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STUDIES OF MARINE BIRDS IN NORTHEASTERN NORTH AMERICA IN 1982

A SYNOPSIS

David R. Nettleship & Randy Milton

May 1982

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STUDIES OF MARINE BIRDS IN NORTHEASTERN NORTH AMERICA IN 1982

A SYNOPSIS<sup>1</sup>

David N. Nettleship & Randy Milton

Canadian Wildlife Service  
Bedford Institute of Oceanography  
Dartmouth, N.S.

May 1982

<sup>1</sup>A report associated with the program "Studies on northern seabirds",  
Seabird Research Unit, Canadian Wildlife Service, Environment Canada  
(Report No. 139).

# STUDIES OF MARINE BIRDS IN NORTHEASTERN NORTH AMERICA IN 1982

## A SYNOPSIS<sup>1</sup>

David N.. Nettleship and Randy Milton

### INTRODUCTION

The following are seabird studies scheduled for the 1982 field season in the main areas of northeastern North America. The projects have been grouped into five zones based largely upon water type and/or features of the bird community that occupies it. Individual projects within each group are listed in alphabetical order according to the surname of the principal investigator which appears first beside Investigator(s).

This approach has been taken to focus attention on water characteristics rather than the land with the hope that it will assist the reader in locating projects of interest. Any list of this kind is invariably incomplete and I do hope that those people whose studies have been omitted will forgive us -- please notify us of any omissions to ensure that an outline of the research project is included in the next review. The overall aim here is to provide a convenient framework within which to: (1) summarize the activities of seabird biologists of the geographic area of Eastern Canada and Northeastern United States, and (2) enhance communication between investigators with common or overlapping interests.

ZONE 1

LANCASTER SOUND & VICINITY, BAFFIN BAY, GREENLAND & NORWEGIAN SEAS  
(high arctic waters)

1. LANCASTER SOUND & VICINITY, BAFFIN BAY, GREENLAND & NORWEGIAN SEAS (high arctic waters)

Activity & location: Investigation of seabird distribution in late winter in the Greenland and Norwegian seas.

Objectives: To determine the use that seabirds make of different water types (marine habitats).

Timing of field work: 26 February to 5 April 1982

Investigator: R.G.B. Brown

Agency & contact: R.G.B. Brown  
Canadian Wildlife Service  
Bedford Institute of Oceanography  
P.O. Box 1006  
Dartmouth, Nova Scotia  
Canada B2Y 4A2 (Tel: (902) 426-2578)

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Activity & location: Population study of Thick-billed Murres and Black-legged Kittiwakes breeding at Coburg Island, Jones Sound, Northwest Territories.

Objectives: To determine features of chick growth, productivity, and post-breeding dispersal of birds from a high arctic site.

Timing of field work: 1-31 August 1982

Investigators: D.N. Nettleship, P. Mineau

Agency & contact: D.N. Nettleship  
Canadian Wildlife Service  
Bedford Institute of Oceanography  
P.O. Box 1006  
Dartmouth, Nova Scotia  
Canada B2Y 4A2 (Tel: (902) 426-3274)

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Activity & location: Survey of Northern Fulmar populations in Buchan Gulf and Scott Inlet, Baffin Island, Northwest Territories.

Objectives: To determine the distribution and population sizes of colonies of Northern Fulmars at Buchan Gulf and Scott Inlet, northeast Baffin Island.

Timing of field work: 25 July to 15 August 1982

Investigators: D.N. Nettleship

Agency & contact: D.N. Nettleship  
Canadian Wildlife Service  
Bedford Institute of Oceanography  
P.O. Box 1006  
Dartmouth, Nova Scotia, Canada B2Y 4A2 (Tel: (902) 426-3274)

ZONE 2

SOUTHERN DAVIS STRAIT, HUDSON STRAIT & NORTHERN LABRADOR SEA (low arctic waters)

2. SOUTHERN DAVIS STRAIT, HUDSON STRAIT & NORTHERN LABRADOR SEA (low arctic waters)

Activity & location: Reproductive ecology of Thick-billed Murres breeding at Akpatok Island, Northwest Territories.

