CWS SEABIRD COLONY REGISTRY PROGRESS REPORT INPUT SPECIFICATIONS FOR A SEABIRD COLONY DATABASE

:

David N. Nettleship & Gary N. Glenn

Seabird Research unit Canadian Wildlife Service Bedford Institute of Oceanography P.O. Box 1006 Dartmouth, N.S., Canada, B2Y 4A2





QL 696 .C4

## QL 696 .c4 NH79 1991

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April 1991

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### SEABIRD COLONY REGISTRY DATA INPUT FORM

The following is the "DATA INPUT FORM" which is to be completed before data entry begins. This should be done in the field as the data are collected which will eliminate most transcribing errors. Data verification will be simplified if the Data Input Form is used as the field sheet because the computer edit screens match the input form. If another field sheet is used, the verifier's job will be more difficult and the likelihood of making errors will increase. The Data Input Form should be reproduced as a double-sided single page.

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## Canadian Wildlife Service

# SEABIRD COLONY REGISTRY

Canadian Wildlife Service Bedford Institute of Oceanography Box 1006, Dartmouth, N.S., Canada, B2Y 4A2

Phone: (902) 426-3827 Fax: (902) 426-7827

# **DATA INPUT FORM**

SHEET SERIAL NO.:	LOCATION CODE:	SPECIES:
COLONY NAME:		YEAR:

	CENSUS INFORMATION	(SCREEN 1/2)
SHEET SERIAL NO.: 1		
OBSERVER 1: <sup>13</sup>	OBSERVER 2:14	PHOTOGRAPHER: <sup>15</sup>
SPECIES NOT PRESENT:16 YN		
NO. OF ACTIVE SITES:22		
NO. OF INDIVIDUALS:24	K-VALUE:	
NO. OF BREEDING PAIRS;27		% ERROR:29
SLOPE 1:	SLOPE 2:	

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WEATHER:	<u>"</u>								۷	NIN	٩D	SF	EE	:D;	40										 	ΤE	MP	ER/	λTU	RE:	41						
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COLONY NAME:		YEAR:	

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PERSON'S CODE:82				FIRST NAME & INITIAL:	
DEPARTMENT;					
STREET ADDRESS:87					
CITY/TOWN:88					
PROVINCE/STATE:		COUNTRY:		POSTA	
PHONE NO .: 92 (	)(		FAX NO.:93 ( )		
NOTES ON PERSON:95					

	CITATION INFORMATION	(SCREEN 1/1)
CITATION CODE:		
TITLE OF PAPER:97		
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95		
NAMES OF EDITORS:		
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# SEABIRD COLONY REGISTRY INPUT SPECIFICATIONS

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### SEABIRD COLONY REGISTRY INPUT SPECIFICATIONS

The following defines each input parameter in each of the five information categories comprising the Canadian Wildlife Service **Seabird Colony Registry** (SCR), and gives instructions on how data are entered. Input parameters (= items) are numbered according to the box number on the Data Input Form. The item name is given first (in capitals), followed by the item size (number of characters in parentheses), and definition of contents.

#### **CENSUS INFORMATION**

This is the main section in the relational structure of the SCR. It contains information on a single census of a given species, at a particular location and time.

1. SHEET SERIAL NO. (12): Serial number of coding sheet on which the census is recorded. [Note: number will be generated by the computer.

This item will consist of 1-10 digits followed by a 2 letter code for the region which produced the number, (e.g., AR = Atlantic Region).

2. LOCATION CODE (7): Location code for the colony. Made up of the serial number of the 1:250,000 scale topographic map on which the location occurs and a unique 3-digit number supplied by the computer. For example, the seventh colony registered on map number 001N (St. John's) would receive the location code: 001N007. <u>The first four characters of a</u> <u>location code must be entered in order to continue data</u> <u>entry</u>. This item also appears in the Location Information section where detailed information about the location is given (see item 60).

To find correct code or to determine code for new site, enter the 4 character map number only. The unique 3-digit number for new colony will be generated later (see item 60).

3. **SPECIES CODE** (4): Standard, 4-character banding office mnemonic for species censused. <u>A species code must be entered to continue</u>.

7

If known, enter code. If not known, record species common name; the code will be looked-up when data is entered into the SCR.

Species List (L) - Species in the database comprise primary seabirds and other marine-associated species (see Appendix 1 for complete details):

Common	Name
--------	------

Species Code	Sp	eci	es	Code
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Black-Crowned Night Heron <sup>1</sup> BCNH	I J J
	1 1
BLACK GUILLEMOT BLGD	J
Black-Headed Gull BHGU	
Black-Legged Kittiwake BLKI	-
Bonaparte's Gull BOGU	J
Caspian Tern CATE	2
Cattle Egret <sup>1</sup> CAEG	;
Common Eider <sup>1</sup> COEI	
Common Murre COMU	J
Common Tern COTE	2
Double-crested Cormorant DCCO	)
Dovekie DOVE	2
Forster's Tern FOTE	2
Glaucous Gull GLGU	J
Great Auk <sup>2</sup> GRAU	J
Great Black-Backed Gull GBBG	;
Great Blue Heron <sup>1</sup> GBHE	2
Great Cormorant GRCO	)
Great Egret <sup>1</sup> GREG	•
Gull Species, any GULL	J
Herring Gull HERG	;
Iceland Gull ICGU	J
Ivory Gull IVGU	J
Leach's Storm-Petrel LSPE	2
Little Gull LIGU	J
Long-tailed Jaeger LTJA	7
Manx Shearwater MASH	I
Northern Fulmar NOFU	J
Northern Gannet NOGA	7
Parasitic Jaeger PAJA	7
Pomarine Jaeger POJA	L
Razorbill RAZO	)
Ring-billed Gull RBGU	J
Roseate Tern ROTE	]
Sabine's Guil SAGU	J.
Snowy Egret' SNEG	i
TERN TERN	
Theyer's Guil THGU	1
THICK-DITIED MUTTE TBMU	ļ

