ON THE LOONS OF BAFFIN ISLAND

BY GEORGE M. SUTTON AND DAVID F. PARMELEE

THREE species of loons breed on Baffin Island—the Common (Gavia immer), the Black-throated (G. arctica), and the Red-throated (G. stellata). Taverner (1934: 115) says that immer "does not seem commonly to extend north of Hudson strait and the western main coast [of the continent]." The latter part of this statement is probably correct, but in the southern half of Baffin Island immer breeds regularly and in considerable numbers.

We noted all three of these loons repeatedly in the summer of 1953, immer about the head of Frobisher Bay and at Lake Amadjuak; arctica in Frobisher Bay, at Lake Amadjuak, and at Cape Dorchester; stellata in all these areas and also at a large lake about 50 miles east-northeast of Wordie Bay. Our findings fortify Taverner's (1934: 114) and Soper's (1928: 78) statements concerning the widespread distribution and catholic taste of stellata. We did not, however, find stellata nesting about the mouth of the Jordan River.

Soper (1946: 14) found that in southwestern Baffin Island the areas actually inhabited by *immer*, arctica, and stellata to some extent supplemented each other. He reported stellata as common and immer as absent along the coast between Cape Dorset and Cape Dorchester in summer; immer as common and stellata as rare (or missing altogether) "on all fresh waters" in the interior between Andrew Gordon Bay and Tessikjuak and Ungmaluktuk lakes in September; and immer as rare, stellata as scarce, and arctica as common, about Bowman Bay in spring and summer. He mentioned one area of breeding overlap in middle Baffin Island: Nettilling Lake, a vast body of water in which immer and arctica both were "tolerably common" in summer. He summarized thus: "These facts make it plainly evident that the different species of loons may, on occasion, have well-defined and locally separated breeding ranges."

We had hoped to find *immer*, *arctica*, and *stellata* all nesting in the vicinity of the Royal Canadian Air Force Base (Lat. 63° 45′ N., Long. 68° 33′ W.) at which we had our headquarters, for we wanted to see how nesting ponds, nest-sites, and relationships between nest site and food supply differed among the three species. The only species we actually found nesting close to the Base was *stellata*.

We saw no loon of any species in flightless condition as a result of molt. Flying loons we saw as late as August 11 (*stellata*) and August 15 (*immer* and *arctica*). As early as July 29 we captured a flightless molting Common Eider (*Somateria mollissima*); and on August 3

and 4 we saw many flightless molting Canada Geese (Branta canadensis) and Blue Geese (Chen caerulescens). We suspect that many loons, if not most of them, molt their remiges in the fall or winter well south of their breeding grounds (see Sutton, 1943: 146).

COMMON LOON (Gavia immer)

Kumlien (1879: 103) found this loon "common" and breeding in Cumberland Sound. Soper (1928: 76) found it common in August at Nettilling Lake and learned from the Eskimos that it occurred "sparingly" about Merchants Bay in summer. Shortt and Peters (1942: 338) were told by the Royal Canadian Mounted Police at Pangnirtung that birds whose skins were used in Eskimo mats thereabouts were taken locally. Wynne-Edwards (1952: 358) saw the species in Frobisher Bay, but not at Clyde Inlet. We find no Baffin Island records for districts north of Nettilling Lake and Merchants Bay.

So frequently did we see a Common Loon in salt water just off the mouth of the Sylvia Grinnell, or flying up that river, that we felt sure at least one pair nested not very far north or northeast of the Base. On one occasion a wild laughing cry called our attention to the flying bird. The latest date on which we saw *immer* in this area was August 1.

On June 28, Eskimos brought to Robert Van Norman, of the Royal Canadian Mounted Police, the fresh flat skin (minus bill, wings, and feet) of a Common Loon recently shot just offshore from their village near the Base.

On July 13, near the mouth of the Jordan River, we saw a Common Loon flying low in wide circles over an Eskimo canoe not far from us. In this same part of the bay, during stormy weather on July 20, we chased two Common Loons with our motorboat, hoping to obtain a specimen. We approached close enough to ascertain that they were both adult.