Objectives: To investigate the reproductive ecology of the Thick-billed Murre, establish permanent population monitoring plots, and assess population size and demography.

Timing of field season: 15 July to 31 August 1982 (2 year study: 1981-1982)

Investigators: G. Chapdelaine, R. Anderson, P. Brousseau, M. Guellemette.

Agency & contact: G. Ghapdelaine  
Service Canadien de la Faune  
Place Laurier, Tour Champlain  
2700 Boul Laurier, C.P. 10 100  
Ste. Foy, Quebec  
Canada G1V 4H5 (Tel: (418) 694-3914)

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Activity & location: Reproductive ecology of seabirds breeding at Digges Island, Digges Sound, Northwest Territories.

Objectives: To investigate the reproductive ecology of Thick-billed Murres, Black Guillemots, and Iceland Gulls breeding at a low arctic colony, establish permanent population monitoring plots, and determine population size and demography

Timing of field work: 1 June to 1 September (3 year study: 1980-1982)

Investigators: A.J. Gaston, D. Cairns, R.D. Elliot, J. Geale, J. Green, I. James and D. Noble.

Agency & contact: A.J. Gaston  
Canadian Wildlife Service  
Environment Canada  
Ottawa, Ontario  
Canada K1A 0E7 (Tel: (819) 997-1841)

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Activity & location: Reproductive ecology of Thick-billed Murres and Black-legged Kittiwakes breeding on Hantzsch Island, SE Baffin Island, Northwest Territories.

Objectives: To investigate aspects of the breeding regime of Thick-billed Murres and Black-legged Kittiwakes on Hantzsch Island.

Timing of field work: late July to 31 August 1982

Investigators: A.J. Gaston, S. Smith

Agency & contact: A.J. Gaston  
Canadian Wildlife Service  
Environment Canada  
Ottawa, Ontario  
Canada K1A 0E7 (Tel: (819) 997-1841)

Activity & location: Common Eider banding, Labrador

Objectives: To band 500 adult female eiders on the Galv<sup>a</sup>no Island group in Northern Labrador.

Timing of field work: 14 June to 23 July 1982

Investigators: A.R. Lock, B. Dodge

Agency & contact: A.R. Lock  
Canadian Wildlife Service  
Bedford Institute of Oceanography  
P.O. Box 1006  
Dartmouth, Nova Scotia  
Canada B2Y 4A2 (Tel: (902) 426-6052)

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ZONE 3

SOUTHERN LABRADOR SEA, EAST NEWFOUNDLAND & NORTHERN GULF OF ST. LAWRENCE  
(low arctic waters)

3. SOUTHERN LABRADOR SEA, EAST NEWFOUNDLAND & NORTHERN GULF OF ST. LAWRENCE  
(low arctic waters)

Activity & location: Karyotyping of seabirds, Gull Island, Newfoundland.

Objectives: To determine the interspecific differences in karyotypes of alcids  
by examining cell cultures initially obtained from birds breeding on Gull Island.

Timing of field work: 17 May to 31 August 1982

Investigators: S. Bartlett, W. Threlfall

Agency & contact: S. Bartlett  
Department of Biology  
Memorial University  
St. John's, Newfoundland  
Canada A1B 3X9

(Tel: (709) 737-7919)

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Activity & location: Rearing survival of Common Eider chicks in the St. Lawrence  
River Estuary, Quebec.

*Questionably low arctic*

Objectives: To determine annual productivity of Common Eiders and factors in-  
fluencing chick survival to fledging.

Timing of field work: June to late August 1982

Investigator: J. Bédard

Agency & contact: J. Bédard  
Département de biologie  
Université Laval  
Quebec, P.Q.  
Canada G1K 7P4

(Tel: (418) 656-5971)

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Activity & contact: Relationships between Double-crested Cormorants and Common  
Eider and their nesting habitats in the St. Lawrence River Estuary.

*Questionably  
low arctic*

Objectives: To describe and eventually regulate the effect of Double-crested  
Cormorants on forest cover on islands used for breeding by other aquatic birds.

