

THE BIRDS OF ADAK ISLAND, ALASKA

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Adak Island lies between 51°35' and 52°01' N. and 176°25' and 176°59' W, in the Andreanof Group, Aleutian Islands. Although Taber (1946) provides an annotated list of birds he observed at Adak in winter, year-round observations have not been previously published.

Since Adak lies near the middle of the axis formed by the Alaska Peninsula and the Aleutian and Commander islands (fig. 1), which links North America and Asia, its avifauna is composed of species with varied geographic origins. Closely paralleling the findings of Emison et al. (1971), who discuss the geographic origins of 100 species of birds known from Amchitka Island, 65% (81 species) of the birds recorded at Adak have contemporary breeding distributions in both North America and Asia (vs. 68% at Amchitka); 19% (24 spp.) have affinities only to Asia (vs. 15%); 12% (15 spp.) have affinities only to North America (vs. 13%); and 3% (4 spp.) breed only on mid- and south Pacific islands (vs. 4%).

Of the 124 species included in the following annotated list, two, *Anas poecilorhyncha zonorhyncha* and *Cuculus canorus canorus*, are new to North America. Seventeen additional forms are represented by few North American records, and well over half of the species listed have not been previously recorded on Adak.

STUDY AREA AND METHODS

Adak's climate is characterized by cool, foggy summers and windy, extremely variable weather in winter (Gerst 1971). The island is volcanic in origin, and its highest peak, Mt. Moffett, rises to 1170 m (3900 ft). Its rugged coastline is irregularly cut by bays, and the beaches are boulder-strewn. Clam Lagoon, one of few lagoons in the Aleutian Islands, furnishes particularly attractive habitat for many species of birds. It is shallow near its access to the sea and has mud flats bared at low tide. Hundreds of fresh-water lakes dot the topography, and Lake Andrew, about 2000 surface acres, is the largest.

The subarctic flora of Adak is dominated by wild rye (*Elymus arenarius*) and beach fleabane (*Senecio pseudo-Arnica*) along the beaches and by a heath association of crowberry (*Empetrum nigrum*), several

species of clubmoss (*Lycopodium* spp.), lichen (*Cladonia* spp.), and many species of sedges, grasses, and bryophytes in the upland areas. Each association is interspersed by meadows containing predominantly anemone (*Anemone narcissiflora*), western buttercup (*Ranunculus occidentalis*), lupine (*Lupinus nootkatensis*), cow parsnip (*Heracleum lanatum*), wild celery (*Angelica lucida*), and fireweed (*Epilobium angustifolium*).

Our data were collected between 1 December 1968 and 1 April 1973. Byrd was present from December 1968 through October 1971 and intermittently from then through March 1973; Gibson was on Adak June–August 1971, June–August 1972, and in February 1973; and Johnson was on the island from June 1969 to June 1971. Rudd Thabes and Roger Atchison made bird observations for several years prior to Byrd's arrival, and they recorded two species, here included, that we did not.

Observations were made mostly along the road system on the northern portion of the island, but in summer of 1971 Byrd and Gibson spent 15 days at the Bay of Islands. The southern portion of the island is difficult to reach, and it was seldom visited. Trips were made around the island aboard the Navy fleet tug and the M/V *Aleutian Tern*, and several helicopter surveys were conducted over the island.

Geographic names of localities (fig. 2) were taken from the U.S. Geological Survey map, Adak, Alaska (1:250,000, 1951) and U.S. Navy public works drawing #2385. We provided two place names, Smew Pond and Crater Lake; they have been included to add clarity to the descriptive material.

Nomenclature of birds generally follows the AOU Check-list (1957) and Thirty-second Supplement (1973). Palearctic species not listed therein follow Vaurie (1965). Unpublished photographs cited in the text have been deposited in the University of Alaska Archives, Fairbanks.

Specimens collected by the authors have been deposited in the San Bernardino County Museum (SBCM), Rialto, California; University of Alaska Museum (UA), Fairbanks; or the Aleutian Islands National Wildlife Refuge collection (AIR), Cold Bay.

ANNOTATED LIST

Gavia immer. Common Loon. A few Common Loons were recorded in all seasons. An adult with young on 22 August 1970 at Lake Bonnie Rose confirmed breeding.

Gavia adamsii. Yellow-billed Loon. An individual was photographed at Clam Lagoon, 13–15 February 1971. Kitchen midden remains on Little Kiska Island (Friedmann 1937) and single birds, observed in Umnak Pass, 28 October 1947 (K. W. Kenyon, pers. comm.) and 27 May 1972 by Byrd and Gibson, are

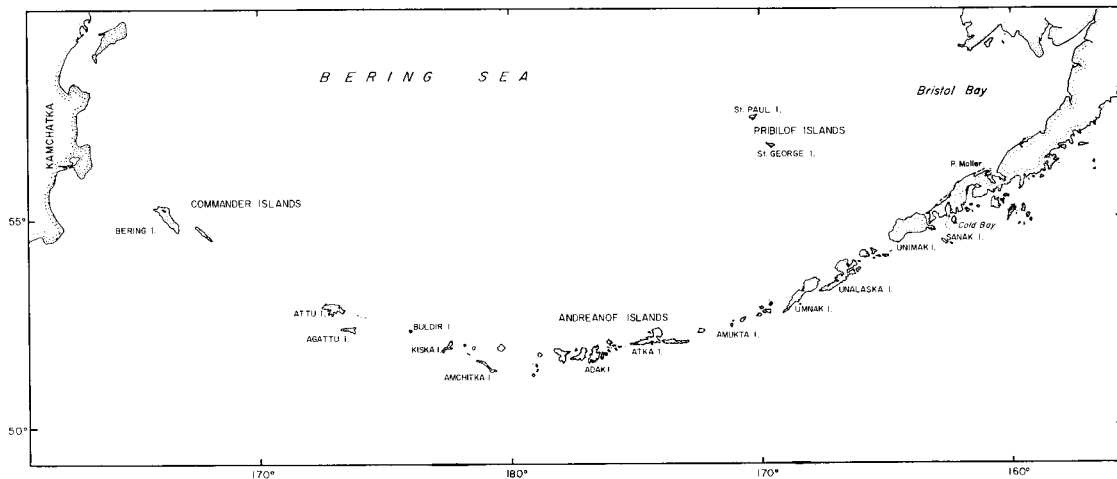


FIGURE 1. Map of Alaska Peninsula-Aleutian Islands-Commander Islands axis, southern Bering Sea.

the only other Aleutian records west of Unalaska Island. The species is occasional in the Commander Islands in winter and spring (Johansen 1961).

Gavia arctica. Arctic Loon. Arctic Loons wintered, September–May. Maximum count was 12–15 birds in Sweeper Cove, 21 March 1971. The species is not common west of the Alaska Peninsula (Murie 1959).

Gavia stellata. Red-throated Loon. Red-throated Loons were resident in small numbers, but no nests or young were discovered.

Podiceps grisegena. Red-necked Grebe. This species wintered from September to May. The only summer observation was of two grebes off the Clam Lagoon seawall, 8 July 1971, by George E. Hall (Institute of Marine Sciences, Fairbanks) and G. V. Byrd.

Podiceps auritus. Horned Grebe. This grebe was present at Adak from mid-October through May. Maximum count was 29 on Kuluk Bay, 10 February 1973.

Diomedea immutabilis. Laysan Albatross. Edgar P. Bailey (USFWS) and D. L. Johnson saw a single Laysan Albatross about 6 km S of Cape Yakak from the U.S. Navy tug on 9 May 1970. The species is a regular summer visitor off the central and western Aleutians (Kenyon 1950, 1961; Murie 1959).

Fulmarus glacialis. Northern Fulmar. Fulmars were regular summer residents offshore. The nearest known breeding colonies are at Amukta and Gareloi islands (Murie 1959).

Puffinus griseus. Sooty Shearwater, and *Puffinus tenuirostris*. Short-tailed Shearwater. On 9 May and 2 September 1970 and on 19 April and 28 May 1971 thousands of shearwaters were observed from a ship near Adak, and the vast majority were *P. tenuirostris*, identified by their dark underwings. On each occasion about 10 shearwaters with light underwings were identified as *P. griseus*.

Pterodroma cookii. Cook's Petrel. An August specimen, year unknown, reported by Anthony (1934) is the only Adak record.

