

## DISTRIBUTION AND SUBSPECIES OF THE DOVEKIE IN ALASKA<sup>1</sup>

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The Dovekie (*Alle alle*) is a primarily North Atlantic alcid that also breeds in the Arctic Basin of the north-eastern U.S.S.R. and probably eastward to the Bering Strait and the northern Bering Sea (Vaurie 1965, Kessel and Gibson 1978, AOU 1983). In the latter areas, the Dovekie occurs annually and almost certainly breeds at Little Diomedes Island, King Island, and western St. Lawrence Island (Kessel and Gibson 1978), where it is seen on talus slopes containing colonies of auklets (Parakeet Auklet, *Cyclorhynchus psittacula*, Least Auklet, *Aethia pusilla*, and Crested Auklet, *A. cristatella*). Surprisingly, there is no record of the Dovekie from the auklet colonies at Big Diomedes Island (Portenko 1973). The only published Alaska records of Dovekies away from these islands are single records from Point Barrow (Bailey 1948), Wainwright (Hersey 1916), and St. George Island (Holmes 1968; also see Fig. 1). In this paper, we report additional records that further outline the range, and we discuss the subspecific status, of the Dovekie in Alaska.

The only records of Dovekies from the Alaska sector of the Beaufort Sea are from Cooper Island, approximately 20 nm east of Point Barrow. Divoky has seen Dovekies there in three of the past 12 years (1976 to 1987): lone birds on 23 July 1980, 23 June 1983, and 16 June 1986. These birds landed in a Black Guillemot (*Cepphus grylle*) colony at times of the day when the guillemots' attendance was at its maximum (500 to 700 birds), suggesting that the Dovekies were attracted by the large number of guillemots. There also is a record of a Dovekie from the Alaska sector of the Arctic Basin, an adult female collected 20 July 1968 in heavy pack ice at 84°30'N, 144°00'W, approximately 850 nm north of Barter Island (UAM 1000). Dovekies may be more numerous in the Canadian Beaufort, for Smith (1973) found them to be regular along western Victoria

Island and sporadic along western Banks Island, whereas Divoky (1984) saw none during approximately 300 hr of pelagic seabird transect research in the Alaska Beaufort.

There are five Dovekie records from the Alaska sector of the Chukchi Sea. An immature was collected near Point Barrow on 13 July 1935 (CAS 7864; Bailey 1948), and two birds were seen near Wainwright on 10 August 1914 (Hersey 1916). On 15 September 1981, J. Nelson (U.S. Fish and Wildlife Service, Anchorage, Alaska; pers. comm.) saw three Dovekies at 71°04'N, 161°58'W, approximately 110 nm west of Barrow; on the following day, he saw four more at 70°31'N, 161°54'W, approximately 40 nm west of Wainwright. On 30 August 1987, A. E. Stone (University of Alaska, Fairbanks; pers. comm.) saw a breeding-plumaged bird at 67°38'N, 167°35'W, approximately 130 nm northeast of Little Diomedes Island.

Dovekies have been recorded recently at St. Matthew Island, central Bering Sea, in three different years. At least nine were seen offshore from Big Lake on 28 May 1982 (A. L. Sowls, U.S. Fish and Wildlife Service, Homer, Alaska; pers. comm.), and one or two were seen in auklet colonies near Glory of Russia Cape on 12 to 24 June 1983 (B. A. Cooper, University of Alaska, Fairbanks; pers. comm.) and 10 July 1985 (Sowls, pers. comm.). There are no specimens from St. Matthew Island.

There are four Dovekie records from the Pribilof Islands, two from St. Paul, one from St. George, and one at sea near the Pribilofs. At St. Paul, lone birds were seen with flocks of auklets off Reef Point on 13 June 1981 and 19 June 1984 (Kessel and Gibson, UAM; unpubl. records). The St. George record is of a single bird in a mixed flock of auklets east of St. George village on 8 July 1958 (Holmes 1968). The at-sea record is of one bird seen at 58°09'N, 171°35'W (approximately 70 nm northwest of St. Paul Island) on 26 May 1978 by K. L. Wilson and A. E. Good. There are no specimens from the Pribilof Islands.

There are three pelagic records of Dovekies from the North Pacific near the Aleutian Islands, two from the eastern Aleutians and one from the vicinity of the west-

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ern Aleutians. There is one specimen from the western Aleutians.

On 11 July 1980, Day saw three breeding-plumaged Dovekies on water approximately 110 m deep at 53°02'N, 168°20'W, approximately 10 nm south of Unimak Island, in the eastern Aleutians. The upper wing-coverts and remiges were not brown (i.e., not worn), suggesting that the birds were older than one year (Roby et al. 1981). On 29 September 1986, Troy saw two breeding-plumaged birds at 57°37'N, 164°12'W, about 50 nm south of Unimak Island, in the eastern Aleutians. These birds were flying over Alaska Stream water 2,000 m deep. DeGange found a Dovekie in a bag of frozen bird specimens taken from Japanese salmon gill-nets in the vicinity of the western Aleutian Islands. The specimen is of an adult female (UAM 4883) caught 25 July 1982 at 49°13'N, 174°19'E, approximately 200 nm south of Agattu Island and in water approximately 5,500 m in depth. Due to a problem with field notes, the location and date may not be exact.