Timing of field work: May to September 1982

Investigator: J. Bédard

Agency & contact: J. Bédard  
Département de biologie  
Université Laval  
Quebec, P.Q.  
Canada G1K 7P4

(Tel: (418) 656-5971)

Activity & location: Conservation of marine birds breeding on the North Shore of the Gulf of St. Lawrence, Quebec.

Objectives: To develop a conservation-management policy and public education program re seabird colonies on the north shore of the Gulf of St. Lawrence by examining: (1) the historical interaction between man and seabirds, (2) current public knowledge and attitude towards seabirds and their management, and (3) requirements for survival of the colonies.

Timing of field work: 12 June to early August 1982 (continuing)

Investigators: C. Blanchard-French, J. Corroran, J. Quintrell

Agency & contact: C. Blanchard-French  
Department of Natural Resources  
Farrow Hall, New York State College of  
Agriculture and Life Sciences  
Cornell University  
Ithaca, N.Y.  
U.S.A. 14053 (Tel: (607) 256-3191)

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Activity & location: Investigation of seabird usage of the oceanographic front at the outer edge of the Labrador Current.

Objective: To determine the importance of oceanographic factors such as fronts in concentrating prey on which seabirds can forage economically.

Timing of field work: October-November 1982

Investigator: R.G.B. Brown

Agency & contact: R.G.B. Brown  
Canadian Wildlife Service  
Bedford Institute of Oceanography  
P.O. Box 1006  
Dartmouth, Nova Scotia  
Canada B2Y 4A2 (Tel: (902) 426-2578)

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Activity & location: Breeding biology of the Common Murre in southeast Newfoundland.

Objective: To examine variation in time budgeting between breeding pairs of Common Murres and its effect on breeding success.

Timing of field work: 15 May to 1 August 1982

Investigator: A. Burger

Agency & contact: A. Burger  
Department of Biology  
Sir Wilfred Grenfall College  
Corner Brook, Newfoundland  
Canada A2H 6P9 (Tel: (709) 639-8981)

Activity & location: A survey of seabirds breeding in sanctuaries along the north shore of the Gulf of St. Lawrence, Quebec.

Objectives: The continuation of a program initiated in 1925 to census seabird populations breeding in sanctuaries along the north shore of the Gulf of St. Lawrence.

Timing of field work: 1 June to 6 July 1982

Investigators: G. Chapdelaine, R. Anderson, P. Brousseau, M. Guellemette.

Agency & contact: G. Chapdelaine  
Service Canadien de la Faune  
Place Laurier, Tour Champlain  
2700 Boul. Laurier, C.P. 10 100  
Ste. Foy, Quebec  
Canada GLV 4H5 (Tel: (410) 694-3914)

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Activity & location: Study of relationships between tibiotarsus and phalanges of Common and Thick-billed Murres.

Objectives: To develop a technique to differentiate between the Uria species on the basis of leg and foot characteristics alone (all age cohorts).

Timing of field work: initiated in 1977 and ongoing.

Investigator: F.G. Cooch

Agency & contact: F.G. Cooch  
Canadian Wildlife Service  
Environment Canada  
Ottawa, Ontario  
Canada K1A 0E7 (Tel: (819) 997-1841)

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Activity & location: Survey of Common Terns breeding at Terra<sup>a</sup> Nova National Park, Newfoundland.

Objectives: To monitor changes in population size and status of Common Terns breeding in Terra Nova National Park.

Timing of field work: early June to early August 1982

Investigators: H. Deichman and park wardens.

Agency & contact: H. Deichman  
Terra<sup>a</sup> Nova National Park  
Glovertown, Newfoundland  
Canada A0G 2L0 (Tel: (709) 533-2291)

Activity & location: Comparative wintering ecology of seaducks in southeast Newfoundland.

Objectives: To determine ecological factors influencing the distributions of seaduck species (mainly Common Eider, Oldsquaw, Eastern Harlequin and scoters) in coastal Newfoundland with emphasis on the identification of food usage and availability.

Timing of field work: September to May (1981/82 and 1982/83)

Investigator: I. Goudie .