Oceanodroma furcata. Fork-tailed Storm Petrel. Storm-blown birds were occasionally found in the vicinity of Adak Naval Station. A female (SBCM 4640), ova to 2 mm, found on 22 June 1970, was identified as *O. f. furcata*.

Oceanodroma leucorhoa. Leach's Storm Petrel. On 2 September 1970 a single Leach's Storm-Petrel was

seen from a ship in Kuluk Bay. A male (SBCM 4685) and a female (SBCM 4768) collected 3 October and 6 November 1970, respectively, were *O. l. leucorhoa*.

Phalacrocorax pelagicus. Pelagic Cormorant. This species was an uncommon resident breeding in mixed colonies with Red-faced Cormorants (*P. urile*).

Phalacrocorax urile. Red-faced Cormorant. Although outnumbering Pelagic Cormorants during the breeding season, this cormorant was not identified regularly in winter. Approximately 100 pairs nested on the western face of North Island in the Bay of Islands, and another 40–50 pairs nested on Head Rock, where Byrd, Gibson, and Palmer C. Sekora (USFWS) found nest contents in all stages from unhatched eggs to large young on 31 July 1971.

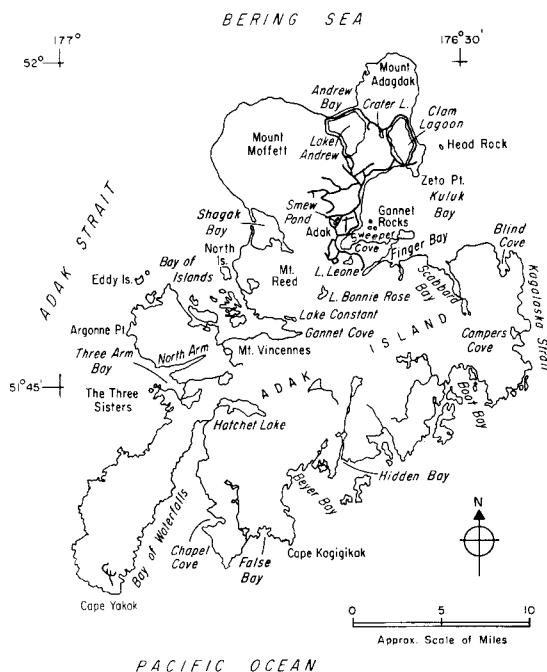


FIGURE 2. Map of Adak Island.

Olor cygnus. Whooper Swan. Small flocks of 5–15 Whooper Swans wintered at Adak, arriving as early as 9 November (1970) and remaining no later than 7 April (1970). Most were found in the Bay of Islands or Bay of Waterfalls, but on 16 February 1970 an adult and an immature were seen in Sweeper Cove. On 18 February the immature, a female (SBCM 4476) with no fat, was found dying.

This palearctic swan has been observed in winter at Amchitka Island (Kenyon 1961, 1963; Williamson et al. 1971) and at Atka Island (Kenyon 1963), and swans seen at Attu Island during the winter of 1880–81 (Turner 1885) were probably *O. cygnus*. It is rare in the Pribilof Islands (Wilke 1944). Whooper Swans are regular migrants in the Commander Islands (Johansen 1961); they winter there from early October to mid-April (Bianki 1909), and they breed sporadically on Kamchatka (Vaurie 1965).

Branta canadensis. Canada Goose. A flock of 29 *B. c. leucopareia* was photographed by Rudd Thabes and Roger Atchison at Lake Andrew seawall on 19 May 1968. This race, which breeds only on Buldir Island, is on the USFWS endangered list.

Branta nigricans. Black Brant. On 8 and 9 March 1970 a single brant was observed on Clam Lagoon with three Emperor Geese (*Phalacrocorax auritus*). On 30 September 1972 an immature bird was found near Clam Lagoon, where it remained through March 1973. Black Brant are abundant in fall and spring in Izembek Lagoon, on the tip of the Alaska Peninsula. They are common at Unimak Island, but they are rare in the central and western Aleutians.

Phalacrocorax auritus. Emperor Goose. Emperor Geese arrived in late September and early October, reached peak numbers in February, and they were usually gone by mid-May. One on 13 June 1970 and a pair on 7 June 1972 were our only exceptions.

This is a common wintering species throughout the Aleutian-Commander axis, occurring regularly from Sanak and the eastern and central Aleutians (Murie 1959) to Attu (Turner 1885; Sutton and Wilson 1946; Wilson 1948) and the Commander Islands (Johansen 1961).

Anser fabalis. Bean Goose. The only record is of one bird observed at Sweeper Cove, 28 May 1972, by Joseph W. Taylor, Honeoye Falls, New York (pers. comm.). His description is of a "... large goose, almost as big as a Canada. . . . Its head was dark brown with no other markings, and its back was grayish brown, lightly barred with white or buffy. Its bill had considerable orange—bright orange—on it. . . . When it flew off there was the familiar goose band of white across the lower base of its tail."

One Bean Goose was collected on Amchitka on 23 May 1971 (John W. Aldrich, USFWS, pers. comm.), and there are two records from the Pribilof Islands (Gabrielson and Lincoln 1959; Sladen 1966). *A. f. serrirostris* is a regular spring migrant in the Commander Islands (Johansen 1961).

Anas platyrhynchos. Mallard. Common residents, Mallards wintered at Adak in flocks of up to 150 birds.

Anas poecilorhynchos. Spotbill Duck. On 10 April 1970 a single bird, later identified as a Spotbill Duck, was observed on Clam Lagoon with several Mallards. The Mallard-like duck had blackish plumage, darkest on the abdomen, a buffy head with a black transocular line from the base of the maxilla to ear coverts and a black suborbital line from gape to ear coverts, a blue speculum with a trace of white on its leading and trailing edges, orange legs, and a dark bill tipped with yellow. Since the species lacks pronounced

sexual dimorphism, the sex of the Adak bird is unknown. Utilizing Delacour (1956), we determined the subspecies to be *A. p. zonorhynchos*.

The Spotbill Duck remained at Adak for a year; it was observed regularly through 18 April 1971. It was photographed several times (see Gibson 1971), and one slide was deposited in the National Photoduplicate File, Migratory Bird Populations Station, Laurel, Maryland. From this slide Chandler S. Robbins (USFWS, pers. comm.), and Glen Smart (USFWS) have confirmed the identification. On 7 March 1971 the bird was observed with a group of courting Mallards. It seemed reluctant to participate in displays but remained near the group. It displayed for perhaps 1 min, but not as vigorously as the Mallards. This bird was more wary than the Mallards, and we were unable to collect it. *A. p. zonorhynchos* normally ranges as far north as southern Sakhalin Island and the Kurile Islands (Dement'ev et al. 1952). The Adak bird is the first record for North America.

Anas strepera. Gadwall. This duck was a rare spring and fall migrant and winter visitor. No more than three were seen at once. According to Taber (1946), Gadwalls were present during the winter of 1945–46 at Adak. Murie (1959) regarded Gadwalls as stragglers in the Aleutians, and the species is a "rare accidental visitor" in the Commander Islands (Johansen 1961).

Anas acuta. Pintail. A few Pintails bred and up to 50 birds were seen together in winter.

Anas falcata. Falcated Teal. The second North American specimen of Falcated Teal was one checked in a hunter's bag at Adak on 15 October 1970, an immature male (SBCM 4697) with moderate fat. On 7 November 1970 a male and five females were noted on a small fresh-water pond with Mallards and Pintails. On 29 November 1970 a single female was observed on Smew Pond, and on 9 February 1971 two females were present. From 5 to 9 June 1972 two high-plumaged males and a female were present on Clam Lagoon. On 9 June one male (UA 3249), light fat and left testis 17×5.5 mm, was collected by Gibson and Byrd. The remaining male and female were observed near Lake Andrew, 13–16 June 1972.

Only a few other Alaska records of this Asiatic duck exist: a male was collected on St. George Island, Pribilofs, 18 April 1917 (Hanna 1920); a pair was observed on Attu, 23–24 May 1945 (Wilson 1948); and a male was seen on St. Paul Island, Pribilofs, 3 June 1962 (Sladen 1966). Johansen (1961) regarded *A. falcata* as a rare spring straggler to the Commanders. It apparently occurs rarely along the Aleutian-Commander axis in fall and winter as well.

