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SHORT COMMUNICATIONS

Bird sightings from a nuclear-powered ice breaker from across the Arctic Ocean to the geographic North Pole 90°N.—Ornithologists have long speculated on which species of birds range farthest north. A prime contender has been the Ivory Gull (*Pagophila eburnea*) which seems to vanish in winter and has the ability to scavenge along leads and polynyas during that period. A recent article by J. Christopher Haney (Birding, October 1993:331–337), is the latest compiled comprehensive and useful information on that species. However, the article contains an important erroneous assumption. Haney hypothesized that Ivory Gulls range farther north than any other bird species and wander over most of the Arctic wherever pack ice is found. We challenge this assumption with the following observations.

From a starting point at Murmansk, Russia, on 15 July 1993, the Russian nuclear ice breaker *Yamal* headed northward with the objective of landing upwards of ninety tourists on the Geographic North Pole 90°N. Most at-sea sightings of birds occurred between the 70th and 80th parallels where the waters of the Barents Sea were wide open, or covered thinly with loose pack ice. Birds were conspicuous in the vicinity of the Franz Josef Archipelago (80° to 82°N) where large numbers of several species of seabirds colonize. Nevertheless, numbers of species and individuals dropped dramatically when *Yamal* entered dense pack ice, punctuated only with narrow cracks or leads, with few open areas or polynyas. These conditions occurred from about 80°52′N, 40°41′E all the way to the North Pole, attained on 21 July. The return trip was much the same. Three days were consumed each way while the ship broke ice almost constantly between the 80th and 90th parallels. The cruise terminated at Murmansk on 29 July.

Various activities aboard ship precluded regular bird observations, including traditional 10-min checks each h. Fairly regular watches were conducted during 06:00–07:00 h, 13:00–14:00, 18:00–19:00, and at odd times in between. Passengers reported their sightings. Several far northern observations were noteworthy.

*Black-legged Kittiwake (*Rissa tridactyla*).*—Most northern and abundant species encountered. Immense numbers were noted near Franz Josef islands. The species has the propensity to follow and feed in the wake of moving ships, even in dense pack ice. Flocks of kittiwakes followed the *Yamal* between the 80th and 82nd parallel. The last flock, numbering 15 individuals, was noted at 82°41′N, 39°01′E. Thereafter only single individuals were recorded, all briefly: one adult at 83°05′N, 38°21′E on 18 July, and one adult at 84°44′N, 33°59′E on 19 July. None on 20 July. On 21 July: one adult at 89°54′N, 77°50′E; one individual at 89°58′N (D. Zeilinger, P. Frautchi); and one immature at 89°58′N, 18°41′E where *Yamal* was moored in ice adjacent to the Pole. The immature, observed by many cruise participants, circled the ship several times before disappearing. These far northern sightings were not the first. Norman Laska (pers. comm.) noted a kittiwake close to the North Pole during a similar cruise in 1992.

Kittiwakes were also recorded on our return trip. On 22 July, we saw one adult at 89°09′N, 51°52′E, and one individual at 88°30′N (K. Ivinicki); on 23 July, one individual at 83°51′N (J. Sharpe); on 24 July individuals were seen frequently south of 82°00′N, 39°47′E, and the first flocks at 80°57′N, 45°09′E. Large numbers were encountered at the Franz Josef islands during 25–27 July.

Whether kittiwakes follow ships from southern latitudes all the way to the Pole is a moot question. Our limited observations indicate otherwise. Too much time elapsed between sightings of single birds, which seemingly did not follow the ship. All appeared briefly and

quickly disappeared. On several occasions they were seen catching small minnows (sp. ?), gleened from cracks in the ice, or from the ship's upwellings.

*Thick-billed Murre (*Uria lomvia*).*—Second most northern and abundant species noted. On 17 July, flocks (5–20 birds) circled the ship, but did not follow its wake. Although the flocks disappeared over thick pack ice, a few solitary individuals were noted en route to the Pole: on 19 July, one at 84°44′N, 33°59′E (P. Conway), and one at 85°30′N, 32°46′E. South from the Pole, one was noted at 87°22′N, 43°07′E on 22 July; one at 84°44′N, 33°59′E (P. Conway), and one at 85°30′N, 32°46′E on 23 July, two at 81°56′N, 32°46′E on 24 July. Small flocks were seen thereafter, notably near the Franz Josef islands. Thousands occupied precipitous cliffs at Calm Bay in the southwestern part of the Archipelago.

*Black Guillemot (*Cepphus grylle*).*—Uncommon, but the third most northern species recorded: on 24 July, over thick pack ice, one at 82°00′N, 38°47′E, one at 81°56′N, 39°49′E, one at 81°52′N, 40°01′E, and one at 80°55′N, 45°27′E. Numbers increased within Franz Josef Archipelago, especially near Cape Norway, Jackson Island.

*Ivory Gull (*Pagophila eburnea*).*—Observed only on two occasions over dense pack ice outside of the Franz Josef Archipelago where small numbers were noted. One was in the presence of a polar bear (*Thalarctos maritimus*) at 80°51′N, 40°40′E on 17 July. Most northern sighting (three birds) was at 80°55′N, 45°27′E on 24 July.

Three species of jaegers (*Stercorarius*) appeared to be fairly common over open waters of the Barents Sea (especially on 16 July at 72°54′N, 34°00′E, and on 28 July at 74°32′N, 37°24′E), but not over dense pack ice except within the Franz Josef Archipelago. Glaucous Gulls (*Larus hyperboreus*) were noted only within the Franz Joseph Archipelago, and Arctic Terns (*Sterna paradisaea*) only along the north coast of Norway.

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Hatchability of American Pipit eggs in the Beartooth Mountains, Wyoming.—Hatchability often is reported as the proportion of eggs laid that hatch. While this may be the demographic value of ultimate interest as an index of recruitment, such broad usage makes it difficult or impossible to identify more specific proximate factors affecting hatching and the extent that these may vary. Some studies note the paucity of data for comprehensive analyses of ecological and social factors influencing hatchability in wild birds (Rothstein 1973, Koenig 1982). Predation and abandonment frequently are major causes of egg loss prior to hatching, but egg infertility and embryo death may also contribute to hatching failure. These latter two conditions are of special interest because they (1) reduce potential individual reproductive success, (2) represent a substantial loss in reproductive investment by the female, and (3) can be expected to respond to selection. In theory, compensatory egg-laying could evolve in species with a high incidence of infertile eggs (Lundberg 1985), but this remains unsubstantiated and little explored. Because hatchability could be important