Environment Canada
Environnement Canada

Environmental Protection
Protection de l'environnement

Bacteriological Water Quality Data, Beach Areas, Gatineau Park Lakes, National Capital Commission, 1973

eillance Report
EPS-5-WP-74-1

Pollution Control Directorate
uary, 1974

ENVIRONMENTAL PROTECTION SERVICE REPORT SERIES

Surveillance Reports present the results of monitoring programs carried out by or for the Environmental Protection Service. Some of these reports will be published on a regular basis.

Other categories in the EPS series include such groups as Regulations, Codes, and Protocols; Policy and Planning; Economic and Technical Review; Technology Development; Briefs and Submissions to Public Inquiries; and Environmental Impact and Assessment.

Inquiries pertaining to Environmental Protection Service Reports should be directed to the Environmental Protection Service, Department of the Environment, Ottawa K1A 0H3, Ontario, Canada.

BACTERIOLOGICAL WATER QUALITY DATA, BEACH AREAS, GATINEAU PARK LAKES, NATIONAL CAPITAL COMMISSION, 1973

by

A.D. Tennant, J.A.P. Bastien, R. Toxopeus,
J.P. Hayes and M. Beauchamp

Bacteriological Laboratories, Ottawa
Technology Development Branch
Water Pollution Control Directorate

Report EPS-5-WP-74-1
February, 1974

ABSTRACT

Seven National Capital Commission Beaches in Gatineau Park, and Camp Pontiac Beach on the Ottawa River, were monitored bacteriologically during the summer of 1973 in cooperation with the Parks and Grounds Division of the NCC. A total of 878 water samples from 46 near-shore beach sampling points were subjected to standard membrane filtration density-estimate tests for coliforms, fecal coliforms and fecal streptococci.

The data obtained for each Beach area are presented and discussed in terms of bacteriological water pollution objectives, rainfall and bather utilization. No significant pollution sources were found, and median bacterial count data for all beach areas easily met all cited water quality objectives for recreational waters. Thus there has been no degredation of the remarkably excellent bacterial water quality which has prevailed in these popular recreational areas since studies began in 1970.

RESUME

Sept plages entretenues par la Commission de la Capitale Nationale au Parc de la Gatineau ainsi que la plage du Camp Pontiac sur la rivière Ottawa ont été soumises à un contrôle bactériologique pendant la saison estivale 1973 en coopération avec la Division des Parcs et Terrains de la CCN. Un total de 878 prélèvements d'eau provenant de 46 postes d'échantillonnage rapprochés de la grève furent analysés par la méthode de filtration-sur-membrane afin d'obtenir des numérations de colibacilles, colibacilles fécaux, et de streptocoques fécaux.

Les données obtenues pour chaque plage ont été présentées et interprétées en considérant tout particulièrement la pollution bactériologique de l'eau, la précipitation pluviale, et l'utilisation de l'eau pour la baignade. Aucune source importante de pollution ne fut découverte dans les régions des plages concernées. De plus, les données médianes de numérations bactériennes démontrèrent que les eaux des plages étudiées étaient conformes aux normes établies pour les eaux de récréation.

Il apparaîtrait donc que l'excellence bactériologique qui prévaut dans les eaux de ces régions populaires de détente est semblable à celle qui prévalait en 1970 lorsque de telles études débutèrent.

TABLE OF CONTENTS

		PAGE
ABSTRACT		i
RESUME		ii
TABLE OF CONTENTS		iii
1	INTRODUCTION	1
2	DATA COLLECTION	2
2.1	Sampling Program	2
2.2	Bacteriological Procedures	2
2.2.1	Coliform Density Determinations	2
2.2.2	Fecal Coliform Density Determinations	3
2.2.3	Fecal Streptococcus Density Determinations	3
3	CONTROL CRITERIA AND OBJECTIVES	3
4	RESULTS	4
4.1	Beach Water Quality	4
4.2	Daily Rainfall Data, Chelsea, Quebec	4
4.3	Bather Activity Estimates	14
5	DISCUSSION AND CONCLUSIONS	14
5.1	General Discussion	14
5.2	Lac Philippe Beaches	15
5.3	Meach Lake Beaches	16
5.4	Lac Lapeche Beach	16
5.5	Camp Pontiac Beach	17
5.6	General Conclusions	17
REFERENCES		19
ACKNOWLEDGEMENTS		19
APPENDIX (TABLES I TO VIII)		21

1 INTRODUCTION

For the fourth consecutive summer, a bacteriological water quality monitoring study of beaches in Gatineau Park Lakes was conducted by the Bacteriological Laboratories in cooperation with the Parks and Grounds Division, National Capital Commission. Data obtained from the 1970, 1971 and 1972 programs of bacteriological water testing were reported previously (1, 2, 3).

The seven Gatineau Park beaches included in the 1973 study were Breton, Parent, Raby and Smith Beaches at Lac Philippe, Meach Lake Areas 1 and 3, and Lac Lapeche Beach; all of these beaches had been found to be of excellent bacteriological quality during previous summers, and all were open to public bathing during the May 18 to September 3, 1973, period. In addition, water samples from Camp Pontiac Beach on Pontiac Bay, Ottawa River, were also subjected to routine testing, as in 1971 (4) and 1972 (3), although this beach has not yet been opened to public use by the NCC.

The previous Gatineau Park beach water quality studies resulted in the following recommendations:

1. The present National Capital Commission policy of excluding the discharge of all domestic wastes to Gatineau Park lake and stream waters be maintained, so that no degradation of the excellent bacteriological quality will occur.

2. Provision be made by the National Capital Commission for effective control procedures which will immediately close beach areas to public bathing if the malfunction of pumps or other equipment results in the entry of sewage to lake waters.

3. A routine bacteriological water testing program be established to monitor water quality at each

bathing area in use by the public during the Park season, using sampling protocols to be determined through consultation between the National Capital Commission and the Water Pollution Control Directorate, Environmental Protection Service.

These recommendations were accepted by the National Capital Commission, and the present bacteriological evaluation resulted from the third recommendation cited above.

2 DATA COLLECTION

2.1 Sampling Program

Water samples were collected periodically during the summer at representative near-shore sampling points along each beach. Most locations were those used in previous studies. Sub-surface samples were collected in sterile 8-ounce glass bottles at each knee-depth (ca. 2 feet) location.

While some water samples were collected by laboratory staff, a majority of the samples were collected by NCC staff under the general direction of Mr. R.E. Edey, Superintendent of Parks, and Mr. H. Morris, Senior Warden. Samples were collected on Sundays and holidays during afternoon periods of peak bather activity and were refrigerated overnight for analysis in the Laboratories on the following morning.

2.2 Bacteriological Procedures

All water samples were subjected to A.P.H.A. Standard Methods (5) Membrane Filter (MF) procedures for the estimation of coliform, fecal coliform and fecal streptococcus densities.

2.2.1 Coliform Density Determinations. The medium used was m-Endo Agar LES*. Membrane filtrations were made

---

* All test media used were Bacto Brand supplied by Difco Laboratories, Detroit, Michigan.

for appropriate volumes of each water sample. Incubation was at 35°C for 20 ± 2 hours in an atmosphere of saturated humidity. The development of dark colonies with a golden metallic-appearing surface luster (sheen) was interpreted as direct evidence of the presence of coliform organisms. The number of sheened colonies appearing on the MF preparations was determined from the appropriate sample volumes. Counts were calculated and recorded in terms of coliforms per 100 ml of water. Where 50 ml was the largest volume filtered, negative results were expressed as less than 2 (<2) per 100 ml.

2.2.2 Fecal Coliform Density Determinations. The medium used was m-FC Agar, with rosolic acid. Incubation was for 20 ± 2 hours in sealed plastic bags immersed in a water bath equipped with a circulation device and controlled at 44.5° ± 0.2°C. Membrane filtrations were made for appropriate volumes of each water sample, and the development of typical blue colonies was interpreted as evidence of the presence of fecal coliforms. Counts were recorded in terms of fecal coliforms per 100 ml of water.

2.2.3 Fecal Streptococcus Density Determinations. The medium used was m-Enterococcus Agar. Membrane filtrations were made for appropriate volumes of each water sample, with incubation at 35°C for 48 hours in an atmosphere of saturated humidity. The development of colonies, normally dark red to pink in colour, was interpreted as evidence of fecal streptococci. Counts were determined from the most appropriate dilution and recorded in terms of fecal streptococci per 100 ml.

3 CONTROL CRITERIA AND OBJECTIVES

The control criteria and objectives applied in the surveillance of beach water quality were those cited on Page 66 of the 1970 Report (1):

(a) Freedom of the waters from direct contamination by untreated or improperly treated sewage or other hazardous substances of public health significance, as demonstrated by sanitary survey; (b) Absence of epidemiological evidence which would disclose the prevalence of an infectious disease considered as related to the use of bathing beach waters; and (c) the bacterial quality of bathing beach waters indicates that no significant amounts of sewage or other hazardous substances are being discharged to the waters, or that bathing has not created a condition which is or may be dangerous to the public health. Coliform, fecal coliform and fecal streptococcus counts of more than 1,000, 200 and 100, respectively, per 100 ml of water, shall be considered only as a guide requiring further investigation, survey and analyses, as may be necessary.