Anas crecca nimia. Eurasian Green-winged Teal. These teal were the most common dabblers. They congregated on the mud flats of Clam Lagoon in spring and fall in flocks of up to 200 birds; they dispersed to small ponds during the hunting season (October–January). As the ponds froze, birds moved to protected salt-water bays and sloughs. Breeding pairs occupied stream banks and fresh-water ponds, and broods were seen as early as mid-June.

A. c. carolinensis is the race of the Alaska Peninsula and the mainland, being replaced, generally, by *A. c. nimia* in the Aleutian Islands (Murie 1959). At Adak, *A. c. carolinensis* occurred as vagrants throughout the study period. No more than two males were seen at once.

Anas querquedula. Garganey. On 29 May 1970 Johnson and Byrd watched a full-plumaged male

Garganey in Kuluk Bay for 2 hr. A flock of approximately 100 Common Eiders (*Somateria mollissima*) and White-winged Scoters (*Melanitta deglandi*) was nearby. This bird seemed restless and never moved into the shallow water of Clam Lagoon to feed with the other dabblers. On 20 May 1971 another full-plumaged male was observed at close range in Clam Lagoon with two male Green-winged Teal. Shortly after the birds were first seen, they were harassed by an adult Bald Eagle (*Haliaeetus leucocephalus*) that they eluded; the three teal were last seen flying out over Zeto Point.

To the best of our knowledge, no specimen of the Garganey has been collected in North America, although there are four other spring and summer records: North Carolina (Chamberlain 1957); Alberta (Sugden 1963); Amchitka Island (Williamson 1968); and Manitoba (Houston 1971). The Garganey breeds across the Palearctic to Kamchatka (Delacour 1956), and it is a rare straggler to the Commander Islands (Johansen 1961).

Anas discors. Blue-winged Teal. Thabes and Atchison checked an adult female (AIR 101) in a hunter's bag on 19 October 1968. It had been banded in Louisiana in August 1966. This specimen is the first from the Aleutian Islands. Turner (1886) reported a female he observed at Atka on 7 July 1879, the only prior record for the Aleutians.

Anas clypeata. Northern Shoveler. Shovelers were observed regularly in small numbers in spring and fall and less regularly in winter.

Anas penelope. European Wigeon. A winter resident, this species was present as early as 30 September (1972) and as late as 29 June (1972). Maximum count was 24 birds present throughout October 1970. Specimens were taken on 5 October 1969, an immature male (SBCM 4483) with light fat, and on 14 October 1970, an immature female (SBCM 4684) with moderate fat. A pair was collected on 18 May 1971: the adult male (SBCM 4875) had heavy fat and testis 22×10 mm, the female (SBCM 4876) had heavy fat and ova to 2 mm. Although we suspected breeding, no evidence was found. Johansen (1961) described *A. penelope* as a regular spring migrant in the Commander Islands. There is apparently no evidence that it breeds or has bred there either.

Anas americana. American Wigeon. On 11 November 1970 a pair was seen with a flock of European Wigeon on Smew Pond. These birds, with a second male, were seen there through 18 April 1971, and three birds were observed occasionally through 3 June 1971. One male was seen on Smew Pond, 23–30 March 1973. Murie (1959) described this species as rare in the Aleutians; he did not see it. Williamson and Emison (1969) reported a pair at Amchitka in May 1969, and Friedmann (1937) reported bones in middens on Little Kiska. Stejneger (1885) listed a single Commander Islands specimen, collected in May 1883.

Aythya ferina. Common Pochard. On 20 May 1971 a pair was observed on Clam Lagoon feeding with a flock of Greater Scaup (*A. marila*). Only the male pochard was observed from 21 May until 8 June, when the female reappeared, and both birds remained through 17 June 1971. Photographs were obtained (see Gibson and MacDonald 1971:894). One adult male was observed with scaup on Clam Lagoon and on Crater Lake, 10–13 June 1972.

There are four other records of this Eurasian bird in North America. Two are specimens from the

Pribilofs (Evermann 1913; Gabrielson and Lincoln 1959). At least seven birds were seen at Amchitka, 7 May–12 June 1969, and an adult male was collected (Williamson and Emison 1969). A single female was seen on Amchitka, 29 June 1972, by Gibson and Byrd. We believe that Murie's (1959) sight record of Redhead (*A. americana*) at Amukta, a quick look at two birds in flight on 16 June 1936, was more likely of *A. ferina*. Inasmuch as Murie himself raises the possibility that the birds he saw might have been pochards, the record should not be regarded as a *bona fide* one of *A. americana* in the Aleutian Islands (AOU 1957:81). The Common Pochard is a "rare accidental visitor" to the Commander Islands (Johansen 1961), but it has been found on Kamchatka during the breeding season (Vaurie 1965).

Aythya valisineria. Canvasback. A flock of up to 16 birds was observed each winter, 1968–73, in Sweeper Cove and on Smew Pond, and photographs were obtained. Birds were seen as early as 6 November and as late as 21 May. Thabes and Atchison recorded seven birds in February and March 1968 at Adak. Except for Friedmann's (1937) record of humeri collected at Dutch Harbor, there are no records of the species elsewhere in the Aleutians.

The species is rare on the Alaska Peninsula during migration (Gibson 1970), and one male at Barlett Cove, Glacier Bay Nat'l Monument, from early December 1970 through 18 January 1971 (Bruce B. Paige, U.S. Nat'l Park Service, pers. comm.) is the only other Alaska winter record of which we are aware.

Aythya marila. Greater Scaup. Up to 500 birds were observed in winter. They arrived in late September and early October and remained in numbers through April. A few observed in summer provided no definite breeding evidence. The species was found breeding on Amchitka by Robert D. Jones in 1960 (Kenyon 1961) and by Williamson and Emison (1969) in 1967 and 1968.

Aythya fuligula. Tufted Duck. Tufted Ducks were recorded in every month of the year on several freshwater ponds and on Clam Lagoon and Sweeper Cove; up to six birds were seen at a time. Pairs were seen in spring and females disappeared, but no nests were found nor were defensive adults ever encountered. An adult male (SBCM 4492), heavy fat and testes 9×3.5 mm, was collected on 8 March 1970; another adult male (uncatalogued live mount, ADF&G, Anchorage) was collected on 29 April 1970 by Alaska Dept. of Fish and Game personnel; and a subadult male (UA 3342), moderate fat and left testis 9×3.5 mm, was collected on 9 February 1973.

This widely distributed Old World species has been recorded previously from the Aleutian Islands by Wilson (1948), who saw two pairs on Attu in May 1945, and by Williamson and Emison (1969), who reported a maximum of 21 birds on Amchitka in late May and June 1968. Gibson saw two males on Amchitka in July 1971, and Byrd and Gibson saw up to eight birds there, June–August 1972. The species has been recorded in the Pribilof Islands on at least several occasions (Evermann 1913; Sladen 1966). Johansen (1961) reported that the Tufted Duck is a rare summer resident on the Commander Islands and that it undoubtedly breeds there, though he could not confirm breeding.

Bucephala clangula. Common Goldeneye. These abundant winter residents arrived in late September and early October, and most were gone by the end of May.

Bucephala islandica. Barrow's Goldeneye. On 23 May 1970 a pair was observed by Johnson and Byrd on Clam Lagoon. The birds were isolated from the other ducks on the lagoon and remained apart on 24 and 25 May. A subadult male was present with Common Goldeneyes on Clam Lagoon, 4 June 1972. The only previous records of this species for the Aleutian Islands are Beals's observations at Unalaska in winter 1942 and fall 1943 (Gabrielson and Lincoln 1959). *B. islandica* is a vagrant in the Pribilofs (Sladen 1966), and it is rare west of tree limit at the base of the Alaska Peninsula (Narver 1970); it is unknown in the Commander Islands (Johansen 1961).

Bucephala albeola. Bufflehead. From 50 to 75 Buffleheads spent each winter on Clam Lagoon, and scattered individuals were observed on fresh-water ponds and in protected bays. They arrived in mid-October and remained through May.

Clangula hyemalis. Oldsquaw. Oldsquaw was the most abundant diving duck wintering at Adak. Flocks of up to 200 birds were seen in almost every bay, and up to 400 were present on Clam Lagoon from early November through April. A few birds remained in summer, but there was no evidence of breeding.