On August 15, at Lake Amadjuak, we heard two Common Loons calling loudly for a short time in the early afternoon. Presently we saw two adults high above us. After they had circled two or three times on rapidly beating wings, they set their wings and soared in a graceful curve downward. They seemed to touch each other briefly during this descent. When their wings started beating again, the birds were about a thousand feet above the lake.

On August 8, 1955, an Eskimo named Eenutsia shot a Common Loon (male) in full breeding feather at the head of Frobisher Bay. The specimen was nicely prepared by Corporal Van Norman and presented to us by him. It measures: wing (arc), 367 mm.; tail,

71; culmen, 80.5; depth of bill at base, 26.0; tarsus, 88; outer toe, 114. Average for six Baffin Island specimens (sex undetermined) measured by Shortt and Peters (1942: 339): wing, 356; culmen, 79.4; depth of bill, 24.6; tarsus, 87.4; outer toe, 110.

BLACK-THROATED LOON (Gavia arctica)

Taverner (1934: 115) regarded "southern Baffin" as the northern limit of nesting for this species in eastern arctic America. Kumlien (1879: 103) found it breeding but "not common" in Cumberland Sound. Neither Dalgety (1936) nor Wynne-Edwards (1952) reported it from Clyde Inlet, but Shortt and Peters (loc. cit.) saw a single bird at Pond Inlet in September, 1938, and Soper (1928: 77) "tentatively referred to this species" certain loons seen near Pond Inlet in August. Soper (loc. cit.) saw the species repeatedly about Nettilling Lake in summer and felt that the west shore was "by reason of its low nature . . . particularly attractive and well adapted for nesting purposes." Preference for large lakes in low country seems to be characteristic of arctica. Rankin (1947: 50) found it nesting in northern Scotland only in large lochs in which "sudden influx from the surrounding country can be neutralised by the outflow."

Much to our surprise we did not see arctica near the mouth of the Sylvia Grinnell, about Tarr Inlet, or anywhere in the immediate vicinity of the Base. On July 13, we saw an adult in the bay about eight miles west of the Base and collected a male (GMS 11756) in full breeding feather at the open end of a nearly ice-bound lake in high country not far west of the Jordan River. This bird refused to fly despite our following it about, but we failed to find its mate or nest. It was the only loon we saw at any time in the Jordan River district. Its eye was dark carmine, with a narrow gray ring about the pupil (see Rankin: 1947, plate 44). The stomach was a well-defined gizzard filled with fish remains and gravel. The testes each measured about 20 mm. long.

At Lake Amadjuak, on August 8, we saw much of arctica. Having ascertained that four birds well out in the lake were all adult arctica, not two adults and their progeny, we observed two more adults flying in. During their final descent these newcomers held their necks strongly downward and their bills strongly upward, so the hinges of their jaws were almost, if not quite, as low as their feet (see Fig. 1). Of the six birds now in the water, three seemed to be paler on the head than the others. To our surprise the flock swam slowly toward us. When about 60 yards away they suddenly became active and noisy



FIGURE 1. Black-throated Loons coming in for a landing.

and started diving. Never were all six birds under at the same time. Just before diving, each gave a puppy-like yelp, but the usual cry between dives was the well-known oo-loo-lee, or a rough karr or harr, given with a thrusting forward of the head. We did not see stellata or immer anywhere in the immediate vicinity, but along another stretch of shore we saw two stellata flying high and heard others calling in the distance.

Near Cape Dorchester, on August 11, arctica and stellata seemed to be about equally common, and neither showed preference, so far as we could see, for any special sort of habitat. In a lake near which we had heard the karr of arctica several times, we finally discovered a half-grown, still downy chick and one of its parents. With a yelp and noisy pattering of feet the old bird flew off. The chick dived and we could not find it again until, some time later, both its parents returned. One adult alighted near the spot at which we had last seen the chick, the other in a separate pond not far away. The old birds repeated their clear oo-loo-lee again and again, occasionally in duet, and the chick answered with precisely the same call, in a thin,

slightly quavering voice. Witherby (1948: 120) does not mention any such call note as this.