4 RESULTS

4.1 Beach Water Quality

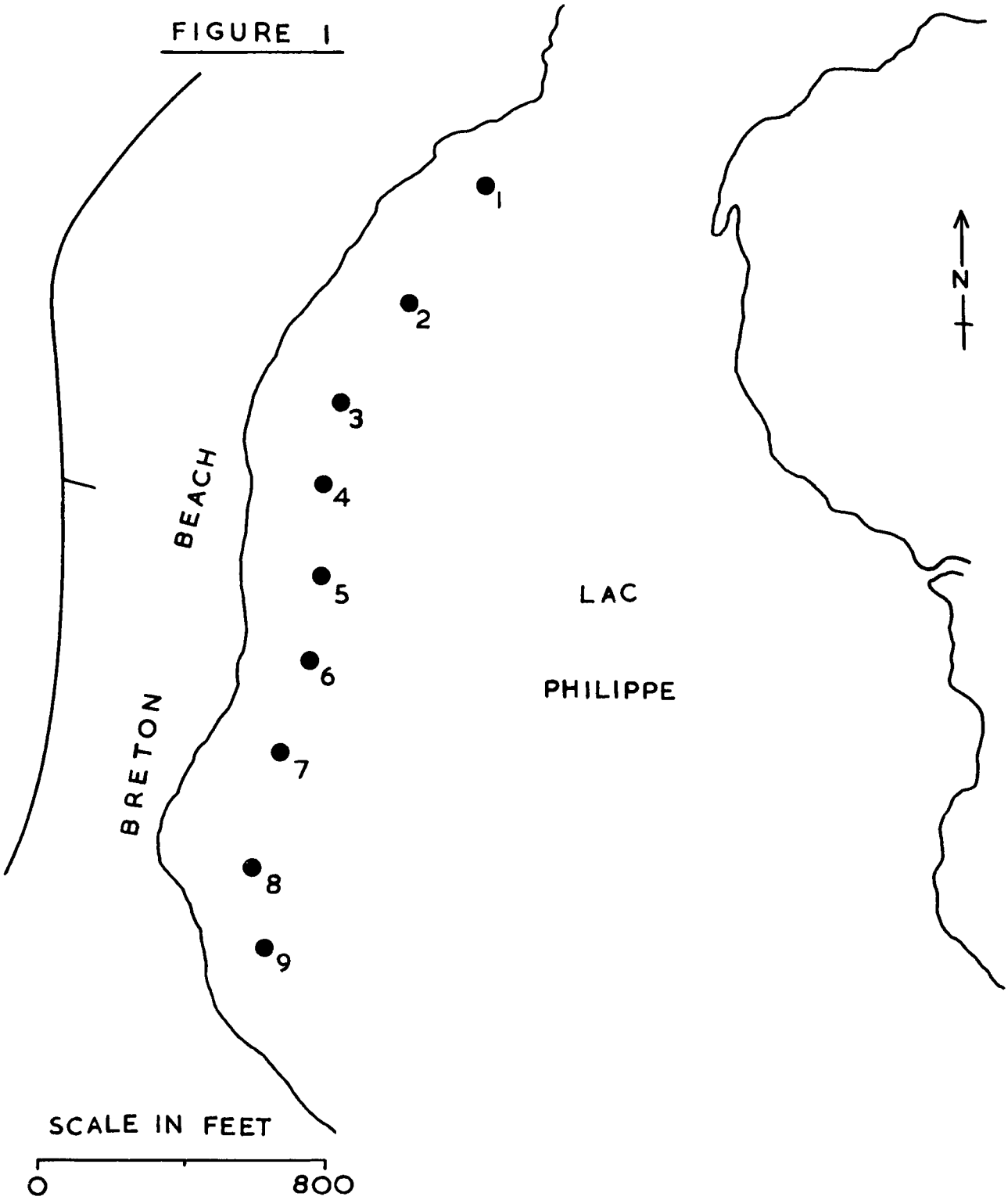
The locations of a total of 46 near-shore sampling stations at the 8 beaches included in the monitoring study are shown in Figures 1 to 7, inclusive. Coliform, fecal coliform and fecal streptococcus MF counts for 878 water samples from these stations are recorded in Appendix Tables I to VIII, inclusive, and are summarized, at three percentile levels, in Table 1.

4.2 Daily Rainfall Data, Chelsea, Quebec

Rainfall recorded by the Atmospheric Environment Service, Department of the Environment, at their Climatology Station, Chelsea, Quebec, during May, June, July and August, 1973, is cited in Table 2.

Total rainfall for the summer period was 18.2 inches, as compared to 21.33 inches during the same period in 1972, which was so consistently wet and cold that bathing activity was severly curtailed. In the May - August period