Histrionicus histrionicus. Harlequin Duck. This species occurred in every protected bay in winter, but it remained only in the more secluded areas and about offshore islets in summer. We found no breeding evidence. Murie (1959) regarded the breeding status in the Aleutians as uncertain. Kenyon (1961) found no evidence of breeding at Amchitka, although birds were present in summer. Morse (1945) reported four broods of 6–12 young near Finger Bay, Adak, 13 August 1944. Since he gave no description, he may have seen eclipse adults.

Polysticta stelleri. Steller's Eider. A female was observed 27 May–23 June 1970 on Clam Lagoon, and a single male was noted 17–25 October 1970. Two males remained with a flock of Common Eiders (*Somateria mollissima*), 6 February–21 March 1971. Taber (1946) saw a single male in December 1945 and January 1946. This species is abundant in fall at the western end of the Alaska Peninsula and common in winter on the Pacific side of the peninsula. It is also a common winter resident in the Commander Islands, where Johansen (1961) reported large flocks on the sea.

Somateria mollissima. Common Eider. This eider was a common resident at Adak, breeding in wild rye fringes near salt water. A nesting colony on the small island in Clam Lagoon had 12 nests on 17 June 1971. On 28 June four of the nests had one additional egg, one nest had been destroyed, another nest was partially hatched, and there were 27 new nests in the colony. Clutches on 28 June averaged 4.9 (range 1–11). In winter Common Eiders frequented Clam Lagoon in rafts of up to 200 birds.

Somateria spectabilis. King Eider. King Eiders were seen occasionally in winter. Up to 12 females and immature males were observed in April and May 1970, and an adult male was observed on 7 November 1970. Possibly the same adult male was seen periodically in Clam Lagoon from 16 January 1971 until it was collected on 26 April 1971 (SBCM 4890, testis 12 × 6 mm). This eider is common in winter in the eastern Aleutians (Dall 1873; Cahn 1947; Gabrielson and Lincoln 1959), and Johansen (1961) reported that it occurs as a winter visitor to the Commander Islands.

Melanitta deglandi. White-winged Scoter. Common wintering birds, these scoters arrived in November, and most had left by mid-June. A flock of about 500 birds remained on Clam Lagoon in winter, and 10–20 birds, probably nonbreeders, were there in summer.

Melanitta perspicillata. Surf Scoter. On 23 June 1970 two males were observed in Kuluk Bay with White-winged Scoters. A single male was present on Clam Lagoon, 17 January–27 February 1971, and a second male appeared on 31 January. An additional observation, possibly of one of the same birds, was made on 18 April 1971, and two females were observed by John L. Trapp (pers. comm.) on 3 November 1972. Taber (1946) reported seeing a male at Adak in December 1945. Cahn (1947) and Gabrielson and Lincoln (1959) listed a very few observations in eastern Aleutians, and Johansen (1961) listed it as accidental in spring and summer in the Commander Islands.

Melanitta nigra. Black Scoter. Flocks of up to 300 Black Scoters frequented Clam Lagoon and Kuluk Bay from mid-October to June. Taber (1946) considered this the most abundant sea duck at Adak, 1945–46.

Lophodytes cucullatus. Hooded Merganser. On 7 November 1970 a single female-plumaged bird was seen on Smew Pond by Byrd and Johnson. It remained apart from the Red-breasted Mergansers (*Mergus serrator*) there. This record is the first of this merganser in the Aleutian Islands, although it has been recorded as a vagrant elsewhere in southwestern Alaska: at Afognak Island (Mossman 1957); in Katmai National Monument (Gibson 1970); and on the Pribilof Islands (Sladen 1966).

Mergus albellus. Smew. A female-plumaged Smew was observed by Byrd and Johnson, 22–26 November 1969, with several Common Goldeneyes on a small body of fresh water that we named Smew Pond. On 4 February 1970 an adult female (UA 3114), heavy fat and ova to 2.1 mm, was collected near Smew Pond. From 30 October to 7 November 1970 another female-plumaged bird was recorded on Smew Pond; Byrd and Gibson watched a female-plumaged Smew on Crater Lake and Clam Lagoon, 5–6 June 1971; John L. Trapp (pers. comm.) observed two female-plumaged birds on Crater Lake, 17–23 October 1972; and one female-plumaged bird was seen, 15–31 March 1973, by Byrd et al.

There have been at least five other Alaska records of this palearctic merganser. Sladen (1966) saw a female-plumaged bird on St. Paul in May 1960 and collected the first North American specimens, two immature males, there in May 1961; Williamson and Emison (1969) reported an adult female collected at Amchitka, 18 June 1969; and Edgar P. Bailey and Clayton M. Hardy (USFWS, pers. comm.), observed a female-plumaged Smew at Amchitka on 16 February 1972. Joseph W. Taylor (pers. comm.) reported two adult males at Attu, 3 June 1972. The species is a rare spring and fall straggler to the Commander Islands (Johansen 1961) and also in southwestern Alaska, occurring rarely in winter as well.

Mergus merganser. Common Merganser. Present in small numbers each winter, these mergansers were seen as early as 22 September (1969) and as late as 14 May (1971). Maximum day's count was 11 on 7 March 1971. An adult male (UA 3355), heavy fat and left testis 28.2 × 12.8 mm, was collected on Smew Pond, 15 March 1973, by Byrd. We identified it as *M. m. americanus*.

Gabrielson and Lincoln (1959) reported the species

west only to Umnak Island, but Williamson et al. (1971) reported a pair at Amchitka in late January 1970. Johansen (1961) stated that *M. m. merganser* occurs in spring and winter in the Commander Islands.

Mergus serrator. Red-breasted Merganser. As many as 100 birds wintered at Clam Lagoon. This merganser bred in limited numbers.

Buteo lagopus. Rough-legged Hawk. This buteo was observed on 11 September 1969 and on 22 August 1970, when single light-phase individuals were identified. Murie (1959) reported the species as far west in the Aleutians as Ananiuliak Island, off the west end of Umnak, and Williamson et al. (1972) reported one at Amchitka on 26 May 1970. The species is a winter and spring straggler in the Commander Islands from Kamchatka (Johansen 1961).

Haliaeetus leucocephalus. Bald Eagle. At least 25 active aeries were located, even though the southern coastline of the island was not completely surveyed. Bald Eagles were concentrated particularly in winter near the refuse dumping areas; 130 birds were counted on 27 December 1970.

Circus cyaneus. Marsh Hawk. One female closely observed in the Clam Lagoon area on 21, 24, and 26 February 1972 by John L. Trapp (pers. comm.) is the only record. Marsh Hawks are rare and of irregular occurrence in the Aleutians at any season. They have been recorded from Unalaska (Turner 1886; Cahn 1947) to Amchitka (Kenyon 1961; Williamson and Emison 1969) and Attu (Turner 1885). This holarctic species has been recorded on Kamchatka (Vaurie 1965) and once on the Commander Islands (Dement'ev and Gladkov 1951).

Falco rusticolus. Gyrfalcons. Gray-phase Gyrfalcons were observed occasionally in winter. Usually only one bird was seen on a given day, but on both 7 and 21 December 1969 two were observed.

Falco peregrinus. Peregrine Falcon. Paired Peregrines were present during the breeding season, but no aeries were found. A few birds were seen also in winter.

Falco columbarius. Merlin. One bird observed by Taber (1946) on 9 December 1945 is the only record. The species occurs rarely in the Aleutian Islands, mainly in fall and winter, once in spring; it has been recorded from Unalaska (Turner 1886; Bailey 1926) and Amchitka (Kenyon 1961).

Lagopus mutus. Rock Ptarmigan. Ptarmigan were found mostly in isolated areas because of hunting pressure near the Naval Base. Normally, fewer than 20 birds were seen in a day, but on 7 November 1970 several flocks totaling approximately 200 birds were seen.

Grus canadensis. Sandhill Crane. From 20 June to 28 July 1969 four birds were present in a marshy area near the navy runways. Single cranes were seen on 12 October and on 7 November 1970 in the Clam Lagoon area; one bird was seen on 29 May, three on 5 June, and one on 9 July 1971. Two were seen on Adak in summer 1961 (McCann 1961).

This bird is rare west of Unimak, but records are widely scattered: Bogoslof Island (Murie 1959), Umnak (George E. Hall, pers. comm.), Amchitka (Kenyon 1961; McCann 1961), Rat Island (McCann 1961), Agattu Island (Clark 1910), Attu (Turner 1885), and Bering Island, Commanders (Hartert 1920).

