

BIRDS OF THE BOWDOIN-MACMILLAN ARCTIC EXPEDITION
1934

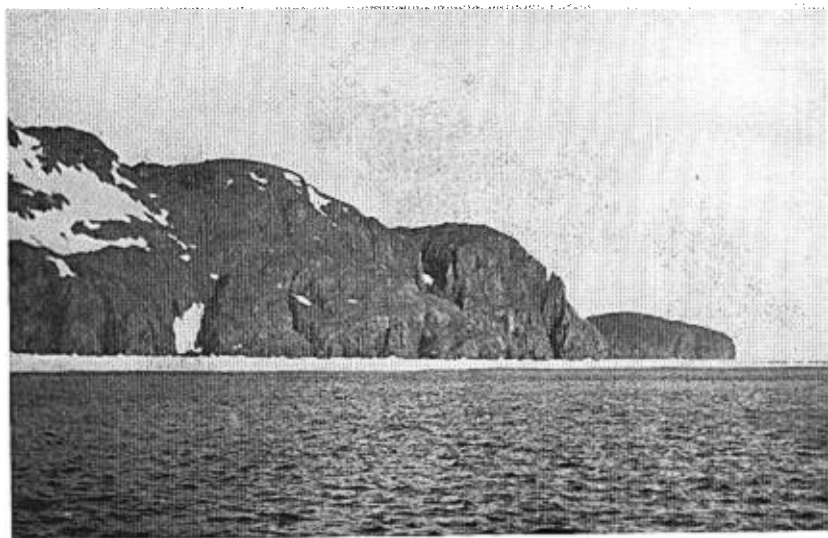
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Plates 2-5

THE Bowdoin-MacMillan Arctic Expedition of 1934 was for the purpose of studying and collecting birds and plants on the coast of Labrador and the Button Islands. The latter lie between Gray and Hudson Bay Straits off the northern end of the Labrador peninsula. They were discovered by Sir Thomas Button as early as 1614 but as far as I know no biological survey had been made of them previous to the present expedition. Certain birds such as Fulmars and Kittiwakes were known to be very abundant about the islands but their nesting sites were unknown in that vicinity. It had been suggested that they probably bred on the cliffs of the Buttons but what life existed on those bleak and inhospitable islands was merely conjectural. Landing on the Button Islands is extremely difficult because of the strong tides and currents, the impenetrable ice packs as well as dense fogs and treacherous storms which prevail off Cape Chidley, the "Cape Horn" of the North.

Commander Donald B. MacMillan, famous Arctic explorer and alumnus of Bowdoin College, said he could land a party on the islands. His staunch eighty-eight-foot schooner, the "Bowdoin," was made ready for the expedition. Seven Bowdoin students volunteered their services to assist in the biological work and to aid in the navigation of the vessel under MacMillan's command. Dr. David Potter, professor of botany at Clark University, and two of his students joined us with the purpose of making collections of plants of the Labrador coast. With these major objectives the "Bowdoin" sailed from Portland, Maine, on June 16, 1934, with a personnel of fifteen men including Captain MacMillan, a first mate, an engineer, and a cook.

In this paper I propose to give a brief account of the birds collected and observed from the Gulf of Saint Lawrence northward and to include certain observations of interest made along the coasts of Nova Scotia and Cape Breton Island. About forty species of birds were observed during our stay at Cape Breton Island, but since the bird life of this region is well known, these have not been included in the present account. In connection with the lists of skins, the total length and wing-extent in millimeters and the weights in grams are given in most instances since these measurements, which are very useful in life-history studies, cannot be obtained from dried skins. There is a serious lack of data concerning the weights of birds in ornithological literature.



CAPE CHIDLEY ON A QUIET CLEAR DAY



THE BUTTON ISLANDS; AIRPLANE VIEW TAKEN BY THE FORBES EXPEDITION;
LACY ISLAND IN THE FOREGROUND

Notes on food and habits of the birds are included whenever such information was obtained. The crowded quarters of the "Bowdoin" and the general lack of facilities prevented us from making extensive collections but we succeeded in obtaining approximately 250 skins which are now in the Bowdoin College collection. Ninety-three species and subspecies of birds were collected or observed, but comparatively few land birds are included since our observations were limited to the coast, chiefly of the outer islands. Because of the great distances to be traveled, most of the stops were of necessity of short duration. This prevented making an adequate survey of the bird life, much less any attempt at complete life-history studies. Much time was consumed in sailing and in weathering-out storms, experiences not always enjoyable to one subject to violent seasickness. In addition to collecting we took every opportunity to band birds. A special effort was made to band large numbers of Arctic Terns at their colonies in the vicinity of Turnavik and the Red Islands, since previous work on this species has yielded very interesting and important information concerning their migratory movements. About six hundred photographs and five thousand feet of standard 35-mm. motion-picture film were taken as a part of the records.

I am indebted to the Bowdoin students for assistance in collecting birds and especially to Howard H. Vogel, Jr., who prepared some of the skins. Mr. Vogel also made collections of insects and parasites. Every bird was thoroughly examined for parasites at the time it was killed. A list of the Mallophaga and their hosts is included as a part of this paper. Finally I wish to express my gratitude to Commander Donald B. MacMillan through whom the expedition was made possible and who coöperated in every way to make the trip enjoyable, and the scientific work successful.

For a general account of the expedition the reader is referred to the September, 1935, issue of *Natural History Magazine* (vol. 36, pp. 133-148). To assist the reader in locating the geographical positions of places where birds were collected the following itinerary of the more important stops of the expedition with dates is given.

- June 16-20 Portland; Maine and Nova Scotia coasts; Gut of Canso; Port Hawkesbury; Cape Breton Island, N. S.
- June 20-21 Port Hawkesbury.
- June 22-23 Magdalen Islands.
- June 24 Bird Rock.
- June 25-26 Mecatina (also spelled Mekattina) Island and north shore of the Gulf of St. Lawrence.
- June 27 Eau St. Clair Harbor; Straits of Belle Isle; Battle Harbor.
- June 27-29 Battle Harbor; Greater Caribou Island.
- June 29-July 1 Assisez Harbor and islands.
- July 2 Sophia Harbor.
- July 3 Gannet Islands; Indian Head; North Shoal Bay.

- July 4 Aillek Bay.
 July 5-6 Hopedale.
 July 7 Kauk Harbor; Nain.
 July 8 Commander MacMillan's Scientific Station and return to Nain.
 July 9 Port Manvers.
 July 10 Saddle Island; Cape Mugford (Dr. David Potter and two students put ashore at Cape Mugford).
 July 11 Grenfell Tickle (also known as MacLellan Strait or Chidley Strait).
 July 12 Bowdoin Harbor (newly named); Cape Chidley, 60° 25' N.
 July 13 Lady Job Harbor; Harvey Harbor; Gray Straits, 60° 32' N.
 July 14-22 Port Burwell (Killineck); motor-boat trip to Cape Chidley and various trips on foot.
 July 23-31 A. O. Gross, four students and an Eskimo guide on the Button Islands. Commander MacMillan, three students, three members of the crew to Cape Mugford to pick up Dr. Potter's party and return to Button Islands, 60° 35' N.
 Aug. 1 Port Burwell; attempt to reach Baffin Island; retreat to Grenfell Tickle.
 Aug. 2-5 Grenfell Tickle and harbors at eastern end of Tickle.
 Aug. 6 Eclipse Harbor.
 Aug. 7-8 Sea Plane Cove; Louse Harbor; Seven Islands Bay; Kau-majet Mountains.
 Aug. 9 Bishop's Mitre; Cape Mugford; Lady Bight Harbor.
 Aug. 10 Port Manvers; Nain.
 Aug. 11 Taber Island; MacMillan's Station; Anaktalok Bay; Nain.
 Aug. 12 Nain; Perkalujuk Island via motor boat and return to Nain.
 Aug. 13 Voise Bay.
 Aug. 14 Perret Tickle and Islands; Windy Tickle.
 Aug. 15 Hopedale; Turnavik West; Red Islands.
 Aug. 16 Turnavik West; Red Islands; Jock's Islands; Makkovik.
 Aug. 17 Tinker Island; various unnamed islands; Indian Harbor.
 Aug. 18 Motor-boat trip to Puffin Island and return to Indian Harbor; Hamilton Inlet.
 Aug. 19 Herring Gull Islands; Gannet Islands; Indian and Domino Ticks.
 Aug. 20 Battle Harbor; Anton's Cove.
 Aug. 21 Cape Charles; Henley's Harbor; St. Peter's Islands.
 Aug. 22-23 Red Bay.
 Aug. 24 Western Newfoundland coast.
 Aug. 25 Sydney.
 Aug. 26 Port Bevis; Bras d'Or Lakes.
 Aug. 27 St. Peter's Locks; Port Hawkesbury.
 Aug. 29 Nova Scotia coast.
 Aug. 30 Bowdoin Scientific Station; Kent's Island, Bay of Fundy.
 Aug. 31 Rockland, Maine.
 Sept. 1 Portland, Maine.

ANNOTATED LIST OF BIRDS

COMMON LOON, *Gavia immer immer* (Brünnich).—A pair was seen at Amherst Island of the Magdalen group, Gulf of Saint Lawrence, on June 22. A lone individual was flying about Bird Rock June 25. On June 27, thirty-two Common Loons were counted en route from the Straits of Belle Isle to Battle Harbor, Labrador. On

July 17 an adult was seen swimming about in a small fresh-water pond near Port Burwell; the bird's behavior indicated that it was nesting, but neither eggs nor young were found. The presence of several other individuals in the vicinity makes it highly probable that the Common Loon is a nesting bird in Labrador north of the 60th parallel.

RED-THROATED LOON, *Gavia stellata* (Pontoppidan).—The first Red-throated Loons were seen when we reached the Straits of Belle Isle, and thereafter they appeared frequently. We saw them singly but more often in pairs or groups of three or four flying high or in advance of our bow. A few of them were noted at considerable distances offshore. I counted fifty-four Red-throated Loons on July 7 during the trip between Hopedale and Nain, evidence of the great abundance of these birds along the Labrador coast. On July 23 a pair was seen flying over the "Bowdoin" as we entered the channel between the islands comprising the Button group. We saw several breeding pairs during our stay on the islands July 23-31.

A male bird weighing 1973 grams, length 678 mm., extent 1175 mm., was taken August 2 on a small lake near the entrance of Grenfell Tickle, northern Labrador. The stomach contents, weighing 14.8 grams, consisted of small stones and partially digested masses of fish. On August 14 three Red-throated Loons were seen at Windy Tickle.

SOOTY SHEARWATER, *Puffinus griseus* (Gmelin).—The Sooty and Greater Shearwaters were seen off the Nova Scotia coast on June 19. Both species were also present in large numbers along the Labrador coast between the Straits of Belle Isle and Battle Harbor on June 27. Sooty Shearwaters were observed at Hopedale, July 6, a pair at Indian Harbor, August 17 and one at Henley Harbor, August 21. We again noted them in large numbers along the Nova Scotia coast on August 30. They were extremely wary and seldom came near our boat.

GREATER SHEARWATER, *Puffinus gravis* (O'Reilly).—Many Greater Shearwaters were seen off the Nova Scotia coast on June 19 and again on our return August 30. They were common on the Newfoundland Labrador between the Straits of Belle Isle and Battle Harbor on June 27.

ATLANTIC FULMAR, *Fulmarus glacialis glacialis* (Linnaeus).—The first Fulmars were seen along the Labrador coast at 54° N. latitude. They are the most abundant and conspicuous of the birds in Gray Straits off Cape Chidley and on the waters surrounding the Button Islands. No less than three thousand of these birds were seen on July 13 and 14 in going from Cape Chidley, the extreme northern end of the Labrador Peninsula, to Port Burwell on Ungava Bay. They were in small groups of from two to six to flocks comprising more than a hundred birds. Many were resting on the ice pans and others were actively fishing in the cold water. Several times our boat nearly ran down certain individuals which had become sluggish from an over indulgence in the abundant food supply.