<sup>1</sup>Secondary seabird species or marine-associated species only. <sup>2</sup>Extinct species 4. **TIME IN** (4): Start time of census in 24-h clock format (minutes must be less than 60):

midnight	=	2400	noon	=	1200
12:01 am	=	0001	3:00 pm	=	1500
6:00 am	=	0600	6:00 pm	. =	1800

- 5. **DATE IN (11):** Date of start of census. Format is 2-numeric day followed by 3-letter abbreviation of month and 4-numeric year (e.g., 02 JUN 1990). <u>The year must be entered to continue</u>.
- 6. **TIME ZONE** (2): Time zone used with items 4 and 7. Codes in database are as follows (see Appendix 2 for area designations):

Time	Zone	Hours Behind GMT	Code
GMT	- Greenwich Mean Time	0	01
IDT	- Iceland Daylight Time	0	02
ODT	- Oscar Daylight Time <sup>1</sup>	1	03
GDT	- Greenland Daylight Time	2	04
NDT	- Nfld Daylight Time	2.5	05
ADT	- Atlantic Daylight Time	3	06
EDT	- Eastern Daylight Time	4	07
CDT	- Central Daylight Time	5	· 08
MDT	- Mountain Daylight Time	6	09
$\mathbf{PDT}$	- Pacific Daylight Time	7	10
YDT	- Yukon Daylight Time	8	11
AHDT	- Alaska/Hawaii Daylight Time	9	12
BST	- Bering Daylight Time	10	13
IST	- Iceland Standard Time	1	14
OST	- Oscar Standard Time <sup>1</sup>	2	15
GST	- Greenland Standard Time	3	16
NST	- Nfld Standard Time	3.5	17
AST	- Atlantic Standard Time	4	18
EST	- Eastern Standard Time	5	19
CST	- Central Standard Time	6	20
MST	- Mountain Standard Time	7	21
PST	- Pacific Standard Time	8	22
YST	- Yukon Standard Time	9	23
AHST	- Alaska/Hawaii Standard Time	10	24
BST	- Bering Standard Time	11	25

<sup>1</sup> Oscar Zone = East Greenland.

7.

**TIME OUT (4):** End time of census in 24-h clock format (e.g., 5:07 pm = 1707).

9

- 8. **DATE OUT (11):** Date of end of census (e.g., 02 JUN 1990). <u>The year must be entered to continue</u>.
- 9. DURATION (5): If census performed on ground in colony, give number of hours actually spent on or in the colony to execute the census (e.g., census of 16.5 hours over a 5-day period = 016.5).
- 10. PHASE OF BREEDING CYCLE (2): Code for phase of breeding cycle at time of census. <u>A phase code must be entered to continue</u>. Codes in database are as follows:

Phase	Code
Pre-laying	01
Eggs only	02
Eggs and chicks	03
Chicks only	04
Post-fledging	05
Within breeding season, phase unknown	06
Outside breeding season, (either before or after)	07
Unknown	08

11. **PRINCIPAL INVESTIGATOR** (4): Code for principal investigator (i.e., senior person responsible for design, financial support, execution and interpretion of the census; may or may not be the person who actually carried out the census). Code is in the form of initials made up from the first letter of the first, middle and last names and a computergenerated unique, one-digit number following the initials (e.g., ABC1, ABC2, etc.). The same code is used in the Personal Information section where additional details about the principal investigator are given (see item 82).

**C** 1

Enter initials and unique number if known; unique number will be generated in Personal Information section if not entered here.

- 12. CONTACT PERSON (4): Code for person to contact regarding census; usually this person will be the principal investigator format and use as described for item 11.
- 13. **OBSERVER 1** (4): Code for lead field observer (i.e., person who supervised work in the field and actually made the census observations) format and use as described for item 11.

- 14. **OBSERVER 2** (4): Code for second field observer (i.e., person who assisted lead observer) format and use as described for item 11.
- 15. **PHOTOGRAPHER** (4): Code for principal photographer of census photos used in population analysis (item 50) format and use as described for item 11.
- 16. **SPECIES NOT PRESENT** (1): Species formally known to be breeding at this location but not present. [Note: If "Yes", SCR proceeds directly to item 30.]
- 17. NUMBERS UNKNOWN (1): Species present at location but numbers unknown. [Note: If "Yes", SCR proceeds directly to item 30.]