Haematopus bachmani. Black Oystercatcher. Oystercatchers occupied rocky points and reefs along the coast throughout the year and bred. Generally, two

to four birds were observed at a time, but on several occasions up to 12 were seen together.

Pluvialis dominica. American Golden Plover. Normally, during spring and fall only a few plovers were observed, but up to 75 were counted at Adak, 5–6 October 1972. On 26 September 1970 an immature male (SBCM 4692) and an immature female (SBCM 4693) were collected.

Pluvialis squatarola. Black-bellied Plover. A single bird was observed 12–13 October 1970 at Clam Lagoon, another was recorded 3–8 June 1971 in the same area, and an individual was seen there 13 July 1972. The only previous Aleutian records are from Sanak Island (Turner 1886) and Amchitka (McCann 1961). Johansen (1961) regarded these plovers as regular migrants, most frequent in autumn, in the Commander Islands.

Arenaria interpres. Ruddy Turnstone. During migration, flocks of up to 50 Ruddy Turnstones were observed at Clam Lagoon. The earliest spring migrants were seen 18 May (1969), and the latest fall observation was on 25 October (1969). Occasionally, birds were observed in summer, but there was no evidence of breeding.

Calidris mauri. Western Sandpiper. A male (UA 3259) was collected from a flock of turnstones at Clam Lagoon on 28 July 1972 by Gibson; another bird was observed there, 9–10 October 1972, by John L. Trapp (pers. comm.); and two were seen there with Rock Sandpipers (*C. ptilocnemis*), 16–17 December 1972 by G. V. Byrd. Although Turner (1886) regarded the species as common throughout the Aleutians, Eyerdam's (1936) Unalaska record is the only recent Aleutian record west of Unimak. It has been recorded once in the Pribilofs (Kenyon and Phillips 1965).

Calidris ruficollis. Rufous-necked Sandpiper. On 4 June 1971 a pair of Rufous-necked Sandpipers landed near Byrd and Gibson at Clam Lagoon. A male (UA 3157), heavy fat and left testis 6×3 mm, was collected. This species is an uncommon breeder on the Seward Peninsula and a straggler on the arctic coast of Alaska (Gabrielson and Lincoln 1959). There is no previous record in the Aleutian Islands, although Johansen (1961) listed it as a regular migrant in the Commanders, and it has been recorded on St. Paul (Swarth 1927) and at Hooper Bay (Springer 1966).

Calidris bairdii. Baird's Sandpiper. Five birds were seen at Lake Andrew between 7 August and 27 September 1970. On 7 and 30 August 1970, immature females (SBCM 4681 and 4682) with heavy and moderate fat, respectively, were collected. One bird was seen at Clam Lagoon on 1 August 1972, and John L. Trapp (pers. comm.) recorded one there on 19 October 1972. The species is an uncommon transient in the Aleutians (Murie 1959).

Calidris melanotos. Pectoral Sandpiper. On 6 June 1971 Byrd and Gibson watched a lone bird at Lake Andrew, and up to four were seen, 25 September–22 October 1972. One male (UA 3350) was collected at Lake Andrew on 2 October 1972.

Turner (1886) took three specimens at Attu, and Osgood and Bishop (1900) reported one collected at Unalaska. There are apparently no other records for the Aleutians (Murie 1959), and the species is a rare transient on the Alaska Peninsula (Gibson 1970). It is apparently a regular fall migrant in the Pribilofs (Preble and McAttee 1923) and a rare fall straggler in the Commanders (Johansen 1961).

Calidris acuminata. Sharp-tailed Sandpiper. Single

individuals were collected near Clam Lagoon on 13 and 18 October 1970. Both were immature females (SBCM 4666 and 4667), the former with moderate, the latter with heavy, fat. An unsexed bird (UA 3348) was taken at Lake Andrew on 26 September 1972. In 1972 this species was observed regularly from 24 September through 2 November; maximum day's count was 25 on 6 October 1972.

This sandpiper has been recorded previously in the Aleutian Islands only from Unalaska (Osgood and Bishop 1900; Bailey 1925) and Amchitka (Lensink 1965), although it has been found many places on the mainland coast as a fall migrant (Gabrielson and Lincoln 1959). It has been recorded in fall on St. Paul (Preble and McAtee 1923), but it is a rare straggler in the Commander Islands (Johansen 1961).

Calidris ptilocnemis. Rock Sandpiper. Common along the rocky beaches of Clam Lagoon and Lake Andrew in winter, this species moved inland to nest. The largest flock, seen on 25 October 1970, numbered 103 birds.

Calidris alpina. Dunlin. Dunlins were seen occasionally in spring, fall, and winter; maximum day's count was 12 on 31 October 1970 at Clam Lagoon. Two specimens, a female (SBCM 4686) with moderate fat and a male (SBCM 4770) with heavy fat, were taken on 12 and 31 October 1970, respectively. Taber (1946) saw several in December and January at Adak; Kenyon (1961) collected one on 26 January 1959 at Amchitka; and Murie (1959) saw one at Unimak on 29 April 1925.

Calidris canutus. Red Knot. An unsexed Red Knot (SBCM 4669) with moderate fat was collected on 13 October 1970 at Clam Lagoon. Single birds were seen there on 25 May 1971 and on 25 June and 13 July 1972. These records are the only ones for the Aleutian Islands. Thompson and DeLong (1969) reported the first record from the Pribilofs in September 1965.

Calidris tenuirostris. Great Knot. On 4 June 1971 Gibson observed a Great Knot at Clam Lagoon accompanied by a Black-bellied Plover. We collected it, an adult female (UA 3156) with moderate fat, ova to 3 mm. The only previous North American record of this northeastern Asiatic sandpiper is a male taken 28 May 1922 at Wales, Seward Peninsula, by Bailey (1925). Bianki (1909) listed one Commander Islands record, a specimen taken 18 May 1881.

Calidris alba. Sanderling. Several flocks of 10–30 birds were observed each winter. The earliest fall observation was on 22 August (1971), and none was seen later than 2 May (1971). Kenyon (1961) reported this species from Amchitka, and a specimen was collected there on 7 February 1941 by Frank Beals (Gabrielson and Lincoln 1959).

Tringa erythropus. Spotted Redshank. One full-plumaged bird was observed at Clam Lagoon, 30 May 1972, by Joseph W. Taylor (pers. comm.): "It was in size between a Greater and a Lesser Yellowlegs, but closer to a Greater. It was generally overall dark purplish, with its back spotted with white. It had a narrow but distinct white eye-ring, dark red legs and a long and incredibly thin bill, red at least at the base . . . it took off, and then I could see . . . that it had a white rump and a white-barred tail."

Two September specimens from St. Paul (Sladen 1966) are the only ones for Alaska, and an observation at sea, NW of St. Paul, in autumn 1960 (Shuntov 1962) is the only other published record for the eastern Bering Sea. The species is an infrequent straggler in spring on Bering Island, Commanders (Johansen 1961).

Tringa melanoleucus. Greater Yellowlegs. A male (SBCM 4769) collected on 11 October 1970 near Clam Lagoon is the only record for the Aleutians. The species breeds commonly at the base of the Alaska Peninsula (Cahalane 1959), but it is scarce west of tree limit. Murie (1959) saw one at Amak Island on 7 July 1925, and he found the species common at Izembek Lagoon, 18–24 July 1925. It has been recorded several times in the Pribilofs (Preble and McAtee 1923).

Tringa flavipes. Lesser Yellowlegs. A male (UA 3258) collected 18 June 1972 at Clam Lagoon is the first Aleutian specimen. Both Krog (1953) and Williamson and Emison (1969) mentioned occasional Amchitka occurrences, May–July. There are no other definite records along the Aleutian-Commander axis west of tree limit at the base of the Alaska Peninsula, where the species is rare (Cahalane 1944; Gibson 1970). It has been recorded several times in the Pribilofs (Preble and McAtee 1923; Kenyon and Phillips 1965).

Tringa glareola. Wood Sandpiper. Six Wood Sandpipers were recorded at Adak in 1971, two, in 1972. Johnson collected a male (SBCM 4866), moderate fat and testis 11×5 mm, 26 May 1971, near Clam Lagoon; Byrd collected a female (UA 3159) near Lake Andrew, 2 June 1971; Byrd and Gibson observed two birds on 5 June 1971 and single birds on 4 and 25 August 1971. Single birds were seen near Lake Andrew and near Heart Lake, west of the Naval Station, on 10 and 11 June 1972, respectively.

