

THE DISTRIBUTION AND BREEDING STATUS OF THE HUDSONIAN GODWIT IN ALASKA

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On June 28, 1960, one of us (Smith) discovered a pair of Hudsonian Godwits (*Limosa haemastica*) nesting in a marsh near the settlement of Cohoe on the Kenai Peninsula, Alaska. Three times before, and on numerous occasions since, we have observed birds of this species in the Cook Inlet region. Some of the latter records were indicative of additional nestings, and it now appears that breeding of the Hudsonian Godwit in Alaska, at least in the south-central portion, is a regular occurrence. In fact, a careful review of the literature seems to make our records more a matter of verification of earlier observations than new events. It is the purpose of this paper, then, to review briefly all records of this species in Alaska, to present detailed data on distribution and breeding in the Cook Inlet region, and to discuss the substantial extension of the known breeding range of this relatively rare shorebird.

BREEDING DISTRIBUTION OF THE HUDSONIAN GODWIT

The Hudsonian Godwit is presently known to breed at Fort Anderson at the mouth of the Anderson River in northwestern Mackenzie, near the mouth of the Mackenzie River, and at Churchill, northeastern Manitoba. Breeding may also occur in the interior of Southampton Island and on Akimiski Island in James Bay (A.O.U. Check-list, 1957: 206). A map showing the breeding localities and other records of occurrence in arctic Canada, together with a discussion of the status of this species on the breeding grounds, has been presented by Snyder (1957:178-181).

Distribution in Alaska.—Gabrielson and Lincoln (1959:407) listed the Hudsonian Godwit as a straggler to Alaska from its normal breeding range to the east. These authors cited the localities known to them where specimens had been collected in Alaska, although additional records have come to our attention during the course of this review. More recently, Kessel (1960:482) has added other records of occurrence for the state. With two exceptions, all known records of distribution are listed chronologically in table 1, and the localities are shown in figure 1. Two early records for which we have no dates are placed at the end of table 1.

It can be seen in figure 1 that the records for this species are essentially coastal and are generally associated with the tundra situations which these birds presumably prefer for nesting (Snyder, 1957:178). However, many of these observations were doubtless of migrating birds. Some of these records merit brief discussion.

Bailey (1948:228) and Gabrielson and Lincoln (1959:407) have questioned the validity of McLenegan's (1889:120) records of 1885 of the Hudsonian Godwit on the Kobuk River and at Kotzebue Sound (see table 1 and fig. 1). McLenegan collected godwits, although apparently no specimens were preserved; he stated that the birds were common along the river in the nesting season and that they later (August) gathered in flocks about Kotzebue Sound. It does not seem likely to us that McLenegan was mistaken in his identification, since he was familiar with the similar Bar-tailed Godwit (*Limosa lapponica*) and reported on both species in 1887 and 1889. Further, there was a specimen of the Hudsonian Godwit in the United States National Museum (no. 110402) which was collected by Lt. G. M. Stoney on the Kobuk River (Bailey, 1948: 228), and a flock of 11 was seen on a marsh at Kotzebue by one of us (Williamson) on July 11, 1959 (table 1).

The fact that the Hudsonian Godwit was not observed later by Grinnell (1900) in the Kobuk River-Kotzebue Sound area is no more unusual than the sporadic occurrence of this species in the Cook Inlet region; such sporadic occurrence and breeding of other species of shorebirds are now known to be expected, at least to some degree, in northern regions.

