	4.6/ 89	2.3/ 1	3.0/ 2		3.0/ 1	0.9/ 3	3.0/ 1		163.269
	426	26/3	30/3	6640	26	4	0.0	20	3.1/ 40	0.8/ 8	0.9/ 35		1.4/ 3	2.1/ 10	1.0/ 2		102.919
	426	27/3	27/3	2900	66	4	0.0	20	2.8/ 22	0.5/ 3	4.0/ 59		2.3/ 2	1.1/ 6	2.4/ 7		172.456
	426	3/4	5/4	250	5	2	0.0	35		2.0/ 85		0.5/ 5			0.8/ 10		1.095
	426	3/4	5/4	200	5	1	0.0	40		1.0/ 80		0.5/ 10			0.5/ 10		0.419
	426	3/4	5/4	100	5	2	0.0	30		2.0/ 80		0.5/ 10			0.5/ 10		0.450
	429	28/3	2/4	700	105	2	0.0	10	5.0/ 70	2.0/ 5		2.5/ 5	1.5/ 10	2.5/ 10			94.709
	429	28/3	2/4	400	10	2	0.0	50	2.5/ 60	1.5/ 5		1.5/ 5	2.0/ 15	2.0/ 15			1.913
	429	28/3	2/4	700	5	2	0.0	95	2.0/100								0.128
	429	29/3	3/4	880	15	2	0.0	20	4.0/ 20	2.0/ 35	2.5/ 10	1.0/ 15		2.0/ 5	1.0/ 15		11.404
	430	26/3	30/3	1984	74	5	0.0	29	3.0/ 48	1.4/ 3	4.3/ 27		0.2/ 4	4.7/ 12	2.4/ 3		122.706
	431	2/4	6/4	1350	10	2	0.0	70	3.0/ 20	0.5/ 30	1.5/ 10				0.5/ 40		1.905
	431	2/4	6/4	100	5	2	0.0	85			2.0/100						0.053
	431	2/4	6/4	3500	10	1	0.0	70	3.0/ 20	0.5/ 30	2.0/ 10				0.5/ 40		5.096
	431	2/4	6/4	100	50	3	0.0	60	4.0/ 80	0.5/ 15					0.5/ 5		2.196
	431	2/4	6/4	125	50	1	0.0	10		1.0/ 45				5.0/ 5	1.5/ 50		4.450
	432	3/4	5/4	3104	6	3	0.0	44		0.5/ 61	3.5/ 37				0.8/ 2		7.237
	433	27/3	31/3	350	8	1	0.0	50	3.0/ 60	0.5/ 10		1.0/ 10	1.5/ 10	2.0/ 10			1.271
	433	28/3	2/4	400	20	3	0.0	20	4.0/ 60	2.0/ 5	3.0/ 15	2.0/ 10	1.0/ 10				7.308
	433	28/3	2/4	150	5	1	0.0	50	1.5/ 50	0.8/ 20		0.8/ 25	0.7/ 5				0.225
	1456	13/3	16/3	765	15	2	0.0	25	2.0/ 95	0.8/ 5							6.270
	1456	13/3	16/3	230	10	1	0.0	40	1.0/ 5	0.7/ 45	0.2/ 5	0.5/ 15			0.5/ 30		0.593
	1456	13/3	16/3	1000	5	1	0.0	80	1.0/ 45	0.5/ 25	0.5/ 15	0.5/ 15					0.430
	1456	13/3	16/3	100	10	2	0.0	20	2.0/100								0.587
	1456	13/3	16/3	350	100	3	0.0	10	3.0/ 80	2.0/ 10		2.0/ 10					32.518
	1456	13/3	16/3	100	40	2	0.0	60	1.5/ 50			2.5/ 40			1.0/ 10		1.105
	1456	13/3	16/3	60	10	2	0.0	10	2.0/ 25	1.5/ 40		2.0/ 25			0.8/ 10		0.469
	1456	13/3	16/3	275	50	4	0.0	50	4.0/ 30	2.0/ 5		4.0/ 50			2.0/ 15		7.895
	1456	13/3	16/3	100	50	1	0.0	20	0.3/100								0.900
	1456	13/3	16/3	150	25	1	0.0	30	0.2/ 25	0.8/ 25		0.8/ 25			1.0/ 25		1.222
														TOTAL FOR SECT.		67:	756.286
71	527	21/3	31/3	440	12	5	0.0	40	8.0/ 35		4.0/ 55				2.0/ 5		10.541
	527	21/3	31/3	176	176	7	0.0	30	5.0/ 45	2.0/ 10	4.0/ 25				4.0/ 10		64.871
	527	21/3	31/3	352	88	7	0.0	30	5.0/ 45	2.0/ 10	4.0/ 25				4.0/ 10		64.871
														TOTAL FOR SECT.		71:	140.283
72	480	26/3	4/4	30	30	3	0.0	20		1.5/100							1.631
	489	21/3	31/3	350	100	5	0.0	0	1.0/ 25		2.0/ 15	4.0/ 10		4.0/ 20	2.0/ 30		68.457
	489	21/3	31/3	175	2	5	0.0	0						2.0/100			0.716
	489	21/3	31/3	700	50	6	0.0	10	4.0/ 30		1.0/ 20			3.0/ 20	3.0/ 30		72.178
	489	21/3	31/3	530	4	6	0.0	10	4.0/ 5		1.0/ 5			3.0/ 20	3.0/ 70		4.879
	496	21/3	31/3	1232	18	5	0.0	45	5.0/ 45	2.0/ 10	3.0/ 25	3.0/ 5	3.0/ 5		2.0/ 10		32.327
	496	21/3	31/3	1760	28	4	0.0	40	1.0/ 15	3.0/ 30	3.0/ 30		3.0/ 10		2.0/ 15		80.253
	496	27/3	4/4	2288	22	7	0.0	20		2.5/ 5	5.0/ 65	5.0/ 15			2.5/ 15		103.514
	499	21/3	31/3	1760	30	6	0.0	25	4.0/ 15	2.0/ 5	3.5/ 80						93.721
	499	31/3	31/3	587	10	7	0.0	20	8.0/ 10	6.0/ 5	7.0/ 85						13.973
	529	27/3	4/4	1760	20	7	0.0	20		2.5/ 5	5.0/ 65	5.0/ 15			2.5/ 15		72.357

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
72	529	29/3	4/4	360	75	1	0.0	50	0.5/ 5	1.0/ 25	0.5/ 55	0.3/ 5		0.3/ 5	0.5/ 5		10.418
	1618	27/3	4/4	264	176	3	0.0	60	4.0/ 40	1.0/ 10	2.0/ 50						34.915
															TOTAL FOR SECT.	72:	589.368
74	482	6/4	10/4	1140	10	5	0.0	15	2.5/ 10	3.5/ 35	2.5/ 30	3.0/ 10		2.5/ 5	1.5/ 10		28.873
	482	6/4	10/4	780	35	5	0.0	15	2.0/ 15	1.5/ 35	2.5/ 35	3.0/ 5			2.0/ 10		43.511
	482	6/4	10/4	500	10	3	0.0	15		0.5/ 40	0.5/ 10	1.0/ 30		0.5/ 10	0.5/ 10		3.713
	483	7/4	10/4	425	70	4	0.0	25	2.0/ 45	1.0/ 35	1.0/ 5	1.0/ 5			0.5/ 10		30.123
	487	7/4	11/4	350	10	5	0.0	35	1.5/ 5	2.0/ 30	2.0/ 40	3.0/ 10			1.5/ 15		4.350
	536	23/3	26/3	200	60	6	0.0	40	5.0/ 70	2.0/ 5	4.0/ 10	1.5/ 5		6.0/ 5	0.5/ 5		21.351
	536	24/3	2/4	50	10	4	0.0	40	1.5/ 25	2.0/ 30	0.8/ 30			0.5/ 5	0.5/ 10		0.444
	536	24/3	24/3	50	20	5	0.0	25	7.0/ 40	3.0/ 5	2.5/ 20	2.0/ 15	0.3/ 5	4.0/ 10	0.3/ 5		2.188
	536	2/4	2/4	40	10	3	0.0	20	2.0/ 65		1.0/ 15	1.5/ 5	1.0/ 5		1.0/ 10		0.416
	536	3/4	4/4	915	15	4	0.0	25	1.5/ 40	2.0/ 20	1.0/ 25	2.0/ 5		2.0/ 5	1.0/ 5		15.489
	536	9/4	11/4	380	10	4	0.0	20	2.0/ 15	1.0/ 30	1.0/ 10	3.0/ 15		2.0/ 5	1.5/ 25		4.490
	538	3/4	7/4	2100	10	4	0.0	25	1.5/ 10	1.0/ 10	2.0/ 50		1.0/ 5		1.0/ 25		19.822
	538	4/4	7/4	100	10	3	0.0	25	2.0/ 30	1.5/ 40	1.0/ 20	1.5/ 10					1.236
	538	4/4	7/4	30	10	5	0.0	25	2.0/ 30	1.5/ 40	1.0/ 20	1.5/ 10					0.371
	538	7/4	14/4	430	220	5	0.0	20	2.5/ 35	3.0/ 20	2.0/ 15	1.5/ 5			3.0/ 25		184.147
	538	7/4	14/4	90	70	3	0.0	25	1.5/ 35	2.0/ 30	0.8/ 15	1.5/ 5	1.0/ 3		1.0/ 10		7.820
	540	9/3	10/3	60	10	3	0.0	10	1.5/ 40	1.5/ 7	1.5/ 43		1.5/ 1	1.5/ 6	1.5/ 3		0.680