FIGURE 1



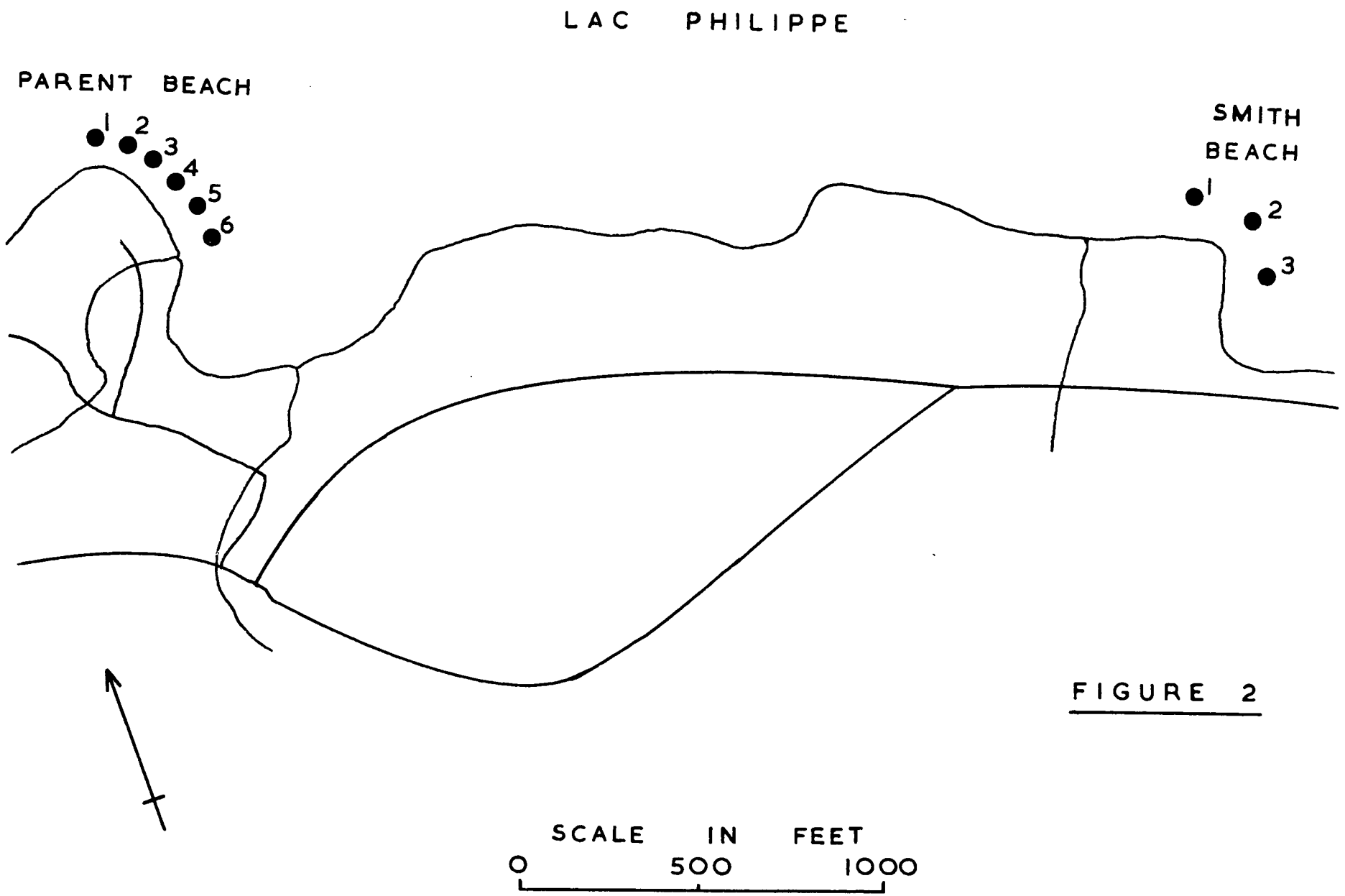

LAC PHILIPPE
PARENT BEACH
1
2
3
4
5
6
SMITH
BEACH
1
2
3
SCALE IN FEET
0
500
1000

FIGURE 2

FIGURE 3

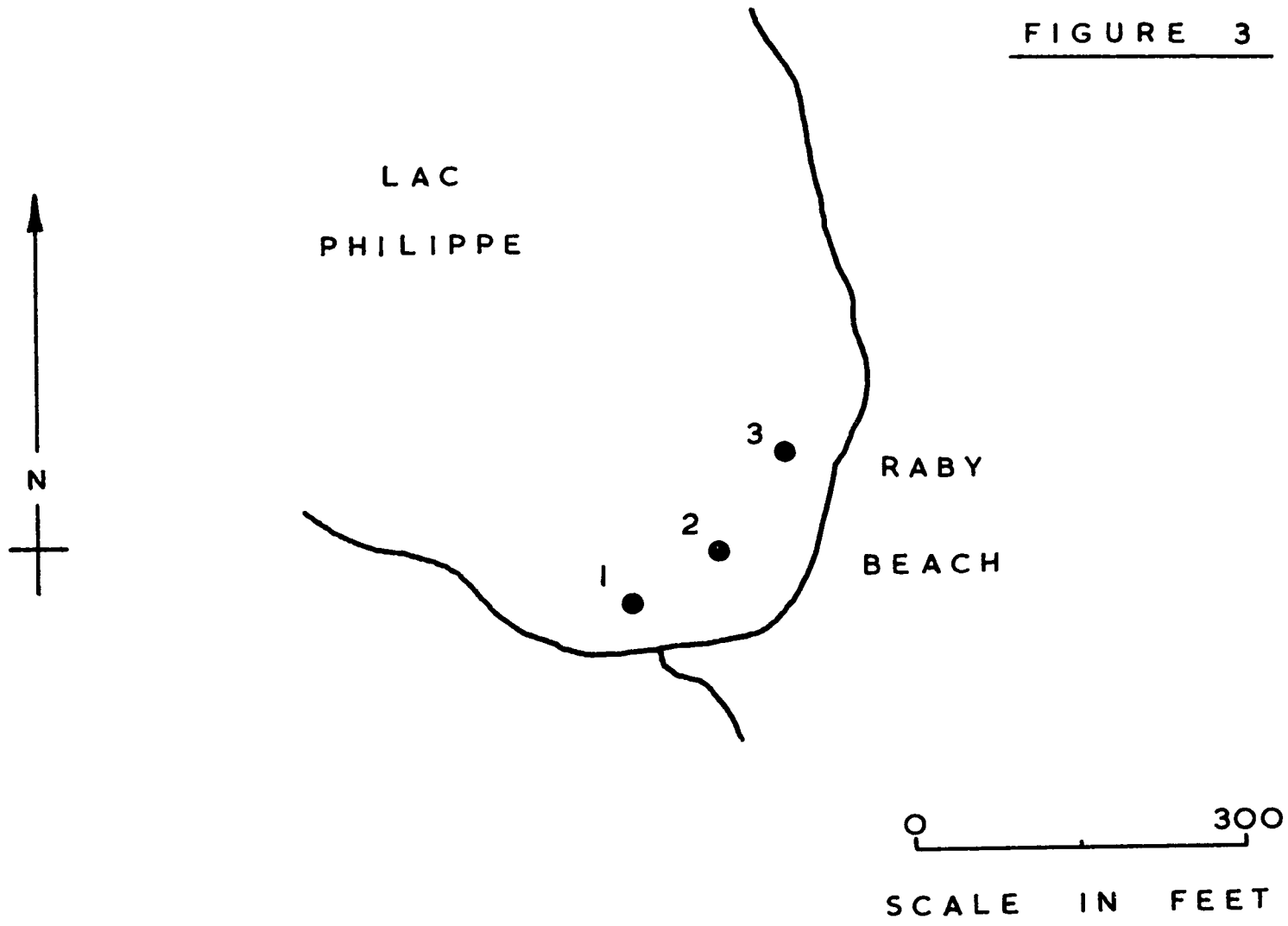


FIGURE 4

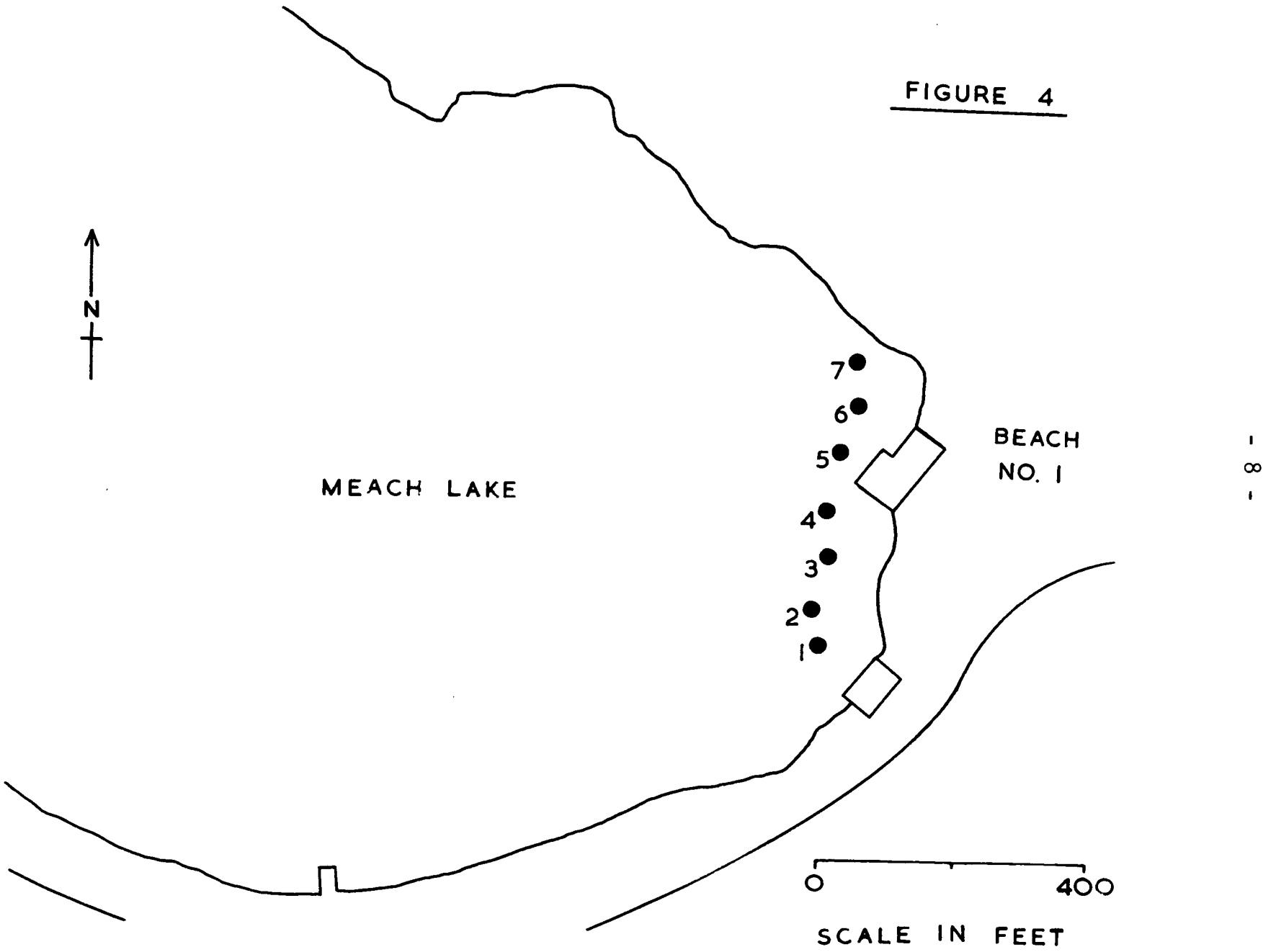


FIGURE 5

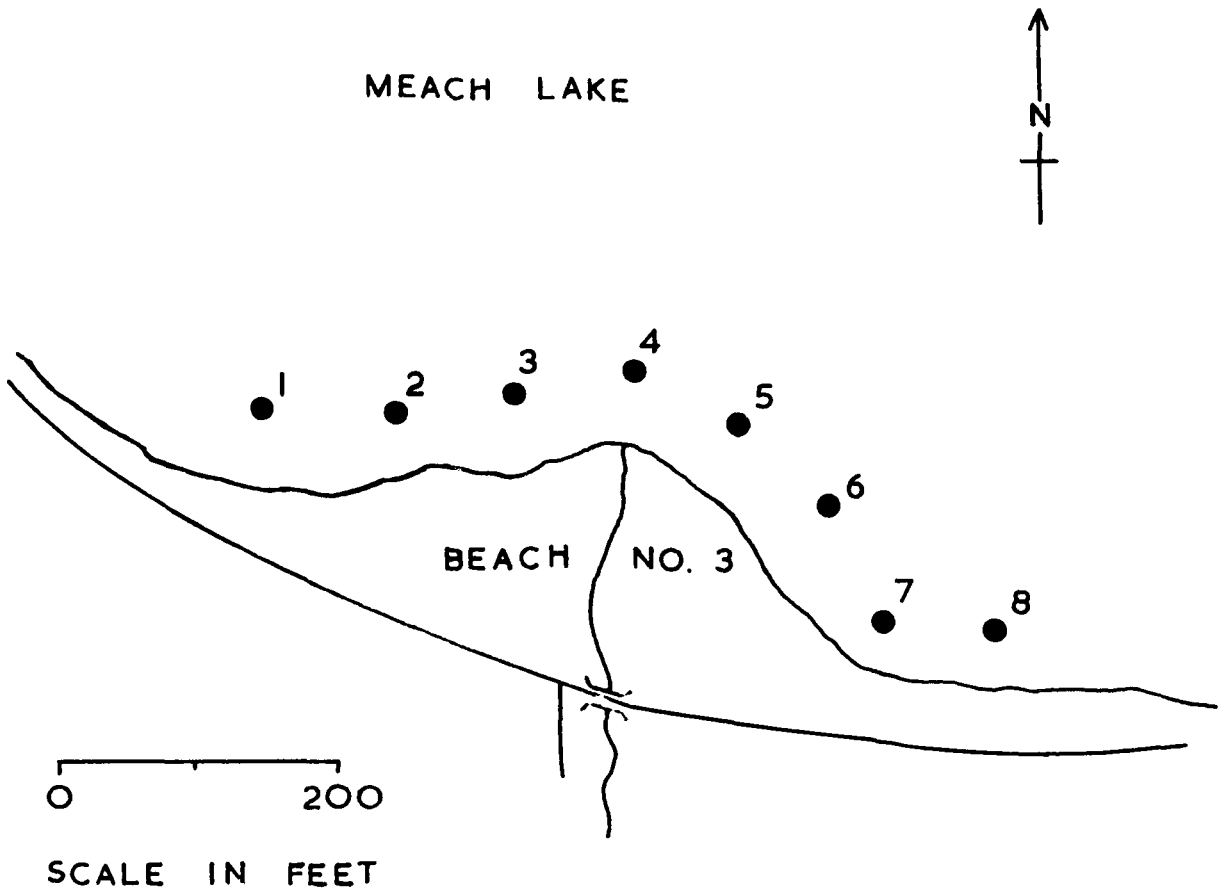


FIGURE 6

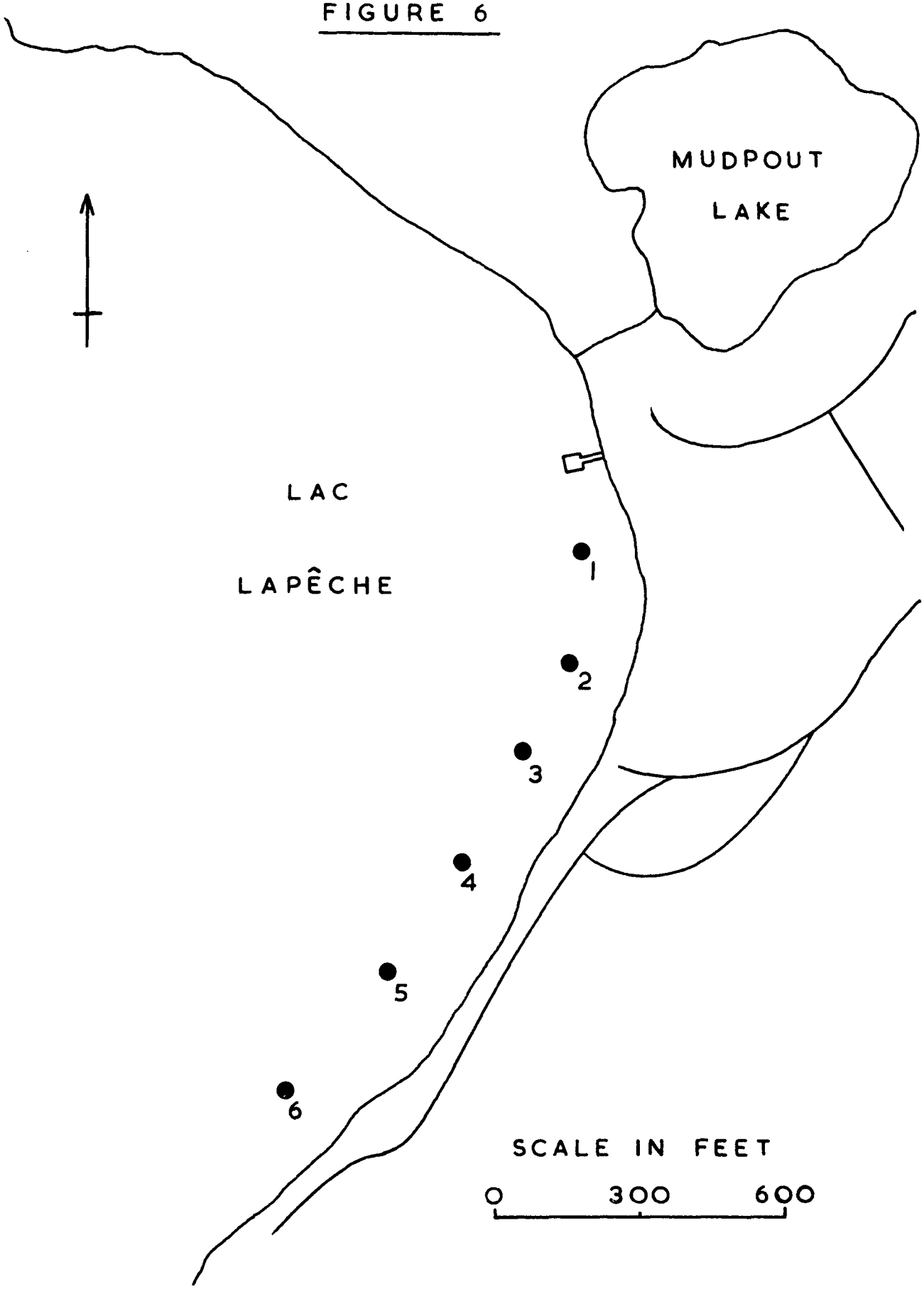


FIGURE 7

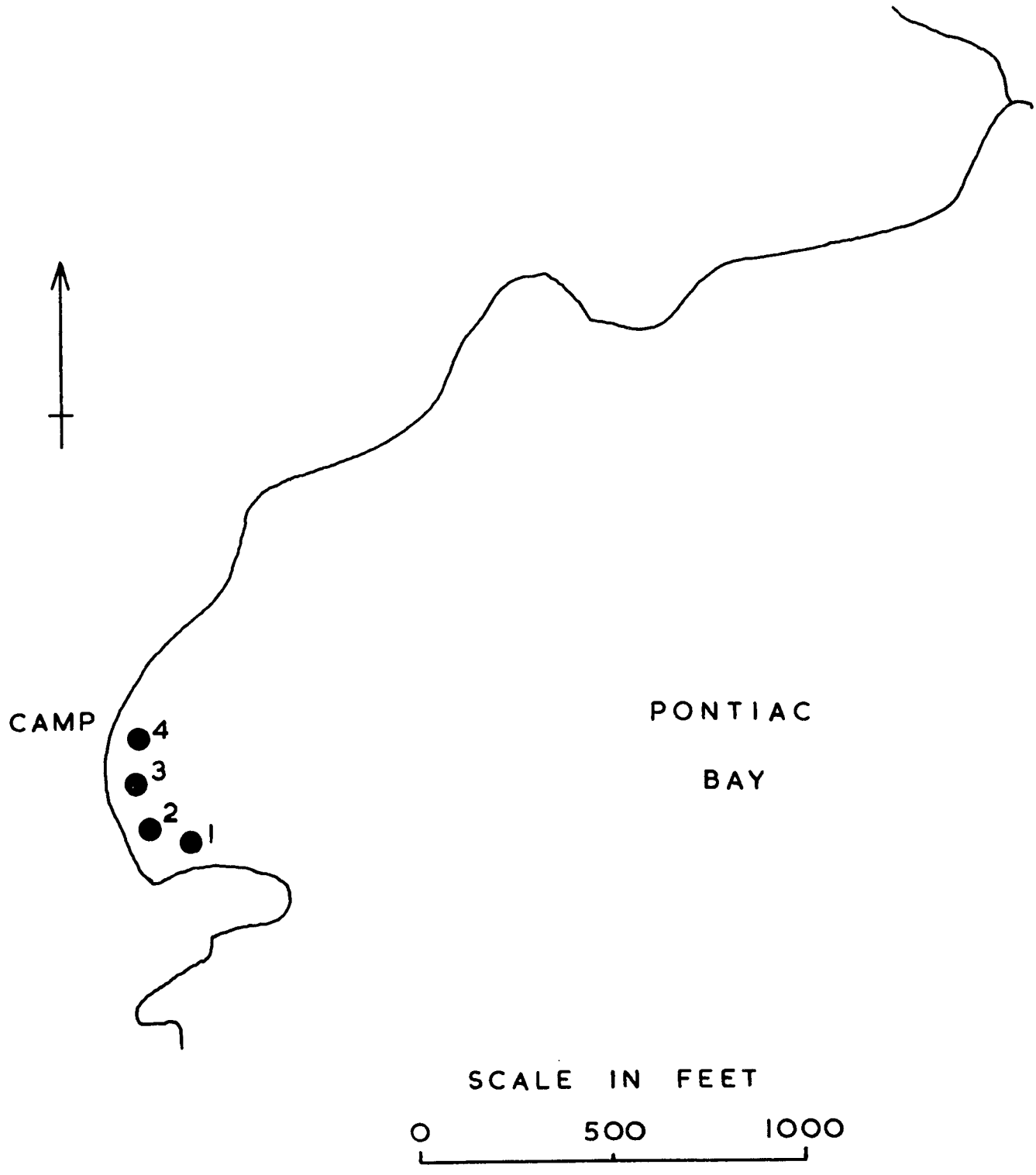


TABLE 1 . SUMMARY, BACTERIAL MF COUNTS, 10, 50 AND 90 PERCENTILE LEVELS, WATER SAMPLES, GATINEAU PARK BEACHES, 1973

Beach	Table Reference	No. of Samples	MF COUNT PER 100 ML AT THREE PERCENTILE LEVELS								
			COLIFORM			FECAL COLIFORM			FECAL STREP.		
			10	50	90	10	50	90	10	50	90
Breton, Lac Philippe	I	170	2	100	1,000	<2	6	120	<2	10	100
Parent, Lac Philippe	II	111	6	90	760	<2	8	96	<2	10	86
Raby, Lac Philippe	III	57	2	24	270	<2	2	18	<2	4	46
Smith, Lac Philippe	IV	57	4	34	220	<2	4	34	<2	2	36
Meach Lake, Area 1	V	138	8	140	580	<2	10	56	<2	8	100
Meach Lake, Area 3	VI	159	8	44	200	<2	4	46	<2	4	30