The great number of Fulmars in the vicinity of the Button Islands has lead ornithologists to believe that the birds breed on the high cliffs of these rugged islands but our search for them resulted in negative evidence. Eskimos who are keen observers of bird life and whose statements concerning other birds have been found to be correct, insist that the Fulmars do not nest in northern Labrador and that no young birds have ever been found by them. I am of the opinion that the great concentration of Fulmars in Gray and Hudson Straits is due, not to the presence of nearby nesting sites, but to the prevalence of food such as mollusks and small arthropods brought by the tides and polar currents and made accessible at the surface by

the turbulent churning waters and eddies which occur in the Straits. The Fulmars are known to breed near Cape Searle and Coutt's Inlet and probably on islands in Cumberland Sound, southeastern Baffinland, and it is not at all improbable that breeding birds fly the intervening distance to this rich feeding ground when hard pressed by want of food. It is well known that other members of the Procellariiformes such as the petrels fly long distances in search of food and are regularly absent from their mates for three or four days and even longer. An examination of the reproductive organs revealed mature and sexually active males and females in both the dark and the light phases of plumage. This is further corroborative evidence that these color phases of the Fulmar result from dichromatism and not from differences due to sex or age of the individuals. No immature birds were collected and none was recognized among the thousands of individuals observed. Large numbers were seen daily during our stay on the Button Islands. They frequented the channels which separate the islands but during fair weather moved to the deeper waters of the Straits. On our return trip the Fulmars were seen at various places along the Labrador coast. The last were recorded August 21 in the Straits of Belle Isle north of Newfoundland.

The following specimens of Fulmars were collected:

Number	Sex	Color Phase	Place	Date	Weight in grams
1053	female	light	Gray Straits, Lab.	July 13	648
1054	male	dark	Port Burwell, P. Q.	July 14	730
1055	female	light	Port Burwell, P. Q.	July 14	711
1058	male	light	Port Burwell, P. Q.	July 14	695
1106	female	dark	Cape Chidley, Lab.	July 22	643
1107	male	light	Cape Chidley, Lab.	July 22	654
1108	male	light	Cape Chidley, Lab.	July 22	717
1109	female	dark	Cape Chidley, Lab.	July 22	692
1110	female	light	Cape Chidley, Lab.	July 22	729
1111	male	light	Cape Chidley, Lab.	July 22	829
1112	male	dark	Cape Chidley, Lab.	July 22	803
1125-b	male	dark	Cape Chidley, Lab.	July 22	638
1125-c	female	light	Cape Chidley, Lab.	July 22	682

The following table presents a convenient summary of the numbers of males and females in the dark and light phases respectively among the specimens collected.

	Dark phase	Light phase	Total
Female.....	2	4	6
Male.....	3	4	7
Total.....	5	8	13

LEACH'S PETREL, *Oceanodroma leucorhoa leucorhoa* (Vieillot).—When we visited Bird Rock on June 24 there were about twenty burrows of Leach's Petrel in the soil which covers the top of the castle-like island. There is a thriving colony of petrels on Saint Paul's Island in the Gulf of Saint Lawrence, north of Cape Breton Island, Nova Scotia. Many of the petrels which we saw in going across the Gulf were probably representatives of one or the other of these two colonies.

On Saint Peter's Islands off Cape Charles, south of Battle Harbor, Labrador, is the most northern colony of Leach's Petrels, as far as I can ascertain, on the Atlantic side of the American coast. Saint Peter's group comprises about a half dozen cliff-

like islands ranging from 100 to 300 yards in length. The birds make their burrows in the dark reddish-brown soil which covers the tops of the islands. On the so-called Western Island there were about twenty-five nesting holes. On August 20, 1933, Ernest Dionne secured about a dozen petrels including both adults and young as well as a number of eggs from this place.

A Leach's Petrel was captured alive, on August 21, in one of the dories lashed to the deck of the "Bowdoin," while we were anchored at Henley Harbor. The bird was not injured but was in a semi-exhausted state. It was a male weighing 36.8 grams; length 210 mm.; extent 474 mm. The stomach was empty.

WILSON'S PETREL, *Oceanites oceanicus* (Kuhl).—Wilson's Petrel was common off the Maine and Nova Scotia coasts on June 17-19 and again on August 29-30. Several were noted in the Gulf of Saint Lawrence and along the southern Labrador coast.

GANNET, *Moris bassana* (Linnaeus).—We saw Gannets in winter and nuptial plumages and others in a transitional condition, along the Nova Scotia coast on June 19. Many were seen as we approached the Magdalen Islands in the Gulf of Saint Lawrence on June 22. At Bird Rock, June 24, the Gannets were well established at the rookery; practically all of the nesting birds were incubating eggs. An estimate of the number of Gannets on the main island and nearby rocks was 2,500 birds. Gannets were seen during our cruise across the Gulf of Saint Lawrence but after leaving the Straits of Belle Isle not one was observed on the Labrador coast northward. When we returned to the Gulf of Saint Lawrence during the last week of August many adults, some in company with their young, were seen.

EUROPEAN CORMORANT, *Phalacrocorax carbo carbo* (Linnaeus).

DOUBLE-CRESTED CORMORANT, *Phalacrocorax auritus auritus* (Lesson).—Both species of cormorants were seen in the Gulf of Saint Lawrence but often the flocks were too far away to be certain of the species. There are thriving colonies of both, the most important located on islands along the north shore of the Saint Lawrence. The Double-crested Cormorant is by far the more abundant species. No cormorants were seen north of the Straits of Belle Isle.

COMMON CANADA GOOSE, *Branta canadensis canadensis* (Linnaeus).—One was seen at Port Burwell, P. Q., on July 18. On August 15 we saw four young Canada Geese about three weeks old which were being reared in captivity by the radio operator of the Hopedale station, Labrador. The young were hatched from eggs found in a nest a few miles from the village. At the same place an Eskimo gave me a stuffed specimen which had been killed the preceding spring. The only other Canada Geese noted were a flock of twelve seen flying south at Port Bevis, Nova Scotia, August 26.

AMERICAN BRANT, *Branta bernicla hrota* (Müller).—Our only record of the American Brant is of a stuffed specimen brought to the "Bowdoin" by an Eskimo at Hopedale, Labrador.

COMMON MALLARD, *Anas platyrhynchos platyrhynchos* Linnaeus.—A Common Mallard was killed on November 12, 1933, by one of the Canadian Mounted Police stationed at Port Burwell.

BALDPATE, *Mareca americana* (Gmelin).—A specimen of the Baldpate was shown me at Mecatina Island by a native fisherman who stated that he caught the bird in one of his fox traps on December 15, 1933.

OLD-SQUAW, *Clangula hyemalis* (Linnaeus).—A male in a state of moult was col-

lected near Killineck, P. Q., Ungava Bay, on July 15, 1934. This lone bird was observed for several days in the harbor and no other ducks were seen in the vicinity. It dove for its food in water ranging from five to ten feet deep. The contents of the stomach consisted of large quantities of shrimp and small bivalve mollusks ranging from 0.5 to 1 centimeter in length. The bird weighed 697 grams.

EASTERN HARLEQUIN DUCK, *Histrionicus histrionicus histrionicus* (Linnaeus).—A male alighted near the "Bowdoin" during a fog while we were anchored at Port Burwell, P. Q., on July 19, 1934. According to Commander MacMillan both adult and young Harlequin Ducks are common at his station on Anaktalak Bay during the month of August.

NORTHERN EIDER, *Somateria mollissima borealis* (Brehm).—The first Northern Eiders collected were at Hopedale, Labrador, on July 6. Eiders seen at points south of Hopedale may have been *borealis* but identifications were not positive as all of the birds were in flight or on the water at distances too great to differentiate the subspecies. It is reasonable to infer that practically all of the birds seen north of Hopedale were of the northern form.

On July 12 a flock of fifty-four eiders flew out of the passage leading into Bowdoin Harbor and the next day about a hundred including many males were seen in the vicinity of Cape Chidley, the northern tip of the Labrador Peninsula. During a collecting trip taken in a power boat among the islands between Port Burwell and Cape Chidley on July 22, eiders were in evidence. There were numerous flocks ranging in size from five or six to others numbering twenty-five to thirty or more individuals. Many of the males were moulting and represented various transitional conditions of plumage. No young were seen until we reached the Button Islands on June 23. Several broods were noted as we sailed through the channel separating MacColl and Lawson Islands of the group. Females with broods of young were frequently seen but very few males were present during our stay on the islands, July 23-31. On August 1 there were eighteen eiders at the eastern end of Grenfell Tickle and on August 4 a flock of twenty-three, including eight males, was flushed as we entered Eclipse Harbor. In the protected upper end of the harbor reached by means of a dory there was a large number of females with broods of young of varying age.

Small flocks of eiders were seen at Louse Harbor on August 7 and at Port Manvers Run on August 10. Among the islands at Turnavik West there was an unusually large number of eiders with broods. Some of the young were more than half grown. The few males seen were moulting. On the Red Islands there were about a dozen nests containing eggs on August 16, a late date, which probably represented a second attempt at nesting after the first eggs had been robbed or destroyed.

When we went northward we found the eiders in the height of their nesting activities on many of the smaller islands within ten miles of Hopedale. The majority of the nests were on rocky ledges which supported only a sparse growth of grass. In many instances the nests were built in little depressions among the rocks with nothing but the eider down to conceal the eggs during the absence of the females. Some of the islands of less than a half acre in extent provided nesting sites for from twenty-five to thirty pairs of birds. At the time of our visit, July 6, there were no young and the vast majority of the eggs were fresh or with incubation not far advanced. The average size of the sets in nearly a hundred nests examined was four, the largest set was seven and the smallest number was two in what were thought to be complete sets. Weights and measurements were made of 103 eggs of the Northern Eider with the following results:

Average weight.....	98.57 grams
Average long diameter.....	77.07 millimeters
Average short diameter.....	50.87 millimeters

The maximum weights and measurements of individual eggs are shown in the following table. The maximum measurement is italicized in each case.

Weight	Long diameter	Short diameter
100.9	<i>85</i>	48
110.1	79	<i>54</i>
<i>111.5</i>	79	53

The minimum weights and measurements of individual eggs are shown in the following table. The minimum measurement is italicized in each case.

Weight	Long diameter	Short diameter
81.2	<i>71</i>	50
<i>75.5</i>	72	<i>46</i>

The measurements and weights of six sets of eggs of the Northern Eider are as follows:

Weight	Long diameter	Short diameter
	Set Number 1	
104.3	<i>77</i>	53
98.1	80	51
110.1	79	<i>54</i>
	Set Number 2	
96.8	79	51
103.2	78	50
	Set Number 3	
91.7	<i>75</i>	51
83.2	73	50
92.4	78	49
91.7	78	49
87.5	76	49
	Set Number 4	
109.5	84	52
98.1	76	52
105.6	<i>77</i>	53
90.1	73	50
111.5	79	53
	Set Number 5	
102.9	75	52
82.9	71	48
109.4	80	53
92.1	76	49

Weight	Long diameter	Short diameter
	Set Number 6	
95.2	81	49
103.5	80	51
102.2	80	52
85.4	82	51
104.3	77	53

In the following table is a list of the Northern Eiders collected:

Number	Sex	Place	Date	Weight in grams
1027	male	Hopedale, Labrador	July 6	1798
1029	female	Hopedale, Labrador	July 6	1619
1030	female	Hopedale, Labrador	July 6	1607
1031	female	Hopedale, Labrador	July 6	1449
1032	female	Hopedale, Labrador	July 6	1518
1114	male	Cape Chidley, Lab.	July 22	2100
1144	female	Bowdoin Harbor, Lab.	July 29	1710
1170	female	Eclipse Harbor, Lab.	Aug. 6	1525
1171	female	Eclipse Harbor, Lab.	Aug. 6	1201
		Young		
1165	male	Eclipse Harbor, Lab.	Aug. 6	381
1167	female	Eclipse Harbor, Lab.	Aug. 6	56.5

The stomach contents of the above birds was made up of large numbers of mollusks, chiefly *Mytilus*, a few stones and a small quantity of vegetable pulp.