	540	10/3	12/3	176	39	5	0.0	30	1.5/ 40	1.5/ 7	1.5/ 43		1.5/ 1	1.5/ 6	1.5/ 3		6.054
	541	24/3	26/3	75	20	3	0.0	20	2.0/ 80	0.3/ 5				3.0/ 10	0.3/ 5		1.807
	541	26/3	2/4	250	50	5	0.0	30	3.0/ 20	1.0/ 10				4.0/ 60	0.5/ 10		25.766
	543	1/4	4/4	1618	38	3	0.0	30			1.5/100						47.439
	543	1/4	4/4	1247	27	6	0.0	5	4.5/ 40		2.3/ 58			5.5/ 2			68.963
	543	1/4	4/4	1203	25	5	0.0	26			3.2/100						47.039
	544	10/4	13/4	470	75	5	0.0	10	2.0/ 5	3.0/ 10	2.5/ 30	3.0/ 15	2.0/ 5		2.0/ 30		67.078
	544	10/4	13/4	600	235	7	0.0	50	4.0/ 15	5.0/ 30	4.0/ 15	0.5/ 5			6.0/ 30		315.745
	545	7/4	11/4	965	15	5	0.0	15	2.0/ 15	2.5/ 35	1.0/ 35	2.5/ 10			1.0/ 5		24.864
	545	9/4	11/4	280	70	5	0.0	15	2.0/ 5	2.0/ 40	1.5/ 35	2.0/ 10			1.5/ 10		32.609
	545	9/4	14/4	1025	105	6	0.0	40	2.0/ 20	3.0/ 30	2.0/ 25	4.0/ 15			2.5/ 10		164.681
	545	9/4	13/4	1280	25	6	0.0	10	2.0/ 5	3.5/ 25	3.5/ 35	5.0/ 15			2.0/ 20		84.167
	546	24/3	30/3	200	5	3	0.0	60		2.0/ 10	3.0/ 20	1.0/ 3	0.1/ 2	1.0/ 5	1.5/ 60		0.628
	546	24/3	30/3	100	20	4	0.0	40	7.0/ 30	1.0/ 20	0.2/ 5	1.0/ 5		6.0/ 10	1.0/ 30		2.976
	546	24/3	30/3	150	40	4	0.0	30	4.0/ 40	3.0/ 10	0.5/ 5	0.2/ 15		5.0/ 20	1.0/ 10		11.302
	546	24/3	30/3	420	130	5	0.0	50	7.0/ 40	3.0/ 5	2.5/ 20	2.0/ 15	0.3/ 5	4.0/ 10	0.3/ 5		79.631
	546	25/3	26/3	230	50	3	0.0	40	3.0/ 30	1.5/ 20	0.5/ 20			4.0/ 10	0.5/ 20		11.232
	546	26/3	28/3	220	75	5	0.0	40	7.0/ 30	1.0/ 10	4.0/ 30	3.0/ 5		3.0/ 5	2.0/ 20		27.542
	546	28/3	28/3	50	15	1	0.0	50		0.5/ 5	1.0/ 70			0.5/ 5	0.5/ 20		0.269
	546	28/3	30/3	100	30	1	0.0	60		1.0/ 20	2.0/ 10	2.0/ 10	0.5/ 5	3.0/ 5	1.5/ 50		1.729
	546	28/3	30/3	50	3	1	0.0	70		0.5/ 30	1.0/ 20				0.5/ 50		0.028
															TOTAL FOR SECT.	74:	1390.573
75	445	27/3	4/4	3410	15	5	0.0	20	4.0/ 5	3.0/ 50	3.8/ 25	4.0/ 5			2.0/ 15		138.050
	445	27/3	4/4	3130	30	4	0.0	25		1.5/ 40	2.0/ 25		2.0/ 5		2.0/ 30		133.467
	445	27/3	4/4	1700	15	3	0.0	30		1.5/ 20	2.0/ 40	2.0/ 5	2.0/ 10		1.0/ 15		29.098
	445	27/3	4/4	5750	20	4	0.0	25	3.0/ 5	2.5/ 35	2.5/ 30	2.0/ 5	3.0/ 5		2.0/ 20		217.196
	505	27/3	3/4	40	5	3	0.0	30		1.0/ 40	0.5/ 30				1.0/ 30		0.143
															TOTAL FOR SECT.	75:	517.954

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
76	559	29/3	4/4	130	25	4	0.0	35	2.5/ 15	2.0/ 35	2.0/ 25				2.0/ 25		4.430
	559	29/3	4/4	530	25	4	0.0	35	2.5/ 25	1.5/ 40	2.0/ 15	1.0/ 15			1.0/ 5		15.337
	560	27/3	3/4	100	20	3	0.0	35	2.0/ 15	1.5/ 40	1.5/ 25				1.0/ 20		2.044
	569	27/3	3/4	50	25	3	0.0	40	0.5/ 30		0.5/ 40	0.5/ 30					0.532
														TOTAL FOR SECT.		76:	22.343
83	597	15/3	15/3	1250	2	1	0.0	50		0.5/ 70					0.2/ 30		0.836
	597	15/3	15/3	6500	3	1	0.0	20		0.5/100							13.474
	597	15/3	15/3	500	3	1	0.0	50		0.5/100							0.648
	597	15/3	15/3	2000	8	3	0.0	20		1.0/ 90					1.0/ 10		19.026
	597	15/3	15/3	3500	2	3	0.0	20		1.0/ 90					1.0/ 10		8.324
	597	15/3	15/3	4000	7	1	0.0	10		0.2/ 90					0.2/ 10		7.998
														TOTAL FOR SECT.		83:	50.305
85	576	23/3	31/3	800	4	4	0.0	40	4.0/ 5	1.0/ 10	2.0/ 55			8.0/ 20	1.0/ 10		1.696
	576	23/3	31/3	5	5	1	0.0	0			0.5/100						0.004
	576	23/3	31/3	550	5	4	0.0	15		1.0/ 5	1.0/ 60			6.0/ 25	1.0/ 10		1.618
	576	23/3	31/3	100	100	3	0.0	10	4.0/ 5		1.5/ 75				2.0/ 20		3.884
	576	23/3	31/3	650	5	4	0.0	30			2.0/ 70			5.0/ 15	1.0/ 15		1.389
	576	23/3	31/3	150	2	3	0.0	30		1.0/ 70	1.0/ 15			3.0/ 15			0.116
	576	23/3	31/3	300	5	5	0.0	30			3.0/ 70			8.0/ 20	2.0/ 10		1.078
	576	23/3	31/3	50	5	1	0.0	50	3.0/ 5	1.0/ 10	1.0/ 65			0.5/ 10	0.5/ 10		0.037
	576	23/3	31/3	20	5	1	0.0	50			0.5/ 80			2.0/ 20			0.013
	576	23/3	31/3	950	10	4	0.0	50	3.0/ 5		2.5/ 80			4.0/ 10			3.054
	576	23/3	31/3	1025	10	4	0.0	20	4.0/ 10		2.0/ 80			8.0/ 5			5.005
	576	23/3	31/3	800	3	3	0.0	50	0.5/ 5		1.0/ 80			4.0/ 15			0.502
	602	1/4	5/4	200	100	4	0.0	15	3.0/100								11.343
	602	3/4	6/4	400	200	1	0.0	15	1.0/ 25	0.5/ 25	1.0/ 25	0.5/ 10		0.5/ 5			19.643
	602	3/4	6/4	75	75	1	0.0	25	0.5/ 25	0.5/ 25	1.0/ 25			0.5/ 10	0.5/ 15		0.981
	602	3/4	6/4	600	8	4	0.0	20	6.0/ 40	2.0/ 30	2.5/ 20			1.0/ 10			3.611
	602	3/4	6/4	75	75	6	0.0	65	4.0/100								1.676
	602	3/4	6/4	200	5	3	0.0	5		1.0/100							0.492
	602	3/4	6/4	100	25	4	0.0	15	4.0/ 85	1.0/ 10					1.0/ 5		1.678
	602	3/4	6/4	125	50	5	0.0	5	4.0/ 50	3.0/ 30	2.0/ 10				1.0/ 10		5.655
	602	3/4	6/4	125	100	1	0.0	10	0.5/ 30		0.5/ 15	0.5/ 5		0.5/ 20			3.389
	602	5/4	5/4	100	15	6	0.0	5	8.0/ 65	1.5/ 10	2.5/ 10			6.0/ 15			2.069
	602	7/4	9/4	75	30	5	0.0	0		2.5/ 30	3.5/ 40				4.0/ 30		2.291
	602	7/4	7/4	150	50	4	0.0	25	5.0/ 50	1.0/ 25					1.0/ 25		4.040
	603	23/3	5/4	400	90	6	0.0	5	5.0/ 85	0.5/ 5				5.0/ 10			36.081
	603	23/3	25/3	400	175	5	0.0	5	4.0/100								56.601
	604	26/3	31/3	150	5	3	0.0	20	4.0/ 5	1.0/ 5	1.0/ 65			5.0/ 15	1.0/ 5		0.307
	604	26/3	31/3	200	200	4	0.0	25	2.5/ 95	0.5/ 5							16.897
	604	26/3	1/4	150	30	3	0.0	10	2.0/100								1.978