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18. SIZE DERIVATION METHOD (2): Descriptor for method of derivation of colony size from count figures. <u>A method code</u> <u>must be entered to continue</u>. Codes in database are as follows:

Method	Code
Count figures used directly [Note: This selection will cause SCR to proceed to item 24.]	01
<pre>k-value (conversion applied to bird count) [Note: This selection will cause SCR to proceed to item 24.]</pre>	02
Combination of counts of birds and sites [Note: This selection will cause SCR to proceed to item 22.]	03
Area extrapolation [Notes: Made from plots, transects, quadrates or circular plots, etc. This selection will cause SCR to proceed to item 22.]	04
Order of magnitude [Note: This selection will cause SCR to proceed to item 19.]	05
Minimum/maximum range [Note: This selection will cause SCR to	06

proceed to item 20.]

19. ORDER OF MAGNITUDE (1): Order of magnitude of number of pairs breeding in colony.

NUMBERS OF PAIRS	Order
1-10	1
11-100	2
101-1,000	3
1,001-10,000	4
10,001-100,000	5
100,001-1,000,000	6
>1,000,000	. 7

- 20. MINIMUM NO. (8): Estimate of minimum number of pairs breeding in the colony where a range for colony size has been produced.
- 21. MAXIMUM NO. (8): Estimate of maximum number of pairs breeding in the colony where a range for colony size has been produced.
- 22. NO. OF ACTIVE SITES (8): Number of active sites/nests counted during the census. Active sites/nests are those that contain at least 1 egg and/or at least 1 chick.
- 23. NO. OF EMPTY SITES (8): Number of empty sites/nests counted during the census.
- 24. NO. OF INDIVIDUALS (8): Number of individual birds counted during the census.
- 25. **K-VALUE** (4): The correction factor (k) used to convert number of individual birds counted to number of breeding pairs (i.e., ratio of breeding pairs to number of individuals). If a value for item 24 was entered, a "K-Value" must be entered to continue.
- 26. **DERIVATION OF** K (2): Method k-value was obtained. If a value for item 24 was entered, a "Derivation of K" code must be entered to continue.

#### K-Value Method

....

Type I		01
Type II		02
Other count	data	03
Application	of representative k-value	04

Code

- 27. NO. OF BREEDING PAIRS (8): Estimate of the number of pairs breeding in the colony derived either directly from count unit or indirectly from count figures.
- 28. **DERIVATION OF BREEDING PAIRS** (2): Method used to derive number of breeding pairs (item 27).

Code

Code

01

02

03

Provided by principal investigator		01
"No. of Individuals" x "K-value"	,	02
0.5 x 10("Order of Magnitude")		03
("Minimum. no." + "Maximum. no.") / 2		04 ·

- 29. % ERROR (2): Estimate of the error associated with the colony size value given in item 27: no error (actual count,  $\pm 0$ %) = 0,  $\pm 5$ % = 5,  $\pm 10$ % = 10, etc.).
- 30. **SLOPE 1** (2): Descriptor for angle of slope of ground in colony. If more than one slope is represented, use this as code for dominant slope type. Codes in database are as follows:

#### Slope Type

t

Flattish ground Sloping ground Vertical (cliff)

[Note: If left blank, SCR proceeds directly to item 33.]

- 31. SLOPE 2 (2): Descriptor for secondary slope in colony. Codes as for item 30. [Note: If left blank, SCR proceeds directly to item 33.]
- 32. **SLOPE 3** (2): Descriptor for tertiary slope in colony. Codes as for item 30.
- 33. **HABITAT 1** (2): Descriptor for colony habitat. If more than one habitat is represented, use this as code for dominant habitat type. Codes in database are as follows:

Habitat Type	•	Code
Unbroken rock		01
Rock ledge		02
Rock crevices		03
Scree		

Pock rubble	05
	05
Sand gravel	06
Bare soil	07
In trees/bushes	08
Under trees/bushes	09
Forest edge	10
Herbaceous vegetation	11
Salt marsh	12
Fresh marsh	13
Lichens	14
Tundra	15
Building	16
Pier/wharf/jetty/breakwater	17
Slag	18

[Note: If left blank, SCR skips items 34 and 35.]

- 34. **HABITAT 2** (Character, 2): Descriptor for secondary habitat in colony. Codes as for item 33. [Note: If left blank, SCR skips item 35.]
- 35. HABITAT 3 (Character, 2): Descriptor for tertiary habitation in colony. Codes as for item 33.
- 36. **DISTANCE FROM WATER** (4): Estimate of minimum horizontal distance (m) of colony to nearest water body.
- 37. HEIGHT ABOVE WATER (4): Estimate of minimum height (m) of colony above nearest water body.
- 38. BREEDING AREA (5): Area (m<sup>2</sup>) of land occupied by colony.
- 39. WEATHER (Character, 2): Descriptor for weather conditions at time of census. Codes in database are as follows:

Weather Conditions

Code

Sunny/Clear	01
Cloudy (1/10 to 9/10 cloud cover)	02
Overcast (10/10 cloud cover)	03
Fog	04
Drizzle	05
Intermittent showers	06
Light rain	07
Heavy rain	08
Freezing rain	09
Hail	10
Snow	11
Other conditions (see census notes)	12