Agency & contact: I. Goudie  
Canadian Wildlife Service  
P.O. Box 9158  
St. John's, Newfoundland  
Canada A1A 2X9 (Tel: (709) 772-5585)

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Activity & location: Breeding biology of Leach's Storm-petrel on Gull Island, Newfoundland.

Objectives: To compare breeding success and chick growth in relation to nest density.

Timing of field work: 17 May to 31 October 1982.

Investigators: R. McLagan, W. Threlfall

Agency & contact: R. McLagan  
Department of Biology  
Memorial University  
St. John's, Newfoundland  
Canada A1B 3X9 (Tel: (709) 737-7919)

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Activity & location: Population biology of alcids breeding at the Gannet Clusters, southeast Labrador

Objectives: To compare features of reproduction of large (Razorbill, Common and Thick-billed Murres) and intermediate (Atlantic Puffin) sized alcids breeding on the Gannet Clusters in order to evaluate interpopulation differences and requirements for successful breeding.

Timing of field work: 24 May to 25 September 1982 (3-year study: 1981-83)

Investigators: D.N. Nettleship, T.R. Birkhead, S. Johnson, R. Milton, E. Verspoor

Agency & contact: D.N. Nettleship  
Canadian Wildlife Service  
Bedford Institute of Oceanography  
P.O. Box 1006  
Dartmouth, Nova Scotia  
Canada B2Y 4A2 (Tel: (902) 426-3274)

Activity & location: Seabird/commercial fisheries interrelationships in southeast Newfoundland.

Objectives: To assess the influence of the major international commercial capelin fishery on reproduction of capelin-associated colonially breeding seabirds, particularly Atlantic Puffin, Common Murre and Razorbill.

Timing of field work: 1 May to 10 September 1982 (ongoing long-term study)

Investigators: D.N. Nettleship, A. Burger, I. Goudie, W. Lidster, J. Piatt

Agency & contact: D.N. Nettleship  
Canadian Wildlife Service  
Bedford Institute of Oceanography  
P.O. Box 1006  
Dartmouth, Nova Scotia  
Canada B2Y 4A2 (Tel: (902) 426-3274)

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Activity & location: Effects of ingested oil on over-winter survival of Atlantic Puffins breeding on Great Island, Newfoundland.

Objectives: To evaluate over-winter survival of adult Atlantic Puffins given a sublethal dose of oil.

Timing of field work: mid-June to 31 August 1982 and 1983

Investigators: D. Peakall, R. Butler, A. Harenist, D. Jeffries, T. Layton,  
D.N. Nettleship, A. Pajor.

Agency & contact: D.B. Peakall  
Canadian Wildlife Service  
Environment Canada  
Ottawa, Ontario  
Canada K1A 0E7 (Tel: (819) 997-2780)

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Activity & location: Effects of ingested oil on Leach's Storm-petrels breeding on Great Island, Newfoundland.

Objectives: To study the effect of small doses of oil on metabolism of breeding Leach's Storm-petrel.

Timing of field work: July to 30 September 1982

Investigators: D. Peakall, R. Butler, A. Harenist, D. Jeffries, T. Layton,  
D.N. Nettleship, A. Pajor.

Agency & contact: D.B. Peakall  
Canadian Wildlife Service  
Environment Canada  
Ottawa, Ontario  
Canada K1A 0E7 (Tel: (819) 997-2780)

Activity & location: Effects of oil on Herring Gull chicks at colonies in Witless Bay, Newfoundland.

Objectives: To study the effects of oil and oil plus dispersants on the metabolism and osmoregulation of a captive group of Herring Gull chicks, the histopathological changes produced, and the induction of anemia.

Timing of field work: mid-June to end of July 1982

Investigators: D.B. Peakall, R. Butler, A. Harenist, D. Jeffries, A. Pajor.

Agency & contact: D.B. Peakall  
Canadian Wildlife Service  
Environment Canada  
Ottawa, Ontario  
Canada K1A 0E7 (Tel: (819) 997-2780)

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Activity & location: Effects of oil on Atlantic Puffin chicks from colonies in Witless Bay, Newfoundland.