	604	26/3	1/4	300	75	4	0.0	20	2.0/ 15	3.0/ 15	2.5/ 30			5.0/ 30	2.0/ 10		18.151
	604	26/3	2/4	1000	15	4	0.0	10	3.0/ 15	2.0/ 25	2.0/ 25			6.0/ 25	1.0/ 10		13.169
	604	1/4	5/4	2000	4	4	0.0	15	3.0/ 5	3.0/ 55	2.0/ 10			5.0/ 20	2.0/ 5		8.732
	604	1/4	2/4	200	50	3	0.0	20	1.0/ 5	1.5/ 10	0.5/ 55			1.0/ 10	1.0/ 10		2.372
	604	1/4	2/4	30	20	6	0.0	20		3.0/ 15	2.0/ 25			7.0/ 50	2.0/ 10		0.724
	1363	23/3	25/3	25	25	1	0.0	50			0.3/100						0.028

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
85	1363	23/3	25/3	200	25	4	0.0	20			2.5/100						2.268
	1569	23/3	31/3	150	20	4	0.0	50	4.0/ 5		3.0/ 35			4.0/ 20	3.0/ 20		1.511
	1569	23/3	31/3	325	1	3	0.0	20			1.0/ 50			3.0/ 25	1.0/ 20		0.121
	1569	23/3	31/3	200	5	6	0.0	30		2.0/ 20	4.0/ 40			8.0/ 40			1.088
	1569	23/3	31/3	30	10	4	0.0	25		4.0/ 35	1.0/ 55				1.0/ 5		0.201
	1569	23/3	31/3	175	30	6	0.0	20			5.0/ 85			1.0/ 10	3.0/ 5		3.404
	1569	23/3	31/3	130	20	7	0.0	10	0.5/ 5	2.0/ 25				1.0/ 70			1.212
	1569	23/3	31/3	150	3	4	0.0	70		1.0/ 10	2.0/ 55			4.0/ 35			0.103
	1569	23/3	31/3	200	3	3	0.0	80		1.0/ 50					1.0/ 50		0.048
	1569	23/3	31/3	75	10	5	0.0	30		0.5/ 10	2.0/ 30			8.0/ 30	2.0/ 30		0.575
	1569	23/3	31/3	220	3	4	0.0	10			3.0/ 20			5.0/ 10	2.0/ 70		0.411
	1569	23/3	31/3	45	30	6	0.0	20			5.0/ 85			1.0/ 10	3.0/ 5		0.875
														TOTAL FOR SECT.		85:	242.116
93	630	30/3	1/4	4000	3	3	0.0	70		0.5/ 65					0.5/ 35		2.559
	630	30/3	1/4	500	100	1	0.0	70		0.2/100							4.934
	630	30/3	1/4	5200	3	5	0.0	70		2.0/ 65					1.0/ 35		10.610
	631	19/3	20/3	2400	3	1	0.0	50		0.2/ 70					0.2/ 30		1.059
	631	19/3	20/3	2200	3	4	0.0	70		1.5/ 70					1.0/ 30		3.646
	631	19/3	20/3	2200	25	3	0.0	50		0.5/ 60					0.5/ 40		18.947
	632	30/3	1/4	3000	3	3	0.0	70		0.5/ 65					0.5/ 35		1.919
														TOTAL FOR SECT.		93:	43.673
102	641	31/3	1/4	15	2	1	0.0	50		0.2/ 60					0.2/ 40		0.004
	641	31/3	1/4	50	2	3	0.0	50	1.0/ 30	0.5/ 20	0.5/ 30				0.2/ 20		0.032
	652	25/3	27/3	900	12	5	0.0	20		0.5/ 15	2.0/ 15			1.0/ 60	0.5/ 5		9.168
	652	29/3	31/3	500	12	6	0.0	20	0.5/ 10	4.0/ 40				1.0/ 40	0.5/ 5		14.328
	652	30/3	1/4	600	2	4	0.0	50			1.0/100						0.479
	652	30/3	1/4	1400	3	3	0.0	40		0.5/ 50	0.5/ 15				0.5/ 20		1.814
	652	30/3	1/4	600	6	5	0.0	30		0.5/ 40	1.0/ 10			0.5/ 40	0.5/ 10		1.787
	654	26/3	28/3	100	1	4	0.0	60			1.5/100						0.044
	654	28/3	30/3	60	2	1	0.0	50		0.5/ 80					0.5/ 20		0.047
	1578	30/3	1/4	800	5	5	0.0	30	0.5/ 10	1.0/ 40	1.0/ 20			4.0/ 15	1.0/ 15		4.368
	1578	30/3	1/4	800	2	5	0.0	40		0.5/ 10	2.0/ 60			0.5/ 15	0.5/ 10		1.059
	1579	30/3	1/4	1600	4	5	0.0	30		1.0/ 30	2.0/ 50			5.0/ 5	0.5/ 5		7.105
														TOTAL FOR SECT.		102:	40.235
103	1372	5/4	10/4	4840	5	3	0.0	10		1.0/ 60					0.8/ 40		26.293
	1372	5/4	10/4	500	5	3	0.0	10		1.0/ 40		1.0/ 10			0.5/ 35		2.311
	1372	5/4	10/4	3200	5	7	0.0	5		3.0/ 55		1.5/ 2			3.0/ 40		55.188
	1372	5/4	10/4	2025	5	5	0.0	10		1.5/ 50		1.5/ 5			1.5/ 45		16.218
														TOTAL FOR SECT.		103:	100.011
112	658	3/4	4/4	1500	1	3	0.3	2		3.0/ 80				3.0/ 5	3.0/ 15		6.102
	658	26/4	26/4	250	1	3	0.2	2						2.0/100			0.501
	659	2/4	2/4	2000	1	1	0.3	2		3.0/ 90							8.863
														TOTAL FOR SECT.		112:	15.466
121	1599	5/4	6/4	100	25	4	0.3	25	4.0/ 50	2.0/ 50							5.235
	1613	20/4	20/4	350	3	6	0.0	0		2.5/100							3.910
														TOTAL FOR SECT.		121:	9.145

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	TH.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
122	683	17/4	17/4	127	33	1	0.0	15			0.5/ 70						2.138
	687	2/4	3/4	1500	50	4	0.0	0		2.0/ 20	3.0/ 80						165.186
	687	2/4	3/4	300	25	4	0.0	0	3.5/ 30		3.5/ 50						18.259
															TOTAL FOR SECT.	122:	185.583
123	689	21/4	21/4	100	30	5	0.0	0		2.0/ 65					2.0/ 35		7.697
	689	21/4	21/4	600	25	5	0.0	0		2.0/ 65					2.0/ 35		38.487
	689	21/4	21/4	600	6	5	0.0	0		2.0/ 65					2.0/ 35		9.237
	706	3/4	3/4	675	10	6	0.0	0		2.5/ 70					2.5/ 30		21.915
	717	21/4	21/4	1650	15	5	0.0	0		2.0/ 85					2.0/ 15		70.041
	717	21/4	21/4	6000	15	6	0.0	0		2.5/ 85					2.5/ 15		313.662
															TOTAL FOR SECT.	123:	461.039
125	727	14/4	14/4	400	5	4	0.0	20		1.5/ 50					1.5/ 50		2.836
	727	25/4	25/4	2500	2	7	0.0	0		3.0/ 50					3.0/ 50		17.707
	747	31/3	31/3	22	2	3	0.0	0		1.0/ 60					0.5/ 40		0.049
															TOTAL FOR SECT.	125:	20.592
126	720	16/4	16/4	700	5	4	0.0	0		2.0/ 60					1.0/ 40		7.554
	722	16/4	16/4	700	5	4	0.0	0		2.0/ 60					1.0/ 40		7.554
	756	28/3	28/3	100	4	3	0.0	0		1.0/ 70					0.5/ 30		0.487
	756	6/4	6/4	2500	6	7	0.0	0		3.0/ 80					1.0/ 20		56.825
	757	20/3	20/3	1000	22	4	0.0	0	1.5/ 80								24.702
	757	20/3	20/3	6000	2	5	0.0	0		2.0/ 60					1.0/ 40		25.900
	757	6/4	6/4	5000	2	3	0.0	30		1.0/ 70					0.5/ 30		8.524
	758	30/4	30/4	800	2	1	0.0	0		1.0/ 60					1.0/ 40		2.041
	759	26/3	26/3	1300	10	9	0.0	0		6.0/ 70					3.0/ 30		65.030
	759	26/3	26/3	200	5	9	0.0	0		6.0/ 70					3.0/ 30		5.002