Lac Lapeche Beach	VII	112	4	52	280	<2	2	24	<2	3	26
Pontiac Beach	VIII	74	29	110	820	<2	6	150	<2	20	170

TABLE 2. RAINFALL DATA, CHELSEA, QUEBEC, DEPARTMENT OF THE ENVIRONMENT, 1973

Date		Rainfall In Inches	Date		Rainfall In Inches
May	1	.73	June	23	.06
	2	.29		24	1.02
	3	.24		28	.51
	4	.06		29	.04
	8	.18			
	9	.14	June Total		5.02
	10	.35			
	11	.11	July	1	1.09
	15	.02		2	.33
	16	.09		3	.65
	17	.48		8	.01
	18	.82		9	.01
	19	.04		10	1.03
	21	.04		15	.02
	27	.11		20	.18
	28	.54		25	.10
	29	.06		26	.17
	30	.12		27	.17
	31	.03		31	.46
May Total		4.45	July Total		4.22
June	3	.33	August	1	.61
	4	.04		4	.01
	5	.01		6	.46
	6	.48		7	.01
	7	.07		8	1.57
	8	.04		11	.12
	10	.23		14	.33
	11	.33		18	.66
	12	.04		21	.50
	13	.01		27	.04
	15	1.35			
	16	.24	August Total		4.51
	22	.22			

of 1973 there were 5 dates on which more than one inch of rain fell, and 7 other dates with precipitation ranging from 0.5 to 0.82 inches. Weather during the latter half of the summer was generally fine, and conducive to bathing and outdoor recreation.