TABLE 1

DATA ON DATE AND LOCALITY FOR RECORDS OF THE HUDSONIAN GODWIT IN ALASKA

Date	Locality*	Collector/Observer**	Reference
June 4, 1868	Kaltag ¹	W. H. Dall	Specimen, USNM*** (personal communication, G. E. Watson)
June 22, 1868	Kotlik ²	(W. H. Dall ?)	Gabrielson and Lincoln, 1959
May 4, 5, June, 1869	Fort Kenai (= Kenai) ³	F. Bischoff	Osgood, 1901
1869	Mouth of Yukon River ⁴	W. H. Dall	Dall and Bannister, 1869
July 18, 1881	Ugashik ⁵	(C. L. McKay ?)	Gabrielson and Lincoln, 1959
Aug. 14, 1881	Bear Creek, Neshegak (= Nushagak) ⁶	C. L. McKay	Specimen, USNM (personal communication, G. E. Watson)
May 12, 1882	Chilkat River ⁷	—	Hartlaub, 1883
1883	Fort Cosmos, Putnam River (= Kobuk River) ⁸	G. M. Stoney	Bailey, 1948
1884	Kotzebue ⁹ and Kowak River (= Kobuk River) ⁸	S. B. McLenegan**	McLenegan, 1889
May 22, 1896	St. Michael ¹⁰	C. L. Hall	Grinnell, 1910
Aug. 26, 1897	Point Barrow ¹¹	McIlhenny Expedition	Bailey, 1948
July 14, 1898	Point Barrow ¹¹	McIlhenny Expedition	Stone, 1900
July 26, 1906	Kenai ³	A. Seale	Grinnell, 1910
May 10, 1907	Valdez ¹²	G. Cantwell	Gabrielson and Lincoln, 1959
June 24, 1951	Iditarod Flats, Iditarod River ¹³	C. J. Lensink	Kessel, 1960
May 13, 1955	Potter Marsh ¹⁴	F. S. L. Williamson**	This paper
Aug. 1, 1957	70 mi. NE Fort Yukon ¹⁵	L. J. Rowinski	Kessel, 1960
May 7-8, 1958	Mouth of Kasilof River ¹⁶	M. A. Smith**	This paper
July 11, 1959	Kotzebue ⁹	F. S. L. Williamson**	This paper
May 9, 1960	Flats above mouth of Kasilof River ¹⁷	M. A. Smith**	This paper
May 22, 1960	6 mi. ESE Cape Thompson ¹⁸	F. S. L. Williamson	In press
June, July, Aug., 1960-1962	Cohoe ¹⁹	M. A. Smith**	This paper
May-June, 1961-1962	Pt. Woronzof Marsh ²⁰	M. E. Islieb, L. J. Peyton, F. S. L. Williamson	This paper
May, Aug. 14, 1962	Mouth of Kenai River ³	S. R. Smith	This paper
Sept. 1, 1962	Chickaloon Bay ²¹	S. R. Smith**	This paper
June	Nulato ²²	E. W. Nelson	Nelson, 1887
—	Fort Yukon ²³	E. W. Nelson**	Nelson, 1887 (no supporting evidence)

* Numbers following some entries relate to localities shown in figure 1.

** Two asterisks following some of the entries indicate sight records only.

*** United States National Museum.

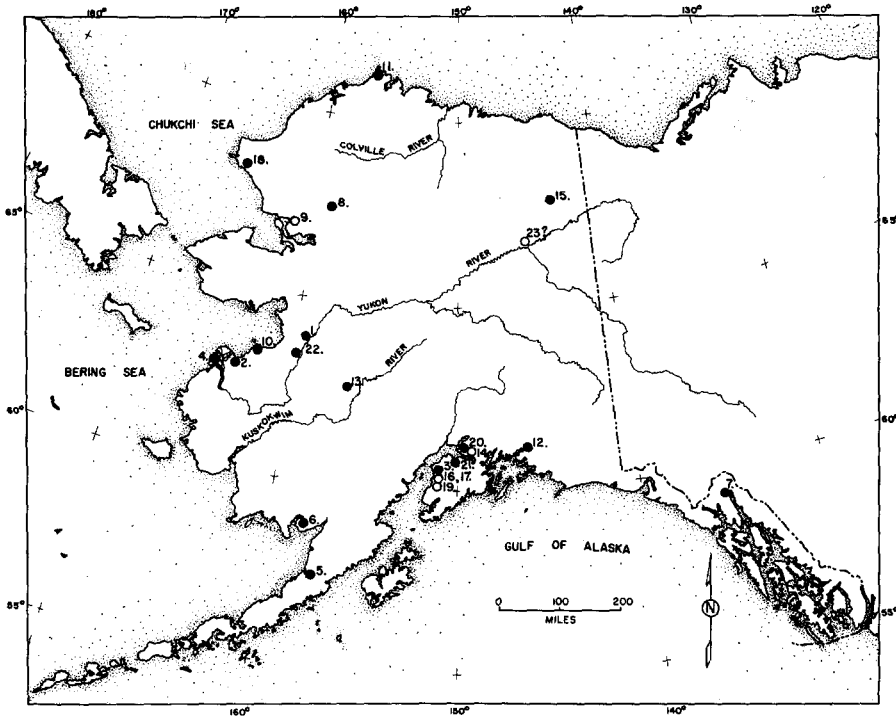


Fig. 1. Map of Alaska showing localities where Hudsonian Godwits (*Limosa haemastica*) have been seen (hollow circles) or collected (solid circles). Numbers relate to localities listed in table 1.