	1557	25/3	25/3	275	4	5	0.0	0		2.0/ 70					0.2/ 30		2.402
															TOTAL FOR SECT.	126:	206.021
127	749	17/3	17/3	1800	5	2	0.0	50		0.5/ 70					0.3/ 30		3.066
	749	17/3	17/3	4000	10	2	0.0	40		0.5/ 90					0.3/ 10		19.271
	749	17/3	17/3	2600	2	2	0.0	30		1.0/ 60					0.5/ 40		4.021
	749	20/3	20/3	3800	3	2	0.0	40		0.5/ 75					0.3/ 25		4.869
	749	20/3	20/3	2400	2	5	0.0	0		2.0/ 80					1.0/ 20		12.447
	749	20/3	20/3	2600	2	1	0.0	60		0.3/ 85					0.3/ 15		0.851
	749	20/3	20/3	800	10	2	0.0	30		0.5/ 80					0.3/ 20		4.156
	749	20/3	20/3	4100	1	4	0.0	0		1.5/ 75					1.0/ 25		7.839
	749	20/3	20/3	3800	10	2	0.0	50		0.8/ 70					0.3/ 30		18.477
	1388	13/3	13/3	500	3	1	0.0	60		0.3/ 80					0.2/ 20		0.235
	1388	15/3	15/3	500	2	1	0.0	75		0.3/ 60					0.2/ 40		0.087
	1388	17/3	17/3	600	4	3	0.0	0		1.0/ 60					1.0/ 40		3.061
	1609	20/3	20/3	3200	5	2	0.0	40		0.5/ 90					0.3/ 10		7.708
	1610	20/3	20/3	1200	5	5	0.0	0		2.0/ 80					1.0/ 20		15.559
	1611	20/3	20/3	6000	3	2	0.0	30		1.0/ 70					0.5/ 30		15.344
	1612	20/3	20/3	500	50	2	0.0	50		0.5/ 50					0.1/ 50		6.732
	1612	20/3	20/3	500	3	2	0.0	40		1.0/ 80					0.5/ 20		1.198
	1612	20/3	20/3	200	1	1	0.0	60		0.3/ 90					0.2/ 10		0.033
															TOTAL FOR SECT.	127:	124.955

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
132	764	18/4	19/4	800	6	5	0.0	0		5.0/ 60	4.0/ 5	4.0/ 10		3.0/ 10	1.0/ 5		22.925
	764	18/4	18/4	1500	8	5	0.0	0		4.0/ 70	3.0/ 10	4.0/ 10		3.0/ 5	2.0/ 5		58.711
	764	19/4	20/4	200	150	4	0.0	0	3.0/ 70	4.0/ 10		4.0/ 10					80.522
	764	21/4	21/4	100	10	6	0.0	0		6.0/ 10	5.0/ 15	6.0/ 40			2.0/ 5		4.047
	800	18/4	19/4	200	15	5	0.0	0		5.0/ 80	4.0/ 5	0.5/ 5		4.0/ 5			16.560
	800	22/4	22/4	10	6	3	0.0	0		3.0/ 80	2.0/ 5			2.0/ 5	1.0/ 5		0.239
														TOTAL FOR SECT.		1321	183.003
133	774	5/4	5/4	600	2	3	0.0	10		3.0/ 90		2.0/ 5			1.0/ 5		4.527
134	781	24/3	24/3	1000	4	3	0.0	4		3.0/ 90					2.0/ 10		16.284
	781	24/3	27/3	400	6	3	0.0	0		1.5/ 90	2.0/ 5			2.0/ 5			5.306
	781	24/3	24/3	500	5	3	0.0	0		2.0/ 90	2.0/ 5						7.183
	781	24/3	24/3	300	4	4	0.0	0		2.0/ 90	2.0/ 5			2.0/ 5			3.477
	781	27/3	27/3	1700	4	4	0.0	0		3.0/ 80	3.0/ 10				2.0/ 5		27.567
	781	31/3	31/3	1200	3	3	0.0	5		2.0/ 95					2.0/ 5		10.130
	781	31/3	31/3	1800	2	5	0.0	2		3.0/ 90					1.0/ 10		14.659
	784	19/3	19/3	50	15	3	0.0	0		2.0/ 85	2.0/ 5				1.0/ 10		2.047
	784	23/3	23/3	2640	7	4	0.0	0		2.0/ 70	2.0/ 5	3.0/ 5		2.0/ 5	1.0/ 5		50.513
	784	26/3	26/3	2660	7	5	0.0	0		4.0/ 70	3.0/ 5	3.0/ 5		3.0/ 5	1.0/ 5		94.473
	784	27/3	27/3	1800	6	5	0.0	0		4.0/ 70	3.0/ 5	4.0/ 5					57.784
	784	31/3	31/3	1200	3	3	0.0	5		3.0/ 85					2.0/ 15		14.021
	784	6/4	6/4	600	2	8	0.0	3			4.0/ 90				3.0/ 10		3.005
	784	6/4	6/4	800	2	8	0.0	2		5.0/ 95					3.0/ 5		9.211
	788	25/3	25/3	100	3	1	0.0	0		0.5/ 90					0.5/ 10		0.246
														TOTAL FOR SECT.		1341	315.905
137	803	12/3	14/3	3037	4	3	0.0	10	2.0/ 30		2.0/ 30	2.0/ 30			1.0/ 10		15.551
	803	12/3	14/3	3037	4	5	0.0	10	3.0/ 20		4.0/ 40	3.0/ 40					24.069
	803	21/3	21/3	1000	4	4	0.0	50	3.0/ 25		3.0/ 30	4.0/ 35			1.0/ 10		3.941
	804	16/4	16/4	25	5	3	0.0	0							0.5/ 10		0.180
	804	16/4	16/4	20	10	4	0.0	0				2.0/100					0.318
	804	17/4	17/4	10	10	3	0.0	0									0.303
	804	17/4	17/4	10	10	3	0.0	0			1.5/100						0.110
	805	31/3	31/3	300	7	4	0.0	0	2.0/ 25			3.0/ 75					3.791
	805	31/3	31/3	600	5	7	0.0	0	5.0/ 10			7.0/ 90					9.596
	805	31/3	31/3	1000	5	4	0.0	20	3.0/ 90								8.424
	805	31/3	5/4	200	4	3	0.0	5		2.0/ 90					1.0/ 10		2.136
	805	31/3	31/3	200	4	6	0.0	0				4.0/100					1.796
	805	31/3	31/3	1000	5	5	0.0	2			3.0/100						9.781
	805	3/4	3/4	25	10	3	0.0	0					1.0/100				0.351
	805	3/4	3/4	20	10	4	0.0	0	2.0/ 50			3.0/ 50					0.338
	805	4/4	4/4	100	15	5	0.0	0				3.0/100					2.877
	806	29/3	29/3	100	3	5	0.0	20		4.0/ 90					3.0/ 10		1.368
	1470	9/4	9/4	100	15	4	0.0	0			1.5/ 50						1.994
	1470	16/4	16/4	30	3	1	0.0	0			2.0/100						0.126
														TOTAL FOR SECT.		1371	87.052
142	811	4/3	11/3	3828	55	3	0.0	10	0.2/ 10	0.3/ 45		2.7/ 17	0.5/ 7	1.1/ 21			53.872

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
142	814	11/3	11/3	1200	150	5	0.0	55	0.5/ 10	1.0/ 15		4.0/ 10	2.0/ 30	2.0/ 35			53.898
	817	8/3	8/3	809	164	1	0.0	5						0.1/100			7.588
	826	12/3	12/3	750	50	5	0.0	75	1.0/ 15	0.5/ 30		8.0/ 45		1.0/ 10			6.532
	826	17/3	17/3	1500	10	5	0.0	25	2.0/ 20	0.5/ 15		4.0/ 65					7.050
	830	12/3	12/3	1000	100	3	0.0	60	2.0/ 40	0.5/ 20		0.5/ 5	0.5/ 10	0.5/ 25			13.941
	833	12/3	12/3	1700	10	3	0.0	40	0.5/ 10	0.5/ 30	0.5/ 10		2.0/ 35	2.0/ 15			5.318
	837	4/3	9/3	5522	305	3	0.0	0	0.6/ 56	1.5/ 1		0.6/ 10	1.1/ 11	2.0/ 22			637.449
	837	4/3	4/3	5468	336	5	0.0	0	0.1/ 25			7.4/ 21	0.7/ 35	2.7/ 19			1030.990
	838	8/3	8/3	3000	150	7	0.0	60		2.0/ 35		5.0/ 15			4.0/ 50		188.935
	840	7/3	10/3	2500	440	7	0.0	70	3.0/ 10	2.0/ 5	1.0/ 5		5.0/ 35	4.0/ 40	0.5/ 5		401.288