On August 15, in a grass-rimmed pond half a mile from the southeast shore of Lake Amadjuak, we came upon an adult *arctica* and a well-grown chick. In an arm of the lake proper we surprised a company of eight adults, all of which flew at our approach but circled low, as if reluctant to leave.

Our male specimen of *arctica* measures: wing, 301 mm.; tail, 55; bill from nostril, 42; tarsus, 77. The crown, occiput and hind neck are very pale, and the bird represents the "small" race *pacifica*, though the following measurements are given by Witherby (1948: 123) for eight male *G. a. arctica*: wing, 280–335; tail, 50–61; bill from nostril, 40–50; tarsus, 72–80.

RED-THROATED LOON (Gavia stellata)

This species probably breeds throughout the whole of Baffin Island, even in the mountainous parts. Kumlien (1879: 103) found it "very common" in Cumberland Sound. Hantzsch (in Soper, 1928: 78) found it "the most common of the large birds" along the south shore of Nettilling Lake in July. Dalgety (1936: 585) found it "numerous among the many lakes from Eglinton Fjord to Clyde Inlet" in August. Shortt and Peters (1942: 339) saw adults and young at both Pond Inlet and Clyde River in September. Soper (1946: 15) called *stellata* "by far the commonest diver in the coastal areas of southwestern Foxe Peninsula" and said that in southeastern Baffin Island, where the species favored "lowlands with swampy lake surroundings," it nevertheless bred in "the most rugged and mountainous districts." In this respect *stellata* seems to be more adaptable than *arctica*.

We saw *stellata* several times in the vicinity of the Base in the latter half of June and in early July but did not find evidence of nesting until July 17, when, on a lake in the middle of Hill Island, we saw a pair of adults and two well-grown young. We failed to find *stellata* at all in the pondless flat country about the mouth of the Jordan River, and the only loon we found in the high land west of the Jordan was *arctica*.

On July 30, as we were crossing the tidal flats near Davidson Point, we saw two adult Red-throated Loons swimming in water only a foot or so deep. Seaweed was abundant here and the loons may have been obtaining food without diving. We expected them to dive, swim a long way under water, and re-appear at great distance, but instead they flew up, leaving the water with surprising ease.

On July 31, we heard two Red-throated Loons calling *cocka-crah-oh*, *cocka-crah-oh* over and over just west of the mouth of the Sylvia Grinnell River.

On August 3, at a pond in the middle of a great stretch of wet grass tundra just east of Tarr Inlet, we found two adults, a half-grown downy chick, and a nest holding one egg. The old birds flew from the pond without a cry as we approached. The chick, which dived well, evaded us for some time, but we finally shot it by lying in wait well back from the shore. The nest was a muddy mass of turf on a little island along the south shore. Well out in the pond was a rock on which a pair of Herring Gulls (*Larus argentatus*) had nested. A young gull, well feathered out but apparently unable to fly, was in the water not far from the nest-rock. The loon chick seemed to seek the company of this young gull.

On August 8 we saw a family of Red-throated Loons (two adults and two young) in the middle of a large lake about 50 miles east-northeast of Wordie Bay. That same day we saw two adult Red-throated Loons flying high above Lake Amadjuak and heard others calling in the far distance.

On August 11, near Cape Dorchester, we collected an adult male and female *stellata* (GMS 11837, -8) at a small pond in grass tundra bordering a low rocky ridge. We saw the pair fly in and alight and were surprised at being able to approach them so closely. Nowhere in that region did we hear the cries of *stellata*, but we heard *arctica* almost constantly.

On August 15, in a small tundra pond near Lake Amadjuak, we came upon an adult Red-throated Loon and a half-grown chick. The birds neither dived nor tried to fly, but swam deep in the water close to the opposite shore. At one end of the pond, in shallow water on a muddy islet several feet out from the bank, we found the empty nest. Not far away was part of the membrane of an egg.

Our adult male and female *stellata* measure: wing, 296, 272 mm.; tail, 49, 48; bill from nostril, 39, 34; tarsus, 76, 72.

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