Littlejohn (1904) first recorded this species in North America, at Sanak, 27 May 1894, but it was not reported again from the Aleutian Islands until Kenyon (1961) saw several individuals and collected two at Amchitka in June 1956. Williamson and Emison (1969) reported it in some numbers at Amchitka, May–July 1969, and stated that it bred there. The Pribilof Islands are the only other locations east of the Commander Islands where the species has been recorded. At St. Paul one was taken 19 May 1914 (Hanna 1916); there were three 1954 records (Kenyon and Phillips 1965); Sladen (1966) reported four records in 1961 and 1962; and David O. Hill, Ft. Lee, New Jersey (pers. comm.), observed four, 20–29 May 1971, and collected one. There are four St. George specimens in the U.S. National Museum of Natural History, collected by Robert L. DeLong, one taken in August 1965 and three, in May 1966. It is a common breeder on Bering Island, Commanders (Johansen 1961).

Tringa hypoleucos. Common Sandpiper. On 23 May 1971 a single Common Sandpiper, similar to a Spotted Sandpiper (*T. [Actitis] macularia*) in winter plumage, was observed at Lake Andrew by Byrd and Johnson. The Common Sandpiper has been recorded previously in North America only from St. George Island, 21 and 24 May 1966 (Thompson and DeLong 1969). Johansen (1961) reported it to be a regular migrant on Bering Island.

Heteroscelus incanus. Wandering Tattler. Regular migrants at Adak, these birds were seen 3 May to 5 June in spring and 30 July to 13 October in fall. Most often single birds were observed in the vicinity of Clam Lagoon and Lake Andrew, but occasionally up to five were seen together. Three specimens were collected: an adult male (SBCM 4538), testis 13×9 mm, 3 May 1970; an adult male (SBCM 4650), testis 3×2 mm, 22 August 1970; and an immature female (SBCM 4649), 30 August 1970.

Limosa lapponica. Bar-tailed Godwit. These godwits stopped at Adak in May and June 1970, 1971,

and 1972. The largest flock, on 10 May 1970, numbered 32 birds. Two specimens, a male (SBCM 4546) with heavy fat and testis 13×9 mm and a female (SBCM 4547) in breeding condition with moderate fat, were collected on 11 May 1970. On 28 September 1972 the first fall record of a Bar-tailed Godwit in the Aleutians was one bird seen at Adak. Subsequently, up to six were seen, 9–19 October 1972, at Clam Lagoon.

Numenius madagascariensis. Far Eastern Curlew. Byrd and Johnson watched a large curlew at Clam Lagoon on 27 June 1970 for an hour. They approached to within 30 m of it, and all field marks were visible: the bird's head had no clear marks, and its upper tail, back, and underwings were dark. This curlew remained through 12 July, but attempts to collect it failed. On 4 and 5 July 1971 another bird identified as this species was observed at Clam Lagoon by Gibson. It was too wary to collect. On 18 June 1972 Gibson found three *N. madagascariensis* together on the open Kuluk Bay beach and collected an adult male (UA 3248), moderate fat and left testis 15.4×7 mm. The remaining two were observed on the Clam Lagoon mud flats, 19–23 June; one remained at least through 26 June.

This curlew breeds east to Kamchatka (Dement'ev et al. 1951), and it has been recorded three times in the Commander Islands (Johansen 1961). Sladen (1966) reported a curlew at St. Paul, 11–13 June 1961, that he identified as this species, and Thompson and DeLong (1969) reported the only other North American specimen, collected at St. George on 21 May 1966.

Numenius phaeopus. Whimbrel. The only Adak record is of one observed at Clam Lagoon, 1 June 1971, by Byrd, Johnson, and Robert L. Ake, Norfolk, Virginia. This bird was identified as *N. p. variegatus*, the northeastern Siberian race, by its pale back. This form is a regular migrant in the Commander Islands (Johansen 1961). The only previous observations of the species in the Aleutians were made at Amchitka, where no more than two birds were seen, August–September 1967, and one was collected (Williamson 1968). Murie (1959) reported birds that were either Whimbrels or Bristle-thighed Curlews (*N. tahitiensis*) at Kiska and Kavalga islands, June and July 1937, respectively.

Phalaropus fulicarius. Red Phalarope. Several flocks of 6–30 birds were seen offshore on 28 May 1971, and a single female was observed at Clam Lagoon, 2–12 June 1971. At least 150 fed in Sweeper Cove on 30 September 1972, and five were seen in the same area on 18 October 1972. Murie (1959) saw this species in the eastern Aleutians, and Gabrielson and Lincoln (1959) reported a specimen from Amchitka taken by Beals. Red Phalaropes were uncommon in flocks of up to 20 at sea between Adak and Atka, 24–26 July 1971.

Lobipes lobatus. Northern Phalarope. This bird arrived as early as 13 May (1970) and remained as late as 25 August (1971). It occupied shallow freshwater ponds in summer, but breeding was not confirmed. Williamson and Emison (1969) reported the species breeding at Amchitka.

Stercorarius pomarinus. Pomarine Jaeger. On 9 May 1970 six light-phase birds were seen from a ship about 3 km off the southwestern tip of Adak. Single birds were seen on 27 June and 21 July 1972 off Andrew Bay and off Bay of Waterfalls, respectively. Nonbreeders occur regularly in summer offshore throughout the Aleutians (Murie 1959).

Stercorarius parasiticus. Parasitic Jaeger. Parasitic Jaegers were present as early as 26 April (1971) and as late as 7 September (1970). Although no nests were found, jaegers were seen carrying fish inland. Almost all were dark-phase birds.

Larus hyperboreus. Glaucous Gull. Each winter a few birds were scattered among flocks of Glaucous-winged Gulls (*L. glaucescens*). Most were first- or second-winter individuals. The earliest observation was 1 November (1970), the latest was 21 June (1970), and the maximum number seen was 15 on 9 February 1973.

Larus glaucescens. Glaucous-winged Gull. Several nesting colonies of this ubiquitous bird were found. The largest, on North Island in the Bay of Islands, contained approximately 250 pairs. In winter, approximately 1500 birds inhabited the beaches from Clam Lagoon to Finger Bay.

Larus argentatus. Herring Gull. These gulls appeared occasionally from 18 October to 12 June. Usually, single immature birds were observed, but on 18 October 1970 and on 28 March 1971 two immatures were seen together. Taber (1946) found up to 16 of these gulls wintering at Adak.

Larus canus. Mew Gull. Mew Gulls were observed in small numbers in winter, as early as 6 November (1970) and as late as 17 May (1971). Three to five birds were normally present on Clam Lagoon, but on 17 March 1971 at least 25 were seen. On 8 February 1973 we collected an adult female (UA 3344), heavy fat and ovary 8.5×5 mm, and identified it as *L. c. brachyrhynchus*.

Taber (1946) saw four birds at Clam Lagoon on 12 January 1946, and Friedmann (1937) reported humeri from middens on Attu. There are no other records in the Aleutians west of Akutan Island; both *L. c. brachyrhynchus* and *L. c. kamtschatschensis* are vagrants in the Commander Islands (Johansen 1961).

Larus ridibundus. Black-headed Gull. Black-headed Gulls were observed almost daily, 13–27 May 1970, and somewhat less regularly, 19 May–5 June 1971, at Clam Lagoon or Sweeper Cove. Usually, 1–4 birds were present, but 15 were counted on 17 May 1970. Midsummer observations of no more than two at a time were made 11–12 July 1970 and 1 and 5 July 1971. One bird was seen 30 August–1 September 1970. Three specimens were collected: a female (SBCM 4583), ova to 4 mm, moderate fat, 17 May 1970; another female (SBCM 4873), ova to 2 mm, light fat, 29 May 1971; and a subadult male (UA 3253), left testis 8.75×3.5 , heavy fat, 23 June 1972, the only individual recorded in 1972.