AMERICAN EIDER, *Somateria mollissima dresseri* Sharpe.—The American Eider was very common along the north shore of the Gulf of Saint Lawrence where large flocks comprising both males and females were observed June 25–26. Twelve were seen at Assisez Harbor on July 1 and several flocks ranging from three to a dozen individuals, presumably the American Eider, were seen in the vicinity of the Gannet Islands. One male specimen in an advanced state of moult, weight 2105 grams, was collected at Hopedale, Labrador, on July 6. This is the most northern record of *dresseri* that was obtained by the expedition of 1934. P. A. Taverner informs me that specimens he has examined from the north shore of the Saint Lawrence resemble the northern form more closely than they do the southern subspecies. The distribution of the two needs further study.

WHITE-WINGED SCOTER, *Melanitta deglandi* (Bonaparte).—The White-winged Scoter is a very common species along the Labrador coast although it has never been found nesting in that region. The Nascopie Indians of the northern Labrador Peninsula report that the scoters nest in the dense vegetation along the streams and ponds of the interior. There are, however, no authentic records, to my knowledge, that have been made by reliable observers.

On July 3 two flocks of nine and ten birds, respectively, were seen south of the Gannet Islands; July 4–5 between Aillek Bay and Hopedale many small flocks were seen; and July 8–10 hundreds of White-winged Scoters were noted as we passed among the islands between Hopedale and Cape Mugford. On July 11 a flock of ten was seen in Grenfell Tickle north of the 60th parallel at a point about one and a half miles from the Atlantic side of the peninsula. The last constitutes our most northern record of the White-winged Scoter. There were none on the Button Islands.

SURF SCOTER, *Melanitta perspicillata* (Linnaeus).—There was a large number of Surf Scoters among the numerous flocks of White-winged Scoters seen between Hopedale and Cape Mugford, July 8–10, 1934.

AMERICAN SCOTER, *Oidemia americana* Swainson.—Several small flocks were seen at Cape Mugford on July 10; and on the return trip a flock of about forty birds was seen at Windy Tickle, August 14.

RED-BREASTED MERGANSER, *Mergus serrator* (Linnaeus).—One young was secured by an Eskimo from a brood found near Hopedale, Labrador. A pair of Red-breasted Mergansers with a brood of seven young was seen at Port Bevis, Bras d'Or Lakes, on August 26.

EASTERN GOSHAWK, *Astur atricapillus atricapillus* (Wilson).—Dr. Paul Hettasch Moravian missionary at Nain, gave me a specimen of the Eastern Goshawk in immature plumage collected by him at Makkovik, Labrador, November 15, 1933.

AMERICAN ROUGH-LEGGED HAWK, *Buteo lagopus sancti-johannis* (Gmelin).—The Rough-legged Hawk is a common breeding bird along the coast of Labrador. On July 6 we found a pair nesting on a cliff north of Hopedale; July 8 a pair was nesting on the side of a mountain at the head of Anaktalak Bay, the site of Commander MacMillan's scientific station. On July 9, Commander MacMillan and I climbed the cliffs on a mountain opposite Nain, where from a point above the eyrie of a Rough-legged Hawk we looked into the nest containing three young. These were downy white but with conspicuous patches of black feathers of the juvenal plumage making their appearance through the down. The nestlings huddled closely together and remained motionless in response to the warning cries uttered by the adults circling high above the cliffs. The young had left the nest when we stopped at Nain on August 10. The behavior of a pair of Rough-legged Hawks at Port Manvers gave evidence that they were nesting but we were unable to locate the nest. Two pairs were seen when we rounded Cape Chidley on July 12.

On July 16, while photographing a pair of Snow Buntings at their nest near Port Burwell, a Rough-legged Hawk made several unsuccessful attempts to capture the buntings. A nest of the Rough-legged Hawk containing three eggs was found July 20, on an overhanging ledge of a mountain two miles northeast of Port Burwell. On August 7 three Rough-legged Hawks were flying high over the mountains at Sea Plane Cove and on August 9 a pair was observed at an elevation of 2,500 feet on Mount Brave in the Cape Mugford region. Others were seen at Perret's Tickle and Windy Tickle, August 14; Gannet Islands, August 19; and a pair at Cape Charles, August 21. Several deserted nests on the cliffs at the Gannet Islands were probably those of the Rough-legged Hawk.

MARSH HAWK, *Circus hudsonius* (Linnaeus).—A male Marsh Hawk was seen flying over the marshes of Amherst Island of the Magdalens on June 22. None was seen on the coast of Labrador.

OSPREY, *Pandion haliaëtus carolinensis* (Gmelin).—An Osprey was taken at Indian Harbor, Labrador, by a native fisherman on July 20, 1934. One was seen at Port Bevis, N. S., on August 26.

WHITE GYRFALCON, *Falco rusticolus candicans* Gmelin.—At Nain, Labrador, Dr. Paul Hettasch gave me the legs and wings of a White Gyrfalcon which, he stated, were of a specimen collected by an Eskimo during the past year. Unfortunately the date of capture was not known.

BLACK GYRFALCON, *Falco rusticolus obsoletus* Gmelin.—On July 26 a pair of Black Gyrfalcons was seen on a shelf of rocks of a high inaccessible cliff north of Hopedale,

Labrador. They were probably nesting. Several birds seen in northern Labrador were probably of this species but the long range at which they were observed made identification uncertain.

DUCK HAWK, *Falco peregrinus anatum* Bonaparte.—A splendid specimen of the Duck Hawk was seen on August 6 as it dashed by in pursuit of its prey on a mountain side near Eclipse Harbor, Labrador. On August 19 we discovered two nests of the Duck Hawk on the cliffs of the Gannet Islands. One of the nests had been deserted but the other contained two young. The young of the second nest took flight as soon as they were disturbed by members of the expedition. The adults exhibited great anxiety for their young and had no hesitancy in swooping down in defiance of the human intruders. About the nest were remains of Puffins and Guillemots. The alcids breed in large numbers on the Gannet Islands and doubtless provide the most important source of food for the Duck Hawks during the nesting season.

HUDSONIAN SPRUCE GROUSE, *Canachites canadensis canadensis* (Linnaeus).—A Spruce Grouse, presumably a Hudsonian Spruce Grouse, was flushed from a low thick growth of spruce in a ravine on Assisez Island, July 1. Three were flushed in the spruce woods near the Mission at Nain and two were seen in the woods at the head of Anaktalak Bay on August 12. Judging from the reports of the natives, grouse were very abundant in the interior during 1933-34. The fact that we recorded only six individuals during the entire summer is because our observations were limited to the coast and chiefly to the outer islands.

ROCK PTARMIGAN, *Lagopus rupestris rupestris* (Gmelin).—On our northward cruise, ptarmigan were not encountered until we reached the Button Islands. The Rock Ptarmigan is a common breeding bird on all the islands of the Button group. Flocks of young observed during the last week of July were practically full grown. On our trips about the islands we found many remains, chiefly masses of feathers of ptarmigan which apparently had been killed by the Arctic Foxes. An examination of numerous fox droppings also revealed that the chief food of these predators was ptarmigan and other birds that inhabit the islands. It is interesting to note that the Snow Buntings, which nested in crevices of the cliffs, used the breast feathers of ptarmigan exclusively in lining their nests. The immense quantity of ptarmigan droppings found especially on the upper terraces of the hills is indicative of the great number of these birds, a number augmented by the hordes which visit these islands during the spring and fall migrations. According to P. A. Taverner the migrating birds are probably *kelloggae*.

Six specimens, two males and four females, collected on the Buttons exhibited various stages of moult. The size of the gonads of the adults indicated that they were breeding birds. The crop and stomach contents of these specimens consisted entirely of vegetable matter made up chiefly of the dwarf willow, *Salix herbacea*, and the leaves and seeds of the knotweed, *Polygonum*. The latter was present in the largest amount and in four of the birds, seeds of this plant made up the entire contents. The weight of the food contents of the crops was 12.8, 5.8, 7.1, 10.8, 12.5 and 8.9 grams, respectively.

The mounted police and the factor of the Hudson's Bay post stationed at Port Burwell informed me that the Rock Ptarmigan frequent the hills along Grenfell Tickle and that nests containing eggs were found early in June.

In addition to the nesting individuals, immense flocks of ptarmigan, some of them containing thousands of individuals, concentrate in the region of Cape Chidley during the migration season. The birds begin to appear about the first of May and the height of numbers is reached by the first of June. The birds remain on the main-

land until the spring moult is completed and then fly across Gray Straits directly toward the Buttons. The great bulk of those reaching this way station continue on across Hudson Straits to Baffin Island and other islands lying to the northward. In the autumn the migration reaches its maximum about October 1-15. At this time hundreds of the birds are killed by the Eskimos who salt them down to be used as a source of food during the winter.

On our return from the Buttons, numbers of ptarmigan were observed in the Cape Chidley region and at the eastern entrance of Grenfell Tickle. At the latter place Mr. Braley Gray, a member of the expedition, collected a male and four young from a brood of six. It is of interest to note that these young were less than a quarter grown and barely able to fly, a late brood compared to those found on the Button Islands. One adult female ptarmigan was killed and one captured alive at an elevation of 2,000 feet on a mountain side near Eclipse Harbor. This harbor which is just below the 60th parallel marks the most southern point at which we collected or observed Rock Ptarmigan.

The following is a list of specimens collected:

Number	Sex	Place	Date	Length	Extent	Weight in grams
1117	female	Button Islands	July 23	360	578	451
1118	male	Button Islands	July 23	375	630	486
1119	male	Button Islands	July 23	392	632	501
1126	female	Button Islands	July 28	378	625	461
1138	female	Button Islands	July 30	355	598	411
1159	female	Button Islands	July 30	368	595	458
1133	male	Cape Chidley	July 29	388	648	498
1161	female	Eclipse Harbor	Aug. 6	371	580	445
1166	female	Eclipse Harbor	Aug. 6	355	610	490

Detailed weights and measurements of four young collected from a brood of six found at the eastern end of Grenfell Tickle, August 6, are:

Number	1146	1147	1148	1149
Sex	female	male	female	male
Weight in grams	97.6	112.6	95.3	87.5
Length	185	190	176	185
Extent	368	369	352	352
Wing	110	106	98	105
Fifth primary	60	74	66	72
Tarsus to toe	51	52	52	51
Third toe	22	22	22	22
Third toe nail	5	5	5	5
Bill	11	12	12	11
Bill to nostril	8	8	7	8
Tail	42	41	33	40
Middle tail feather	22	23	20	30

AMERICAN COOT, *Fulica americana americana* Gmelin.—An American Coot was caught in a trap by a fisherman at Mecatina Island, P. Q., on December 20, 1933. I examined this mounted specimen when the "Bowdoin" stopped at the island on June 25, 1934. It has since been sent to the National Museum at Ottawa, Canada.

PIPING PLOVER, *Charadrius melodus* Ord.—A Piping Plover was collected at the

Magdalen Islands on June 23. This plover was very common along the sandy beaches of Amherst Island where it probably breeds.

SEMPALMATED PLOVER, *Charadrius semipalmatus* Bonaparte.—This little plover was the commonest of the shore birds and was seen at practically all of the stops made by the expedition as far north as Cape Chidley and Port Burwell. Twelve were seen on the sandy beaches of the Magdalen Islands where we also obtained our southernmost record of their nesting, on Amherst Island, June 23. Nests of this plover were found and studied at Saint Mary's Islands southwest of Harrington Harbor, during the summer of 1931. A family of four young was seen at Eclipse Harbor, August 6. One of the young was collected.

Specimens collected are as follows:

Number	Sex	Place	Date	Length	Extent	Weight in grams
1012	female	Magdalen Islands	June 23	180	378	42.5
1074	male	Port Burwell	July 17	—	—	46.2
1162	male	Eclipse Harbor	Aug. 6	185	388	46.0
1163	male im.	Eclipse Harbor	Aug. 6	138	321	31.8
1202	?	West Turnavik	Aug. 16	164	362	36.8

The stomach contents of the birds collected consisted wholly of insects.

RUDDY TURNSTONE, *Arenaria interpres morinella* (Linnaeus).—Five Ruddy Turnstones were seen flying near the "Bowdoin" when we were under sail along the western Newfoundland coast on August 24.