4.3 Bather Activity Estimates

Lifeguards at four Gatineau Park beaches were on duty daily between 1030 and 1700 hours during the June 11 to September 3, 1973, period. Their estimates of total bather numbers were:

Breton Beach :	140,000
Parent Beach :	65,000
Meach Beaches:	14,500
Lapeche Beach:	8,500

The total estimate of 228,000 bathers excludes Smith and Raby Beaches, where no lifeguards were stationed, and also does not include bathers who used the beaches before 1030 hours and after 1730 hours. In respect to these two factors, a conservative estimate would add about 15 per cent to the total, resulting in a total bather load estimate of about 270,000 at the seven Gatineau Park beaches during the review period.

The summer of 1973 was characterized by Mr. R.E. Edey, Superintendent of Parks, as a period of unusually-heavy Park activity, in terms of campground use as well as beach activity. For example, the Breton Beach campground was occupied to capacity on every week-end, including the Labour Day week-end.

5 DISCUSSION AND CONCLUSIONS

5.1 General

Data presented above show that the general excellence of bacterial water quality at National Capital

Commission beach areas, observed in previous studies, was maintained during the summer of 1973. For all three standard bacterial water pollution parameters, numerical objectives were easily met at the median (50 percentile) level, and were also met at the 90 percentile level for most sampling stations. No known direct sources of sewage pollution affected beach water quality. Runoff from episodes of heavy rainfall increased bacterial counts at some sampling stations, notably on June 24 and July 2; other periods of heavy precipitation had no significant effect on bacterial numbers. Data for each beach area are discussed separately below.

5.2 Lac Philippe Beaches

Of 170 water samples collected from Breton Beach, only 14 (8 per cent) had coliform counts of more than 1,000; 7 (4 per cent) had fecal coliform counts of more than 200, and 15 (9 per cent) had fecal streptococcus densities higher than 100. Seven of these unsatisfactory counts were recorded for samples collected on June 24; heavy rainfall on that date, and backhoe activity (removal of boulders from the Beach) during the preceeding week, may have contributed to the increase in bacterial numbers cited. Similar numbers of moderately-high bacterial counts recorded on July 8 and September 3 may be attributable to heavy bather activity rather than to rainfall-accelerated runoff. In spite of this sporadic incidence of bacterial counts higher than stated objectives, it may be concluded that the general water quality at Breton Beach was excellent.

Similar data were obtained for Parent Beach water samples; only 8 (7 per cent) of 111 samples had coliform counts of more than 1,000, only 1 sample exceeded a fecal coliform density of 200, and only 9 samples (8 per cent) had fecal streptococcus counts of more than 100. Eight of these 18 higher counts were recorded for samples taken on July 8, following very heavy rainfall. We conclude that

bacterial water quality at this heavily-used beach was generally very satisfactory during the 1973 summer season.

Coliform and fecal coliform counts for 57 samples from Raby Beach all met numerical objectives, and median values for these two parameters were only 24 and 2, respectively. Fecal streptococcus counts were similarly low (median 4) and only one sample exceeded a count of 100. Smith Beach waters were also of excellent bacteriological quality; only one sample marginally failed to meet the stated objectives, and median counts for the three parameters were only 34, 4 and 2 respectively. Rainfall had little apparent effect on recreational water quality at these two beaches, and the very excellent bacteriological results may reflect a lower bather load at these two small, unsupervised beaches.

5.3 Meach Lake Beaches

Only 5 (4 per cent) of 138 samples from Meach Lake Area 1 had coliform counts of more than 1,000; only 1 sample had a fecal coliform count exceeding 200, and 13 (9 per cent) of the samples had more than 100 fecal streptococci per 100 ml. A majority of these higher densities were for samples collected on July 8, and may reflect maximum bather populations.

At Meach Lake Area 3, only one sample (Station M3-5, July 2) had unsatisfactory bacterial counts; this was interpreted as the result of an unknown, localized pollutional incident possibly associated with recreational activity or an input of animal or bird fecal material. Median coliform, fecal coliform and fecal streptococcus counts for the 159 samples were only 44, 4 and 4, respectively. It may be concluded that recreational water quality at both Meach Lake Beaches was very satisfactory during the study period.

5.4 Lac Lapeche Beach

Low bacterial numbers were recorded for all three test parameters in all but 4 of 112 samples taken at Lac Lapeche

Beach, and median densities were very satisfactory. There was no evidence to indicate that rainfall had any marked effect on the bacterial quality of the beach water.

5.5 Camp Pontiac Beach

Bacterial counts tended to be markedly higher on June 10 than on other sampling dates; 9 of 22 counts, for one or another of the three test parameters which exceeded stated objectives, were recorded on this date. Since no known pollution sources were found on the immediate beach watershed, the increase in bacterial densities was attributed to upstream, Ottawa River sources. The median bacteriological data for Pontiac Beach samples were quite satisfactory, and it may be concluded that any public health hazard associated with recreational use of these waters would be related to sporadic sources outside the NCC-controlled study area. This is the only beach area included in the 1973 period over which the NCC does not control all potential pollution sources; if the beach is opened to public use, routine monitoring of a much larger area of Pontiac Bay will be necessary if adequate data are to be obtained to evaluate the impact of occasional pollution sources on the Ottawa River.

5.6 General Conclusions

The summer of 1973 was a period of record bather and other recreational activity at Gatineau Park public beaches. In this context the truly remarkable excellence of the bacteriological quality of recreational waters should be noted; it may be stated that no other National Capital area beaches could match the degree of freedom from water pollution documented in this report. No significant point sources of pollution were found, and there has been no degradation of bacterial water quality since monitoring began in 1970. The National Capital Commission should be encouraged to maintain its successful policy of excluding the discharge of all domestic wastes to lake and stream waters.

Bacteriological water quality at Camp Pontiac Beach was also excellent, and this beach could be opened for public use if adequate monitoring of the impact of potential upstream pollution sources can be provided.

REFERENCES

1. Tennant, A.D., Bastien, J.A.P., et al., Bacteriological Water Quality Study, Gatineau Park Lakes, National Capital Commission, 1970. Manuscript Report No. OR-70-5, Public Health Engineering Division, Dept. of National Health and Welfare, 138 pp., (1970).

2. Tennant, A.D. and Bastien, J.A.P., Bacteriological Water Quality Study, Gatineau Park Lakes, National Capital Commission, 1971. Manuscript Report No. OR-71-3, Water Pollution Control Directorate, Environmental Protection Service, Department of the Environment, 169 pp., (1971).

3. Bastien, J.A.P., Dixon, J.L., Hayes, J.P., Toxopeus , R. and Tennant, A.D., Bacteriological Water Quality Data, Beach Monitoring Study, National Capital Commission, 1972. Surveillance Report EPS-5-WP-72-1, Department of the Environment, 48 pp., (1972).

4. Tennant, A.D. and Bastien, J.A.P., Preliminary Study, Bacteriological Water Quality, Pontiac Bay, Ottawa River, 1971. Manuscript Report No. OR-71-1, Water Pollution Control Directorate, Environmental Protection Service, Department of the Environment, 9 pp., (1971).

5. American Public Health Association, Standard Methods for the Examination of Water and Wastewater. Thirteenth Edition, American Publich Health Association, New York, (1971).

ACKNOWLEDGEMENTS

We gratefully acknowledge the cooperation and assistance of Mr. R.E. Edey, Superintendent, Gatineau Park,

Mr. H. Morris, Senior Warden, and their associates, in making arrangements for the study and for collection of a majority of the water samples.

Others who contributed to the field and laboratory aspects of the study included Mr. R. Marion, Mr. T. Patrick and Mr. J. Vandewint. Mr. C.R. Blaise reviewed the manuscript, which was prepared by Miss S.C. Kierczak.