Objectives: To establish a small captive colony of Atlantic Puffin chicks and study the effects of oil and oil plus dispersants on their metabolism and osmoregulation, the histopathological changes produced, and the induction of anemia.

Timing of field work: mid-June to 31 August 1982

Investigators: D.B. Peakall, R. Butler, A. Harenist, D. Jeffries, T. Layton, D.N. Nettleship, A. Pajor.

Agency & contact: D.B. Peakall  
Canadian Wildlife Service  
Environment Canada  
Ottawa, Ontario  
Canada K1A 0E7 (Tel: (819) 997-2780)

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Activity & location: Mortality of seabirds by drowning in fish-nets in southeast Newfoundland.

Objectives: To determine the magnitude and nature of seabird net-mortality in Newfoundland waters, particularly in relation to major sites of breeding alcids.

Timing of field work: 1 May to 15 September 1982

Investigators: J. Piatt, D.N. Nettleship

<u>Agency &amp; contact:</u> J. Piatt	D.N. Nettleship
Dept. of Biology	Canadian Wildlife Service
Memorial University	Bedford Institute of Oceanography
St. John's, Newfoundland	P.O. Box 1006
Canada A1B 3X9	Dartmouth, Nova Scotia
(Tel: (709) 737-7919)	Canada B2Y 4A2
	(Tel: (902) 426-3274)

Activity & location: Effects of crude oil on Black-legged Kittiwakes, Gull Island, Newfoundland.

Objectives: To investigate the effects of crude oil on adult behaviour, chick growth and the histopathological changes in the liver of Black-legged Kittiwakes.

Timing of field work: 17 May to 31 August 1982

Investigators: W. Threlfall, R. McLagan

Agency & contact: W. Threlfall  
Department of Biology  
Memorial University  
St. John's, Newfoundland  
Canada A1B 3X9 (Tel: (709) 737-8258)

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Activity & location: Annual survey of the hunting kill of murres and seaducks in Labrador and Newfoundland.

Objectives: To derive estimates of the numbers of birds killed by hunters between 1 September and 31 March and derive the nature (location, timing, influence of ice inter-year variation) and magnitude of the kill toll.

Timing of field work: multi-year study which commenced in 1977 and is continuing.

Investigators: S. Wendt, F.G. Cooch

Agency & contact: S. Wendt  
Canadian Wildlife Service  
Environment Canada  
Ottawa, Ontario  
Canada K1A 0E7 (Tel: (819) 997-1121)



ZONE 4

SOUTHERN GULF OF ST. LAWRENCE, SCOTIAN SHELF, BAY OF FUNDY, GULF OF MAINE  
(boreal waters)

4. SOUTHERN GULF OF ST. LAWRENCE, SCOTIAN SHELF, BAY OF FUNDY, GULF OF MAINE  
(boreal waters)

Activity & location: Survey of Common Terns breeding in Kouchibouguac National Park, New Brunswick.

Objectives: To monitor changes in population size and status of Common Terns breeding in Kouchibouguac National Park.

Timing of field work: June to August 1982

Investigators: G. Babin

Agency & contact: G. Babin  
Chief Park Warden  
Kouchibouguac National Park  
Kouchibouguac, New Brunswick  
Canada EOA 2A0

(Tel: (506) 876-2466)

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Activity & location: Leach's Storm-petrel in Maine and the Maritimes: a study of genetic variation among populations.

Objectives: To characterize the genetic variability of three discrete breeding population of Leach's Storm-petrel by electrophoretic analysis of individuals from three populations.

Timing of field work: July to 31 August 1982

*also in Nfld. - not listed*

Investigators: R. Baker, D. McCrimmon

Agency & contact: R. Baker  
Department of Natural Resources  
Farrow Hall, Cornell University  
Ithaca, New York  
U.S.A 14853

(Tel: (607) 256-3191)

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Activity & location: Population and distribution of colonial waterbirds on Long Island, New York.

Objectives: A continuation of the investigation into salt marsh nesting Common Terns, and a study on a new population of Laughing Gulls which have recolonized Long Island following a 100-year absence.