One locality, Nushagak, has been indicated (table 1 and fig. 1), although there is some uncertainty concerning the precise area where this bird was collected. The label on the specimen (USNM no. 86569) reads "Bear Creek, Neshegak, Alaska." We have been unable to locate this particular "Bear Creek" although there is such a stream near Ugashik, on the Alaska Peninsula, a site where the collector, C. L. McKay, was known to have been active earlier the same summer. There is a strong possibility that the Ugashik area is the correct locality, as the following remarks tend to indicate.

Gabrielson and Lincoln (1959:407) reported that a specimen of the Hudsonian Godwit was collected at Ugashik on July 18, 1881. This specimen is no longer extant at the United States National Museum. But two specimens of Marbled Godwit (*Limosa fedoa*) exist (USNM nos. 86570, 86571), reported by both Osgood (1904:63) and Gabrielson and Lincoln (1959:403) to have been collected by McKay at Ugashik. Osgood stated that these birds were immature and that they were listed in the museum catalogue as *Limosa hudsonica*. George E. Watson, who examined these specimens for us, found one to be an adult and the other to be an immature bird just completing the postjuvinal molt. The latter still has down attached to many of the feathers of the head and neck, the primaries are immature, and the bird was surely able to fly only weakly, if at all. This apparently constitutes a definite breeding record for the Marbled Godwit for Alaska. One other specimen of the Marbled Godwit (USNM no. 86572), an immature female just completing the postjuvinal molt, was collected at the same Bear Creek locality and on the same date as the previously mentioned Hudsonian Godwit from that area. This could have been the second immature bird mentioned by Osgood.

Cahalane (1959:155) stated that Gerald L. Brody saw a Marbled Godwit on a mud flat at the mouth of the McNeil River, 23 miles northwest of the boundary of the Katmai National Monument. This location on the Alaska Peninsula is near other localities where the Hudsonian Godwit has been collected, and since there are so few positive records for the Marbled Godwit in Alaska, we feel that the bird seen was probably *haemastica*.

Distribution and numbers in the Cook Inlet region.—The Hudsonian Godwit was reported from the Cook Inlet region on two occasions prior to 1955, both these records relating to specimens from Kenai (figs. 1, 2). Ferdinand Bischoff and A. Seale collected

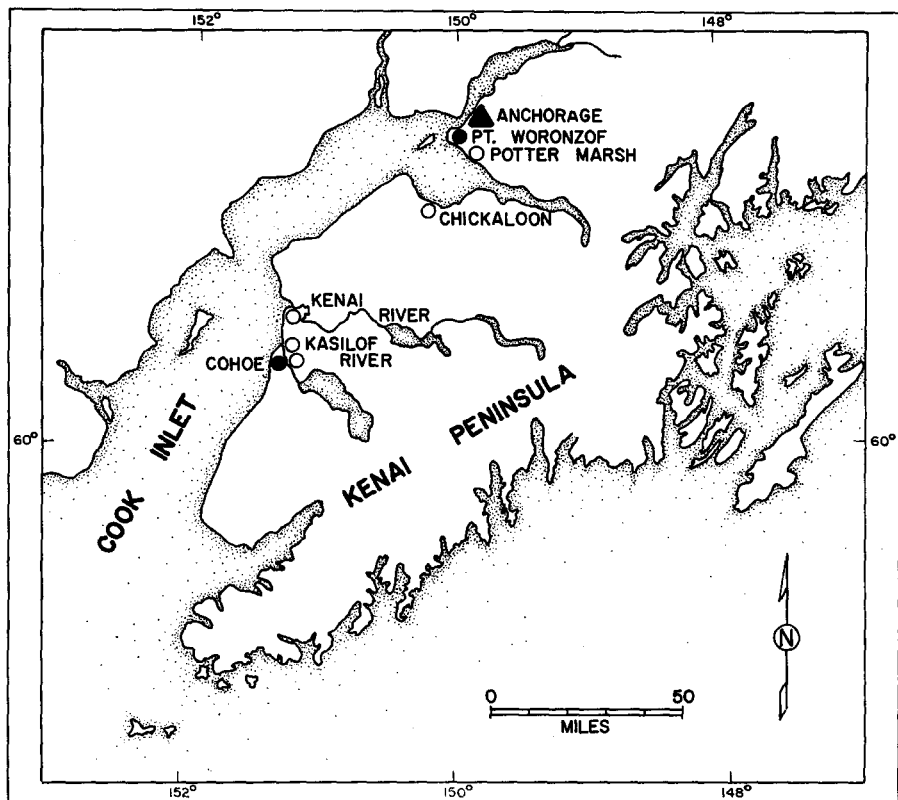


Fig. 2. Map of Cook Inlet region showing localities where Hudsonian Godwits have been observed. Solid circles indicate breeding localities.