SPOTTED SANDPIPER, *Actitis macularia* (Linnaeus).—Several Spotted Sandpipers were feeding along the graveled beaches of Assisez Island, July 1, 1934. Two adults were seen on the shore at the head of Anaktalak Bay, Labrador, on August 11. A specimen in immature plumage was secured at Henley Harbor, August 21.

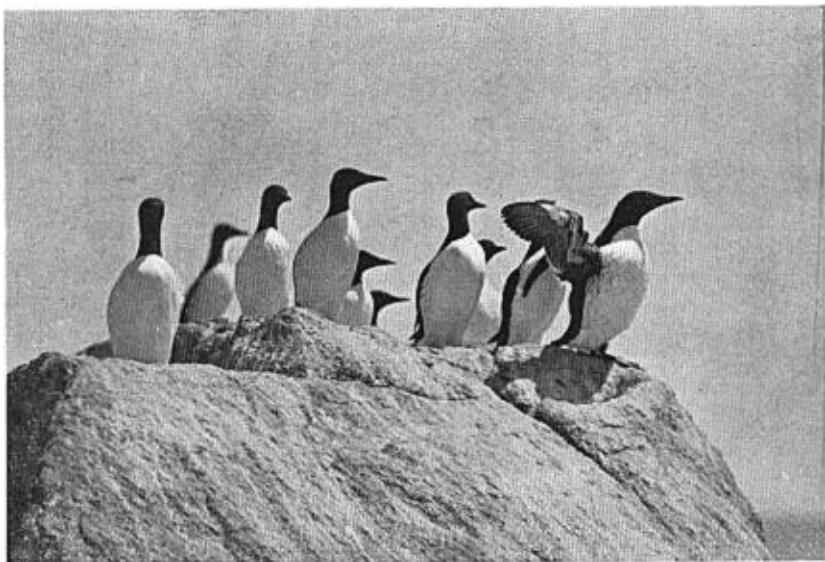
GREATER YELLOW-LEGS, *Totanus melanoleucus* (Gmelin).—Two Greater Yellow-legs were collected at Turnavik West, Labrador, on August 16; on August 21, we noted twelve at Henley Harbor. They were common at Port Bevis, Nova Scotia, on August 26.

Number	Sex	Place	Date	Length	Extent	Weight in grams
1194	female	Turnavik West	Aug. 6	335	595	152.5
1195	female	Turnavik West	Aug. 6	335	618	163.6

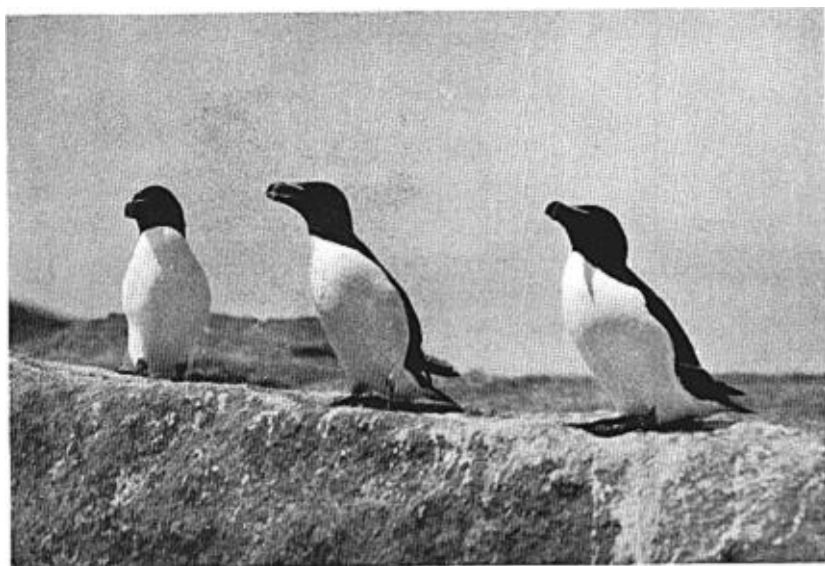
The food in the stomachs of the two specimens was insects.

PURPLE SANDPIPER, *Arquatella maritima* (Brünnich).—The first flight of Purple Sandpipers occurred on July 28 when we were on the Button Islands and thereafter these birds were common in favorable places along the rugged rocky shore lines. Later we noted them in large numbers at Grenfell Tickle, Windy Tickle, Makkovik, Eclipse Harbor and Turnavik West during the first two weeks of August. The following specimens were collected:

Number	Sex	Place	Date	Length	Extent	Weight in grams
1130	male	Lacy Island, Buttons	July 29	205	392	71.8
1134	male	Lacy Island, Buttons	July 30	220	398	71.0
1139	male	Bowdoin Harbor	July 29	212	380	59.8
1140	female	Lacy Island, Buttons	July 30	235	401	61.0
1141	female	Bowdoin Harbor	July 29	225	410	60.0



MURRES ON A BOULDER IN MIDST OF A NESTING COLONY



RAZOR-BILLED AUKS

Number	Sex	Place	Date	Length	Extent	Weight in grams
1142-a	female	Grenfell Tickle	Aug. 1	235	410	64.4
1142-b	male	Lacy Island, Buttons	July 30	215	375	56.2
1142-c	male	Lacy Island, Buttons	July 30	211	384	58.5
1142-d	female	Bowdoin Harbor	July 29	221	390	54.4
1142-e	female	Bowdoin Harbor	July 29	239	410	66.6
1142-f	female	Grenfell Tickle	Aug. 1	236	415	73.8
1151	female	Grenfell Tickle	Aug. 3	238	415	85.0
1196	male	Turnavik West	Aug. 16	205	390	68.3

The stomach contents consisted of snails, shrimp and vegetable matter along with varying quantities of gravel.

WHITE-RUMPED SANDPIPER, *Pisobia fuscicollis* (Vieillot).—The first White-rumped Sandpipers of the autumn migration were seen on August 1 at Grenfell Tickle where we collected a male bird. They were seen at Eclipse Harbor on August 6, and on August 15 flocks of them were seen at the Red Islands, Jock's Islands and at Turnavik West. August 16 we noted them at Makkovik; August 17 at Indian Harbor; and on August 18 they were very common at Puffin Island. The following specimens were collected:

Number	Sex	Place	Date	Length	Extent	Weight in grams
1143	male	Grenfell Tickle	Aug. 1	182	364	54.8
1164	male	Eclipse Harbor	Aug. 6	182	369	49.2
1189	female	Turnavik West	Aug. 16	180	375	62.9
1203	female	Turnavik West	Aug. 16	188	370	58.5
1223-b	female	Turnavik West	Aug. 15	192	390	61.5
1223-c	female	Turnavik West	Aug. 16	185	380	50.2

The stomach contents of the above specimens consisted of small crustaceans, insects and a small amount of vegetable matter and gravel.

LEAST SANDPIPER, *Pisobia minutilla* (Vieillot).—The first Least Sandpipers were seen and one was collected at Windy Tickle on August 14. On August 16 a great migration wave occurred and immense flocks numbering hundreds were seen about the islands at Turnavik West. On August 20 large numbers were seen at Battle Harbor and Cape Charles and again on the following day at Henley Harbor. Four specimens were collected. Food was chiefly insects.

Number	Sex	Place	Date	Length	Extent	Weight in grams
1184	female	Windy Tickle	Aug. 14	144	298	24.5
1197	male	Turnavik West	Aug. 16	141	280	19.2
1198	?	Turnavik West	Aug. 16	141	282	21.3
1236	female	Red Bay, Lab.	Aug. 22	148	294	23.0

EASTERN DOWITCHER, *Limnodromus griseus griseus* (Gmelin).—On August 15 four Eastern Dowitchers were seen at Turnavik West, one of which was collected.

Number	Sex	Place	Date	Length	Extent	Weight in grams
1187	male	Turnavik West	Aug. 15	254	458	86.4

The food found in the stomach consisted of a few insects, unidentifiable vegetable matter and gravel.

SEMIPALMATED SANDPIPER, *Ereunetes pusillus* (Linnaeus).—Semipalmated Sandpipers were seen among flocks of Least Sandpipers but it was only under favorable circumstances that the two species could be differentiated. Both species were collected from the same flocks at Turnavik West. Individuals were identified at Indian Harbor and Red Bay where they also were associated with Least Sandpipers. The following specimens were collected:

Number	Sex	Place	Date	Length	Extent	Weight in grams
1199	female	Turnavik West	Aug. 16	155	310	20.5
1200	?	Turnavik West	Aug. 16	149	291	20.2
1201	?	Turnavik West	Aug. 16	152	305	22.8
1223-d	female	Turnavik West	Aug. 16	—	—	25.8
1223-e	male	Turnavik West	Aug. 16	—	—	23.7
1223-f	male	Turnavik West	Aug. 16	—	—	20.2
1237	male	Red Bay, Lab.	Aug. 22	155	308	21.5

The stomach contents of the above specimens consisted of insects.

SANDERLING, *Crocethia alba* (Pallas).—One specimen was collected July 30 from a flock of seven found on Lacy Island of the Buttons. Several were seen at Henley Harbor on August 21. Specimen no. 1131, female, length 189; extent 387; weight in grams 72.8. Food consisted of small crustaceans.

RED PHALAROPE, *Phalaropus fulicarius* (Linnaeus).—The first Red Phalaropes of the season were seen July 21 at Port Burwell, Ungava Bay. Very dense fogs and strong northerly winds prevailed when these birds appeared in immense flocks some of them comprising thousands of individuals. The surface of the bay was literally covered by masses of these attractive little birds known to the Eskimos as "sargaks." On July 22, between Port Burwell and the Button Islands, we estimated ten thousand of these birds. Some of them were resting on the surface of the water forming great rafts; others were flying and whirling about in compact flocks over the water and the ice packs of Gray Strait. Red Phalaropes were also present in large numbers about the islands and in the channels of the Button group. In a very few days the numbers dwindled rapidly and by the end of July not a single phalarope was to be seen in the region.

The majority of the birds collected were still in the bright nuptial plumage but some of them exhibited stages of the post-nuptial moult and had acquired many new feathers of the winter plumage. The change of plumage was much more advanced in the males than it was in the females. The breast of a male collected at Port Burwell has the reddish-brown feathers of the nuptial plumage almost entirely replaced by the white feathers of the winter plumage.

The following specimens of Red Phalarope were collected at Port Burwell on Ungava Bay, Province of Quebec, on July 21, 1934:

Number	Sex	Length	Extent	Weight in grams
1091	female	225	431	58.5
1092	female	226	422	50.4
1093	female	225	419	52.6
1094	female	226	429	56.8
1095	female	225	388	56.5

Number	Sex	Length	Extent	Weight in grams
1096	female	224	428	52.5
1097	female	216	410	48.5
1098	female	229	420	54.1
1099	female	222	424	52.8
1100	female	216	392	51.6
1101	male	203	387	44.8
1102	male	210	390	40.2
1103	male	204	382	37.2
1104	female	223	419	57.5
1104-a	male	216	397	43.7
1104-b	male	209	389	39.8

WILSON'S PHALAROPE, *Steganopus tricolor* Vieillot.—Ten Wilson's Phalaropes seen off the Nova Scotia coast on June 19 at an approximate longitude of 62° W. and latitude of 44° 30' N. are of interest as this bird does not often occur in this region but is a fresh-water species of the interior of North America. The birds came very near the "Bowdoin" and swam about on the smooth surface of the sea where we could observe them critically for a positive identification.

NORTHERN PHALAROPE, *Lobipes lobatus* (Linnaeus).—No Northern Phalaropes were seen in northern Labrador. On our return trip we saw one flock of twelve and another of seventy-five birds at Red Bay in the Straits of Belle Isle on August 23. A week later we found them common in the mouth of the Bay of Fundy between Cape Sable and Kent's Island, Grand Manan.