*(isolated?)*

Timing of field work: June 1982 (continuing)

Investigators: P. Buckley, F.G. Buckley

Agency & contact: P.S. Buckley  
North Atlantic Regional Office  
National Park Service  
Dept. of Interior  
15 State Street  
Boston, Mass.  
U.S.A. 02109

(Tel: (617) 223-7765)

Activity & location: A check on the status of tern colonies along the coast of Maine.

Objectives: To revisit tern colonies along the Maine coast to determine the site - of re-establishment of a mixed colony of approximately 2000 pairs of Arctic and Common Terns displaced from Petit Manan Island during 1980.

Timing of field work: 1 July to 31 August 1982

Investigators: W. Drury

Agency & contact: W. Drury  
College of the Atlantic  
Bar Harbour, Me.  
U.S.A. 04609

(Tel: (207) 288-5015)

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Activity & location: A census of Leach's Storm-petrel breeding on Great Duck Island, Maine.

Objectives: To obtain a reliable estimate of the number of Leach's Storm-petrel breeding on Great Duck Island (Me.) and confirm its status as the largest colony of this species in the Gulf of Maine.

Timing of field work: mid-June to 31 July 1982

Investigators: W. Drury, D. Folger

Agency & contact: W. Drury  
College of the Atlantic  
Bar Harbour, Me.  
U.S.A. 04609

(Tel: (207) 288-5015)

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Activity & location: Monitoring of seabird and large marine mammal movements in the Gulf of Maine.

Objectives: To record the diversity and timing of movements of seabirds and large mammals past the outermost islands in the Gulf of Maine (Mount Desert Rock and Martinicus Rock)

Timing of field work: mid-June to 31 July 1982.

Investigators: W. Drury, S. Mullane, P. Steveck.

Agency & contact: W. Drury  
College of the Atlantic  
Bar Harbour, Me.  
U.S.A. 04609

(Tel: (207) 288-5015)

Activity & location: Comparative foraging habits of Arctic and Common Terns breeding on Brier Island, Nova Scotia.

Objectives: An intracolony comparison of the foraging habits, reproductive activities, and breeding success of the Arctic and Common Tern breeding on Brier Island.

Timing of field work: 15 May to mid-August 1982 (3-year study: 1982-1984)

Investigators: I. Kirkham . .

Agency & contact: I. Kirkham  
Department of Biology  
Dalhousie University  
Halifax, Nova Scotia  
Canada B3H 4J1 (Tel: (902) 424-2565)

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Activity & location: Census of terns and gulls in Nova Scotia.

Objectives: To determine the location of gull and tern colonies and population sizes by a co-ordinated air and ground count approach.

Timing of field work: 24 May to 27 June 1982.

Investigators: A.R. Lock, T. Currie

Agency & contact: A.R. Lock  
Canadian Wildlife Service  
Bedford Institute of Oceanography  
P.O. Box 1006  
Dartmouth, Nova Scotia  
Canada B2Y 4A2 (Tel: (902) 426-6052)

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Activity & location: Site selection and breeding performance of Leach's Storm-petrel on Bon Portage Island, Nova Scotia.

Objectives: To examine the relationships between site characteristics, chick growth, and breeding success of Leach's Storm-petrels on Bon Protage Island, Nova Scotia.

Timing of field work: May through October 1982

Investigators: C. MacKinnon, P.C. Smith

Agency & contact: C. MacKinnon  
Biology Department  
Acadia University  
Wolfville, Nova Scotia  
Canada B0P 1X0 (Tel: (902) 542-9037)

Activity & location: Population census of Great and Double-crested Cormorants in Nova Scotia.

Objectives: To determine the change in distribution and abundance of Great and Double-crested Cormorants breeding in Nova Scotia between 1971 and 1982.