nine and two birds, respectively. In 1955, one individual was seen on Potter Marsh, nine miles south of the city of Anchorage. Although both of us, as well as Leonard J. Peyton, were very active in the field in this region from 1955 on, it was not until May, 1958, that one bird was seen again, at the mouth of the Kasilof River. Two years later, in May of 1960, a single bird was again observed in the same Kasilof area. The record from 1960 to the present time indicates the presence of relatively large numbers of this species, as the following details indicate.

In 1960, Hudsonian Godwits were regularly present in the Cohoe-Kasilof area from June 28 through August 21; although usually only one or two individuals were seen at

one time, a flock of 12 was noted on August 20. None was observed during 1960 in the upper Cook Inlet area, near Anchorage.

In 1961, from June 15 through August 27, these godwits were again regularly observed in the coastal area between Cohoe and the mouth of the Kasilof River. The birds were usually solitary, but four were seen on August 4, 18 on August 12, and nine on August 24. Four of these birds were observed at Potter Marsh in the upper Cook Inlet area on May 11, 1961, by Malcolm E. Islieb. Following this last observation, groups were seen a few miles farther north on the Point Woronzof Marsh throughout the month of May; the largest number, 12, was noted by Peyton on May 23. After May 27, no further records were obtained until August 20, when groups of eight, twelve, and three appeared at Point Woronzof.

In 1962, Hudsonian Godwits were present in the Cohoe-Kasilof River area from May 1 until August 27. All records were of one or two birds with two exceptions, 16 on August 10, and 11 on August 25. Also during that year observations were made by Steven R. Smith at the mouth of the Kenai River, where three birds were seen on May 7, one on May 9 and 11, and a flock of 29 on August 14. Frequent trips were made on the marsh during the intervening period but no godwits were seen. One additional observation was made on the Kenai Peninsula by S. R. Smith on September 1, when three Hudsonian Godwits in winter plumage were found on the marshy flats bordering Chickaloon Bay. In the vicinity of Anchorage, Hudsonian Godwits were seen from May 4 until August 2 on nearly every trip to the marshes located at Point Woronzof and Potter. On May 7, 34 were observed at Point Woronzof, and on May 10, approximately 30. The numbers present in late May and June were generally small, although a group of ten was noted on July 3. All of these localities are shown in figure 2.

BREEDING OF THE HUDSONIAN GODWIT

The first record which indicated breeding of the Hudsonian Godwit in Alaska was that of McLenegan (1889:120) in 1884, on the upper Kobuk River. McLenegan stated that the species was common and nesting on the tundra early in June; as mentioned earlier, the birds later concentrated in large numbers about Kotzebue Sound.

Second, Nelson (1887:117) reported that a specimen collected at Kenai was a young bird in its first plumage. Although the year was not given, this specimen was probably one of those collected by Bischoff in 1869. Although reported by Nelson to be in the collections of the United States National Museum, it is now missing. Nelson's description of the plumage of this bird agrees well with that for the young given by Ridgway (1919:192), and there is no reason to doubt that it was a bird-of-the-year produced somewhere in the vicinity of Kenai.

A third indication of breeding, apparently overlooked by subsequent writers, was provided by two specimens collected by A. Seale on July 26, 1906, at Kenai (Grinnell, 1910:41). Both specimens were examined by Grinnell and considered to be immature females, that is, probably birds-of-the-year; it is doubtful that young of the previous year could be so distinguished. It seems probable that these young birds were the result of a nesting somewhere in the Cook Inlet region.

The last definite record in the literature indicating breeding is the immature bird collected at Point Barrow in 1867 by the McIlhenny Expedition and incorrectly identified by Stone (1900:27) as *Limosa fedoa*. This bird could have been the result of a nesting in Alaska or it is quite possible that it wandered to the west from a breeding location in the Mackenzie River area.