14

40. WIND SPEED (2): Speed of wind during census using sea-surface conditions according to the Beaufort Scale:

Description	Effect Caused by Wind	Beaufort Number
Calm	Surface mirror-like.	00
Light air	Only ripples form.	01
Light breeze	Small, short wavelets, distinct but not breaking.	02
Gentle breeze	Larger wavelets beginning to break, glassy foam, perhaps scattered white horses.	03
Moderate breeze	Small waves still but longer, fairly frequent white horses.	04
Fresh breeze	Moderate waves, distinctly elongated, many white horses, perhaps isolated spray.	, <sup>.</sup>
Strong wind	Large waves begin with extensive white foam crests breaking: spray probable.	06
Stiff wind or	Sea heaps up, lines of white	07
moderate gale	foam to be blown down wind.	
Stormy wind or fresh gale	Moderately high waves with crests of considerable length; foam blown in well-marked streaks; spray blown from crests.	08
Storm or strong gale	High waves, rolling sea, dense streaks of foam; spray may already reduce visibility.	09
Heavy storm or whole gale	Heavy rolling sea, white with great foam patches and dense streaks, very high waves with overhanging crests; much spray reduces visibility.	10

- **TEMPERATURE** (3): Average temperature (°C) during census. 41.
- **CENSUS METHOD** (2): Descriptor for method of census. 42. Codes in database are as follows:

CENSUS WELHOU	oouc
Direct count of sites from ground 01	
Direct count of sites from sea 02	
Direct count of sites from air 03	
Direct count of birds and sites from ground 04	
Direct count of birds and sites from sea 05	
Direct count of birds and sites from air 06	
Direct count of birds from ground 07	

Direct count of birds from sea	08
Direct count of birds from air	09
Photo count of sites from ground	10
Photo count of sites from sea	11
Photo count of sites from air	12
Photo count of birds from ground	13
Photo count of birds from sea	14
Photo count of birds from air	15
Type I census	16
Type II census	17
Visual estimate of birds from ground	18
Visual estimate of birds from sea	19
Visual estimate of birds from air	<sup>`</sup> 20
Other (see "Notes on Census", item 59)	21

- 43. AIRCRAFT (15): Name and type of aircraft used during census.
- 44. ALTITUDE (4): Altitude (ft) at time of census.
- 45. AIRCRAFT SPEED (3): Speed (kts) of aircraft at time of census.
- 46. CAMERA (15): Name of camera used for photo census (e.g., Pentax 6x7, Hassalbald, etc.).
- 47. LENS (5): Focal length (mm) of lens used for photo census (e.g., 100mm, 200mm, etc.).

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- 48. FILM (21): Details of film used for photo census: type (name of black & white [BW] or colour [C] film, negative [N] or postve [P] film) / speed (ASA) / and size (135, 120, etc.). Examples: TMAX BW/400/120, PLUSX BW/125/220, EKTACHROME CP/64/220, KODACHROME CP/64/135, etc.
- 49. **PRINT SIZE** (10): Size of prints used to execute photo counts (e.g., 4x6", 5x7", 8x10", 11x14", etc.).
- 50. FILM SERIAL NO. (Character, 50): Serial number of film used in photographic census: principal investigator's code (initials + unque number) / year / roll number(s) /frame number(s). Example: ABC1/1991/12/11-13; 12/15-16; 15/01-12.
- 51. DATA BOOK (10): Serial number of data book(s) used to store transcribed field notes containing census information.

- 52 **FIELD BOOK** (10): Serial number of field notebook(s) used to record census information.
- 53. **SKETCH MAPS** (10): Serial number of sketch map used to record census information (e.g., colony location and boundaries, bird distribution and numbers, etc.).
- 54. RAW DATA LOCATION (50): Location where raw data are archived. [Note: If left blank, SCR proceeds directly to item 56.]
- 55. DATE CONFIRMED (11): Last date information for item 54 was checked and confirmed. <u>The year must be entered to continue</u>.
- 56. HOW RECEIVED (2): Descriptor for form in which census information was received. Codes in database are as follows:

Form

CWS-SCR Data Input Form	. 01
Completed Field Sheet	02
Published Report (journal/book)	03
Unpublished Report	04
Letter	05
Fax	. 06
Oral communication	07

57. **CENSUS RATING** (2): Descriptor for rating of census quality [Note: Selection of code should be based on a careful assessment of completeness of census, weather conditions under which the census was made, observer experience, etc. Most ratings will fall in code 02.] <u>A "Census Rating" code</u> <u>must be entered to continue</u>. Codes in database are as follows:

Census Quality		Code
High .	Data very reliable.	01
Medium	Data reliable and quantitatively comparable with those obtained in good conditions.	02
Low	Data unreliable but can be used to indicate species presence and numbers within an order of magnitude.	03

17

Code

- CITATION (50): Code for bibliographic information on 58. references cited in the form of a standard citation (reports and publications): author's surname and year of report/publication without comma separation; if two authors, give both surnames separated by "and"; if more than two authors, use "et al.". Examples: Smith 1989; Smith and Jones 1987a; Jones et al. 1977. [Note: Complete bibliographic information is provided for each reference in the Citation Information section (see items 96 - 109).]
- 59. NOTES ON CENSUS (50): Special notes on any aspect of the census not included elsewhere in the Census Information section.

#### LOCATION INFORMATION

The Location Information section contains detailed information on each colony identified by location code (i.e., item 2, Census Information section).