	842	4/3	4/3	100	10	5	0.0	35		0.5/ 20		3.0/ 30	3.0/ 25	3.0/ 25			0.522
	1558	11/3	11/3	5000	150	5	0.0	55	2.0/ 18	2.0/ 18		4.0/ 5	2.0/ 24	2.0/ 35			252.427
	1560	9/3	9/3	8000	150	7	0.0	60		2.0/ 35		5.0/ 15			4.0/ 50		503.827
														TOTAL FOR SECT.		142:	3163.638
143	810	8/3	8/3	765	153	4	0.0	50	0.9/ 22	0.7/ 30		3.3/ 23		1.6/ 25			27.487
	825	8/3	8/3	50	75	1	0.0	10		1.0/ 20		3.0/ 15		1.0/ 5	1.0/ 60		1.310
	825	8/3	8/3	4921	110	4	0.0	10		0.5/ 2		1.0/ 12	1.6/ 46	2.0/ 40			315.401
	831	8/3	8/3	2023	61	4	0.0	20	2.0/ 18			0.3/ 9	0.6/ 36	3.2/ 37			61.219
	835	8/3	8/3	2187	76	4	0.0	10	0.2/ 15			1.5/ 18	1.0/ 4	1.3/ 63			61.920
														TOTAL FOR SECT.		143:	467.337
144	834	13/3	13/3	1094	16	1	0.0	0				0.1/100					5.474
	834	13/3	13/3	848	138	6	0.0	10				0.3/ 5	0.2/ 25	6.0/ 70			145.727
	1415	3/3	7/3	2734	75	4	0.0	25				2.5/ 38	0.1/ 3	1.8/ 59			90.772
	1501	28/3	28/3	1500	50	3	0.0	80	1.0/ 10	1.0/ 10		2.0/ 40		1.0/ 40			6.594
	1594	13/3	13/3	656	11	1	0.0	30	0.2/ 43			0.5/ 57					1.330
	1594	13/3	13/3	1203	68	4	0.0	10				3.1/ 45	0.1/ 15	1.4/ 40			37.257
														TOTAL FOR SECT.		144:	287.154
152	845	10/3	11/3	750	20	2	0.0	25	2.0/ 70		0.3/ 30						4.149
	845	11/3	13/3	60	20	1	0.0	5		1.5/ 50					1.5/ 50		0.673
	845	11/3	13/3	250	180	4	0.0	5		4.0/ 50					4.0/ 50		67.358
	845	11/3	13/3	200	40	4	0.0	5	4.0/100								6.469
	845	11/3	13/3	120	40	1	0.0	5		1.0/ 70	1.0/ 30						2.018
	856	5/4	7/4	50	5	2	0.0	65	2.0/ 50						2.0/ 50		0.046
	858	5/3	13/3	150	50	5	0.0	0	5.0/ 30	5.0/ 20		5.0/ 45		5.0/ 5			8.837
	858	5/3	13/3	900	150	4	0.0	0		4.0/ 50					4.0/ 50		212.710
	858	6/3	19/3	600	5	4	0.0	0		4.0/ 50		4.0/ 50					4.142
	858	6/3	19/3	500	20	4	0.0	0				4.0/100					7.475
	858	6/3	19/3	100	10	4	0.0	0							4.0/100		1.137
	858	6/3	19/3	200	20	4	0.0	0	4.0/ 80			4.0/ 20					3.322
	858	6/3	19/3	1000	15	2	0.0	0	0.5/ 40	2.0/ 5		2.0/ 15		2.0/ 10	2.0/ 30		6.792
	858	6/3	19/3	1200	30	2	0.0	0	1.5/ 80	1.5/ 10				4.0/ 10			18.791
	858	11/3	19/3	350	100	6	0.0	0	6.0/ 25	6.0/ 10		6.0/ 60		6.0/ 5			41.263
	861	11/3	13/3	350	10	1	0.0	0		1.0/ 50					1.0/ 50		1.405
	861	11/3	13/3	400	30	2	0.0	0		2.0/ 50					2.0/ 50		9.461
	861	11/3	13/3	800	10	1	0.0	0	0.5/ 30	0.5/ 40				0.5/ 30			1.908
	861	11/3	13/3	950	40	3	0.0	0		3.0/ 25		3.0/ 50			3.0/ 25		34.544
	861	11/3	13/3	500	30	3	0.0	0	3.0/ 95	3.0/ 5							10.637

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
152	861	11/3	13/3	500	30	4	0.0	0		4.0/ 50					4.0/ 50		23.634
	861	11/3	13/3	200	60	5	0.0	0			5.0/100						10.324
														TOTAL FOR SECT.		152:	477.096
163	1614	19/3	21/3	150	30	5	0.0	40	4.0/ 60		4.0/ 40						6.931
	1614	19/3	21/3	200	60	5	0.0	40		4.0/ 50	4.0/ 50						31.076
														TOTAL FOR SECT.		163:	38.007
165	875	12/4	14/4	1700	75	1	0.0	60	2.0/100								74.782
172	930	26/3	26/3	766	35	3	0.0	10				0.1/ 3	0.7/ 50	0.9/ 47			8.235
	997	25/3	25/3	2500	5	1	0.0	35	1.5/ 60		0.5/ 10	1.0/ 20		1.0/ 10			3.035
	997	26/3	26/3	3171	55	4	0.0	20	1.8/ 48			3.7/ 22	2.0/ 4	3.0/ 26			92.903
	1002	26/3	27/3	3445	268	5	0.0	10	1.5/ 28	0.9/ 2	0.8/ 4	5.6/ 7	2.8/ 22	5.5/ 37			911.350
														TOTAL FOR SECT.		172:	1015.525
173	941	10/3	12/3	6506	35	5	0.0	0	3.0/ 19		0.5/ 42	1.0/ 12		5.1/ 9			120.290
	941	14/3	16/3	2120	10	3	0.0	25	2.0/ 50	2.0/ 25	1.0/ 10	2.0/ 5		3.0/ 10			10.313
	944	18/3	24/3	4429	11	7	0.0	0	1.0/ 7		0.5/ 1	8.1/ 32		3.2/ 60			50.264
	944	31/3	31/3	150	4	2	0.0	25		2.0/ 20		2.0/ 75		2.0/ 5			0.285
	944	1/4	1/4	180	5	2	0.0	20	2.0/ 10	2.0/ 15		2.0/ 60		2.0/ 10			0.440
	953	7/3	12/3	4000	23	5	0.0	0	2.3/ 77			2.6/ 23					50.989
	953	8/4	8/4	100	7	2	0.0	20	2.0/ 20	2.0/ 40		2.0/ 15		1.0/ 15			0.385
	954	7/4	7/4	100	5	1	0.0	20	1.0/ 30	1.0/ 35		1.0/ 15	1.0/ 5	1.0/ 15			0.165
	964	19/3	21/3	765	273	7	0.0	0	2.0/ 20		0.5/ 11	10.0/ 9		4.8/ 60			240.003
	968	5/4	6/4	1850	20	3	0.0	20	3.0/ 55	2.0/ 15		3.0/ 10	2.0/ 5	2.0/ 15			21.505
	969	16/3	27/3	2300	44	5	0.0	0	3.2/ 51		1.0/ 4	3.7/ 10		2.5/ 35			74.319
	970	26/3	28/3	450	50	2	0.0	35	2.0/ 30		1.0/ 10	2.0/ 60					7.175
	970	26/3	28/3	200	200	3	0.0	30	3.0/ 45	3.0/ 20		3.0/ 20	2.0/ 5	2.0/ 10			23.507
	970	26/3	28/3	1913	82	7	0.0	0	5.0/ 87			10.0/ 13					165.218
	971	24/3	28/3	600	5	2	0.0	25	2.0/ 50	2.0/ 35		2.0/ 15					1.522
	971	26/3	28/3	500	15	3	0.0	30	3.0/ 65	2.0/ 15		3.0/ 15					3.839
	973	30/3	30/3	600	100	1	0.0	30	1.5/ 80		0.5/ 15	1.0/ 5					15.188
	973	31/3	31/3	300	10	2	0.0	20	2.0/ 60		1.0/ 10	2.0/ 25		2.0/ 5			1.166
	973	1/4	1/4	600	15	2	0.0	25	2.0/ 65			2.0/ 30		1.0/ 5			3.337
	973	2/4	2/4	600	18	1	0.0	30	1.0/ 70	1.0/ 10		1.0/ 15		1.0/ 5			2.605
	1572	31/3	31/3	650	7	3	0.0	25		3.0/ 25	2.0/ 10	3.0/ 50	2.0/ 5	2.0/ 10			2.910
														TOTAL FOR SECT.		173:	795.427
182	1050	21/3	21/3	2500	100	5	0.0	75	1.2/ 50	1.0/ 20					1.0/ 30		22.428
	1050	24/3	24/3	275	30	5	0.0	50	1.0/ 30	1.5/ 30			1.5/ 20	1.0/ 20			2.149