Breeding of the Hudsonian Godwit at Cohoe.—The next evidence of nesting, in this instance a well-documented record, was that of M. A. Smith at Cohoe in 1960. On

June 28, two adult Hudsonian Godwits were found in a marsh approximately two miles inland from Cook Inlet. This marsh, like others in the region, is a large, open expanse ringed by spruces (*Picea glauca*, *Picea mariana*), heavily dotted with small shallow pools of standing water only a few yards across, and covered with a dense stand of grass and sedges (*Carex* spp.) variously intermixed with other plants. Such a pond is shown in figure 3. Aquatic plants commonly associated with the pools on these marshes

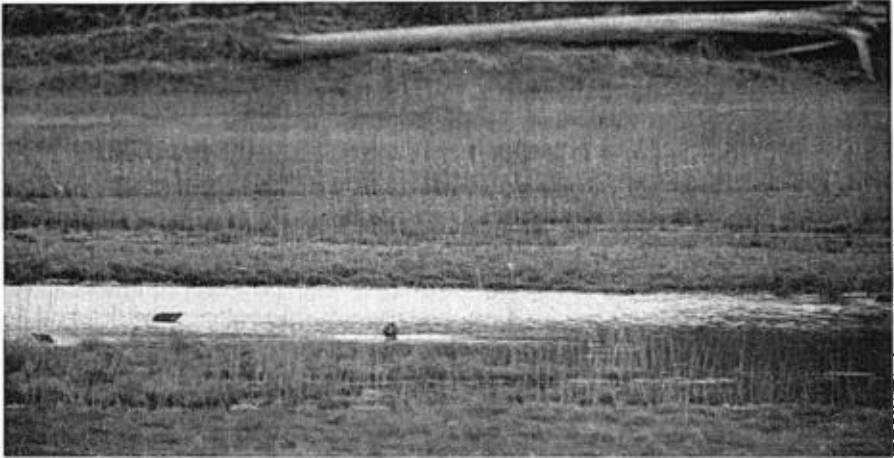


Fig. 3. Two Hudsonian Godwits (right) feeding in company with a Short-billed Dowitcher (*Limnodromus griseus*) on a marsh near Anchorage, Alaska. Photograph taken in May, 1963, by William J. Mills, Jr.

include *Menyanthes trifoliata*, *Caltha palustris*, *Potentilla palustris*, and species of *Potamogeton*, *Utricularia*, and *Carex*. Low, shrubby, woody plants are commonly found on the marshes, primarily around the fringes or in drier areas, and include *Betula glandulosa*, *Chamaedaphne calyculata* and *Myrica gale*.

The godwits appeared one after the other and evinced considerable alarm at the presence of the intruder. When a second trip was made to the marsh on July 2, the two birds were found in the same vicinity and again seemed much agitated by the intrusion. At this time it was believed that this pair of birds had a nest nearby. On a third trip, on July 6, a young godwit was found in company with the adults. This bird was standing on a moss-covered islet in the center of a pool but promptly entered the grass and other vegetation at the margin of the water. The adults were alarmed and displayed nearby. The juvenile, still with down adhering to the plumage, possessed whitish underparts, an unstreaked breast and grayish back, and a noticeably upward curving bill. Although still unable to fly, the young bird proved adept at concealing itself in the vegetation. In comparison with young Greater and Lesser yellowlegs (*Totanus melanoleucus* and *Totanus flavipes*) also present, the juvenal godwit had a much longer neck and legs. Only one other trip was made to the marsh, on July 20, when a single adult godwit was seen at some distance from the site of the earlier observations.

On the same marsh in 1961, on June 15, a single Hudsonian Godwit vigorously protested the presence of the observer. A return trip on June 24 revealed the presence in the same area of two adults, both of which were much alarmed, and it seemed likely that a nest was nearby. On the same day, at a spot approximately 500 yards distant, another godwit appeared and behaved in an alarmed fashion. This bird could have been

one of the pair seen earlier or, more likely, was from another pair. No further trips to the marsh were made in 1961.

In 1962 the first trip was made to the marsh on June 18. A single bird was present and flew to meet the observer at the edge of the marsh. High water prevented further investigation on that date. A second and final trip was made to the marsh on June 25 and on that occasion no godwits were seen.