- 60. LOCATION CODE (7): Code for location identified in Census Information section (item 2). Follows the same format as item 2. If a four character 1:250,000 map code was entered previously in the Census Information section, then the complete "Location Code" will be automatically provided by the SCR. <u>If "Location Code" was arrived at directly from</u> the "ADD INFORMATION MENU", then the four character, <u>1:250,000 scale map code must be entered to continue</u>. The SCR will generate the unique three digit number to complete the location code.
- 61. 1:500,000 (2): Where a 1:500,000 scale map was used, map identity is denoted by three digits and one of the following: N, S, E, W, NE, NW, SE, SW. The three digits are entered as the first three digits of the "Location Code" (items 2 and 60) with the letter(s) entered in item 61. (e.g., if the 1:500,000 map reference is "001NW" [Avalon-Burin], then entry in item 61 is "NW", and items 2 and 60 will start with "001").

62. 1:50,000 (3): Where a 1:50,000 scale map was used, map identity is denoted by two digits and a letter, comprising the last three characters of the map reference. (e.g., if 1:50,000 map reference is "001N10 ", then entry in item 62 is "10 " and items 2 and 60 will start with "001N")

[Note: The last character must be either an "E", "W", or left blank.]

- 63. CHART (5): Hydrographic chart (Canadian or US) on which the colony is located.
- 64. LATITUDE (7): Latitude taken at the centre or mid-point of the colony. <u>The "Latitude" must be entered to continue.</u>

Degrees (2) - Degrees must be from 0° to 90° inclusive Minutes (4) - Minutes must be from 0' to 59.9' inclusive "N" or "S" (1) - The default is "N"

[Note: The smallest valid coordinate is 0°00.0' and the largest is 90°00.0'.]

65. LONGITUDE (8): Longitude taken at the centre or mid-point of the colony. <u>The "Longitude" must be entered to continue</u>.

Degrees (3) - Degrees must be from 0° to 180° inclusive Minutes (4) - Minutes must be from 0' to 59.9' inclusive "E" or "W" (1) - The default is "W"

[Note: The smallest valid coordinate is 0°00.0' and the largest is 180°00.0'.]

- 66. **GRID REF.** (6): Six figure military grid reference of centre of colony taken from 1:50,000 Canadian topographic map series. <u>Item 66 cannot be entered without item 62 present</u>.
- 67. COLONY NAME (50): Official name of the location at which the colony is found. This will usually be the name given in the Gazetteer of Canada or the name on the most recent topographic map or hydrographic chart. In the case of mainland locations, use name of point, headland, bay, etc. closest to the colony; if colony is distant from a named location, indicate distance and direction: e.g., "Cape Svarten, 14 km southeast of". If no location name exists, provide provisional name and record on 1:250,000 map. Where names other than the official name exist, record other colony name(s) in item 68.
- 68. OTHER COLONY NAME (50): Other name(s) of colony, if necessary.
- 69. COUNTY (15): Name of the county within which the colony is found.

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70. **PROVINCE** (4): Abbreviation of province or state within which the colony is found. <u>Item 70 must be completed if item 69 ("County") was entered</u>.

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71. COUNTRY (2): Abbreviation for the country within which the colony is located. Countries in database are as follows:

Country	Code
Belgium	01
Bermuda	02
Canada	03
China	· 04
Denmark	05
Faeroes	06
Finland	07
France	08
Germany	09
Greenland	10
Iceland	11
Ireland	12
Japan	13
Mexico	14
Netherlands	15
Norway	16
Poland	17
Portugal	18
Soviet Union	23
Spain	19
Sweden ,	20
United Kingdom	21
United States	22

- 72. GENERAL LOCATION (50): Record name of large land mass if different from colony name (item 67), (e.g., Baffin Island).
- 73. NEAREST COMMUNITY (25): Name of nearest community.
- 74. **DISTANCE TO COMMUNITY** (5): Distance (km) from colony to "Nearest Community" (item 73).
- 75. NEAREST WATER (2): Enter name of nearest major water body from those listed below. Use smaller water body name if given, otherwise enter name of appropriate ocean (codes 97-99). <u>Item 75 must be entered to continue</u>.