POMARINE JAEGER, *Stercorarius pomarinus* (Temminck).—On June 27 about a dozen Pomarine Jaegers were seen between the Straits of Belle Isle and Battle Harbor. A lone individual was noted near Port Burwell on July 22 and on August 2, two were seen off the eastern entrance of Grenfell Tickle. On August 3, five jaegers, presumably the Pomarine, were seen flying in the distance and on August 8 one came near the "Bowdoin" when we were at sea off the Kau-majet range of mountains in northern Labrador.

PARASITIC JAEGER, *Stercorarius parasiticus* (Linnaeus).—A Parasitic Jaeger was seen off Cape Sable, June 28. It was a common species between the Straits of Belle Isle and Battle Harbor June 27. On July 27 several were seen flying back and forth between Lacy and Lawson Islands of the Button group. On August 3 several were seen off the eastern entrance of Grenfell Tickle and four were noted in the vicinity of Port Manvers Run, Labrador, August 10.

LONG-TAILED JAEGER, *Stercorarius longicaudus* Vieillot.—A single individual was seen August 9 at Lady Bight Harbor, northern Labrador.

GLAUCOUS GULL, *Larus hyperboreus* Gunnerus.—On our trip northward we noted Glaucous Gulls for the first time at Aillek Bay on July 5. On the same day, when we were southeast of Hopedale, we passed by a rocky island around which several Glaucous Gulls were flying. Several of the gulls were perched on narrow shelves of rock of a precipitous wall which faced the sea. Commander MacMillan and I climbed to the top of the island and from that vantage point we could see three nests containing eggs, all located in very inaccessible positions. On July 7 we visited a colony on our way to Commander MacMillan's Scientific Station twenty-five miles inward from Nain, Labrador. In one of the narrow passageways high cliffs rise on either side. On the left was a colony of Herring Gulls and on the right were the

nests of the Glaucous Gulls, about twenty-five in number. At this place neither species seemed to tolerate the other near their respective nesting places, although elsewhere it is not unusual to find both species nesting in the same colony.

The majority of the Herring Gull nests were newly built or contained fresh eggs. The nesting season of the Glaucous Gulls was much more advanced. Most of the young of the latter were hiding in the deep cave-like recesses of the rock. The eggs of one nest were in the state of hatching and another contained a set of eggs with well-advanced embryos. A downy young about a day old was collected from another nest. One nest containing a single fresh egg proved to be an exception to the advanced state of nesting of this colony.

On July 9 we found many Glaucous Gulls nesting on the castle-like island of Perkalujak. Time and rough weather did not permit us to land but on our return trip, August 12, we found young of this colony well advanced and some of them had flown from their nests. Continuing northward, on July 9 we passed near a cliff in Port Manvers Run where two pairs of Glaucous Gulls were nesting in shallow niches of the rock not more than ten feet above the surface of the water. Each nest contained young which appeared to be about a day old. A month later, August 10, when we passed the same rock, the young gulls frightened by the nearness of the boat made their initial flight. They flew varying distances not exceeding a few hundred yards and alighted clumsily on the surface of the water amidst a great demonstration on the part of the adult birds.

On July 12 several Glaucous Gulls were seen off Cape Chidley and on July 13 about fifty individuals were noted in Gray Straits. July 17 we saw eight Glaucous Gulls circling high over a fiord northeast of Port Burwell. A search of the cliffs nearby revealed a nest containing young about two-thirds grown with the juvenal plumage well established.

The Glaucous Gull was a very common bird at the Buttons. In addition to the large numbers seen flying and feeding about the islands, a large breeding colony was discovered July 25 on the cliffs of Lawson Island. These gulls were very aggressive in their attacks upon the Ravens which were also common inhabitants of the islands.

On our return trip along the Labrador coast flocks comprising adult and young Glaucous Gulls were common. In many instances the young exhibited very little fear of man and allowed us to approach very near to them. At Nain we saw immature birds perched on the occupied houses of the Eskimo village where natives frequently passed within a few yards of them. August 21 several migrating individuals were seen at Henley's Harbor.

The following birds were collected:

Number	Sex	Place	Date	Weight		
				Length	Extent	in grams
1038	female	Anaktalak Bay	July 8	(Young one day old)		
1136	female	Bowdoin Harbor	July 29	666	1497	1412
1137	male	Bowdoin Harbor	July 29	740	1620	1948
1179	male juv.	Anaktalak Bay	Aug. 12	620	1400	1451
1180	male juv.	Anaktalak Bay	Aug. 12	620	1355	1484
1181	male juv.	Anaktalak Bay	Aug. 12	598	1325	1475
1182	female juv.	Anaktalak Bay	Aug. 12	575	1265	1073

ICELAND GULL, *Larus leucopterus* Vieillot.—On July 15 a gull shot from a flock of five near Cape Chidley proved to be a female Iceland Gull. The ovaries were very large and the worn plumage especially the wing and tail indicated that it was a nesting bird. It weighed 644 grams. The identification of this bird was verified by the Museum of Comparative Zoology.

GREAT BLACK-BACKED GULL, *Larus marinus* Linnaeus.—The Black-backed Gulls were abundant along the north shore of the Gulf of Saint Lawrence and the southern Labrador coast. The birds generally nest in isolated pairs, often a single pair to an island, but one of the Gannet Islands proved an exception. When we passed this island on July 3 there was an estimated number of eight hundred pairs of these birds nesting there. At a distance it had the appearance of a Herring Gull colony but as we neared the island the true identity of the birds was revealed. On our return August 19 we landed on the island and in a very short time located nearly two hundred nests. In a spot near the center of the island there were seven occupied Black-backed Gulls' nests in an area fifty paces square. Most of the nests at that time were deserted. There were many young, most of them in advanced stages of growth and capable of flight. From one vantage point I counted 175 juvenal Black-backed Gulls some of them flying above the island with the adults. This is the greatest concentration of nesting Black-backed Gulls I have ever experienced. It is contrary to the usual nesting habits of the species.

On July 5 we found one or more pairs nesting on each of five islands near Hopedale and on July 7 many isolated pairs were nesting on small islands south of Nain. Eider Ducks nested on some of the islands occupied by the Black-backed Gulls. We saw six of these gulls at Port Manvers but no nests were found at that place.

We found a pair nesting at Eclipse Harbor near the 60th parallel on August 6. This is our most northern record of the nesting of this species. The young were about half grown. Large flocks containing many young were seen in the vicinity of Turnavik West and the Red Islands on August 15–16. On July 18 we found on Puffin Island near Indian Harbor about twenty young of various ages, ranging from downy stages to others able to fly. From Melville Sound southward the Black-backed Gulls were common. The following specimens were collected:

Number	Sex	Place	Date	Length	Extent	Weight in grams
1045	male	Port Manvers	July 9	—	—	1724
1188	female im.	Turnavik West	Aug. 15	625	1350	1545
1190	female im.	Turnavik West	Aug. 15	648	1372	1464
1218	? im.	Turnavik West	Aug. 15	650	1380	1466

HERRING GULL, *Larus argentatus smithsonianus* Coues.—The Herring Gull was the most abundant species of gull from the coast of Maine to Nain, Labrador. On July 5 we found them nesting on islands off Hopedale and July 7–8 we visited several colonies in the vicinity of Nain. All of the nests examined contained eggs at that date. North of Nain we saw fewer Herring Gulls and no nesting colonies were discovered beyond Port Manvers Run. One adult was collected from a flock of five at the eastern end of Grenfell Tickle on August 4, which was our most northern record of the Herring Gull. 1156—male, adult, Grenfell Tickle, Aug. 4; length 630; extent 1465; weight in grams 557.

KUMLIEN'S GULL, *Larus kumlieni* Brewster.—A female Kumlien's Gull was collected at the eastern end of Grenfell Tickle, Labrador, on August 4.

This gull was first recognized and described by William Brewster¹ in 1883. The A. O. U. Committee on the basis of the evidence presented in Jonathan Dwight's 'The Gulls of the World'² considered Kumlein's Gull a hybrid between *Larus leucopterus* Faber and *Larus argentatus thayeri* Brooks and therefore not entitled to

¹ Brewster, William. Bull. Nuttall Ornith. Club, vol. 8, p. 216, 1883.

² Dwight, Jonathan, Jr. Bull. Amer. Mus. Nat. Hist., vol. 52, p. 254, 1925.

specific recognition. It was accordingly placed on the hypothetical list of the 1931 Check-list. P. A. Taverner,¹ however, has since that time accumulated much evidence contrary to Dwight's view. He has shown conclusively that *Larus kumlieni* cannot be a hybrid between *thayeri* and *leucopterus* and presents other facts which make it plausible that *Larus kumlieni* should be reinstated as a species.

1158—female, Grenfell Tickle, Aug. 4; length 592; extent 1358; wing 410; weight in grams 557. Iris straw yellow; eye ring black; bill dark; feet pale flesh color; nails slate color.

BLACK-HEADED GULL, *Larus ridibundus ridibundus* Linnaeus.—When our expedition stopped at Makkovik, Mr. Anton Anderson, a native fisherman, gave me a specimen of a Black-headed Gull which he stated, was taken at Stag Bay, Labrador, during September, 1933. The exact date was not recorded, hence only an approximation can be given. This specimen establishes a new record for the coast of Labrador, while of added interest is an elongated aluminum tag attached to the leg above the tarsal joint, with the notation "Cogels Ossendrecht Holland 851." This gull was banded as an immature by Mr. Joseph Cogels, at Groote Meer near Ossendrecht on June 21, 1932. Ossendrecht is situated on the Escout River near the Belgian frontier, about 72 kilometers from the village of Bergen op Zoom in the province of North Brabant, southern Holland.² This is the second record for the continent of North America; the other record³, is of one taken at Newburyport, Massachusetts, on January 27, 1930.

BONAPARTE'S GULL, *Larus philadelphia* (Ord).—During our stop at Grindstone Island of the Magdalens, June 22–23, many Kittiwakes and Herring Gulls frequented the vicinity of the wharf. On June 23 six Bonaparte's Gulls made their appearance and were observed for a considerable time as they fed with the other gulls on the fish refuse thrown out by the fishermen. One of the birds still in winter plumage was collected. These birds were evidently late stragglers in the migration to the nesting grounds in the Northwest. 1013—sex?, Magdalen Islands, June 23; length 344; weight 201 grams; iris dark brown; feet pale pinkish white, nails black.

ATLANTIC KITTIWAKE, *Rissa tridactyla tridactyla* (Linnaeus).—Kittiwakes were abundant about the Magdalens June 22–23. On June 24 we visited Bird Rock where the birds were in the midst of their nesting. All of the nests examined contained eggs. There are probably a thousand pairs of Kittiwakes nesting on Bird Rock but due to an impending storm we were forced to leave before a detailed census could be made.

Kittiwakes were common along the Canadian Labrador and on June 27 were extremely abundant between the Straits of Belle Isle and Battle Harbor. Flocks of from twenty-five to fifty were common and in places where the fishing was good, concentrations of five hundred to a thousand birds were noted. On July 3 we also saw immense flocks at North Shoal Bay beyond Indian Head. There were about two hundred of them circling over the hills at Harvey Harbor but we found no evidence of their nesting in northern Labrador. On July 22, during a dense fog we counted and estimated a thousand Kittiwakes in the course of about ten miles in the vicinity of Cape Chidley. On July 23 hundreds of Kittiwakes were seen in Gray Straits between Port Burwell and the Buttons. There were immense rafts of Kittiwakes resting on the surface of the ocean off the end of Lacy Island of the Buttons on July 28 and on the same day we noted a great concentration of them on the high

¹ Taverner, P. A. Canadian Field-Naturalist, vol. 47, pp. 88–90, 1933.

² Gross, Alfred O. Bird Banding, vol. 6, pp. 24–25, 1935.

³ Emilio, S. G., and Ludlow Griscom. Auk, vol. 47, p. 243, 1930.

⁴ MacCoy, C. V. Bull. Boston Soc. Nat. Hist., no. 55, p. 21, 1930

cliffs of Goodwin Island where it was evident the birds were nesting. Excessive tide rips and the high inaccessible cliffs made it impossible to get near enough actually to see the nests. There were always a few, sometimes hundreds, of Kittiwakes fishing in the channel between Lawson and Lacy Islands, just in front of our camp.

