

**Inventory of Breeding Birds at Point Hope and Point Lay.** *Brad A. Andres and D. L. Brann, Nongame Migratory Bird Management, U.S. Fish and Wildlife Service, 1011 East Tudor Road, Anchorage, Alaska 99503. March 2000.*

To augment information collected on Local Training Areas of the Alaska Army National Guard in western Alaska, we conducted surveys to determine the distribution and abundance of breeding birds around Point Hope and Point Lay. We appreciate the support of the Tigara Corporation, Larry Higbee, and Robert Suydam. Sarah Hamilton and Jay Carlisle conducted the fieldwork.

At each site, we attempted to survey all major upland and wetland habitats. Surveyed areas (plots) were delineated on 1:63,360 topographic maps and assigned unique numbers; we assumed that observers searched the entire area within the delineated region. Observers recorded the date and the amount of time they spent surveying each plot at each site. Effort was recorded as the number of person-hours spent in each plot (the sum of the number of hours each observer surveyed), rounded to 1 decimal place. If the 2 observers surveyed a plot together, the effort was determined as 1.5 times the hours surveyed together. In 1998, we spent 2 days (1-2 July) and 26 person-hours at Point Lay and 4 days (4-7 July) and 50 person-hours at Point Hope.

We used the behavior of birds to determine the breeding evidence (status) for all species encountered on a plot (Table 1). Specific status codes were included in raw plot data, but 4 broad status classes (observed, possible, probable [likely], or confirmed [Table 1]) were used for summaries. We strove to confirm breeding of as many species as possible at each site. We used the highest level of breeding status obtained on any surveyed plot to characterize the breeding status of a species at each site.

To provide information on relative abundance that extended beyond mere occurrence, we determined the categorical abundance of each species, based on encounters per hour, during each plot survey (Table 2). We used the categorical abundances recorded on each plot to calculate a mean abundance for every species recorded at each site. We delineated categories for mean bird abundance (Table 3) so that the distribution of mean abundance ranks generally followed a truncated lognormal distribution.

Seventy species were recorded for the 2 sites (Table 4); 59 species were recorded at Point Hope and 47 at Point Lay. The percentage of confirmed or probable breeders was 58% at Point Hope and 66% at Point Lay. Many species at Point Hope were observed in the ocean and lagoons, and surveys at Point Lay included a greater proportion of upland tundra. Several rare shorebirds were found at Point Hope (Eurasian Dotterel, Red-necked Stint, Temminck's Stint). Total and breeding (confirmed/probable) species richness at Point Lay and Point Hope were similar to other sites in northwestern Alaska (Andres, B. A., D. L. Brann, and B. T. Browne. 1999. Inventory of Breeding Birds on Local Training Areas of the Alaska Army National Guard. Unpublished report, U. S. Fish and Wildlife Service, 1011 East Tudor Road, Anchorage, Alaska. 104 pp.)

Table 1. Descriptions and codes of the breeding status of birds recorded on surveys at Point Hope and Point Lay, Alaska, 1998.

<b>Status</b>	<b>Code</b>	<b>Description</b>
<b>Observed</b>	<b>O</b>	Male or female observed, but did not show evidence of breeding, was not in suitable nesting habitat or was an obvious migrant.
<b>Possible</b>	<b>P</b>	Species (male or female) heard or seen in suitable nesting habitat but no further evidence of breeding was noted; included soaring birds (raptors) over suitable habitat.
<b>Probable</b>	<b>L</b>	Any of the following behaviors:
	PO	Pair observation - Male and female simultaneously observed in suitable habitat.
	PT	Permanent territory - Permanent territory presumed by observation of multiple, well-spaced, singing males (indicated territory holders). Also, if chases of individuals of the same species were seen.
	PC	Courtship behavior - Male-female behavior observed that was indicative of breeding or observed copulation; included aerial displays of pipits, longspurs, and shorebirds.
	PA	Agitated behavior - Adults seen exhibiting anxiety behavior, including distress calls.
<b>Confirmed</b>	<b>C</b>	Any of the following behaviors:
	CN	Carrying nesting material - Adult observed transporting nest building items such as sticks.
	CB	Nest building - Adults seen constructing nest at singular nest site.
	CO	Occupied nest - Adults observed repeatedly entering or leaving a nest site with food items or long bouts of nest occupation (contents of treetop or cavity nests that could not be directly observed).
	CD	Distraction display - Adults observed feigning injury (used by ground-nesting species to deter predators from detecting nest or young).
	CE	Nest with eggs - Nest found that contained eggs.
	CY	Nest with young - Live young seen or heard; dead, identifiable hatchlings found in a nest.
	CG	Precocial young - Flightless young observed in the immediate nest area and were dependent on adults or had limited development.
	CF	Carrying food - Adults seen delivering food to young.
	CR	Recently fledged young - Young birds (either precocial or altricial) observed that were incapable of sustained flight and were restricted to the natal area by dependence on adults or by limited mobility.
	CI	Feeding recently fledged young - Adult observed feeding recently fledged young (those incapable of sustained flight) away from nest site.