	1051	4/3	4/3	200	80	6	0.0	50					2.0/ 10	6.0/ 90			14.449
	1051	4/3	4/3	200	10	3	0.0	50		0.5/ 60	0.5/ 10			0.5/ 30			0.249
	1051	4/3	4/3	300	10	1	0.0	50		0.2/100							0.164
	1051	4/3	4/3	200	20	3	0.0	75	0.6/ 50	0.4/ 50							0.223
	1051	4/3	4/3	250	25	3	0.0	70		0.5/ 40				0.5/ 60			0.441
	1051	6/3	6/3	400	25	5	0.0	50	0.5/ 10				1.0/ 10	1.0/ 40	1.0/ 40		1.637
	1051	6/3	6/3	300	10	5	0.0	50		1.0/ 10					1.0/ 50		0.896
	1053	21/2	21/2	100	40	1	0.0	50	0.2/100								0.269
	1053	24/2	24/2	60	25	1	0.0	50	0.4/100								0.135

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
182	1053	1/3	1/3	80	45	3	0.0	50						0.5/100			0.361
	1053	1/3	1/3	100	40	3	0.0	50	0.5/100								0.421
	1053	11/3	11/3	100	40	3	0.0	40	1.0/100								0.726
	1053	20/3	20/3	150	30	3	0.0	50	0.5/100								0.474
	1053	21/3	21/3	180	10	3	0.0	75	0.8/ 10	0.8/ 10					1.0/ 80		0.133
	1055	21/2	21/2	75	30	1	0.0	70			0.1/ 30			0.2/ 70			0.043
	1055	21/2	21/2	200	20	1	0.0	70		0.1/ 20	0.3/ 80						0.113
	1057	1/3	1/3	450	100	3	0.0	50			0.6/ 10		0.7/ 40	0.8/ 50			6.943
	1057	26/3	26/3	60	20	3	0.0	70	0.6/ 10		0.6/ 90						0.068
	1057	27/3	27/3	100	10	3	0.0	60		1.0/ 50					1.0/ 50		0.161
	1058	2/3	2/3	150	30	3	0.0	50	0.5/ 60	0.5/ 30	0.5/ 10						0.515
	1058	2/3	2/3	210	25	3	0.0	60		0.5/100							0.604
														TOTAL FOR SECT.		182:	53.604
183	1021	23/2	24/2	110	30	1	0.0	70	0.2/100								0.400
	1021	9/3	9/3	120	20	3	0.0	50	0.8/ 10								1.478
	1021	24/3	24/3	220	30	5	0.0	50	1.0/ 50	1.5/ 25			1.5/ 25				4.992
	1034	23/3	23/3	220	50	5	0.0	20			1.0/100						7.026
	1041	15/3	15/3	110	10	3	0.0	50	0.8/100								0.439
	1041	23/3	23/3	120	15	7	0.0	50	3.0/ 75					2.0/ 25			1.813
	1041	23/3	23/3	100	10	5	0.0	30	1.0/ 40					1.0/ 10			0.876
	1041	25/3	26/3	40	10	7	0.0	10	4.0/ 20					4.0/ 60	2.0/ 20		1.151
														TOTAL FOR SECT.		183:	18.176
184	1007	20/3	20/3	100	20	1	0.0	50	0.3/ 60						0.3/ 40		0.372
232	1131	25/3	28/3	328	16	2	0.0	40	1.5/ 85					2.0/ 15			1.380
	1131	25/3	28/3	765	16	3	0.0	10	2.0/ 55			3.0/ 20		3.0/ 25			7.101
	1131	25/3	28/3	208	27	3	0.0	80						2.0/100			0.765
	1131	25/3	28/3	765	55	2	0.0	30	1.5/ 85					3.0/ 15			14.289
	1131	25/3	28/3	711	82	3	0.0	25	1.5/ 20			3.0/ 25		4.0/ 55			41.749
	1132	25/3	27/3	766	22	4	0.0	0	1.5/ 75					4.3/ 25			10.870
	1132	25/3	27/3	224	11	2	0.0	0	1.5/ 30		1.5/ 20	2.0/ 30		2.0/ 20			1.200
	1142	25/3	27/3	426	11	1	0.0	70				0.5/ 33		0.5/ 67			0.356
	1142	25/3	27/3	2188	33	5	0.0	0	3.0/ 87		3.0/ 2	7.9/ 3	4.8/ 1	8.7/ 3	3.6/ 4		54.961
	1142	25/3	27/3	656	22	4	0.0	0	2.0/ 73	2.0/ 3	1.5/ 13	9.5/ 5		2.5/ 5	2.0/ 1		7.804
	1142	25/3	27/3	274	16	4	0.0	0	2.2/ 38			3.5/ 46	1.0/ 8	1.0/ 8			2.563
	1142	25/3	27/3	426	6	2	0.0	10			1.0/ 15	2.0/ 30		2.0/ 40	1.0/ 15		1.182
	1142	25/3	27/3	301	11	2	0.0	30	1.5/ 45			1.5/ 5		2.0/ 50			1.257
	1143	25/3	28/3	1094	33	2	0.0	0	0.1/ 80	0.5/ 5	1.0/ 5			8.0/ 10			13.988
	1144	25/3	28/3	3829	44	5	0.0	0	3.2/ 74				3.2/ 8	3.1/ 18			136.275
	1144	25/3	28/3	902	16	1	0.0	30	0.5/100								2.129
	1145	25/3	26/3	1094	27	6	0.0	0	3.3/ 55	1.0/ 9			5.5/ 15	5.4/ 21			30.905
	1150	25/3	27/3	383	5	4	0.0	30	3.0/ 30			4.0/ 40		4.0/ 30			1.193
	1150	25/3	27/3	153	5	9	0.0	0	8.0/ 60					8.0/ 40			1.501
	1150	25/3	27/3	656	27	7	0.0	0	5.9/ 55				8.4/ 18	7.6/ 23	3.8/ 4		27.326
	1153	25/3	28/3	1094	82	4	0.0	0	1.5/ 75					4.3/ 25			57.862
	1153	25/3	28/3	683	5	1	0.0	20	0.5/ 90	0.5/ 5				2.0/ 5			0.650
	1156	25/3	27/3	328	38	6	0.0	0	2.8/ 32				5.6/ 15	5.1/ 40	1.6/ 13		14.403
	1159	25/3	27/3	985	22	5	0.0	0	2.6/ 48			4.0/ 1	3.8/ 14	4.4/ 18	2.0/ 19		18.862

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% RAKE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
232	1413	2/4	2/4	125	25	7	0.0	0	1.0/100								0.946
														TOTAL FOR SECT.		232:	451.516
233	1130	27/3	28/3	3063	11	7	0.0	0	4.0/ 36			5.7/ 19	6.0/ 11	5.3/ 33	7.0/ 1		41.745
	1141	27/3	28/3	924	16	5	0.0	25				4.0/ 40	5.0/ 35	5.0/ 25			13.957
	1141	27/3	28/3	766	16	5	0.0	20				5.0/ 40	4.0/ 35	5.0/ 25			12.761
	1141	27/3	28/3	383	3	3	0.0	30	2.0/ 15			3.0/ 45		3.0/ 40			0.610
	1151	27/3	27/3	328	55	1	0.0	70	1.0/ 35			0.5/ 15		1.5/ 50			2.282
	1151	27/3	27/3	109	11	1	0.0	80				0.5/100					0.086
	1151	27/3	27/3	109	16	1	0.0	70		0.5/ 50		0.5/ 50					0.170
	1151	27/3	27/3	142	137	2	0.0	25	2.0/ 90			2.0/ 10					7.184
	1151	27/3	27/3	164	6	1	0.0	60	1.0/ 25	0.5/ 25		2.0/ 50					0.162
	1601	26/3	26/3	1094	5	1	0.0	70	1.0/ 65		1.0/ 15			1.0/ 20			0.508
	1601	26/3	26/3	1094	164	2	0.0	35	2.5/ 30	1.0/ 5	2.0/ 25	2.0/ 25		2.0/ 15			64.188
	1601	26/3	26/3	744	191	3	0.0	5	1.0/ 5	2.0/ 5	4.0/ 40	4.0/ 10		3.0/ 40			119.035
	1601	26/3	26/3	328	273	3	0.0	10		2.0/ 15	4.0/ 30	5.0/ 15		4.0/ 20	2.0/ 15		73.263
	1601	26/3	26/3	301	301	3	0.0	10	1.0/ 5		2.0/ 10	2.0/ 20		4.0/ 35	2.0/ 20		62.439
														TOTAL FOR SECT.		233:	398.391