On July 31 Commander MacMillan reported the discovery of a very large colony of Kittiwakes on one of the smaller islands of the Knight group near the Buttons. Hence the large numbers which are to be seen about Cape Chidley and in the Straits are inhabitants of the Knight and Button groups of islands. No other colonies have thus far been reported in that region. The Eskimos questioned, knew nothing of any nesting places of Kittiwakes on the mainland of northern Labrador.

On August 4 large numbers of Kittiwakes were seen at the eastern end of Grenfell Tickle. About 350 were seen fluttering and diving about a partially submerged reef between Lady Bight Harbor and Port Manvers Run on August 10. There was also a concentration of Kittiwakes in upper Port Manvers Run. On August 17 large flocks of several hundred each were seen on the way to Indian Harbor. On August 21 they were common at Henley's Harbor; August 26 several were noted in Bras d'Or Lakes; August 28 one was in the harbor at Port Hawkesbury and on August 31 several came near the "Bowdoin" when we were off the coast of Maine, indicating that the migration of the Kittiwakes was under way.

The following specimens were collected:

Number	Sex	Place	Date	Length	Extent	Weight in grams
1105	female	Port Burwell	July 21	410	961	328.7
1113	male	Cape Chidley	July 22	415	942	328
1120	female	Cape Chidley	July 22	415	962	361.4
1121	female	Cape Chidley	July 22	400	912	358
1153	?	Grenfell Tickle	Aug. 4	390	982	365
1154	male	Grenfell Tickle	Aug. 4	425	1020	336

Food found in the stomachs of the above specimens consisted of squids and small crustaceans.

COMMON TERN, *Sterna hirundo hirundo* Linnaeus.—Common Terns were abundant from the Maine coast to the north shore of the Saint Lawrence. Many were seen June 22-23 at the Magdalen Islands where they breed. A male was collected on Alright Island, June 23. The only definite Newfoundland Labrador records we obtained were of several Common Terns which came near the "Bowdoin" when we were anchored at Assisez Island near Battle Harbor on July 2.

Since the two species of terns are difficult to differentiate in the field, except under favorable conditions, some of those seen to the northward and recorded as Arctic Terns may have been Common Terns. However, all specimens collected north of Battle Harbor were *paradisaea*.

ARCTIC TERN, *Sterna paradisaea* Brünnich.—The Arctic Tern was common along the Labrador coast from the Straits of Belle Isle to Cape Chidley and the Button Islands. The greatest concentration of these terns, according to our observations, was in the region between the 55th and 56th parallel where the most important breeding colonies are located. On August 15-16 we visited the breeding colonies on Jock's and Red Islands in the vicinity of Turnavik West. We banded about three hundred young the majority of which were from two to three weeks old but others ranged from young freshly hatched to others able to fly. A few nests contained eggs freshly laid. This wide variation in the state of nesting of the terns is due in part to the frequent eggng to which these colonies are subjected.

On the Red Islands we found a dead tern the remains of which indicated that the bird had died or been killed a relatively short time before our visit on August 16. On the tarsus was a band number 548131 of the United States Biological Survey. This band was placed on a nestling by Dr. Oliver L. Austin, Jr., when he visited the islands on July 23, 1928.¹

The following Arctic Terns were collected:

Number	Sex	Place	Date	Length	Extent	Weight in grams
1116	female ad.	Port Burwell	July 21	356	753	94.1
1125	male ad.	Port Burwell	July 21	370	745	98.2
1208	male im.	Jock's Island	Aug. 16	104	115	13.4
1209	female im.	Jock's Island	Aug. 16	110	128	11.9
1210	male im.	Red Islands	Aug. 15	176	368	79.9
1211	? im.	Jock's Island	Aug. 16	220	518	115.1
1212	male im.	Jock's Island	Aug. 16	265	590	128.1
1213	? im.	Jock's Island	Aug. 16	276	635	102.9
1214	? im.	Jock's Island	Aug. 16	301	689	94.8
1215	female im.	Jock's Island	Aug. 16	281	630	96.3
1216	male ad.	Red Islands	Aug. 16	375	770	95.2
1217	male ad.	Red Islands	Aug. 16	381	790	108.9

Small fish constituted the whole of the food eaten by the adults and young birds collected.

RAZOR-BILLED AUK, *Alca torda* Linnaeus.—Nests of the Razor-billed Auks contained eggs when we visited Bird Rock on June 24. Auks were common along the north shore of the Gulf of Saint Lawrence, June 25–26. On July 6 a few were found nesting on islands off Hopedale. July 15 three were seen in an inlet near Port Burwell but none was seen in the Straits nor at the Button Islands. On August 17 we visited Tinker Island, where numbers have been reported as nesting in the past, but none was to be seen. August 19 we found about three hundred pairs nesting on the Herring Islands. All nests examined contained young. On the same day we found several hundred pairs nesting on one of the Gannet Islands. About a dozen pairs were nesting on Puffin Island near Indian Harbor at the time of our visit on August 18.

The following specimens of Razor-billed Auks were collected:

Number	Sex	Place	Date	Length	Extent	Weight in grams
1224	female im.	Gannet Islands	Aug. 19	248	342	195.6
1225	female ad.	Gannet Islands	Aug. 19	431	723	683.0
1227	female im.	Gannet Islands	Aug. 19	170	180	107.8
1233	male im.	Gannet Islands	Aug. 19	219	295	158.0

ATLANTIC MURRE, *Uria aalge aalge* (Pontoppidan).

BRÜNNICH'S MURRE, *Uria lomvia lomvia* (Linnaeus).—No attempt was made to identify the Atlantic and the Brünnich's Murre in the field except at the nesting colonies where the birds could be seen at close range. On June 22–23 murre were common at the Magdalen Islands. On June 24 both Atlantic and Brünnich's Murres were nesting at Bird Rock. Many murre were seen along the north shore of the Gulf of Saint Lawrence where, according to Prof. R. A. Johnson, only the Atlantic Murre is represented. Brünnich's Murres were nesting on several of the islands in

¹ Gross, Alfred O. *Bird Banding*, vol. 6, pp. 23–24, 1935.



NEST AND EGGS OF NORTHERN EIDER NEAR HOPEDALE



NORTHERN HORNED LARK INCUBATING ITS FOUR EGGS

the vicinity of Hopedale on July 6. On July 11 about fifty murres were seen in a number of small flocks near the entrance of Grenfell Tickle and on July 14 about a dozen in Gray Straits. July 15-18 Brünnich's Murres were present in large numbers at Port Burwell, Ungava Bay, where we collected five specimens. On July 23 fifteen murres were noted while we were crossing Gray Straits to the Button Islands and on July 29 I saw a large raft of them on the sea off Lacy Island of the Button group. Although Brünnich's Murres undoubtedly breed in northern Labrador and on the Button Islands, we were unable to find their nests. They probably breed on some of the large number of inaccessible cliffs. The gonads of the birds collected were very large, the testis averaged 10 x 30 mm. and the ovaries contained ova 4 to 10 mm. in diameter, indicating that the birds were sexually active at the time of our visit.

On the return trip we saw many murres along the northern Labrador coast between Eclipse Harbor and Cape Mugford, August 6-9. An unusually large number was seen in the vicinity of the Herring Islands on August 19.

The following five Brünnich's Murres were collected at Port Burwell, Ungava Bay, Province of Quebec:

Number	Sex	Date	Weight in grams
1064	male	July 15	907
1065	female	July 15	918
1066	male	July 15	1008
1067	female	July 18	862
1077	male	July 18	887

Fish and shrimp constituted the chief food of the birds collected.

DOVEKIE, *Alle alle* (Linnaeus).—Remains of the Dovekie were found on the Button Islands, killed by Arctic Foxes or other predators. It is evidently very abundant on these islands during the migration.

BLACK GUILLEMOT, *Cepphus grylle* Linnaeus.—The Guillemot of the northern Labrador coast has been assigned to the race *arcticus*, an intergrade between *mandti* and *grylle* by Dr. Oliver L. Austin, Jr.¹ He gives the breeding range on the western side of the North Atlantic as follows: "*Cepphus grylle grylle*, from Matinicus Rock, Maine, northward and eastward to Cape Whittle, Labrador, and the 50th parallel of latitude in Newfoundland; *Cepphus grylle arcticus*,² from Hamilton Inlet, Labrador, northward to the 72nd parallel of western Greenland; *Cepphus grylle mandti* from the 75th parallel of latitude in Ellesmere Island and western Greenland northward." The areas between the above regions, according to Austin, are places wherein birds of either race bordering them have been taken or may be expected or are of uncertain occurrence. Not all ornithologists agree that *arcticus* is a valid form and personally I would rather see fewer than more races recognized unless there is a very good reason for it. The chief difference between *mandti* and *grylle* is the relative amount of white on the outer primaries and the amount of black at the base of the white greater secondary coverts. In *mandti* the latter are entirely white and the white patches on the primaries are more extensive. The race *arcticus* represents an intermediate condition. There are also minor differences in size and shape of the bill and in certain measurements but these are not constant. As a matter of fact

¹ Austin, Oliver L., Jr. Bull. N. E. Bird Banding Association, vol. 5, pp. 1-6, 1929.

² Austin, Oliver L., Jr. The Birds of Newfoundland Labrador. Memoirs Nuttall Ornithological Club, no. 7, pp. 136-139, 1932.

³ Brehm, C. L. Naturgeschichte aller Vögel Deutschlands, pp. 987-992, 1831.

the markings of the coverts and primaries show intergradations in specimens taken from the same locality. Although Austin limits the range of *grylle* eastward from the Gulf of Saint Lawrence to Cape Whittle and the 50th parallel in Newfoundland, I collected typical *grylle* as far north as the 56th parallel. All specimens collected at Turnavik, Perret Island and Hopedale, as well as three specimens from Chateau Bay and five specimens from Webeck Harbor obtained by the Bowdoin Expedition of 1891,¹ cannot be distinguished from Maine birds. Birds collected on the Labrador Peninsula north of the 56th parallel are intermediate between *grylle* and *mandti* and can be designated as *arcticus* if this race is recognized.

Certain specimens taken on the Button Islands represent the race *arcticus* but with characters approaching those of *mandti*. One male bird collected on the Buttons has all of the characters of *mandti* and hence on these islands both *arcticus* and *mandti* are represented in the same breeding colonies. This condition as well as the intergradations of the forms tends to weaken the importance of the race *arcticus*. More material is needed to solve this problem definitely.

The Guillemot is the most successful and most abundant and widely distributed of the alcids along the Labrador coast. We found breeding colonies at almost every stop not only on the outer islands but also in favorable places well into the fiords and inlets. Most of the colonies are small, not exceeding a hundred pairs, but at Perret Island (not named on the charts) near Zoar Bay, which we visited on August 14, there were at least two thousand pairs, the largest number of Guillemots I have ever seen in one colony. Perret Island with its numerous small caves and deep crevices as well as immense talus slopes of large boulders and masses of stone blocks along its high cliffs, is ideal for the nesting Guillemots. Although it was the middle of August there were still a considerable number of nests with eggs, probably second and third attempts after the sets had been taken or destroyed. Other nests contained young, many of which were in the natal-down stage. A few young were advanced in growth with the juvenal plumage complete. From a concealed place in one of the many caves I counted 875 birds that were swimming and diving in front of the island at one time. Some of the birds were carrying small fish or eels intended for the young; others were playing and in two instances the nuptial performance including copulation was observed. It would seem that these late attempts at nesting would fail to be successful.

Some of the adult Guillemots collected were in a state of moult representing various mottled conditions between nuptial and winter plumages. In the case of two of the birds, a male and female, collected July 17 and 19 respectively, there were many worn feathers, remnants of the preceding winter plumage. These birds were probably weakened individuals in which the prenuptial moult had been greatly delayed or else were very late birds of the preceding nesting season.