Prior to 1969, there were but two published Alaska records: a specimen collected at Kiska, 4 June 1937 (Murie 1945), and one collected at St. Paul, 16 August 1954 (Kenyon and Phillips 1965). Two were collected and others seen at Amchitka in late May 1969 (Williamson and Emison 1969), and one was collected at Port Moller on 13 August 1969 (Bartonek and Gibson 1972). Sight records at St. Paul, 16 July 1970 (Ada J. Davis, formerly of U.S. Weather Service, St. Paul, pers. comm.) and 25 May 1971 (David O. Hill, pers. comm.), are the only additional records of which we are aware. Johansen (1961) reported that *L. ridibundus* is a rare straggler in the Commander Islands, mostly in spring. The bird appears to be a rare spring and even rarer fall migrant in southwestern Alaska as well.

Rissa tridactyla. Black-legged Kittiwake. Up to 100 kittiwakes were observed in July and August, but no breeding colonies were found. In spring and fall

several thousand birds appeared, and a few remained in winter.

Sterna hirundo longipennis. Common Tern. A Common Tern was observed with Arctic (*S. paradisaea*) and Aleutian (*S. aleutica*) Terns at Clam Lagoon, 10 July 1971, by G. V. Byrd and George E. Hall. Gibson and Byrd found one in this area on 20 July, and on 21 July it was shot but lost in outgoing tides. On 1 August 1971 Byrd and Gibson collected another individual in the same area, a male (UA 3160): heavy fat, left testis 4×2 mm. Still another individual was seen on 4 August 1971. All of these birds were in breeding plumage. Identification of the specimen has been confirmed by Roxie C. Laybourne (USFWS, U.S. National Museum of Natural History (pers. comm.)).

Previous Aleutian sight records of *S. h. longipennis* exist for pelagic waters off Agattu and off Attu (Kuroda 1955). The only other published North American records of this Siberian form are from St. Paul, 22 October 1961 and 5 June 1962 (Sladen 1966). In addition, there are two specimens in the USNMNH collected by Robert L. DeLong: St. George, July 1966, and St. Paul, August 1966. Johansen (1961) described this form as a fairly common straggler to the Commander Islands.

Sterna paradisaea. Arctic Tern. Two tern nesting colonies, each containing at least 20 pairs of this species, were located on hills overlooking Clam Lagoon. On 24 June 1970 ten nests were censused: three contained three eggs each, six had two eggs, and one nest contained a single egg. In 1971 nesting was later than in 1970, and on 12 July ten nests were checked: six contained two eggs each, and four nests each contained one egg. This tern was observed as early as 14 May (1971) and normally no later than 30 August (1970). On 30 September 1972, however, a single female (UA 3347) was collected at Clam Lagoon by Byrd.

Sterna aleutica. Aleutian Tern. Aleutian Terns arrived each spring about one week after the Arctic Terns. Observations ranged from 23 May (1971) through 30 August (1970). Only three nests were identified, although up to 150 birds were observed each summer; the nests were intermingled with those of Arctic Terns. Weber (1956) first recorded these birds at Adak and suspected breeding. So far as we know, the first definite breeding record in the Aleutian Islands was a small colony of 10 pairs observed on Umnak, June–August 1964, by Richard J. Gordon and Richard T. Wallen (both formerly of Alaska Dept. of Fish and Game, Juneau, unpubl. data, 1964). Williamson and Emison (1969) found this bird nesting at Amchitka, and Palmer C. Sekora (pers. comm.) found a colony at Attu in 1970 that Gibson estimated at 35 pairs in August 1971.

Uria aalge. Common Murre. This species was most commonly observed during spring and summer, in Kuluk Bay, but apparently it did not breed. In May several thousand birds fed in the outflow from Clam Lagoon; an occasional bird was observed in winter.

Uria lomvia. Thick-billed Murre. Thick-billed Murres were most common in winter when they significantly outnumbered Common Murres. A few were present in summer when they were, in turn, outnumbered by Common Murres.

Cephus columba. Pigeon Guillemot. Observed regularly in all seasons, these birds were most common in summer. They bred under piers in Sweeper Cove.

Brachyramphus marmoratus. Marbled Murrelet. In

spring pairs of these birds were observed in courtship on Clam Lagoon. During the display, both birds extended their bills upward, uttered shrill calls, and paddled around furiously in unison along a seemingly random path. Displays lasted up to several minutes, and then the birds dived repeatedly. Sixteen courting pairs were seen on 29 May 1970. Although the birds were observed regularly in Bay of Islands and Kuluk Bay during summer, no climbs were made into areas in which they were suspected of breeding. A male (SBCM 4548) with moderate fat and testis 10×5 mm was collected 9 June 1970. Occasionally, we saw birds in winter, and on 31 January 1971 a pair with heavy fat was collected (SBCM 4779 and 4780).

Gabrielson and Lincoln (1959) listed no positive records west of Unalaska. Neither Kenyon (1961) nor Williamson and Emison (1969) found Marbled Murrelets at Amchitka, where the topography is significantly flatter than at Adak, and they are "rare accidental visitors" to the Commander Islands from Kamchatka (Johansen 1961).

Brachyramphus brevirostris. Kittlitz's Murrelet. Kittlitz's Murrelet was observed commonly in summer, and it undoubtedly bred on Adak. On 9 June 1970 a pair was collected on Clam Lagoon. The male (SBCM 4550) was in breeding condition, left testis 13×9 mm, and the female (SBCM 4549) had a mature egg in the oviduct. On 15 July 1971 an adult female (UA 3164), ova to 4 mm, and an immature male (UA 3163), left testis 7×4 mm, were collected in Bay of Islands. On 17 July 1971 an adult male (UA 3162), left testis 10×6.75 mm, with a brood patch, was collected in the same area. The species was occasionally observed in winter.

Synthliboramphus antiquus. Ancient Murrelet. In May and June up to 500 birds fed in Kuluk Bay just outside Clam Lagoon. Smaller numbers occurred in midsummer; the only winter observations were on 15 and 21 February 1970. A male (UA 3165), left testis 7×2 mm, was collected 17 July 1971 in Bay of Islands.

Cyclorhynchus psittacula. Parakeet Auklet. On 9 May 1970 approximately 50 birds were seen from a ship about 3 km E of Mt. Adagdak. Two females (SBCM 4771 and 4772) with moderate fat were collected from a group of five in Kuluk Bay on 31 January 1971. Single birds were observed 4 February and 26 April 1971. The species was uncommon in Kagalaska Strait, 20 July 1972.

Kenyon (1961) regarded this species as scarce at Amchitka, and Williamson and Emison (1969) listed very few observations there. Murie (1959) stated that it is well distributed throughout the Aleutian Islands.

Aethia cristatella. Crested Auklet. Crested Auklets appeared in Kuluk Bay in December or January each year, and they were observed regularly through early March. On 9 May 1970 hundreds were seen from a ship in Adak Strait. On 16 June 1970 a male (SBCM 4635), no fat and testis 12×6 mm, was found alive on a road near Clam Lagoon. Three additional males were collected on 31 January 1971; all (SBCM 4794–4796) had testes 5×2 mm and moderate fat.

Aethia pusilla. Least Auklet. Least Auklets were recorded occasionally between 4 March and 9 May, and one was seen on 20 December 1969. On 9 May 1970 approximately 75 were seen from a ship in Adak Strait. Three specimens were collected on 4 March 1971: two males (SBCM 4832 and 4833) with light

fat and testes 5×3 and 2.5×1.5 mm, respectively, and an immature female (SBCM 4834) with moderate fat. This auklet nests on a number of islands in the Aleutians (Murie 1959), but we found no indication of breeding on Adak.

Aethia pygmaea. Whiskered Auklet. On 21 April 1971 five Whiskered Auklets surfaced near the ship Byrd was aboard near Adak. Laing (1925) reported seeing about a hundred in Kuluk Bay, 11 April 1924. Murie (1959) found this auklet nesting on a number of islands from the Islands of Four Mountains to Chugul Island [= Segula Island] near Kiska.

Fratercula corniculata. Horned Puffin. Horned Puffins were seen only occasionally in winter, but hundreds fed each May in Kuluk Bay just outside Clam Lagoon. Small nesting colonies were discovered in Bay of Islands and in the Scabbard Bay area.

Lunda cirrhata. Tufted Puffin. These birds appeared occasionally in winter, but in May thousands congregated in Kuluk Bay. Nesting colonies were found on Gannet Rocks, on the unnamed islets off Zeto Point, and in the Bay of Islands, where the largest colony contained about 300 burrows in 1971.