Table 2. Abundance ranks, and their descriptions, for breeding birds found at Point Hope and Point Lay, Alaska, 1998.

<b>Abundance rank</b>	<b>Description (per plot-day)</b>
1	1 individual per day
2	2-4 individuals per day, <1 individual per hour
3	5-9 individuals per day, 1 individual per hour
4	10-49 individuals per day, 2-5 individuals per hour
5	≥50 individuals per day, ≥6 individuals per hour

<sup>1</sup> day = 8 person-hours.

Table 3. Range of abundance ranks, averaged across plots within a site, and descriptive abundance category used for summaries of breeding birds found at Point Hope and Point Lay, Alaska, 1998.

<b>Descriptive abundance category</b>	<b>Range of averaged ranks</b>
rare (R)	0.00 - 0.50
uncommon (U)	0.51 - 1.50
fairly common (F)	1.51 - 2.75
common (C)	2.76 - 3.75
abundant (A)	3.76 - 5.00

Table 4. Abundance and breeding status of birds at Point Hope and Point Lay, Alaska - 1998.

Species	Pt. Hope		Pt. Lay	
	abundance	status	abundance	status
Red-throated Loon	fairly common	confirmed	fairly common	confirmed
Arctic Loon	rare	probable		
Pacific Loon	fairly common	probable	common	probable
Yellow-billed Loon	un common	probable	uncommon	possible
Horned Grebe			rare	possible
Red-necked Grebe	rare	possible		
Pelagic Cormorant	uncommon	possible		
Tundra Swan			uncommon	probable
Greater White-fronted Goose			fairly common	confirmed
Brant	fairly common	possible	abundant	possible
Green-winged Teal	uncommon	probable	fairly common	probable
Mallard			uncommon	possible
Northern Pintail	common	probable	fairly common	probable
Northern Shoveler	rare	possible		
Greater Scaup	common	probable	uncommon	probable
Lesser Scaup	rare	possible		
Common Eider	fairly common	possible	uncommon	possible
King Eider	common	probable		
Spectacled Eider	uncommon	possible		
Oldsquaw	common	probable	common	confirmed
Black Scoter	uncommon	probable	uncommon	possible
Surf Scoter	fairly common	possible		
White-winged Scoter	rare	possible		
Red-breasted Merganser	uncommon	probable	uncommon	possible
Northern Harrier			rare	possible
Rough-legged Hawk			rare	probable
Willow Ptarmigan			rare	possible
Sandhill Crane	fairly common	probable		
Black-bellied Plover			rare	confirmed
American Golden-Plover	fairly common	possible	fairly common	confirmed
Pacific Golden-Plover	rare	possible		
Semipalmated Plover	rare	probable	uncommon	confirmed
Eurasian Dotterel	rare	possible		
Whimbrel	uncommon	possible	uncommon	possible
Bar-tailed Godwit	uncommon	possible	rare	possible
Ruddy Turnstone	uncommon	possible		
Red Knot	uncommon	possible		
Semipalmated Sandpiper	fairly common	confirmed	abundant	confirmed
Western Sandpiper	common	confirmed	common	confirmed

Species	Pt. Hope		Pt. Lay	
	abundance	status	abundance	status
Red-necked Stint	rare	probable		
Temminck's Stint	rare	observed		
Baird's Sandpiper	uncommon	confirmed	uncommon	probable
Pectoral Sandpiper	fairly common	probable	abundant	confirmed
Dunlin	common	probable	uncommon	confirmed
Long-billed Dowitcher	uncommon	probable	common	confirmed
Common Snipe			uncommon	possible
Red-necked Phalarope	fairly common	probable	fairly common	probable
Red Phalarope	uncommon	probable	fairly common	probable
Pomarine Jaeger	common	possible	fairly common	possible
Parasitic Jaeger	uncommon	probable	common	probable
Long-tailed Jaeger	fairly common	probable	uncommon	probable
Herring Gull	uncommon	possible		
Glaucous Gull	abundant	confirmed	common	confirmed
Black-legged Kittiwake	fairly common	possible	uncommon	observed
Arctic Tern			common	confirmed
Common Murre	common	possible	uncommon	observed
Thick-billed Murre	common	possible		
Kittlitz's Murrelet	rare	probable		
Least Auklet	rare	observed		
Tufted Puffin	uncommon	possible		
Horned Puffin	fairly common	possible		
Snowy Owl			rare	possible
Horned Lark	uncommon	confirmed		
Common Raven	fairly common	probable	uncommon	confirmed
Yellow Wagtail	rare	probable	common	confirmed
Savannah Sparrow	common	confirmed	abundant	confirmed
White-crowned Sparrow	rare	confirmed	fairly common	probable
Lapland Longspur	abundant	confirmed	abundant	confirmed
Snow Bunting	fairly common	confirmed	uncommon	probable
Redpoll sp.	fairly common	probable	common	probable