These records constitute the first of the Dovekie for the Alaska Beaufort Sea, the Aleutian Islands, and the North Pacific. Of these records, only the recent, repeated ones from St. Matthew Island suggest that Dovekies are attempting to breed there, as at Little Diomedede, King, and St. Lawrence islands. The midsummer records of Dovekies elsewhere in Alaska represent either birds prospecting for nest sites or wandering subadults attracted to concentrations of auklets or other alcids. Although the wintering area of Dovekies from Alaska is not known, the southern extent of many of these records suggests to us that Dovekies winter in the southern Bering Sea (probably in the outer pack ice, near the shelf break) and in the North Pacific near the Aleutian Islands. In the North Atlantic, they winter in loose pack ice and in productive waters near the shelf break (Cramp 1985).

The relative scarcity of Dovekie sightings at sea in Alaska indicate how rare they are away from the supposed breeding colonies. In addition to Divoky's (1984) work in the Alaska Beaufort, thousands of hours of

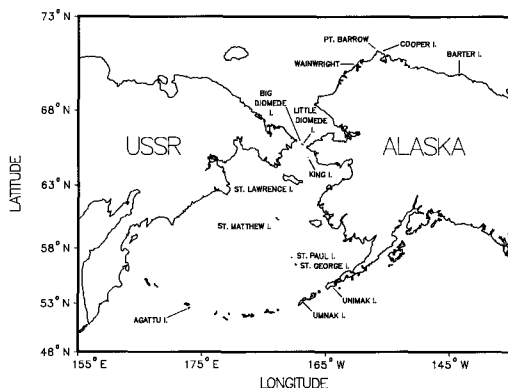


FIGURE 1. Map of Alaska showing place names mentioned in the text.

pelagic seabird transects have been conducted in the Chukchi and Bering seas in the past 15 years, yielding only the few at-sea records discussed here.

All Alaska specimens of Dovekies are of the nominate race (Table 1). Stenhouse (1930) considered any bird with a flattened wing 130 mm or over and culmen length 17 mm or over to be *A. a. polaris*, but recent work suggests that there is significant overlap in measurements between it and *A. a. alle*. Vaurie (1965) and Cramp (1985) also considered *A. a. polaris* to be the larger subspecies of the two, although there is more overlap between it and *A. a. alle* than Stenhouse believed. For example, flattened wings of *A. a. alle* from Spitsbergen are as large as 133 mm and 132 mm for males and females, respectively, whereas those of *A. a. polaris* from Franz Josef Land are as small as 124 mm and 129 mm for males and females, respectively. Hence, we reject the original identification of a St. Lawrence Island bird (UBCMZ 12492) as *A. a. polaris* (Sealy et al. 1971) and instead conclude that it simply is a large representative of nominate *A. a. alle*; we reach the same conclusion for a large individual from Little

TABLE 1. Measurements of Dovekie specimens from Alaska and nearby waters. Museum names are: Bell Museum of Natural History (BMNH), Chicago Academy of Sciences (CAS), San Bernardino County Museum (SBCM), University of British Columbia Museum of Zoology (UBCMZ), and University of Alaska Museum (UAM). Specimens are listed by sex and age.

Specimen number	Date	Location	Sex/age <sup>1</sup>	Flattened wing (mm)	Exposed culmen (mm)	Tarsus diagonal (mm)
UAM 5263	17 June 1985	Little Diomedede Island	M/AD	114.5	14.8	20.0
UBCMZ 12492	4 July 1965	St. Lawrence Island	M/AD	130.0	16.1	22.0
UBCMZ 13339	28 June 1967	St. Lawrence Island	M/IM	108.5 <sup>2</sup>	14.5	20.0
BMNH 21107	16 June 1965	Little Diomedede Island	F/AD	110.0	13.3	19.5
UAM 1000	20 July 1968	Arctic Basin	F/AD	125.0	14.7	20.5
UAM 4883	25 July 1982	North Pacific	F/IM	119.0 <sup>2</sup>	15.5	20.8
CAS 7864	13 July 1935	Barrow	F/IM	119.0 <sup>2</sup>	14.4	21.6
UAM 5384	12 June 1968	Little Diomedede Island	U/AD	120.0	15.8	21.4
UAM 3399	14 June 1975	Little Diomedede Island	U/AD	121.0	15.6	19.6
SBCM 9089	8 July 1948	Little Diomedede Island	U/AD	131.0	16.6	22.3

<sup>1</sup> M = male; F = female; U = unsexed; AD = adult; IM = immature.

<sup>2</sup> Wing feathers are worn.

Diomedea (SBCM 9089). Both of these birds also have bills too small to be those of *A. a. polaris* (Table 1). *Alle alle alle* is the more widespread subspecies, whereas *A. a. polaris* is known to breed only at Franz Josef Land and possibly Severnaya Zemlya (Vaurie 1965); the identity of the subspecies that breeds at the latter location is not clear, however (Cramp 1985).

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## THE "BUGS" CALL OF THE CLIFF SWALLOW: A RARE FOOD SIGNAL IN A COLONIALY NESTING BIRD SPECIES<sup>1</sup>

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*Key words:* Food signals; information center; Cliff Swallow; coloniality.

I report here the description of a vocalization that appears to act as a food signal in a colonial passerine, the Cliff Swallow (*Hirundo pyrrhonota*). Food signals have great potential importance to the information center

hypothesis (Ward and Zahavi 1973) which states that birds living in communal roosts may gain information concerning foraging success and location from successful returning foragers. While food signals appear ubiquitous within the Galliformes where they serve a courtship function and facilitate feeding chicks (e.g., Williams et al. 1968, Stokes 1971, Stokes and Williams 1972, Heinz 1973), among colonialy nesting birds there have been no reports of vocalizations that serve the sole purpose of recruiting colony mates to newly discovered food patches.

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