The following specimens of Guillemots were collected:

Number	Sex	Place	Date	Length	Extent	Weight
						in grams
						<i>Adults</i>
1033	male	Hopedale, Lab.	July 6	—	—	429
1034	?	Hopedale, Lab.	July 6	—	—	404
1050	male	Bowdoin Harbor	July 12	—	—	398
1051	female	Bowdoin Harbor	July 12	—	—	404
1052	female	Bowdoin Harbor	July 12	—	—	420
1056	female	Cape Chidley	July 12	—	—	430

¹ Norton, Arthur H. Proc. Portland Soc. Nat., Hist. vol. 2, pp. 139-158, 1901.

Number	Sex	Place	Date	Length	Extent	Weight in grams
<i>Adults—Continued</i>						
1057	female	Cape Chidley	July 12	—	—	441
1070	female	Port Burwell	July 17	—	—	357
1078	male	Port Burwell	July 19	—	—	445
1115	male	Port Burwell	July 21	—	—	450
1127	male	Lacy Id., Buttons	July 29	330	584	446
1128	female	Lacy Id., Buttons	July 29	335	566	467
1133-a	female	Lacy Id., Buttons	July 30	338	755	401
1135	male	Bowdoin Harbor	July 29	334	568	418
<i>Young</i>						
1185	male	Perret Island	Aug. 14	180	185	88.7
1186	female	Perret Island	Aug. 14	185	228	105.8
1219	male	Turnavik West	Aug. 16	270	451	234
1220	male	Turnavik West	Aug. 16	270	438	263.8
1234	female	Henley Harbor	Aug. 21	329	538	307

The stomach contents of the Guillemots collected consisted entirely of fish.

ATLANTIC PUFFIN, *Fratercula arctica arctica* (Linnaeus).—Puffins were nesting at Bird Rock on June 24. The few nests examined contained eggs. Puffins were common along the north shore of the Gulf of Saint Lawrence and southern Labrador as far north as Hopedale. On August 18 we found about five hundred pairs breeding on Puffin Island near Indian Harbor, Labrador. The larger number of the nests were among large boulders and blocks of stone but a considerable number of them were in excavated burrows. All of the nests examined contained young, most of them in natal plumage. Puffins were also nesting in large numbers on the Herring Gull Islands and the Gannet Islands. No Puffins were seen north of Hopedale.

The following specimens were collected:

Number	Sex	Age	Place	Date	Length	Extent	Weight in grams
1221	female	im.	Puffin Island	Aug. 18	215	345	253
1222	female	ad.	Puffin Island	Aug. 18	315	591	441
1223	male	ad.	Puffin Island	Aug. 18	—	—	453.7
1228	male	ad.	Gannet Islands	Aug. 19	330	631	484
1229	male	im.	Gannet Islands	Aug. 19	240	430	259
1230	male	ad.	Gannet Islands	Aug. 19	—	—	485
1231	male	ad.	Gannet Islands	Aug. 19	350	585	476
1232	male	im.	Gannet Islands	Aug. 19	191	225	114

RUBY-THROATED HUMMINGBIRD, *Archilochus colubris* (Linnaeus).—Two hummingbirds were seen at Port Hawkesbury, Nova Scotia, on June 21. When I stopped at Saint Anthony, northern Newfoundland, July 19, 1932, I saw a male hummingbird among the flowers near the Grenfell Mission. I was informed that it nested in the vicinity but I was unable to verify this statement.

EASTERN BELTED KINGFISHER, *Megaceryle alcyon alcyon* (Linnaeus).—Several kingfishers were seen at Port Hawkesbury, Nova Scotia, on June 20. A pair was nesting in the red-clay cliffs of Amherst Island of the Magdalens on June 22. No kingfishers were seen on the Labrador coast.

AMERICAN THREE-TOED WOODPECKER, *Picoides tridactylus bacatus* (Bangs).—Four American Three-toed Woodpeckers were seen and a female was collected in a growth of spruces near Commander MacMillan's Station near Nain, Labrador, on August 12. Specimen number 1173: length 202; extent 350; and weight 50.9 grams.

NORTHERN HORNED LARK, *Otocoris alpestris alpestris* (Linnaeus).—The Northern Horned Lark is a common nesting bird all along the Labrador coast. Contrary to the reports of certain observers, it was very abundant in the extreme northern end of the Labrador Peninsula. It was the commonest bird at Port Burwell in spite of the fact that the Eskimos killed large numbers of them for food. On a tramp over the hills from Port Burwell toward Cape Chidley, I saw more than a dozen young Horned Larks, which were just out of their nests. It was also a common nesting species on the Button Islands.

The crop and stomach contents of the specimens collected consisted of gravel, small pieces of mollusk shells, numerous insects and a small amount of vegetable matter.

The following specimens of Northern Horned Larks were collected:

Number	Sex	Age	Place	Date	Weight in grams
1068	male	im.	Port Burwell	July 17	20.4
1069	female	ad.	Port Burwell	July 17	37.5
1075-a	male	ad.	Port Burwell	July 17	43.2
1075-b	female	ad.	Port Burwell	July 17	35.8
1075-c	male	ad.	Port Burwell	July 17	39.9
1080	male	im.	Port Burwell	July 19	18.2
1089	male	ad.	Port Burwell	July 20	—
1168	female	ad.	Eclipse Harbor	Aug. 6	39.4

PRAIRIE HORNED LARK, *Otocoris alpestris praticola* Henshaw.—There were many Prairie Horned Larks along the sandy beaches of the Magdalens. Two males were collected on Alright Island, June 23. None was seen on the Newfoundland Labrador coast.

BANK SWALLOW, *Riparia riparia riparia* (Linnaeus).—Two flourishing colonies of Bank Swallows were seen in the high red-clay cliffs of the Magdalen Islands. These cliffs provide ideal nesting sites for this species. There was a large colony of Bank Swallows on the banks of the Moisie River, Canadian Labrador, which I visited during July 1931.

BARN SWALLOW, *Hirundo erythrogaster* Boddaert.—The Barn Swallow was common at the Magdalens, June 20–23. When we stopped at Hopedale, Labrador, an Eskimo boy gave us a preserved male Barn Swallow which he collected May 15, 1934. The native told us that two pairs of the birds nested in an uninhabited fisherman's hut near Hopedale, where the specimen was secured. The factor of the Hudson Bay Post at Port Burwell informed us that a pair of Barn Swallows nested in the vacated Mission buildings at Killineck during the two preceding years. There was no evidence of the bird's nesting when we visited the building's July 15, 1934.

LABRADOR JAY, *Perisoreus canadensis nigricapillus* Ridgway.—When we were at Nain, Labrador, August 10, a Labrador Jay persisted in feeding about the Eskimo houses. The dogs made frequent futile attempts to capture it whenever it flew to the ground to pick up bits of food. On July 12 an adult female specimen was collected at Commander MacMillan's Station near Nain. The measurements of this specimen were: length 281 mm.; extent 402 mm.; and weight 74.5 grams.

NORTHERN RAVEN, *Corvus corax principalis* Ridgway.—The Northern Raven was a common bird along the entire coast of Labrador, but according to our experience was more abundant in the northern part of the peninsula. Flocks numbering from three or four to a dozen individuals were seen daily during our stay at Port Burwell and the Button Islands. No occupied nests were found.

EASTERN CROW, *Corvus brachyrhynchos brachyrhynchos* Brehm.—Crows were common at the Magdalens and along the north shore of the Gulf of Saint Lawrence. None was seen on the Newfoundland Labrador coast.

ACADIAN CHICKADEE, *Penthestes hudsonicus littoralis* (Bryant).—A female Acadian Chickadee was collected at Commander MacMillan's Station near Nain, Labrador. Its length was 128 mm., extent 189 mm., and weight 11.1 grams.

RED-BREASTED NUTHATCH, *Sitta canadensis* Linnaeus.—A Red-breasted Nuthatch was seen climbing about the supports of the steps leading to the top of Bird Rock on June 24.

EASTERN ROBIN, *Turdus migratorius migratorius* Linnaeus.—A Robin was collected and others were seen at the Magdalen Islands on June 22. A nest containing five eggs was found June 27 near the radio station at Battle Harbor. July 1, six Robins were at Assisez Island and on the following day several were seen at Sophia Harbor. On July 5 one was seen at Aillek Bay. At Hopedale a nest and three young were found near the Mission. While climbing a cliff at Port Manvers on July 9 I flushed a Robin from a nest built on a shelf of rock situated in a shallow cave. The nest, of the usual structure of mud and grasses, contained two eggs. The parent bird was extremely wild and made no attempt to return to the nest as long as I remained in the vicinity. A Robin was seen several times at Port Burwell during our stay July 15–22. The men at the Hudson's Bay Post stated that a Robin nested on the cliff between the Post and Killineck the year before. On August 12 three flocks of Robins were seen at Nain, Labrador, where they were concentrating before the autumn migration.

AMERICAN PIPIT, *Anthus spinoletta rubescens* (Tunstall).—Two nests of the American Pipit, each containing five eggs, were found near Battle Harbor on Battle and Caribou Islands, respectively. The Pipit was very common, being noted at nearly all of the stops along the Labrador coast. On July 15 we found a nest containing six eggs, at Port Burwell. Two days later the eggs hatched. On July 28 a nest containing five young was found at the eastern end of Lacy Island of the Buttons. During our stay we saw Pipits in various parts of the islands. They were not restricted to the valleys of the lowlands but were also seen on the plateaus of the highest hills. By the end of July we found many young capable of extended flights. On our return trip down the coast small flocks of Pipits were seen, indicating that family groups had united and that migration was under way.

The following specimens of Pipits were collected:

Number	Sex	Place	Date	Weight in grams
1018	female	Battle Harbor	June 29	24.1
1049	female	Cape Chidley	July 12	23.9
1062-a	male	Port Burwell	July 15	24.0
1062-b	male	Port Burwell	July 17	21.1
1062-c	male	Port Burwell	July 17	20.8
1079	?	Port Burwell	July 19	20.5
1145	male	Button Islands	July 30	16.0
1169	female	Cape Mugford	Aug. 9	19.2
1204	female	Turnavik West	Aug. 15	22.6
1205	male	Turnavik West	Aug. 16	21.4

STARLING, *Sturnus vulgaris vulgaris* Linnaeus.—A nest of the Starling containing three nearly grown young was found in a deserted woodpecker's nest near Port Hawkesbury, Cape Breton Island, on June 20. According to persons living in the vicinity, the birds first made their appearance in the region during the summer of 1932.

EASTERN YELLOW WARBLER, *Dendroica aestiva aestiva* (Gmelin).—A male was collected June 22 at the Magdalen Islands. Two others were seen.

MYRTLE WARBLER, *Dendroica coronata* (Linnaeus).—A male was collected near Commander MacMillan's Station near Nain, Labrador, on August 12. This specimen weighed 14.4 grams. Five others were seen at the Station.

BLACK-POLL WARBLER, *Dendroica striata* (Forster).—Eight were seen and one male was collected at Mecatina Island on June 28. A female in juvenal plumage was collected August 12 at Nain, Labrador. The weights of the above specimens were 12.7 and 11.5 grams, respectively.

BRONZED GRACKLE, *Quiscalus quiscula aeneus* Ridgway.—Seven were seen on Grindstone Island of the Magdalens and four were noted on top of Bird Rock, June 24.

COMMON REDPOLL, *Acanthis linaria linaria* (Linnaeus).—A female weighing 13.2 grams was collected from a flock of seven at Hopedale, Labrador, on July 5. Several Common Redpolls were seen at Commander MacMillan's Station on August 11 and on the following day five were observed in the spruce woods near the village of Nain.

EASTERN SAVANNAH SPARROW, *Passerculus sandwichensis savanna* (Wilson).—The Savannah Sparrow was the commonest land bird at the Magdalens. In a single trip the length of one of the islands I counted 38 individuals. They were in grassy areas of both the high and the low lands. A nest and four eggs was found June 22 and on June 23 two nests, one containing five eggs and the other four young, were found on Amherst Island. A male specimen was collected on June 22.

LABRADOR SAVANNAH SPARROW, *Passerculus sandwichensis labradorius* Howe.—The Savannah Sparrows of the Newfoundland Labrador coast have been recognized as the subspecies *labradorius*. However, not all ornithologists are in agreement that this is a valid form.