Name	<b>Approximate</b>	<u>Coordinates</u>	Code
	Latitude	Longitude	Т
Beaufort Sea	73.0°N	140.0°W	01
Mackenzie Bay	69.0°N	137.0°W	02
Amundsen Gulf	70.0°N	120.0°W	03
Dolphin and Union Strait	69.0°N	114.0°W	04
Coronation Gulf	68.0°N	112.0°W	· 05
Dease Strait	69.0°N	107.0°W	06
Queen Maude Gulf	67.5°N	102.0°W	07
Rasmussen Basin	69.0°N	95.0°W	08
Franklin Strait	71.5°N	97.0°W	09
Peel Sound	73.0°N	96.0°W	10
M'Clintock Channel	73.0°N	103.0°W	11
M'Clure Strait	75.0°N	120.0°W	12
Viscount Melville Sound	74.0°N	108.0°W	13
Byan Martin Channel	76.0°N	105.0°W	14
MacLean Strait	78.0°N	104.0°W	15
Peary Channel	79.5°N	101.0°W	16
Sverdrup Channel	80.0°N	98.0°W	17
Nansen Sound	81.0°N	90.0°W	18
Greelv Fiord	80.5°N	82.0°W	19
Norwegian Bay	78.0°N	90.0°W	20
Wellington Channel	75.0°N	93.0°W	21
Barrow Strait	74.4°N	95.0°W	22
Prince Regent Inlet	73 O°N	90 0°W	22
Gulf of Boothia	70 0°N	90.0°W	23
Fore Basin	66 0°N	78 0°W	24
Foxe Channel	64 0°N		25
Hudgon Bay	60 0 N	80.0 W	20
Jamog Bay	52 0 N		27
Hudson Strait	53.0°N	70.0°W	20
Indeson Stratt	63.0°N	70.0°W	29
Namog Strait1		67.0°W	30
Nales Sclait. Poffin Pour	81.0°N	67.0°W	· 22
Janua Cound	73.0°N	65.0°W	32
Jones Sound	76.0°N	85.0°W	33
Lancaster Sound	74.0°N	85.0°W	34
Admiralty Inlet	/3.0°N	86.0°W	35
Davis Strait	66.0°N	58.0°W	36
Disko Bay	69.0°N	52.0°W	37
Cumberland Sound	65.0°N	65.0°W	38
Frobisher Bay	63.4°N	68.3°W	39
Labrador Sea	60.0°N	50.0°W	40
Strait of Belle Isle	52.0°N	56.0°W	41
Hare Bay	51.3°N	55.9°W	42
White Bay	50.0°N	51.5°W	43
Notre Dame Bay	49.7°N	55.0°W	46
Bonavista Bay	48.8°N	53.5°W	47
Trinity Bay	48.0°N	53.5°W	48 .
Conception Bay	47.7°N	53.0°W	49
St. Mary's Bay	47.0°N	53.7°W	50
Placentia Bay	47.0°N	54.5°W	51
Fortune Bay	47.3°N	55.5°W	52
St. George's Bay	48.3°N	59.0°W	53
Cabot Strait	47.3°N	60.0°W	54

Name	Approximate	<u>Coordinates</u>	Code
	Latitude	Longitude	
Gulf of Maine	43.0°N	68.0°W	55
Bay of Fundy	45.0°N	66.0°W	56
Gulf of Saint Lawrence	47.5°N	61.0°W	57
Northumberland Strait	46.0°N	64.0°W	58
Saint Lawrence River	45.0°N	75.0°W	59
Lake Ontario	43.6°N	78.0°W	60
Lake Erie	42.0°N	81.0°W	61
Lake Huron	45.0°N	82.0°W	· 62
Georgian Bay	45.5°N	81.0°W	63
Lake Michigan	44.0°N	87.0°W	64
Lake Superior	48.0°N	87.0°W	65
Meditereanean Sea	35.0°N	20.0°E	66
North Sea	55.0°N	0.0°E	66
Norwegian Sea	65.0°N	0.0°E	67
Barents Sea	75.0°N	40.0°E	68
Kara Sea	77.0°N	75.0°E	69
Laptev Sea	75.0°N	130.0°E	70
East Siberian Sea	73.0°N	160.0°E	71
Chukchi Sea	70.0°N	172.0°E	72
Bering Strait	66.0°N	169.0°W	73
Bering Sea	58.0°N	169.0°W	. 74
Gulf of Alaska	59.0°N	145.0°W	75
Hecate Strait	53.0°N	131.0°W	76
Queen Charlotte Sound	51.5°N	129.5°W	77
Strait of Georgia	49.0°N	123.5°W	78
Juan de Fuca Strait	48.3°N	124.0°W	79
Arctic Ocean			97
Atlantic Ocean			98
Pacific Ocean			99

<sup>1</sup>Nares Strait = Robeson Channel, Hull Basin, Kennedy Channel, Kane Basin, Smith Sound.

- 76. COLONY ORIENTATION (3): The general direction of the colony face (using true north): N, NNE, NE, ENE, E, ESE, SE, SSE, S, SSW, SW, WSW, W, WNW, NW, NNW, and ALL (= 360° colony).
- 77. **STATUS** (2): The legal or formally recognized status of the lands on which the colony is located. Codes in database are as follows:

Land Status	Code
Federal Migratory Bird Sanctuary	01
IBP Ecological Site	02
National Park	03
National Wildlife Area	04
Provincial Park	05
Provincial Reserve/Sanctuary/Site	06
Ramsar Site	07

Territorial Reserve/Sanctuary/Site	08
Territorial Park	09
World Heritage Site	10

78. OWNERSHIP (2): The legal or formally recognized ownership of the lands on which the colony is located. Codes in database are as follows:

Land Ownership	Code
Federal Crown Lands	01
Native Lands	02
Private Lands	03
Provincial Crown Lands	04

79. GENERAL CHARACTERS (50): General characteristics of the colony location that are unlikely to change between years. Islands equal to or greater than 1000 km<sup>2</sup> are considered to be mainland. Codes in database are as follows:

General Characteristics	Code
Island, marine	01
Island, freshwater	02
Mainland coast, marine	03
Mainland coast, freshwater	· 04
Mainland inland, marine	05
Mainland inland, freshwater	06
Stack, marine	07
Stack, freshwater	08
River/Stream	09
Man-made marine	10
Man-made freshwater	11

- 80. ISLAND AREA (3): Area of island in square kilometres (km<sup>2</sup>)
- 81. NOTES ON LOCATION (50): Special notes on any aspect of the location not included elsewhere in the Location Information section.

#### PERSONAL INFORMATION

Contains information on principal investigator, contact person, observers, and photographer associated with each census.