242	1217	8/3	15/3	1000	50	3	0.0	10	4.0/100								115.020
	1217	8/3	8/3	200	50	1	0.0	40	1.0/ 40				2.0/ 20	1.0/ 40			7.852
	1217	8/3	8/3	600	125	1	0.0	40			1.0/ 70			1.0/ 30			39.929
	1603	8/3	8/3	200	10	3	0.0	20	2.0/100								2.346
	1603	8/3	8/3	400	150	3	0.0	40	2.0/100								52.787
	1603	8/3	8/3	100	75	3	0.0	30	2.0/100								7.698
	1604	8/3	15/3	500	50	3	0.0	40	2.0/100								21.995
	1604	8/3	15/3	100	10	3	0.0	30	2.0/ 40					6.0/ 60			2.823
	1604	8/3	15/3	60	7	3	0.0	30	2.0/ 50					2.0/ 50			0.516
	1604	8/3	15/3	250	10	1	0.0	30	1.0/ 80					4.0/ 20			2.641
	1604	8/3	15/3	175	5	3	0.0	30	2.0/100								0.898
	1604	8/3	15/3	125	10	3	0.0	15	4.0/100								2.716
	1605	8/3	15/3	60	15	3	0.0	0	2.0/ 50				2.0/ 50				1.801
	1605	8/3	15/3	70	10	1	0.0	0	1.0/100								0.636
	1605	8/3	15/3	100	15	1	0.0	30	1.0/ 50					4.0/ 50			2.530
														TOTAL FOR SECT.		242:	262.189
244	1186	22/3	24/3	60	6	3	0.0	10	2.0/ 90	2.0/ 10							0.526
	1186	22/3	24/3	50	4	3	0.0	0	2.0/100								0.293
	1186	22/3	24/3	60	5	3	0.0	0	2.0/100								0.440
	1186	22/3	24/3	200	5	1	0.0	10	1.0/ 90	1.0/ 10							0.876
	1186	22/3	24/3	400	6	3	0.0	10	2.0/100								3.167
	1186	22/3	24/3	30	20	3	0.0	0	2.0/100								0.880
	1186	22/3	24/3	200	10	3	0.0	0	2.0/100								2.933
	1186	22/3	24/3	50	10	3	0.0	0	2.0/100								0.733
	1186	22/3	24/3	50	30	5	0.0	0	4.0/100								3.834
	1186	22/3	24/3	125	10	5	0.0	0	4.0/100								3.195
	1434	22/3	22/3	150	20	7	0.0	0	1.0/ 60		4.0/ 40						4.736
	1434	22/3	22/3	75	15	3	0.0	5	4.0/ 60	4.0/ 10	4.0/ 30						3.114
														TOTAL FOR SECT.		244:	24.727
245	1197	9/3	12/3	1000	500	3	0.0	30	2.0/160								256.605

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	GRASS	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
245	1197	9/3	12/3	30	15	3	0.0	25	4.0/100								0.431
	1197	9/3	12/3	250	20	3	0.0	20	4.0/100								5.112
	1197	9/3	12/3	100	40	7	0.0	25	10.0/100								7.156
	1198	4/3	8/3	300	40	3	0.0	50	4.0/100								7.668
	1198	4/3	8/3	400	60	5	0.0	20	6.0/100								35.167
	1198	4/3	8/3	500	120	5	0.0	15	6.0/100								93.413
	1198	4/3	8/3	500	120	7	0.0	20	12.0/100								114.493
	1198	4/3	8/3	400	20	7	0.0	20	12.0/100								15.266
	1198	4/3	8/3	800	120	7	0.0	0	12.0/100								228.986
	1198	4/3	8/3	20	20	7	0.0	0	12.0/100								0.954
	1198	4/3	8/3	180	20	7	0.0	0	10.0/ 90		8.0/ 10						8.193
	1198	8/3	10/3	10	5	7	0.0	0	10.0/100								0.119
	1198	8/3	10/3	200	100	5	0.0	15	6.0/100								31.138
	1198	8/3	10/3	15	15	5	0.0	0	6.0/100								0.412
	1198	8/3	10/3	100	20	7	0.0	20	10.0/100								3.816
	1201	9/3	12/3	15	7	3	0.0	15	2.0/100								0.065
	1201	9/3	12/3	80	20	7	0.0	0	10.0/100								3.816
	1201	9/3	12/3	60	10	7	0.0	0	10.0/100								1.431
	1201	9/3	12/3	100	75	5	0.0	0	6.0/100								13.737
	1201	9/3	12/3	250	50	3	0.0	25	4.0/100								11.981
	1201	9/3	12/3	70	15	3	0.0	30	4.0/100								0.939
	1201	9/3	12/3	40	20	7	0.0	0	10.0/100								1.908
	1219	10/3	13/3	35	25	5	0.0	0	8.0/100								2.087
	1219	10/3	13/3	70	10	7	0.0	0	10.0/100								1.670
	1219	10/3	13/3	100	50	5	0.0	20	6.0/100								7.327
	1219	10/3	13/3	100	75	5	0.0	0	6.0/100								13.737
	1219	10/3	13/3	75	20	5	0.0	15	6.0/100								2.335
	1219	10/3	13/3	200	70	5	0.0	10	8.0/100								30.054
	1219	10/3	13/3	30	10	3	0.0	0	4.0/100								0.383
	1219	10/3	13/3	150	100	3	0.0	15	4.0/100								16.295
	1220	10/3	12/3	500	200	7	0.0	40	10.0/100								143.116
	1224	10/3	12/3	100	15	3	0.0	15	4.0/100								1.629
	1225	8/3	10/3	1600	600	5	0.0	25	6.0/100								1318.778
	1228	10/3	12/3	250	10	5	0.0	10	6.0/100								4.121
	1370	10/3	13/3	60	4	3	0.0	0	2.0/100								0.176
	1370	10/3	13/3	100	10	3	0.0	0	2.0/100								0.733
	1370	10/3	13/3	700	17	5	0.0	10	6.0/100								19.617
	1370	10/3	13/3	200	6	3	0.0	0	2.0/100								0.880
	1370	10/3	13/3	30	4	3	0.0	0	2.0/100								0.088
	1370	10/3	13/3	30	5	3	0.0	0	2.0/100								0.110
	1370	10/3	13/3	250	15	7	0.0	10	8.0/100								8.050
	1370	10/3	13/3	125	4	7	0.0	10	8.0/100								1.073
	1370	12/3	15/3	60	20	1	0.0	0	0.1/100								0.243
	1370	12/3	15/3	70	35	3	0.0	0	2.0/100								1.796
	1370	12/3	15/3	100	100	1	0.0	0	0.1/100								2.021
	1370	12/3	15/3	200	100	3	0.0	20	2.0/100								11.731
	1370	12/3	15/3	250	10	3	0.0	0	2.0/100								1.833
	1404	9/3	12/3	150	150	3	0.0	25	2.0/100								12.372
	1404	9/3	12/3	20	10	3	0.0	15	2.0/100								0.125
	1405	10/3	10/3	200	10	3	0.0	0	2.0/100								1.466

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% HARE	GRASS	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
245	1417	7/3	7/3	35	35	5	0.0	0	6.0/100								2.244
	1421	12/3	12/3	75	7	3	0.0	20	2.0/100								0.308
	1421	12/3	12/3	150	7	3	0.0	0	2.0/100								0.770
	1421	12/3	12/3	75	25	7	0.0	0	10.0/100								4.472
	1438	8/3	8/3	100	7	7	0.0	20	10.0/100								1.336