On June 28 a nest with five eggs of the Savannah Sparrow was found in a grassy area near the center of Battle Island, Battle Harbor. The combined weight of the five eggs was 11.3 grams or an average of 2.26 grams per egg. Several Labrador Savannah Sparrows were seen on Assisez Island, July 1, but none was observed northward of this region. A female, no. 1019, weighing 18.8 grams, was collected at Battle Harbor, June 29. This specimen is similar to southern forms and does not support the recognition of *labradorius*.

SLATE-COLORED JUNCO, *Junco hyemalis hyemalis* (Linnaeus).—A male and a female were collected at Nain, Labrador, on August 12. The birds weighed 22.4 and 17.7 grams, respectively.

WHITE-CROWNED SPARROW, *Zonotrichia leucophrys leucophrys* (Forster).—This is a common nesting bird along the Labrador coast. We observed them at Battle Harbor, Assisez Island, Turnavik West, Aillek Bay, Hopedale, Makkovik, Nain, Windy Tickle, Grenfell Tickle, and they were especially abundant at Port Burwell. This sparrow seems to favor situations near the habitations of man and during the nesting season is less likely to be found in isolated places such as the Button Islands.

The height of the breeding season of the White-crowned Sparrow on the Labrador coast is during the first two weeks of July. A female taken at Battle Harbor, June 29,

had a fully formed egg in her oviduct ready to be laid. On July 18 at Killineck we collected a fully feathered brood of young capable of flight.

The following specimens were collected:

Number	Sex	Age	Place	Date	Length	Extent	Weight in grams
1014	male	ad.	Mecatina Island	June 25	—	—	32.5
1016	male	ad.	Mecatina Island	June 25	—	—	31.0
1020	female	ad.	Battle Harbor	June 29	163	238	33.4
1071	female	juv.	Port Burwell	July 18	101	180	17.1
1072	female	juv.	Port Burwell	July 18	103	176	15.9
1073	male	juv.	Port Burwell	July 18	99	179	15.3
1080-a	male	ad.	Port Burwell	July 19	162	239	29.2
1080-b	female	ad.	Port Burwell	July 19	—	—	22.7
1206	male	ad.	Turnavik West	Aug. 16	165	241	30.7
1207	female	ad.	Turnavik West	Aug. 16	164	236	26.9

WHITE-THROATED SPARROW, *Zonotrichia albicollis* (Gmelin).—Several were seen and one was collected at Port Hawkesbury on June 20. Many were seen on islands visited along the north shore of the Gulf of Saint Lawrence but none was noted on the Newfoundland Labrador.

EASTERN FOX SPARROW, *Passerella iliaca iliaca* (Merrem).—Five were seen in a dense growth of spruces near the village of Hopedale on July 5 and several were found in a similar situation near the village of Nain on August 12.

EASTERN SONG SPARROW, *Melospiza melodia melodia* (Wilson).—An adult male Song Sparrow was collected at Port Hawkesbury and several others were seen on June 20. They were common on Amherst and Grindstone Islands of the Magdalens on June 22–23.

EASTERN SNOW BUNTING, *Plectrophenax nivalis nivalis* (Linnaeus).—Our records of the Snow Bunting are limited to the northern end of the Labrador peninsula and the Button Islands. On the northward course we saw them for the first time at Bowdoin Harbor on July 12. Along the side of a deep valley we saw a group of five feeding among the rocks and mosses near the edge of a melting glacier. Also at Bowdoin Harbor we found a nest, containing five young and a sterile egg, located in a narrow cleft of a cliff at a point about fifty feet above the surface of the water. The nest had a substantial foundation of soggy moss, the cup was formed of dried grass stalks and the interior was lined with a mass of white breast feathers of a Rock Ptarmigan. The outside diameter of the nest was 13 cm., the cup had an inside diameter of 6.5 cm. and a depth of 5.4 cm. The egg had a pale-blue ground color, spotted and marked with brown and lavender, size 22 x 16 mm. The five young weighed 24.8 grams or an average of 4.96 grams for each bird. Age about 2–3 days, eyes closed. Natal down gray, distributed in tracts on the crown, nape, scapulars, forewings, femora and a dorsal median tract, mandibles yellow, papillae of primaries and secondaries just appearing through the integument.

Four nests of the Snow Bunting were found in the vicinity of Port Burwell all located in narrow clefts of rocks or cliffs. The structure of these nests was similar to that of the one described above, except one which was lined with caribou hair. Two of the nests contained five young and one sterile egg each, one contained six eggs and the other five eggs. Several broods of Snow Buntings, some just out of the nest and others in more advanced stages of development, were seen during the various trips radiating out from Port Burwell.

The Snow Bunting was one of the commonest land birds found on the Button Islands. Three nests found on the Buttons contained young. At least four other broods were seen which had left their nests and were being fed by the adults.

Although the Snow Bunting is primarily a seed-eating bird at certain seasons of the year, practically all of the food delivered to the young consisted of larvae, flies, mosquitoes, beetles, moths, butterflies and other insects. The crop and stomach contents of the adults consisted of similar food but also contained small quantities of vegetable matter, chiefly leaves of plants. The Buntings were frequently seen about the small freshwater ponds where insect life was most abundant. They were our constant companions around the camp on the Buttons. On August 7 Snow Buntings were seen on the mountains at Sea Plane Cove at an elevation of 1200 feet and on August 9 several were seen at an elevation of 1500 feet on the slopes of Mount Brave.

The following specimens were collected:

Number	Sex	Age	Place	Date	Length	Extent	Weight in grams
1047	female	ad.	Bowdoin Harbor	July 12	—	—	34.0
1048	male	ad.	Bowdoin Harbor	July 12	—	—	32.5
1060	male	ad.	Port Burwell	July 15	—	—	35.4
1061	female	ad.	Port Burwell	July 15	—	—	32.2
1074-b	male	ad.	Port Burwell	July 17	—	—	36.4
1074-c	male	ad.	Port Burwell	July 17	—	—	32.6
1084	female	im.	Port Burwell	July 20	121	211	24.5
1085	female	im.	Port Burwell	July 20	120	214	27.0
1086	male	im.	Port Burwell	July 20	114	205	25.2
1087	male	ad.	Port Burwell	July 20	178	315	33.6
1088	female	ad.	Port Burwell	July 20	167	316	31.9
1090	male	ad.	Port Burwell	July 20	182	326	32.5
1122	female	im.	Lacy Id., Buttons	July 26	130	245	25.8
1123	female	ad.	Lacy Id., Buttons	July 26	162	313	28.6
1124	female	im.	Lacy Id., Buttons	July 26	138	245	25.2
1129	female	im.	Lacy Id., Buttons	July 29	143	251	32.3
1152	male	ad.	Grenfell Tickle	Aug. 3	172	306	33.2

EXTERNAL PARASITES

Bird lice (Mallophaga) were found on twenty-seven species of birds collected by the Bowdoin-MacMillan Arctic Expedition.

Each bird, as soon as it was collected in the field, was placed in a separate paper bag to prevent the lice from transferring to another host. The lice from each bird were preserved in a separate vial of 70% alcohol. Ten genera, including sixteen identified and nine unidentified species of Mallophaga, are represented in the collection. These parasites were present in greatest numbers on the water birds and were especially numerous on some of the gulls and terns. I am indebted to Howard H. Vogel, Jr., a Bowdoin student who was responsible for the collection of Mallophaga as well as all insects obtained by the expedition. We are especially indebted to Mr. Harold S. Peters of the United States Bureau of Entomology for the de-



AMERICAN PIPIT ON ITS NEST IN THE LABRADOR TUNDRA



NEST OF THE SNOW BUNTING REMOVED FROM ITS ROCK CREVICE

terminations of the Mallophaga. The following list of bird hosts and species of Mallophaga was prepared by Mr. Vogel.

<i>Bird host</i>	<i>Species of Mallophaga</i>
Gaviiformes:	
Red-throated Loon, <i>Gavia stellata</i>	<i>Philoaterus colymbinus</i> (Denny)
Procellariiformes:	
Atlantic Fulmar, <i>Fulmarus g. glacialis</i>	<i>Ancistrona vagelli</i> (Fabr.) <i>Esthiopterum nigrolimbatum</i> (Giebel) <i>Philoaterus occidentalis</i> (Kell.)
Pelecaniformes:	
Gannet, <i>Moris bassana</i>	<i>Pectinopygus bassanae</i> (Fabr.)
Anseriformes:	
Northern Eider, <i>Somateria mollissima borealis</i>	<i>Anatoecus dentatus</i> (Scopoli) <i>Anatoecus obtusus</i> (Giebel) <i>Anatoecus dentatus</i> (Scopoli)
Old-squaw, <i>Clangula hyemalis</i>	
Galliformes:	
Rock Ptarmigan, <i>Lagopus r. rupestris</i>	<i>Menopon striatum</i> (Kellogg) <i>Goniodes mammilatus</i> (Rudow)
Charadriiformes:	
Greater Yellow-legs, <i>Totanus melanoleucus</i>	<i>Actornithophilus</i> sp. <i>Degeeriella austini</i> (Peters)
Purple Sandpiper, <i>Arquatella maritima</i>	<i>Philoaterus</i> sp. <i>Degeeriella actophila</i> (K. and C.) <i>Degeeriella complexiva</i> (K. and C.)
White-rumped Sandpiper, <i>Pisobia fuscicollis</i>	<i>Degeeriella complexiva</i> (K. and C.)
Least Sandpiper, <i>Pisobia minutilla</i>	<i>Actornithophilus</i> sp. <i>Degeeriella complexiva</i> (K. and C.)
Eastern Dowitcher, <i>Limnodromus g. griseus</i>	<i>Degeeriella</i> sp.
Semipalmated Sandpiper, <i>Ereunetes pusillus</i>	<i>Actornithophilus</i> sp. <i>Degeeriella actophila</i> (K. and C.) <i>Degeeriella complexiva</i> (K. and C.) <i>Philoaterus</i> sp. <i>Degeeriella</i> sp.
Red Phalarope, <i>Phalaropus fulicarius</i>	<i>Philoaterus gonothorax</i> (Giebel)
Glaucous Gull, <i>Larus hyperboreus</i>	<i>Philoaterus gonothorax</i> (Giebel)
Iceland Gull, <i>Larus leucopterus</i>	<i>Philoaterus gonothorax</i> (Giebel)
Great Black-backed Gull, <i>Larus marinus</i>	<i>Philoaterus gonothorax</i> (Giebel)
Herring Gull, <i>Larus argentatus smithsonianus</i>	<i>Philoaterus gonothorax</i> (Giebel)
Kumlien's Gull, <i>Larus kumlieni</i>	<i>Philoaterus gonothorax</i> (Giebel)
Atlantic Kittiwake, <i>Rissa t. tridactyla</i>	<i>Philoaterus gonothorax</i> (Giebel)
Arctic Tern, <i>Sterna paradisaea</i>	<i>Degeeriella</i> sp. <i>Degeeriella sellata</i> (Burm.) <i>Philoaterus</i> sp.

<i>Bird host</i>	<i>Species of Mallophaga</i>
Charadriiformes: (<i>Cont.</i>)	
Razor-billed Auk, <i>Alca torda</i>	<i>Degeeriella alcae</i> (Denny)
Black Guillemot, <i>Cepphus g. grylle</i>	<i>Phalopterus</i> sp.
Strigiformes:	
Snowy Owl, <i>Nyctea nyctea</i>	<i>Eustrigiphilus ceblebrachys</i> (Nitz)
Passeriformes:	
American Pipit, <i>Anthus spinoletta rubescens</i>	<i>Phalopterus subflavescens</i> (Geof.)
Slate-colored Junco, <i>Junco h. hyemalis</i>	<i>Degeeriella vulgata</i> (K.)
White-crowned Sparrow, <i>Zonotrichia l. leucophrys</i>	<i>Phalopterus subflavescens</i> (Geof.)
Snow Bunting, <i>Plectrophenax nivalis nivalis</i>	<i>Phalopterus subflavescens</i> (Geof.)
<i>Bowdoin College,</i>	
<i>Brunswick, Maine.</i>	