- 82. PERSON'S CODE (4): Code for individuals identified in Census Information section (items 11-15). Follows the same format as item 11. If a new "Person's Code" was entered previously in the Census Information section (i.e., items 11-15), the "Person's Code" will be automatically provided by the SCR. <u>If "Person's Code" was arrived at directly from</u> <u>the "ADD INFORMATION MENU", the first three characters of</u> <u>the "Person's Code" must be entered to continue</u>. The SCR will generate the unique one digit number to complete the "Person's Code".
- 83. SURNAME (15): Surname of person.
- 84. FIRST NAME/INITIAL (15): First name and initial(s) of person.
- 85. **DEPARTMENT** (50): Name of department in institution to which the person is affiliated.
- 86. **INSTITUTION** (50): Name of institution to which the person is affiliated (i.e., government, university, research station, etc.).
- 87 STREET ADDRESS (50): Street address, for mailing purposes.
- 88. CITY/TOWN (25): Name of city or town, for mailing purposes.
- 89. **PROVINCE/STATE** (4): Province or state, for mailing purposes.
- 90. COUNTRY (20): Country, for mailing purposes.
- 91. **POSTAL/ZIP CODE** (6): Postal or zip code, for mailing purposes.
- 92. PHONE NO. (10): Phone number of person.

- 93. FAX NO. (10): Fax number of person.
- 94. LAST UPDATE (11): Date personal information was entered or updated. Format: day-month-year (i.e., dd mmm yyyy).
- 95. NOTES ON PERSON (Character, 50): Special notes on any aspect of the person not included elsewhere in the Personal Information section.

#### **CITATION INFORMATION**

Bibliographic details of reference cited in Census Information section.

- 96. **CITATION CODE** (50): Code for citation identified in Census Information section (item 58). Follows the same format as item 58. If a new citation code was entered previously in the Census Information section, then "Citation Code" will be automatically provided by the SCR. <u>If "Citation Code" was</u> <u>arrived at directly from the "ADD INFORMATION MENU", the</u> "Citation Code" must be entered to continue.
- 97. **TITLE OF PAPER** (150): Title of an article in a journal, a chapter in a book, a book, or a report.
- 98. NAMES OF AUTHORS (150): Complete list of authors in citation using standard format: "surname & initials of 1st author, initials & surname of 2nd author ... and initials & surname of last author", (e.g., Jones, J., B. Brown, J. Williams and P. Sharroll).
- 99. NAMES OF EDITORS (150): If an edited document, give name(s) of editors. Use same format as in item 98.
- 100. NAME OF PUBLISHER (50): Organization or body responsible for making the work available.
- 101. **PAPER IN** (150): If an article or chapter in a book, report, or proceedings of a single volume, give title of main document.

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- 102. TITLE OF JOURNAL (50): Title of journal using standard abbreviations (see the Chicago Manual of Style)
- 103. VOLUME (4): Volume number of journal in which citation appeared.
- 104. **ISSUE NO.** (2): Issue number of journal in which citation appeared.
- 105. PAGE RANGE (10): Pagination of citation, (e.g., 29-65).
- 106. YEAR (4): Year of publication (e.g., 1966).
- 107. PLACE (25): Place of publication.
- 108. SERIAL PUBLICATION (5): Serial number of publication in SCR collection.
- 109. NOTES ON CITATION (50): Special notes on any aspect of the citation not included elsewhere in the Citation Information section.

### **APPENDICES**

- Species Codes, Names and Numbers Time Zone Area Designations Supplementary Record Sheets 1.
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#### **APPENDIX 1**