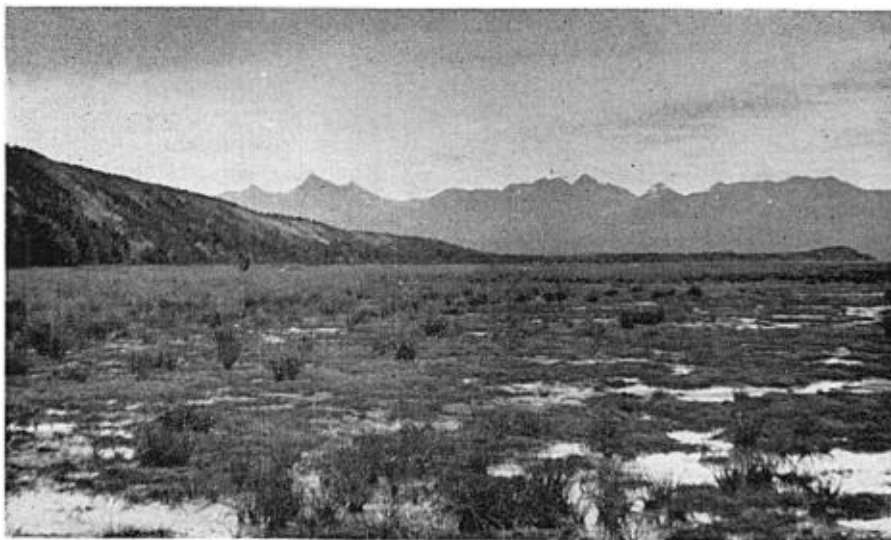


Fig. 4. Marsh at Point Woronzof near Anchorage, Alaska, where Hudsonian Godwits were observed in 1962-1963. Photograph taken by Malcolm E. Islieb.

Breeding of the Hudsonian Godwit at Point Woronzof.—Following the sighting of this species on the very similar marsh at Point Woronzof (fig. 4) by Islieb on May 11 and 16, 1960, Peyton collected two birds on May 23 from a group consisting of six pairs. The data for these birds are: female, largest ovum 6 mm., four collapsed follicles, oviduct enlarged, incubation patches present, light fat, weight 247.9 gm.; male, testis 12 mm., light fat, weight 221.0 gm. The condition of the reproductive tract of the female indicated that nesting was underway and that four eggs had been laid. It is interesting that both of the known Cook Inlet nesting localities are on marshes in forested areas in contrast to the treeless situations where this species was previously known to breed.

More intensive observations were made on the marsh at Point Woronzof in 1962. The birds did not appear to arrive in pairs, but as early as May 13, one week after the species was first seen, several definite pairs were among the 18 birds observed. At the time of arrival, and for a week to two weeks thereafter, the birds were very noisy and displayed frequently. The prominent vocalizations were in striking contrast to the generally silent nature of this species reported by others during the nonbreeding season (Bent, 1927:299). The display flights observed consisted of the male flying a few feet above the ground in a circular path with rapidly fluttering wing tips and uttering a constantly repeated single, clear whistled note. On the ground the birds chattered and called among themselves as they foraged in the soft mud at the margins of the pools.

Richard T. Holmes visited the marsh several times weekly during May of 1962

and made incidental observations of the Hudsonian Godwit while engaged in a study of another species; he believed that there were four established pairs of godwits present after May 15. These were distributed among small ponds in an area about 400 to 500 yards in length and 100 yards in width. On May 8, aggressive behavior was observed among birds on the ground; an individual would lower and extend the head forward, depress the tail, and run at and sometimes supplant other feeding birds. On May 15, a male made several flights over an area of about two acres, alternately flying on shallowly beating wings or gliding on stiffly held, downward-curving wings. During this flight a double-noted whistle, *baa-leep*, was given. In addition to such territorial behavior Holmes also witnessed courtship display, which took place both in the air and on the ground. The aerial component consisted of long flights with the female in the lead and the male following behind and slightly below. Intermittently, his wingbeats were shallow and his head was held above the horizontal. Display on the ground consisted of the male following the female in an upright posture with the tail cocked, but not spread. By May 25 all display activity was markedly reduced.

There appeared to be a definite sexual dimorphism in this species as described by Bent (1927:297-298) and contrary to the statement by Ridgway (1919:191) that the sexes are alike. In general, the female is larger and lacks the rich brown underparts of the male.

Copulation was observed once on the Point Woronzof Marsh on May 13, 1962. It is apparent, however, that not all the birds arrive with the gonads in breeding condition. Evidence for this is the condition of a male collected by S. R. Smith on the marsh at the mouth of the Kenai River on May 7, 1962. The testes of this bird were less than 2 mm. in length.