Cuculus canorus canorus. Common Cuckoo. On 13 June 1972 Gibson and Byrd collected a gray-plumaged adult female (UA 3251) on the Clam Lagoon seawall (at $51^{\circ}56' N$ $176^{\circ}33' W$). It had no fat, had ova to 2 mm, and weighed 116 g. Wing (flat) measured 218 mm. We collected a second individual of this form, an adult male (UA 3250), at Kiska Harbor, Kiska Island (at $51^{\circ}57' N$ $177^{\circ}32' E$), on 1 July 1972. This bird was one of three present; it was very thin, weighed 80 g, and had left testis 6.1×3.5 mm. Wing (flat) measured 224 mm. Roxie C. Laybourne (USFWS, USNMNH, pers. comm.) compared the two specimens with a "very good series of recently collected European cuckoos" and found them indistinguishable. She assigned them to the population "*telephonus*," which ranges from northeastern Siberia to Japan and China (Vaurie 1965).

All previous Alaska specimens of the genus *Cuculus* have been identified as Oriental Cuckoos (*C. saturatus horsfieldi*) (Deignan 1951; Murie 1952). Our specimens provide the first records of *canorus* in North America. Both *C. canorus canorus* and *C. saturatus horsfieldi* are rare stragglers in May and June on Bering and Copper islands, Commander Islands (Johansen 1961).

Nyctea scandiaca. Snowy Owl. In late August 1957 a badly crippled bird was seized from a hunter at Adak by Robert D. Jones (USFWS). The owl was kept in captivity until it regained its health, and it was banded and released in mid-October (Jones 1957).

Murie (1959) regarded this species as a winter straggler in the Aleutians and on the Alaska Peninsula, but he added that it allegedly bred on Attu. Turner (1886) regarded it as common on Agattu, and Palmer C. Sekora (pers. comm.) confirmed breeding on Attu in 1970. Williamson et al. (1971) reported one at Amchitka in January 1970, and Johansen (1961) reported the species to be a resident breeder on Bering Island, Commanders.

Asio flammeus. Short-eared Owl. Short-eared Owls were observed occasionally in fall and winter. On 20 September 1971 a dead bird was found, an immature male (AIR 102) with no fat.

Iridoprocne bicolor. Tree Swallow. On 6 June 1971 Gibson and Byrd watched a single bird, perched and in flight, near the Clam Lagoon outlet. Another

was observed at the same place on 5 November 1972, the latest record for Alaska, by John L. Trapp (pers. comm.) and Max J. Hancock, in naval service. Although the species breeds sparingly to the tip of the Alaska Peninsula, at Port Moller and Cold Bay, the only published record of this swallow in the Aleutians is from Unimak, 23 July 1901 (McGregor 1906).

Corvus corax. Common Raven. A common resident, ravens were ubiquitous near the inhabited areas. Maximum day's count was 82 birds on 21 December 1969.

Troglodytes troglodytes. Winter Wren. Resident birds, Winter Wrens were found regularly in areas that we usually visited only along the shore of Andrew Bay.

Oenanthe oenanthe. Wheatear. On 22 August 1971 a Wheatear was collected at the Lake Andrew seawall by Gibson and Byrd. The unsexed immature (UA 3161) with no fat is the second record for the Aleutians. One was seen at Amchitka on 5 November 1965 (Lensink 1965).

The species is a rare migrant in the southern Bering Sea, mainly in fall; there are records from St. Paul (Seale 1898; Mailliard and Hanna 1921), Nunivak Island (Swarth 1934), the Commander Islands (Johansen 1961), and at sea [four sightings] in the Bering Sea (Shuntov 1962).

Anthus spinoletta. Water Pipit. On 21 December 1969 two Water Pipits were observed at Clam Lagoon. One was collected but lost before it could be preserved. On 30 September 1971 two birds were observed on the Lake Andrew seawall by Byrd, and he collected a male (UA 3349) near Clam Lagoon on 28 September 1972. Kenyon (1961) stated that pipits are not unusual in summer and fall at Amchitka, and he observed four of this species there on 27 February 1959.

Lanius excubitor. Northern Shrike. One shrike observed by Taber (1946) near Shagak Bay, 9 January 1946, is the only record in the Aleutians west of Unalaska, where the species has been recorded once (Gabrielson and Lincoln 1959). Shrikes are probably common as far west as Unimak (Murie 1959).

Fringilla montifringilla. Brambling. An adult male (UA 3182) was collected on the Lake Andrew seawall on 29 May 1971 by Byrd. The next day Byrd, Johnson, and Robert L. Ake returned, and another male flew from the same area. A male, probably this second bird, was observed there on 1 June. The only other Aleutian records of Brambling are from Amchitka, where Kenyon (1961) saw at least nine and collected one, 14–17 October 1957, and where McCam (1961) collected one on 26 May 1961.

Other Alaska records include a specimen collected at St. Paul, 25 October 1914 (Hanna 1916); one observed on the mainland coast, at Hooper Bay, 22 May 1964 (Springer 1966); and a male present at a Juneau feeder, 23 December 1969–15 April 1970 (Richard M. Hurd, U.S. Forest Service, Juneau, pers. comm.). This last bird was photographed. The Brambling is a regular spring migrant in small flocks on the Commander Islands, less common in fall (Johansen 1961).

Coccothraustes coccothraustes. Hawfinch. The second record of Hawfinch for North America involved four birds at Adak, May–June 1971. On 31 May Johnson and Robert L. Ake identified a single Hawfinch in one of the housing areas at the Naval Station. Later the same day Byrd and Ake observed four birds there and collected an adult male (UA

3158), no fat and left testis 7.5×4.75 mm. On 5 June one female reappeared in the same area, and on 6 June Gibson observed a female near his Naval Station quarters, about 400 m from the area of the first sighting. The female was seen regularly in this area through 28 June 1971 and was photographed (see Gibson and MacDonald 1971:895). Richard C. Banks (pers. comm.) and Robert Browning (USFWS, USNMNH) examined the specimen and determined it to be intermediate between *C. c. japonicus* and nominate *coccothraustes*.

The other North American record is a specimen of *japonicus* collected on St. Paul, 1 November 1911 (Evermann 1913). Hartert (1920) listed a single record for the Commander Islands, a male *japonicus* taken 24 May 1912 on Bering Island.

Leucosticte tephrocotis. Gray-crowned Rosy Finch. A common resident, the rosy finch used abandoned buildings for roosting and nesting. Several hundred birds were always present around the inhabited areas.

Acanthis flammea. Common Redpoll. Redpolls visit the central and western Aleutians periodically, mainly in winter. On 15 February 1970 four birds were seen on Adak, and on 1 March 1970 two were found and a male (SBCM 4489) was collected. Up to 25 redpolls were seen between 22 November 1972 and 29 January 1973. Taber (1946) reported a redpoll twice in December 1945, and Thabes and Atchison saw redpolls in numbers in the winter 1967-68 at Adak. This species breeds in the eastern Aleutians as far west as Unalaska (Murie 1959), and it is a resident breeder on Bering Island, Commanders (Johansen 1961).

Passerculus sandwichensis. Savannah Sparrow. A single Savannah Sparrow was observed near Lake Andrew, 26-28 September 1972, by G. V. Byrd and John L. Trapp. The species breeds as far west in the Aleutians as Amukta (Gabrielson and Lincoln 1959), and the Adak bird is the first record west of that island.

Melospiza melodia. Song Sparrow. Song Sparrows were uncommon residents; singing birds were found year round along rocky beaches.

Calcarius lapponicus. Lapland Longspur. Longspurs, the most abundant summer resident passerines on the island, were observed as early as 3 May (1970) and as late as 12 October (1970). A lone adult bird (UA 3346), little fat and gonads not identifiable, collected near Clam Lagoon on 8 February 1973, is the first winter record for the Aleutian Islands. Two Kenai Peninsula records, single January and February sightings at Coho and Homer, respectively (Mary A. Miller, Kasilof, Alaska, pers. comm.), are the only other Alaska winter records of which we are aware.

Plectrophenax nivalis. Snow Bunting. Snow Buntings nested most commonly in rocky areas above 1000 ft elevation. They were common at sea level during migration and in winter.

Emberiza rustica. Rustic Bunting. Weber (1956) reported without details a flock of five on the Clam Lagoon seawall, 22 October 1950 or 1951. The only other Aleutian records of this bird are from Kiska (Murie 1959) and Amchitka (Kenyon 1961). The species is an irregular spring straggler to the Commander Islands (Johansen 1961).

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