Timing of field work: 18 May to 21 May 1982

Investigators: R. Milton, P.J. Austin-Smith

<u>Agency &amp; contact:</u>	R. Milton Canadian Wildlife Service Bedford Institute of Oceanography P.O. Box 1006 Dartmouth, Nova Scotia Canada B2Y 4A2 (Tel: (902) 426-6314)	P.J. Austin-Smith Wildlife Conservation Division Nova Scotia Dept. of Lands and Forests P.O. Box 516 Kentville, Nova Scotia Canada B4N 3X3 (Tel: (902) 678-8921)
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Activity & location: An examination of the diet of the Great and Double-crested Cormorant in Nova Scotia.

Objectives: To examine the diet of the Great and Double-crested Cormorant and its relationship to the interests of sport and commercial fisheries.

Timing of field work: May through July 1982

Investigators: R. Milton, P.J. Austin-Smith

<u>Agency &amp; contact:</u>	R. Milton Canadian Wildlife Service Bedford Institute of Oceanography P.O. Box 1006 Dartmouth, Nova Scotia Canada B2Y 4A2 (Tel: (902) 426-6314)	P.J. Austin-Smith Wildlife Conservation Division Nova Scotia Dept. of Lands and Forests P.O. Box 516 Kentville, Nova Scotia Canada B4N 3X3 (Tel: (902) 678-8921)
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Activity & location: Pelagic distribution of marine birds off northeastern United States. *(not all boreal?)*

Objectives: To outline the distributions of seabirds both chronologically and spatially through the year from Cape Hatteras to Nova Scotia.

Timing of field work: throughout the year (ca. 30 cruises to be executed in 1982)

Investigator: K.D. Powers

<u>Agency &amp; contact:</u>	K.D. Powers Manomet Bird Observatory Box 936 Manomet, Massachusetts U.S.A. 02345	(Tel: (617) 224-6521)
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Activity & location: Relationships of marine birds to oceanic fronts in northeastern United States.

(not all boreal?)

Objectives: To assess the importance of frontal regions of the United States continental shelf waters as determinants of the pelagic distributions of Wilson's Storm-petrels and Red Phalaropes.

Timing of field work: May, August-October 1982

Investigators: K.D. Powers, E.H. Backus

Agency & contact: K.D. Powers  
Manomet Bird Observatory  
Box 936  
Manomet, Massachusetts  
U.S.A. 02345

(Tel: (617) 224-6521)

ZONE 5

GREAT LAKES (freshwater)

5. GREAT LAKES (freshwater)

Activity & location: Surveys of gulls, terns and cormorants in the Great Lakes.

Objectives: To assess population status and identify changes in abundance and distributions in the Great Lakes.

Time of field work: early May to end of June 1982

Investigators: H. Blokpoel

Agency & contact: H. Blokpoel  
Canadian Wildlife Service  
1725 Woodward Drive  
Ottawa, Ontario  
Canada K1A 0E7 (Tel: (613) 998-4693)

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Activity & location: Population biology of gulls and terns, breeding on Leslie Street Spit, (Toronto) Lake Ontario.

Objectives: To monitor the growth, change in status, and interspecific differences in foraging and breeding behaviour, of five species of birds which have established mixed-species formation in 1973-74.

Timing of field work: mid-April to end of July 1982 (continuing)

Investigators: H. Blokpoel

Agency & contact: H. Blokpoel  
Canadian Wildlife Service  
1725 Woodward Drive  
Ottawa, Ontario  
Canada K1A 0E7 (Tel: (613) 998-4693)

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Activity & location: Distribution and ecology of North American Common Terns wintering in Central and South America.

Objectives: To examine features of the wintering ecology of populations of Common Terns.

Timing of field work: March 1982

Investigators: H. Blokpoel, G. Tessier

Agency & contact: H. Blokpoel  
Canadian Wildlife Service  
1725 Woodward Drive  
Ottawa, Ontario  
Canada K1A 0E7 (Tel: (613) 998-4693)



Activity & location: Demography of a color-marked Herring Gull colony in Lake Ontario.

Objectives: An examination of the demography of a color-marked Herring Gull colony and the physiological causes of excessive post-fledging male mortality.

Timing of field work: 25 April to mid-June 1982 (5th year - continuing).