### Species Codes, Names and Numbers

## List of codes & names of seabirds in the Seabird Colony Registry.

SPECI	es common	SCIENTIFIC	FAMILY	AOU
CODE <sup>1</sup>	NAME <sup>2</sup>	NAME <sup>2</sup>	NAME	NUMBER
NORU	Nearth and Tailman			
NOFU	Northern Fulmar	Fulmarus glacialis	Procellariidae	86.
MASH	Manx Snearwater	Puffinus puffinus	Procellariidae	90.
LOPE	Leach's Storm-petrel	Oceanodroma leucornoa	Hydrobatidae	106.
NOGA	Northern Gannet	Sula bassanus	Sulidae	117.
GRCO	Great Cormorant	Phalacrocorax carbo	Phalacrocoracidae	119.
DCCO	Cormorant	Phalacrocorax auritus	Phalacrocoracidae	120.
GBHE	Great Blue Heron <sup>3</sup>	Ardea herodias	Ardeidae	194.
GREG	Great Egret <sup>3</sup>	Casmerodius albus	Ardeidae	196.
SNEG	Snowy Egret <sup>3</sup>	Egretta thula	Ardeidae	197.
CAEG	Cattle Egret <sup>3</sup>	Bubulcus ibis	Ardeidae	200.1.
BCNH	Black-crowned Night	Nycticoray nycticoray	Ardoidao	200.1.
	Heron <sup>3</sup>	Nyootootax nyootootax	ALGELGG	202.
COEI	Common Eider <sup>3</sup>	Somateria mollissima	Anatidae	159.
POJA	Pomarine Jaeger	Stercorarius pomarinus	Stercorariidae	36.
PAJA	Parasitic Jaeger	Stercorarius parasiticus	Stercorariidae	37.
LTJA	Long-tailed Jaeger	Stercorarius longicaudus	Stercorariidae	38.
LIGU	Little Gull	Larus minutus	Laridae	60.1.
Bhgu	Black-headed Gull	Larus ridibundus	Laridae	55.1.
BOGU	Bonaparte's Gull	Larus philadelphia	Laridae	60.
RBGU	Ring-billed Gull	Larus delawarensis	Laridae	54.
HERG	Herring Gull	Larus argentatus	Laridae	51.
THGU	Thayer's Gull	Larus thayeri	Laridae	43.1.
ICGU	Iceland Gull	Larus glaucoides	Laridae	43.
GLGU	Glaucous Gull	Larus hyperboreus	Laridae	42.
GBBG	Great Black-backed Gull	Larus marinus	Laridae	47.
BLKI	Black-legged Kittiwake	Rissa tridactyla	Laridae	40.
SAGU	Sabine's Gull	Xema sabini	Laridae	62.
IVGU	Ivory Gull	Pagophila eburnea	Laridae	39.
GULL	Gulls, Larus	Larus spp.	Laridae	
CATE	Caspian Tern	Sterna caspia	Laridae	64.
ROTE	Roseate Tern	Sterna dougallii	Laridae	72.
COTE	Common Tern	Sterna hirundo	Laridae	70.
ARTE	Arctic Tern	Sterna paradisaea	Laridae	71.
FOTE	Forster's Tern	Sterna forsteri	Laridae	69.
TERN	Tern, Common/Arctic	Sterna spp.	Laridae	
DOVE	Dovekie	Alle alle	Alcidae	34.
COMU	Common Murre	Uria aalge	Alcidae	30.
TBMU	Thick-billed Murre	Uria lomvia	Alcidae	31.
RAZO	Razordill	Alca torda	Alcidae	32.
GRAU	Great Auk <sup>4</sup>	Pinguinus impennis	Alcidae	33.
BLGU	Black Guillemot	Cepphus grylle	Alcidae	26.
ATPU	Atlantic Puffin	Fratercula arctica	Alcidae	13.

<sup>1</sup>Species code to which same code in Census Information section points. Format as for item 3.

<sup>2</sup>Common and scientific names of species following AOU Check-List of North American Birds (1983).

<sup>3</sup>Secondary seabird species or marine-associated species only. <sup>4</sup>Extinct species. .

### **APPENDIX 2**

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# Time Zone Area Designations

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### **APPENDIX 3**

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### Supplementary Record Sheets

The following are supplementary record sheets for additional location and species information. These forms will be used in a manner similar to that outlined for the Data Input Form (see pages 4 & 5).



# Canadian Wildlife Service SEABIRD COLONY REGISTRY

Canadian Wildlife Service Bedford Institute of Oceanography Box 1006, Dartmouth, N.S., Canada, B2Y 4A2

Phone: (902) 426-3827 Fax: (902) 426-7827

# SUPPLEMENTARY RECORD SHEET LOCATION INFORMATION

SHEET SERIAL NO.: COLONY NAME:

YEAR: LOCATION CODE:

SUPPLEMENTARY LOCATION INFORMATION			
GENERAL INFORMATION			
FLOOD:			
COLONY DESCRIPTION:			
PROTECTIVE STATUS:			
MANAGING AGENCIES:			
:			
HUMAN DISTURBANCE:			
BIOLOGICAL SIGNIFICAN			
REGIONAL:			
SUMMARY:			
ATTENDANCE & TIMING OF BREEDING (median dates)			
ARRIVAL:			
FLEDGING:			
HISTORICAL SKETCH:			



# Canadian Wildlife Service SEABIRD COLONY REGISTRY

Canadian Wildlife Service Bedford Institute of Oceanography Box 1006, Dartmouth, N.S., Canada, B2Y 4A2

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# SUPPLEMENTARY RECORD SHEET SPECIES INFORMATION

ADULT MASS(g) MALE: FEMALE: COMBINED:				
<u>CHICK MASS(g)</u> HATCHING: MAXIMUM: FLEDGING:		SD		
CLUTCH SIZE (eggs) :		ĽI	FE SPAN (y):	
SURVIVAL RATES (%)	:			
1st. Year			2nd Year:	3rd Year:
4th Year:			5th Year:	6th Year:
7th Year:			8th Year:	9th Year: ADULT:
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SHEET SERIAL NO .:	SPECIES:	YEAR:
LOCATION/REGION:		
	SUPPLEMENTARY SPECIES INFO	DRMATION
ATTENDANCE & TIMING C	OF BREEDING (median dates, day/month)	
ARRIVAL:		HATCHING:
FLEDGING:		
BREEDING PERFORMANCE	E	
	~	
% HATCHING SUCCESS		
ANNUAL PRODUCTIVITY		
FOOD AND FEEDING		
FOOD TYPES:		
FORAGING RANGE (km):	FORAGING DEPTH (m):	ECOLOGICAL TYPE:
PRINCIPAL PREY:		
Adult:	Summer	Winter
prey 1:		
prey 2:		
prey 3:		
<b></b>	<del>╸╸╸╸╺╺╺╺╺╺╺╺╺╺╺╺╺╺╺╺╺╺</del>	
Chick:		
prey 1; L	<del>┥┥┾╪╡┦┦┾╪┊╎╎╎╅╡┥╎╷╎┥┥┥┥┥</del>	
prey 2:		<u>┝┿┶┶┶┶┶┶┶┶</u> ╧
prey 3:		
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MAJOR STUDIES:		



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