APPENDIX

TABLES

TABLE I(a). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, BRETON BEACH, LAC PHILIPPE

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
PB-1	6-5	24	<2	<2
	13-5	2	<2	<2
	21-5	6	6	<2
	27-5	82	<2	<2
	3-6	6	2	<2
	10-6	6	6	12
	17-6	16	<2	16
	24-6	800	450	250
	2-7	320	42	66
	8-7	4,000	120	54
	15-7	640	38	26
	22-7	290	52	44
	29-7	350	44	38
	6-8	1,500	66	100
	12-8	20	<2	<2
	19-8	320	62	34
	26-8	20	<2	<2
	3-9	1,600	74	78
	9-9	330	<2	4
	Medians	290	6	16
PB-2	6-5	32	<2	<2
	13-5	<2	<2	<2
	21-5	<2	<2	<2
	27-5	350	<2	<2
	3-6	22	20	2
	10-6	12	2	<2
	17-6	12	4	20
	24-6	990	460	190
	2-7	350	110	34
	8-7	1,600	200	120
	15-7	420	50	10
	22-7	800	110	44
	29-7	1,300	510	46
	6-8	900	34	96
	12-8	80	2	2
	19-8	620	100	32
	26-8	100	<2	<2
	3-9	2,700	700	380
	9-9	140	4	22
	Medians	350	20	20

TABLE I(b). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, BRETON BEACH, LAC PHILIPPE

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
PB-3	6-5	24	<2	<2
	13-5	<2	<2	<2
	21-5	4	<2	<2
	27-5	32	<2	<2
	3-6	4	4	<2
	10-6	2	<2	<2
	17-6	36	12	26
	24-6	1,100	800	200
	2-7	470	110	92
	8-7	1,200	84	72
	15-7	390	32	16
	29-7	550	26	60
	6-8	350	40	110
	12-8	600	120	140
	19-8	970	48	84
	26-8	20	2	<2
	3-9	1,600	150	62
	9-9	260	4	16
	Medians	310	19	21
PB-4	6-5	10	<2	<2
	13-5	2	<2	<2
	21-5	<2	<2	<2
	27-5	66	<2	<2
	3-6	10	10	<2
	10-6	6	<2	<2
	17-6	10	2	6
	24-6	100	30	74
	2-7	490	120	32
	8-7	1,500	150	60
	15-7	300	12	<2
	22-7	400	68	42
	29-7	240	24	20
	6-8	380	34	130
	12-8	30	2	2
	19-8	730	8	24
	26-8	40	<2	<2
	3-9	1,100	120	24
	9-9	720	26	190
	Medians	100	10	6

TABLE I(c). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, BRETON BEACH, LAC PHILIPPE

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
PB-5	6-5	8	<2	<2
	13-5	4	<2	2
	21-5	<2	<2	2
	27-5	26	<2	<2
	3-6	2	2	<2
	10-6	<2	<2	2
	17-6	6	<2	2
	24-6	110	36	100
	2-7	270	16	32
	8-7	1,100	110	72
	15-7	270	18	8
	22-7	360	26	56
	29-7	370	40	48
	6-8	1,000	88	160
	12-8	190	2	<2
	19-8	190	16	18
	26-8	10	<2	<2
	3-9	770	92	30
	9-9	660	10	58
	Medians	190	10	8
PB-6	6-5	4	<2	<2
	13-5	<2	<2	<2
	21-5	2	2	<2
	27-5	32	<2	<2
	3-6	6	6	<2
	10-6	4	<2	<2
	17-6	6	2	2
	24-6	150	38	90
	2-7	850	510	20
	8-7	520	120	150
	15-7	230	14	10
	22-7	540	36	46
	29-7	140	38	18
	6-8	200	40	14
	12-8	150	<2	16
	19-8	220	20	12
	26-8	30	2	<2
	3-9	420	92	10
	9-9	1,000	28	34
	Medians	150	14	10

TABLE I(d). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, BRETON BEACH, LAC PHILIPPE

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
PB-7	6-5	10	<2	<2
	13-5	<2	<2	<2
	21-5	<2	<2	<2
	27-5	14	<2	2
	3-6	16	16	<2
	10-6	4	4	<2
	17-6	8	2	2
	24-6	10	2	14
	2-7	210	82	58
	8-7	420	160	180
	15-7	360	8	10
	22-7	570	210	22
	29-7	90	8	34
	6-8	210	40	6
	12-8	90	<2	2
	19-8	100	46	6
	26-8	20	2	2
	3-9	1,300	140	6
	9-9	420	8	24
	Medians	420	8	6
PB-8	6-5	14	<2	4
	13-5	<2	<2	<2
	21-5	<2	<2	<2
	27-5	26	<2	4
	3-6	16	6	<2
	10-6	4	2	2
	17-6	<2	<2	2
	24-6	4	2	10
	2-7	120	110	22
	8-7	600	28	32
	15-7	240	2	22
	22-7	900	120	50
	29-7	170	6	4
	6-8	470	70	150
	12-8	80	<2	<2
	19-8	80	4	<2
	26-8	10	4	<2
	3-9	670	62	4
	9-9	590	18	16
	Medians	80	4	4

TABLE I(e). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, BRETON BEACH, LAC PHILIPPE

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
PB-9	6-5	12	<2	28
	13-5	2	<2	<2
	21-5	2	<2	<2
	27-5	<2	<2	<2
	3-6	6	4	<2
	10-6	6	<2	<2
	17-6	10	<2	<2
	24-6	22	4	10
	2-7	4	4	20
	8-7	900	24	120
	15-7	100	10	10
	22-7	1,600	200	290
	29-7	210	6	10
	6-8	240	22	12
	12-8	20	<2	<2
	19-8	100	6	4
	26-8	10	2	<2
	3-9	1,000	12	96
	9-9	2,300	10	28
	Medians	20	4	10

TABLE II(a). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, PARENT BEACH, LAC PHILIPPE

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
PP-1	6-5	14	<2	<2
	13-5	26	26	<2
	21-5	<2	<2	<2
	27-5	34	<2	<2
	3-4	<2	<2	<2
	10-6	70	2	<2
	17-6	24	2	2
	24-6	58	16	22
	2-7	6	6	2
	8-7	1,700	190	130
	15-7	640	12	18
	22-7	90	4	90
	29-7	110	36	18
	6-8	180	8	4
	12-8	140	2	38
	19-8	420	70	34
	26-8	60	<2	2
	3-9	1,500	160	26
	9-9	770	66	10
	Medians	90	6	4
PP-2	6-5	<2	<2	<2
	13-5	4	4	<2
	21-5	4	<2	<2
	27-5	24	<2	<2
	3-6	2	<2	<2
	10-6	150	4	<2
	17-6	40	2	4
	24-6	98	28	8
	2-7	14	2	12
	8-7	1,600	860	640
	15-7	560	22	16
	22-7	70	2	68
	29-7	210	36	920
	6-8	140	18	6
	12-8	80	2	32
	19-8	600	96	32
	26-8	20	<2	<2
	3-9	760	96	2
	9-9	570	28	10
	Medians	80	4	6

TABLE II(b). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, PARENT BEACH, LAC PHILIPPE

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
PP-3	6-5	8	<2	4
	13-5	12	<2	<2
	21-5	4	<2	<2
	27-5	38	2	<2
	3-6	4	4	<2
	10-6	160	<2	<2
	17-6	6	<2	4
	24-6	76	8	26
	2-7	42	14	18
	8-7	360	170	200
	15-7	500	16	12
	22-7	70	4	120
	29-7	350	62	110
	6-8	240	32	6
	12-8	120	4	20
	19-8	260	100	16
	26-8	10	4	2
	3-9	1,400	90	10
	9-9	500	30	10
	Medians	76	4	10
PP-4	6-5	14	4	<2
	13-5	18	<2	<2
	21-5	4	<2	<2
	27-5	36	<2	<2
	3-6	56	<2	2
	10-6	60	10	4
	17-6	110	18	18
	24-6	78	16	30
	2-7	58	26	28
	8-7	980	100	170
	15-7	10	2	10
	22-7	100	2	70
	6-8	260	38	10
	12-8	160	4	18
	19-8	410	96	18
	26-8	10	2	2
	3-9	1,100	38	4
	9-9	410	22	12
	Medians	69	7	10

TABLE II(c). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, PARENT BEACH, LAC PHILIPPE

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
PP-5	6-5	140	<2	<2
	13-5	10	2	<2
	21-5	<2	<2	<2
	27-5	48	8	<2
	3-6	110	10	<2
	10-6	42	20	8
	17-6	66	24	10
	24-6	90	20	42
	2-7	18	6	20
	8-7	520	92	76
	15-7	20	2	20
	22-7	30	6	76
	6-8	300	38	2
	12-8	170	4	30
	19-8	450	26	24
	26-8	20	2	4
	3-9	1,100	110	36
	9-9	610	16	10
	Medians	69	9	10
PP-6	6-5	160	<2	<2
	13-5	8	<2	<2
	21-5	4	<2	<2
	27-5	96	6	<2
	3-6	22	6	2
	10-6	210	18	24
	17-6	50	10	20
	24-6	92	24	28
	2-7	32	18	36
	8-7	640	160	1,200
	15-7	30	<2	6
	22-7	190	8	86
	6-8	180	40	10
	12-8	180	14	40
	19-8	1,500	110	130
	26-8	440	<2	2
	3-9	1,300	160	46
	9-9	340	10	2
	Medians	170	12	8

TABLE III(a). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, RABY BEACH, LAC PHILIPPE

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
PR-1	6-5	10	<2	<2
	13-5	<2	<2	<2
	21-5	2	<2	<2
	27-5	2	<2	<2
	3-6	6	<2	<2
	10-6	110	110	6
	17-6	12	2	<2
	24-6	40	<2	2
	2-7	18	4	4
	8-7	10	2	46
	15-7	100	2	46
	22-7	24	4	8
	29-7	62	4	14
	6-8	60	<2	4
	12-8	24	2	4
	19-8	32	4	2
	26-8	100	4	14
	3-9	260	20	8
	9-9	590	72	96
	Medians	24	2	4
PR-2	6-5	6	<2	<2
	13-5	6	<2	<2
	21-5	<2	<2	<2
	27-5	4	<2	<2
	3-6	10	<2	<2
	10-6	24	14	14
	17-6	2	2	<2
	24-6	6	<2	10
	2-7	18	<2	10
	8-7	150	4	34
	15-7	90	2	44
	22-7	10	6	14
	29-7	66	4	12
	6-8	22	<2	<2
	12-8	14	<2	<2
	19-8	58	<2	<2
	26-8	130	<2	10
	3-9	370	18	2
	9-9	540	30	66
	Medians	18	<2	2