On July 26, 1962, at Point Woronzof, Peyton observed two juvenal Hudsonian Godwits with a group of Short-billed Dowitchers (*Limnodromus griseus*). It seems probable that these birds were from a nest in the immediate vicinity.

DISCUSSION

One of the more interesting aspects of this summarization of records is the long period of time, 1907 until 1951, during which this species was not observed in Alaska. Otherwise, the records before 1907 and after 1951 have been generally consistent, although two 12-year gaps, 1869 to 1881 and 1884 to 1896, are evident. Hudsonian Godwits were not observed in the Cook Inlet region from 1869 to 1906, a span of 37 years, even though Osgood (1901, 1904) and others were actively collecting there at that time. The lack of records, especially from 1907 to 1951, prompted Gabrielson and Lincoln (1959:407) to remark that "in view of the greatly reduced numbers of this fine bird, it is not probable that it will be found again in the Territory." These authors were, of course, unaware of the 1951, 1955, and 1957 records, all of which were unpublished in 1959. Snyder (1957:181) stated that "there is some indication that its population may have increased recently." If so, this might help to explain the reappearance of this bird in Alaska after an absence of 44 years; however, it seems more plausible to us that the normal situation is one of dispersal of an uncommon and erratically occurring shorebird over a vast land where few ornithologists are or ever have been present. These latter factors in combination are sufficient to account for the interesting history of this species in Alaska.

It can be seen in figure 1 that the southernmost coastal record for this species is on the Chilkat River in southeastern Alaska. There are, as far as we can determine, no other records for the west coast of North America. The appearance of this species on the coast at a point distant from the known range might indicate that the bird had

arrived just prior to the onset of breeding. An almost certain nesting area has been located in Chilkat Pass, British Columbia, a few miles to the northwest. Weeden (1960: 126) observed a pair on a territory in that vicinity during June and July of 1957 and 1958, extending the breeding range in Canada approximately 700 miles to the south. The two records, 1882 and 1957-1958, might also indicate long occupancy of the Chilkat River-Chilkat Pass area. This godwit is transient through the Peace River parklands of northeastern British Columbia and two specimens have been taken at Atlin (Munro and Cowan, 1947:112). This lack of coastal records together with the general absence of observations of the species in interior Alaska suggest to us that dispersal is primarily west and south around the coast after the birds arrive on the breeding grounds in northern Mackenzie. There is no evidence for a coastwise migration from the south and very little for one across the state from east to west.

Nelson (1887), after a brief comment concerning the scarcity of records from localities about the Bering Sea, stated (p. 117) that "at Fort Yukon it occurs more commonly as a migrant, but thus far it is not known to breed within the Territory, although it undoubtedly does." We can find no basis for the first part of this statement, as Nelson did not collect or make observations at Fort Yukon. The only prior ornithological work at that locality was that of Dall (1869:269) in the spring of 1867, who did not see the Hudsonian Godwit. The fact that one specimen was collected at a point 70 miles north-east of Fort Yukon (Kessel, 1960:482) tends to support Nelson's remark. Certainly, the Yukon River valley would seem to provide a likely route for birds migrating across Alaska from the east.

The records of occurrence of the Hudsonian Godwit in Alaska are seen then to span the years from the first intensive ornithological investigation in the region until the present time. Breeding at such widely separated localities as the Kobuk River and Cook Inlet is either indicated or well substantiated. There is no reason to believe that Alaska has not been a part of the normal breeding range for a long period of time.

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SUMMARY

All records of occurrence of the Hudsonian Godwit (*Limosa haemastica*) in Alaska have been summarized and the localities plotted on a distribution map. Evidence suggesting breeding of this species in Alaska was found in at least three early reports. Breeding of the Hudsonian Godwit in the Cook Inlet region of south-central Alaska was substantiated by the discovery of adults with a young bird on the nesting area, the collection of a female with collapsed follicles in the ovary and possessing incubation patches, and the observation of two juveniles. Display, pairing activity, and copulation were also observed. The gap in records of occurrence between the years 1907 and 1951 is believed to be due to lack of observers, the vastness of the region under consideration, and possibly also a general decline in numbers of this bird. Spring migration in Alaska apparently begins in the north and proceeds west and south through the coastal areas. It is felt that this species has a record of occurrence and breeding in Alaska which antedates the observations of the first ornithologists in the region.

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