Investigator: G. Fox

Agency & contact: G. Fox  
Canadian Wildlife Service  
Environment Canada  
Ottawa, Ontario  
Canada K1A 0E7 (Tel: (819) 997-1410)

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Activity & location: Effects of various chemical pollutants on mixed function oxidase levels in livers of Herring Gull chick embryos.

Objectives: Development of a technique to economically test for exposure of adult seabirds to chemical pollutants by examining mixed function oxidase levels in livers of 25 day old Herring Gull embryos collected from Great Lakes colonies.

Timing of field work: 25 April to mid-June 1982

Investigator: G. Fox

Agency & contact: G. Fox  
Canadian Wildlife Service  
Environment Canada  
Ottawa, Ontario  
Canada K1A 0E7 (Tel: (819) 997-1410)

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Activity & location: Fish-eating birds in the Great Lakes as indicators of toxic chemical pollution.

Objectives: To monitor changes in diversity or levels of toxic chemicals on the five Great Lakes by analyses of collected material and the impact of these chemicals on Herring Gull and Double-crested Cormorant populations.

Timing of field work: 15 April to 15 July 1982 (continuing)

Investigators: P. Mineau

Agency & contact: P. Mineau  
Canadian Wildlife Service  
Environment Canada  
P.O. Box 5050  
Burlington, Ontario  
Canada L7R 4A6 (Tel: (416) 637-4264)

Activity & location: Parental care activities and time partitioning in Herring Gulls, Ring-billed Gulls and Common Terns around Port Colborne, Ontario.

Objectives: To examine parental care activities by numbers of mated pairs to clutches and to broods, and the determination of time partitioning effort given to clutch and brood care activities by two parental sexes in Herring Gulls, Ring-billed Gulls and Common Terns around Port Colborne, Ontario.

Timing of field work: early April to late July 1982

Investigators: R.D. Morris, J. Chardine, M. Richards, V. Wai-Ping, D. Wiggins.

Agency & contact: R.D. Morris  
Dept. of Biological Sciences  
Brock University  
St. Catharines, Ontario  
Canada L2S 3A1 (Tel: (416) 688-5550 Ext. 394)

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Activity & location: Egg-laying and hatching synchrony in female-female pairs of Ring-billed Gulls on Granite Island, Black Bay, Northern Lake Superior.

Objectives: To determine whether superclutches of multiple female associations are laid and hatch synchronously or whether females of such associations lay their clutches independent of the mates laying activities. This investigation attempts to shed light on any adaptive significance to such unusual pair bonds.

Timing of field work: early May to late July 1982

Investigator: J.P. Ryder

Agency & contact: J.P. Ryder  
Department of Biology  
Lakehead University  
Thunder Bay, Ontario  
Canada P7B 5E1 (Tel: (807) 345-2121)

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Activity & location: The relation between egg sequence and sex ratio in Ring-billed Gulls on Granite Island, Black Bay, Northern Lake Superior.

Objectives: To determine whether sex is allocated to specific eggs in clutches or whether sex of eggs results from random sex chromosome placement. This project was initiated to determine whether the secondary sex ratio could account for a skewed sex ratio in Ring-billed Gulls that might explain the origin and maintenance of multiple female associations in this and other species of larids.

Timing of field work: early May to late June 1982

Investigator: J.P. Ryder

Agency & contact: J.P. Ryder  
Department of Biology  
Lakehead University  
Thunder Bay, Ontario  
Canada P7B 5E1 (Tel: (807) 345-2121)

Activity & location: Morphometrics of Ring-billed Gulls in Canada.

Objectives: To determine whether individuals within each of the two disjunct  
- populations in Canada differ morphometrically. To determine distributional  
and taxonomic status of disjunct Ring-billed Gulls in Canada.

Timing of field work: January 1982 (western area only)

Investigators: J.P. Ryder, B. Termaat

Agency & contact: J.P. Rydër  
Department of Biology  
Lakehead University  
Thunder Bay, Ontario  
Canada P7B 5E1

(Tel: (807) 345-2121)

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Nettleship, David N

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1982

Nettleship, David N  
Studies of marine birds in Northeastern  
North America in 1982: a synopsis.

Name

*Amirault*

Date

*24/08/92*