TABLE III(b). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, RABY BEACH, LAC PHILIPPE

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
PR-3	6-5	<2	<2	<2
	13-5	<2	<2	<2
	21-5	<2	<2	<2
	27-5	2	2	<2
	3-6	2	2	<2
	10-6	60	2	6
	17-6	10	2	<2
	24-6	12	2	10
	2-7	20	<2	14
	8-7	80	16	170
	15-7	90	<2	12
	22-7	32	4	8
	29-7	62	10	22
	6-8	80	2	2
	12-8	10	<2	2
	19-8	36	4	<2
	26-8	70	2	8
	3-9	470	18	18
	9-9	290	52	56
	Medians	32	2	6

TABLE IV(a). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, SMITH BEACH, LAC PHILIPPE

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
PS-1	6-5	70	<2	<2
	13-5	6	<2	<2
	21-5	<2	<2	<2
	27-5	26	<2	<2
	3-6	14	6	2
	10-6	16	2	2
	17-6	12	4	<2
	24-6	46	40	18
	2-7	6	4	2
	8-7	170	10	30
	15-7	150	6	52
	22-7	160	6	32
	29-7	100	18	14
	6-8	16	4	<2
	12-8	12	<2	<2
	19-8	200	28	8
	26-8	28	<2	2
	3-9	150	22	<2
	9-9	350	220	110
	Medians	28	4	2
PS-2	6-5	34	<2	<2
	13-5	4	<2	<2
	21-5	2	2	<2
	27-5	16	<2	2
	3-6	2	<2	<2
	10-6	22	4	<2
	17-6	48	8	2
	24-6	88	34	8
	2-7	12	2	<2
	8-7	100	36	22
	15-7	190	2	46
	22-7	54	<2	14
	29-7	270	34	22
	6-8	14	<2	<2
	12-8	18	<2	8
	19-8	210	8	18
	26-8	22	4	2
	3-9	270	24	28
	9-9	580	160	72
	Medians	34	2	2

TABLE IV(b). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, SMITH BEACH, LAC PHILIPPE

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
PS-3	6-5	20	<2	<2
	13-5	2	<2	<2
	21-5	2	2	<2
	27-5	10	<2	<2
	3-6	4	2	<2
	10-6	44	6	<2
	17-6	74	32	8
	24-6	98	32	4
	2-7	12	6	2
	8-7	190	4	28
	15-7	28	<2	4
	22-7	56	2	16
	29-7	52	20	8
	6-8	60	<2	4
	12-8	22	<2	4
	19-8	200	4	2
	26-8	10	<2	2
	3-9	530	28	12
	9-9	950	150	84
	Medians	44	2	4

TABLE V(a). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, MEACH LAKE, AREA 1

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
M1-1	6-5	26	<2	<2
	13-5	4	<2	<2
	21-5	6	2	<2
	27-5	380	<2	<2
	4-6	220	<2	<2
	10-6	42	6	<2
	17-6	36	2	<2
	24-6	50	<2	<2
	2-7	76	10	10
	8-7	1,200	64	140
	15-7	310	14	76
	22-7	230	8	140
	29-7	130	16	18
	6-8	110	26	4
	10-8	990	84	32
	12-8	380	72	10
	19-8	590	12	10
	26-8	600	46	38
	9-9	580	46	28
	Medians	220	10	10
M1-2	6-5	26	4	<2
	13-5	2	<2	<2
	21-5	12	<2	<2
	27-5	22	<2	<2
	4-6	42	<2	<2
	10-6	30	4	2
	17-6	34	<2	<2
	24-6	250	80	170
	2-7	62	18	4
	8-7	390	120	130
	15-7	190	14	36
	22-7	240	22	120
	29-7	40	34	30
	2-8	26	8	8
	6-8	370	34	12
	10-8	570	34	20
	12-8	380	44	28
	19-8	530	40	10
	26-8	540	32	20
	9-9	230	24	16
	Medians	210	20	11

TABLE V(b). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, MEACH LAKE, AREA 1

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
M1-3	6-5	14	2	<2
	13-5	6	<2	<2
	21-5	6	<2	<2
	27-5	74	<2	<2
	4-6	8	<2	2
	10-6	62	6	6
	17-6	30	2	16
	24-6	230	60	140
	2-7	64	14	12
	8-7	1,100	88	130
	15-7	230	2	80
	22-7	230	44	130
	29-7	70	58	12
	2-8	14	10	4
	6-8	300	36	12
	10-8	200	20	12
	12-8	360	56	28
	19-8	620	48	6
	26-8	280	16	20
	9-9	200	4	8
	Medians	140	12	12
M1-4	6-5	8	<2	<2
	13-5	2	<2	<2
	21-5	<2	<2	6
	27-5	8	<2	<2
	4-6	8	<2	<2
	10-6	70	18	14
	17-6	22	2	4
	24-6	120	8	50
	2-7	140	18	6
	8-7	1,100	80	130
	15-7	350	6	86
	22-7	310	22	100
	29-7	190	36	8
	2-8	6	6	10
	6-8	390	36	8
	10-8	590	22	54
	12-8	450	28	18
	19-8	560	44	24
	26-8	150	10	4
	9-9	90	6	4
	Medians	150	9	8

TABLE V(c). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, MEACH LAKE, AREA 1

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
M1-5	6-5	16	<2	<2
	13-5	<2	<2	<2
	21-5	2	2	<2
	27-5	25	<2	<2
	4-6	12	<2	<2
	10-6	28	4	6
	17-6	34	<2	4
	24-6	140	16	70
	2-7	86	14	12
	8-7	1,300	230	110
	15-7	180	6	70
	22-7	310	28	90
	29-7	100	42	6
	2-8	30	<2	6
	6-8	450	42	8
	10-8	220	8	8
	12-8	410	38	18
	19-8	450	34	6
	26-8	150	26	8
	9-9	220	12	2
	Medians	130	10	6
M1-6	6-5	8	<2	<2
	13-5	2	<2	<2
	21-5	<2	<2	2
	27-5	14	2	<2
	4-6	12	<2	2
	10-6	48	<2	8
	17-6	38	10	2
	24-6	180	6	40
	2-7	48	10	8
	8-7	2,100	160	170
	15-7	370	4	70
	22-7	190	14	70
	29-7	260	74	20
	2-8	50	8	4
	6-8	1,000	36	18
	10-8	130	12	12
	12-8	360	36	30
	19-8	450	66	8
	26-8	140	14	4
	Medians	130	10	8

TABLE V(d). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, MEACH LAKE, AREA 1

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
M1-7	6-5	8	<2	<2
	13-5	8	<2	<2
	21-5	18	8	2
	27-5	22	<2	2
	4-6	78	<2	2
	10-6	42	<2	6
	17-6	14	<2	2
	24-6	180	24	34
	2-7	58	10	6
	8-7	710	200	180
	15-7	300	4	100
	22-7	360	48	130
	29-7	160	38	6
	2-8	38	2	18
	6-8	690	50	12
	10-8	180	2	4
	12-8	200	16	28
	19-8	340	72	8
	26-8	260	34	6
	9-9	340	2	<2
	Medians	170	6	6

TABLE VI(a). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, MEACH LAKE, AREA 3

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
M3-1	6-5	24	<2	<2
	13-5	80	<2	<2
	21-5	32	<2	2
	27-5	24	<2	<2
	4-6	34	<2	<2
	10-6	120	<2	12
	17-6	2	2	<2
	24-6	26	6	<2
	2-7	16	4	6
	8-7	100	14	16
	15-7	64	18	20
	22-7	16	<2	18
	2-8	80	30	38
	6-8	24	6	8
	10-8	150	6	8
	12-8	410	22	44
	19-8	200	60	4
	26-8	120	2	4
	9-9	22	<2	2
	Medians	34	2	4
M3-2	6-5	8	<2	<2
	13-5	98	<2	4
	21-5	14	10	2
	27-5	32	<2	<2
	4-6	62	<2	<2
	10-6	90	6	8
	17-6	6	2	<2
	24-6	80	100	2
	2-7	670	190	150
	8-7	50	18	42
	15-7	46	10	10
	22-7	20	2	26
	29-7	18	2	2
	2-8	100	12	10
	6-8	44	4	2
	10-8	54	4	8
	12-8	410	22	30
	19-8	150	24	2
	26-8	110	4	<2
	9-9	44	<2	4
	Medians	52	4	3

TABLE VI(b). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, MEACH LAKE, AREA 3