	1438	8/3	8/3	125	11	5	0.0	25	6.0/100								1.889
	1438	8/3	8/3	150	25	3	0.0	10	2.0/100								2.474
	1438	8/3	8/3	350	125	3	0.0	10	4.0/100								50.321
														TOTAL FOR SECT.		245:	2510.471
253	1259	4/3	14/3	600	200	1	0.0	40	2.0/ 50	1.0/ 10	0.5/ 20	0.5/ 20					43.296
	1259	4/3	14/3	300	200	3	0.0	40	3.0/ 60	3.0/ 30		1.0/ 10					48.318
	1259	4/3	14/3	700	500	2	0.0	30	2.0/100								179.623
	1259	4/3	14/3	500	200	2	0.0	10	2.0/100								65.984
	1259	4/3	14/3	1000	350	1	0.0	0	0.5/ 95	2.0/ 5							131.686
	1259	4/3	14/3	100	50	1	0.0	0	2.0/ 40						1.5/ 60		3.387
	1259	4/3	14/3	600	200	2	0.0	10	2.0/ 30			0.5/ 5	0.5/ 5		2.0/ 60		84.225
	1262	25/2	25/2	1500	20	1	0.0	30	2.0/ 75					2.0/ 25			16.919
	1262	25/2	25/2	500	20	1	0.0	30	1.0/ 75					1.0/ 25			3.344
	1262	25/2	25/2	200	10	2	0.0	0	2.0/ 25	2.0/ 5	2.0/ 5	2.0/ 5	2.0/ 5	2.0/ 5	1.0/ 50		1.323
	1262	25/2	25/2	100	50	1	0.0	0	1.5/ 80					1.5/ 20			3.161
	1262	25/2	25/2	200	30	3	0.0	50	3.0/ 25					3.0/ 75			4.107
	1262	25/2	25/2	50	20	1	0.0	20	1.0/ 50					2.0/ 50			0.591
	1262	3/3	8/3	100	50	2	0.0	20	2.0/ 60		2.0/ 20				1.0/ 20		2.661
	1262	3/3	8/3	100	50	2	0.0	30	2.0/100								2.566
	1262	3/3	8/3	100	50	1	0.0	50	1.0/ 50			1.0/ 50					1.353
	1262	3/3	8/3	150	50	3	0.0	30	3.0/100								5.260
	1262	3/3	8/3	500	400	2	0.0	20						3.0/ 10	2.0/ 90		146.792
	1262	3/3	8/3	300	100	2	0.0	40	2.0/ 90		0.5/ 10						12.316
	1262	3/3	8/3	200	50	2	0.0	40	2.0/ 80		1.0/ 20						3.998
	1262	3/3	8/3	100	50	2	0.0	90	2.0/ 75	2.0/ 10	1.0/ 15						0.381
	1266	5/3	5/3	100	50	3	0.0	0	4.0/ 50		1.0/ 20	4.0/ 30					5.278
	1266	5/3	5/3	100	50	2	0.0	0	2.0/100								3.666
	1266	5/3	5/3	75	50	2	0.0	20	2.0/ 30		0.5/ 20	3.0/ 20		3.0/ 30			2.724
	1268	3/3	8/3	400	250	2	0.0	40	2.0/100								43.989
	1268	3/3	8/3	500	250	1	0.0	50	1.0/ 40			0.5/ 10		0.5/ 10	1.0/ 40		27.297
	1268	3/3	8/3	450	300	2	0.0	0							2.0/100		115.246
	1268	3/3	8/3	400	400	1	0.0	50	1.0/ 80	1.0/ 5			1.0/ 5	1.0/ 5	1.0/ 5		38.903
	1268	3/3	8/3	300	150	1	0.0	40	1.0/ 34	1.0/ 33		1.0/ 33					16.700
	1268	3/3	8/3	150	20	1	0.0	40	1.0/ 25		0.5/ 25	1.0/ 25			0.5/ 25		0.693
	1268	3/3	8/3	50	50	1	0.0	60				1.0/100					0.628
	1268	3/3	8/3	400	50	4	0.0	30	4.0/100								17.892
	1268	3/3	8/3	300	100	1	0.0	30	0.5/100								6.644
	1268	3/3	8/3	300	150	1	0.0	40	1.0/100								12.270
	1268	3/3	8/3	300	100	1	0.0	60	0.5/100								3.796
	1268	3/3	8/3	100	100	1	0.0	0	1.0/ 25		0.5/ 25				1.0/ 50		3.879
	1268	3/3	8/3	100	50	1	0.0	50			0.5/ 20	1.0/ 80					1.377
	1268	3/3	8/3	100	30	3	0.0	60	3.0/100								1.202
	1268	3/3	8/3	400	200	4	0.0	30	4.0/ 90						2.0/ 10		69.192
	1268	3/3	8/3	200	75	1	0.0	0	1.0/100								6.817

TABLE 12. HERRING SPAWNINGS BY SECTION, LOCALITY AND DATE, 1980

SEC	LOC.	SPAWN DATE FROM	TO	LEN. YDS.	WID. YDS.	IN.	AV. LYR.	% BARE	LAYERS OF EGGS / PERCENT OF TOTAL SUBSTRATE: GRASS	ROCKWEED	KELPS	BROWN ALGAE	LEAFY REDS	STRINGY REDS	ROCK	OTHER	BILLIONS OF EGGS
253	1268	3/3	8/3	350	250	2	0.0	0				1.0/ 5		1.0/ 5	2.0/ 90		72.368
	1268	3/3	8/3	500	300	2	0.0	40	2.0/ 70					0.5/ 10	1.0/ 20		56.584
	1268	3/3	8/3	300	100	2	0.0	0	2.0/ 50						2.0/ 50		23.802
														TOTAL FOR SECT.		253:	1292.237
272	1311	5/3	6/3	6500	4	5	0.0	20	5.0/ 10	5.0/ 90							39.858
	1311	6/3	6/3	650	4	3	0.0	5	3.0/ 90	3.0/ 10							1.855
	1311	6/3	6/3	1200	300	5	0.0	5	5.0/ 90	5.0/ 5							387.486
	1313	5/3	6/3	5400	4	5	0.0	10	5.0/ 5	5.0/ 90	5.0/ 5						37.082
	1313	5/3	6/3	2200	4	3	0.0	15	3.0/ 5	3.0/ 90	3.0/ 5						10.635
	1313	5/3	6/3	1300	100	5	0.0	10	5.0/ 90					5.0/ 10			127.807
	1314	7/3	8/3	600	200	3	0.0	10	3.0/ 90	3.0/ 10							81.115
	1314	9/3	9/3	300	225	3	0.0	10	3.0/ 90	3.0/ 10							45.627
														TOTAL FOR SECT.		272:	731.466
273	1319	0/0	0/0	6400	200	5	0.0	5	6.0/ 30	5.0/ 10			4.0/ 5	5.0/ 50			1886.838
	1319	2/3	2/3	1000	20	3	0.0	5	3.0/ 85					4.0/ 10			14.679
	1319	5/3	7/3	1600	150	4	0.0	10	4.0/ 90	4.0/ 10							208.969
	1319	7/3	8/3	1200	30	5	0.0	5	5.0/ 90	4.0/ 5					4.0/ 5		37.249
	1320	6/3	6/3	380	25	6	0.0	10	6.0/ 95	6.0/ 5							10.769
	1320	6/3	6/3	700	50	5	0.0	10	5.0/ 95	5.0/ 5							34.147
	1320	7/3	8/3	600	20	4	0.0	5	4.0/ 95		4.0/ 5						9.708
	1320	8/3	9/3	400	50	3	0.0	10	3.0/ 90		3.0/ 10						12.005
	1321	8/3	9/3	900	200	5	0.0	30	5.0/ 40	2.0/ 10	5.0/ 40						133.614
	1321	8/3	9/3	850	25	3	0.0	5	3.0/ 80	3.0/ 5	3.0/ 15						14.308
	1321	8/3	9/3	1500	30	4	0.0	10	4.0/ 75	4.0/ 10	4.0/ 15						39.238
	1328	3/4	3/4	600	175	1	0.0	10	1.0/100								28.602
	1571	11/3	11/3	900	30	5	0.0	10	5.0/ 70	5.0/ 15	6.0/ 10				5.0/ 5		28.766
	1571	11/3	11/3	1800	20	5	0.0	10	5.0/ 70	4.0/ 15	6.0/ 10				5.0/ 5		38.355
														TOTAL FOR SECT.		273:	2497.249
290	1511	25/3	27/3	1094	33	4	0.0	0	2.8/ 31		1.3/ 22		3.8/ 7	2.4/ 24	1.5/ 16		68.919
	1513	29/2	29/2	1000	50	1	0.0	95	1.0/100								2.272
														TOTAL FOR SECT.		290:	71.191