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
M3-3	6-5	6	<2	<2
	13-5	94	<2	4
	21-5	6	<2	<2
	27-5	50	<2	<2
	4-6	36	<2	<2
	10-6	100	4	6
	17-6	30	2	2
	24-6	58	4	2
	2-7	500	50	48
	8-7	120	2	20
	15-7	24	4	12
	22-7	10	<2	20
	29-7	50	8	12
	2-8	100	6	10
	6-8	28	4	6
	10-8	84	<2	8
	12-8	130	10	18
	19-8	54	20	6
	26-8	24	<2	<2
	9-9	40	<2	<2
	Medians	50	2	6
M3-4	6-5	24	<2	<2
	13-5	18	<2	<2
	21-5	2	<2	<2
	27-5	56	2	<2
	4-6	68	2	<2
	10-6	110	8	2
	17-6	14	<2	<2
	24-6	38	2	<2
	2-7	490	110	70
	8-7	130	16	20
	15-7	22	<2	2
	22-7	8	<2	2
	29-7	110	16	22
	2-8	160	4	16
	6-8	150	16	12
	10-8	34	<2	4
	12-8	52	2	4
	19-8	86	12	2
	26-8	8	4	<2
	9-9	26	6	<2
	Medians	45	2	2

STATION VI(c). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, MEACH LAKE, AREA 3

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
M3-5	6-5	6	<2	2
	13-5	6	<2	<2
	21-5	6	<2	<2
	27-5	170	10	180
	4-6	56	<2	<2
	10-6	88	14	<2
	17-6	44	12	4
	24-6	36	4	<2
	2-7	>2,000	>2,000	>2,000
	8-7	380	100	44
	15-7	26	4	8
	22-7	8	<2	4
	29-7	24	2	6
	2-8	26	10	10
	6-8	210	54	4
	10-8	20	10	2
	12-8	28	2	6
	19-8	460	28	32
	26-8	10	2	<2
	9-9	36	4	<2
	Medians	32	4	4
M3-6	6-5	<2	<2	<2
	13-5	32	2	<2
	21-5	8	<2	<2
	27-5	44	<2	14
	4-6	48	<2	2
	10-6	42	10	2
	17-6	28	4	<2
	24-6	82	8	16
	2-7	530	26	32
	8-7	300	180	20
	15-7	300	22	90
	22-7	16	2	2
	29-7	18	<2	4
	2-8	22	14	22
	6-8	230	66	4
	10-8	42	<2	14
	12-8	120	6	16
	19-8	200	92	28
	26-8	6	<2	<2
	9-9	20	<2	2
	Medians	42	3	4

TABLE VI(d). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, MEACH LAKE, AREA 3

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
M3-7	6-5	6	<2	<2
	13-5	160	<2	<2
	21-5	<2	<2	<2
	27-5	30	<2	<2
	4-6	20	<2	<2
	10-6	100	14	6
	17-6	98	16	4
	24-6	58	8	14
	2-7	28	2	6
	8-7	240	56	16
	15-7	50	4	38
	22-7	30	6	18
	29-7	56	8	8
	2-8	90	4	20
	6-8	230	26	6
	10-8	26	8	10
	12-8	56	6	2
	19-8	130	58	26
	26-8	12	2	<2
	9-9	32	<2	2
	Medians	56	5	6
M3-8	6-5	22	<2	<2
	13-5	70	<2	<2
	21-5	4	<2	<2
	27-5	36	2	<2
	4-6	200	<2	6
	10-6	150	8	14
	17-6	34	2	4
	24-6	110	8	12
	2-7	250	110	44
	8-7	150	46	42
	15-7	26	6	12
	22-7	34	20	2
	29-7	28	4	12
	2-8	42	8	16
	6-8	80	12	4
	10-8	58	<2	6
	12-8	52	4	6
	19-8	160	56	18
	26-8	180	38	2
	9-9	16	2	<2
	Medians	55	5	6

TABLE VII(a). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, LAC LAPECHE BEACH

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
L-1	6-5	14	<2	<2
	13-5	280	<2	<2
	21-5	<2	<2	<2
	27-5	54	4	<2
	3-6	46	6	8
	10-6	70	4	8
	17-6	12	<2	4
	24-6	82	<2	8
	2-7	6	4	8
	8-7	1,200	150	310
	15-7	220	12	100
	22-7	110	<2	2
	29-7	190	48	28
	6-8	160	16	10
	12-8	130	<2	2
	19-8	<10	<2	<2
	26-8	160	4	2
	3-9	440	74	4
	9-9	90	<2	<2
	Medians	90	4	4
L-2	6-5	4	<2	<2
	13-5	74	<2	<2
	21-5	<2	<2	<2
	27-5	50	2	<2
	3-6	16	6	2
	10-6	94	4	6
	17-6	14	<2	<2
	24-6	210	4	70
	2-7	38	18	6
	8-7	70	42	44
	15-7	210	26	44
	22-7	290	14	16
	29-7	70	38	38
	6-8	270	6	14
	12-8	220	10	14
	19-8	20	20	<2
	26-8	20	4	<2
	3-9	430	20	<2
	9-9	130	<2	<2
	Medians	70	6	2

TABLE VII(b). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, LAC LAPECHE BEACH

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
L-3	6-5	8	<2	<2
	13-5	42	<2	6
	21-5	<2	<2	<2
	27-5	44	2	<2
	3-6	34	4	<2
	10-6	66	<2	8
	17-6	18	<2	<2
	24-6	320	6	110
	2-7	56	28	24
	8-7	1,000	26	62
	15-7	220	6	20
	22-7	340	38	44
	29-7	90	12	26
	6-8	150	12	2
	12-8	60	16	14
	19-8	20	8	6
	26-8	10	2	2
	3-9	220	30	<2
	9-9	110	<2	4
	Medians	60	6	6
L-4	6-5	2	<2	<2
	13-5	26	<2	<2
	21-5	18	<2	2
	27-5	24	<2	<2
	3-6	42	<2	4
	10-6	40	4	2
	17-6	18	<2	2
	24-6	120	6	38
	2-7	20	20	26
	8-7	150	12	26
	15-7	280	2	4
	22-7	120	4	24
	29-7	30	10	4
	6-8	40	2	6
	12-8	40	12	14
	19-8	<10	<2	2
	26-8	10	<2	6
	3-9	100	2	2
	9-9	140	<2	<2
	Medians	40	2	4

TABLE VII(c). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, LAC LAPECHE BEACH

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
L-5	6-5	86	<2	12
	13-5	10	<2	<2
	21-5	2	<2	<2
	27-5	14	<2	<2
	3-6	32	2	<2
	10-6	34	2	<2
	17-6	24	6	<2
	24-6	150	4	260
	2-7	12	<2	6
	8-7	100	4	8
	22-7	90	10	4
	29-7	40	2	2
	6-8	190	2	4
	12-8	1,000	2	<2
	19-8	<10	2	2
	26-8	40	<2	<2
	3-9	120	2	<2
	9-9	180	<2	<2
	Medians	40	2	2
L-6	6-5	44	<2	8
	13-5	8	<2	<2
	21-5	<2	<2	<2
	27-5	36	2	4
	3-6	24	12	<2
	10-6	40	<2	4
	17-6	30	<2	<2
	24-6	56	<2	72
	2-7	24	4	8
	8-7	110	24	8
	22-7	160	12	10
	29-7	50	8	6
	6-8	100	2	14
	12-8	1,700	2	4
	19-8	<10	2	2
	26-8	20	<2	2
	3-9	110	2	2
	9-9	170	<2	2
	Medians	44	2	4

TABLE VIII(a). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, CAMP PONTIAC BEACH

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
1	6-5	68	6	2
	13-5	14	2	12
	21-5	300	2	8
	27-5	72	<2	6
	3-6	44	6	10
	10-6	2,400	1,400	190
	17-6	220	64	50
	24-6	180	<2	10
	2-7	470	150	80
	8-7	130	2	12
	15-7	40	<2	500
	22-7	80	2	110
	29-7	140	4	56
	6-8	60	10	10
	12-8	40	<2	4
	19-8	30	22	30
	26-8	50	18	4
	3-9	880	280	52
	9-9	120	14	2
	Medians	120	6	12
2	6-5	60	6	<2
	13-5	22	2	6
	21-5	110	2	20
	27-5	160	2	22
	3-6	40	10	22
	10-6	410	150	68
	24-6	620	6	32
	2-7	510	34	64
	8-7	130	2	10
	15-7	50	2	880
	22-7	150	8	220
	29-7	800	14	42
	6-8	90	6	16
	12-8	700	2	4
	19-8	10	<2	<2
	26-8	50	4	12
	3-9	860	140	72
	9-9	260	20	<2
	Medians	140	6	21

TABLE VIII(b). BACTERIAL MF COUNTS, WATER SAMPLES, NCC BEACH MONITOR STUDY, 1973, CAMP PONTIAC BEACH

Station Number	Date	MF COUNT PER 100 ML OF WATER		
		Coliform	Fecal Coliform	Fecal Streptococcus
3	6-5	66	10	8
	13-5	28	<2	8
	21-5	56	<2	20
	27-5	90	4	10
	3-6	26	8	14
	10-6	1,800	980	190
	17-6	170	26	70
	24-6	900	18	50
	2-7	400	6	110
	8-7	50	<2	22
	15-7	40	<2	1,000
	22-7	100	<2	90
	29-7	30	8	38
	6-8	1,500	2	22
	12-8	500	2	4
	19-8	62	62	34
	26-8	50	6	<2
	3-9	330	190	20
	9-9	160	38	<2
	Medians	90	6	22
4	13-5	26	<2	8
	21-5	44	4	22
	27-5	90	<2	2
	3-6	90	18	18
	10-6	5,300	2,300	150
	17-6	200	26	44
	24-6	2,000	18	70
	2-7	300	12	96
	8-7	50	<2	32
	15-7	40	<2	320
	22-7	20	2	140
	29-7	1,600	14	26
	6-8	700	10	6
	12-8	400	2	2
	19-8	30	14	<2
	26-8	70	18	4
	3-9	350	280	32
	9-9	190	16	<2
	Medians	140	13	24