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UGASHIK MARBLED GODWIT TRIP REPORT AND WILDLIFE LIST

29 May - 3 June 1992

By

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and

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Introduction

Marbled godwits (*Limosa fedoa*) were first recorded in Alaska in 1881 at Ugashik, but were not observed in the state again until 1967 (Gibson and Kessel 1989). In 1982, marbled godwits were rediscovered at Ugashik Bay by the U.S. Fish and Wildlife Service (USFWS) during aerial waterfowl surveys, on 3 June, and a count of 700-1000 birds was made on 12 June by M. E. Isleib (Gibson and Kessel 1989). Gibson and Kessel (1989) observed marbled godwits each day 10 - 17 June 1983 "as they flew between a still-undiscovered nesting area - somewhere above the lower reaches of the King Salmon and Dog Salmon rivers - and the vast tide flats of the bay..." No marbled godwit nests or broods have yet been found in Alaska.

Alaska's marbled godwits were recently described as a new subspecies (*L. f. beringia*) by Gibson and Kessel (1989). The Alaska population is distinguished from other populations by shorter tarsi, shorter wings, shorter culmens, and more massive bodies. The population is thought to winter along the northern Pacific coast from San Francisco Bay to Washington state (gibson and Kessel 1989), but definitive data is lacking.

Because of high oil and gas potential (USFWS 1985) on mostly state and native lands in the potential breeding area of this rare species (Armstrong 1990), we believe it is important to document actual nesting and describe the nesting habitat. Threats to marbled godwits on the wintering grounds cannot be evaluated until their winter range is conclusively determined.

Methods

We selected a study site (Figure 1) above the lower reaches of the Dog Salmon River (based on Gibson and Kessel 1989) on Alaska Peninsula National Wildlife Refuge which appeared to have potential for godwit nesting. The site we selected was centered in T. 33 S., R. 50 W., Seward Meridian (Figure 2), appeared to be accessible by float plane, and appeared to have a variety of habitats available for sampling within easy walking distance.

Limited information in Gibson and Kessel (1989) exists to suggest when Ugashik marbled godwits may be on nests. Other shorebirds can begin nesting on the Yukon Delta in late May or early June (Gill and Handel 1990, M. North pers. obs.). Despite the potential for being on the breeding grounds too early, we selected the period of 29 May - 5 June to look for nests, because of schedule conflicts later in June.

From our base camp we hiked in different directions on different days, recording the amount and type of habitat searched, and the number and behavior of godwits observed. We also recorded the numbers of all other birds and mammals we observed (see Appendix A). The Dog Salmon River is the only geographic feature named near our study area so we assigned names to the lakes within the area (Figure 3) to facilitate communicating our observations. The amount of area we searched was calculated by multiplying the linear distance we walked by an arbitrary figure of 200 m each side of the transect in open areas and 50 m each side of the transect in shrubs and trees. Where transects followed edges of habitats, the linear footage of the transect was split

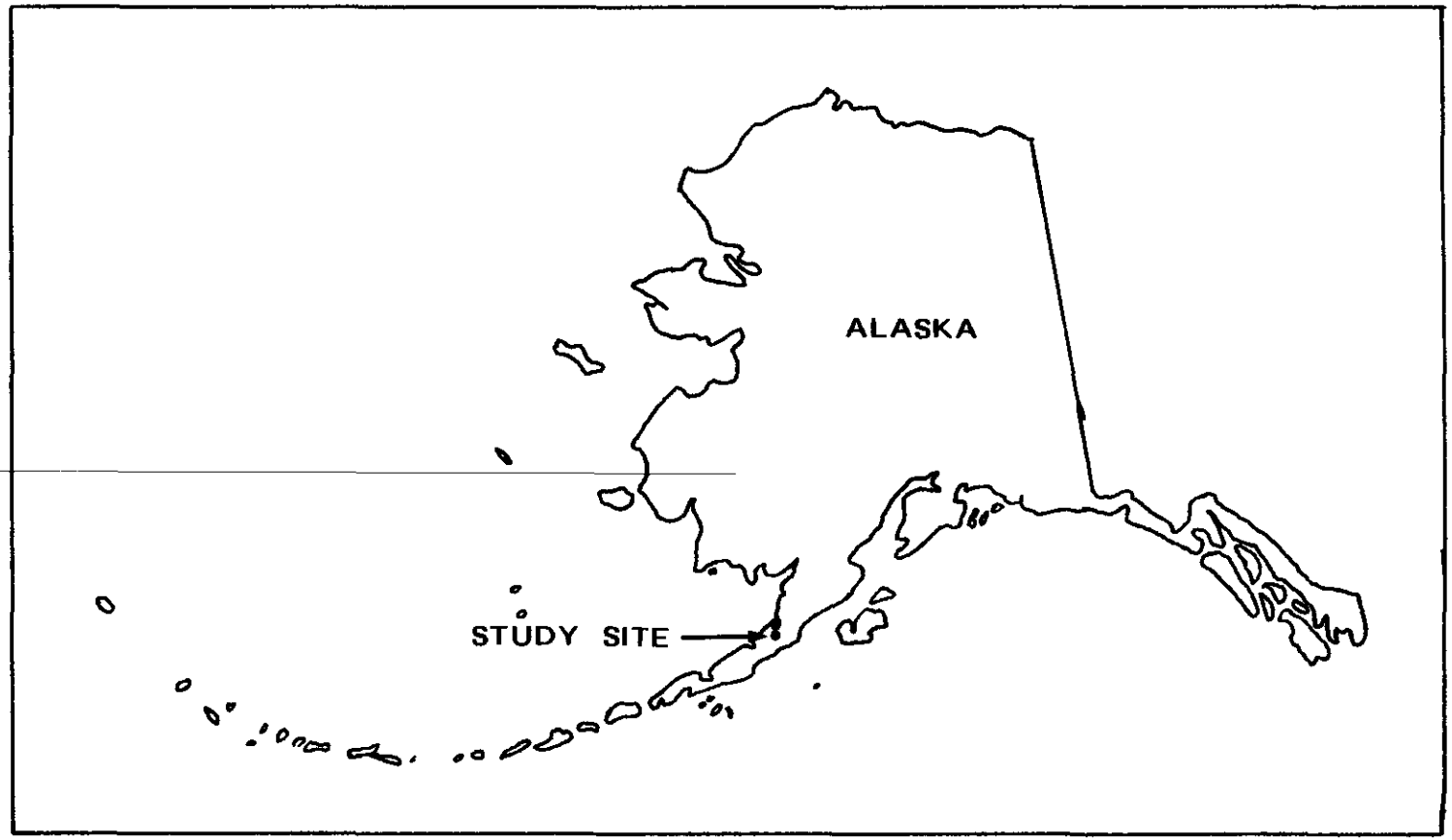

FIGURE 1. LOCATION OF STUDY AREA IN ALASKA.

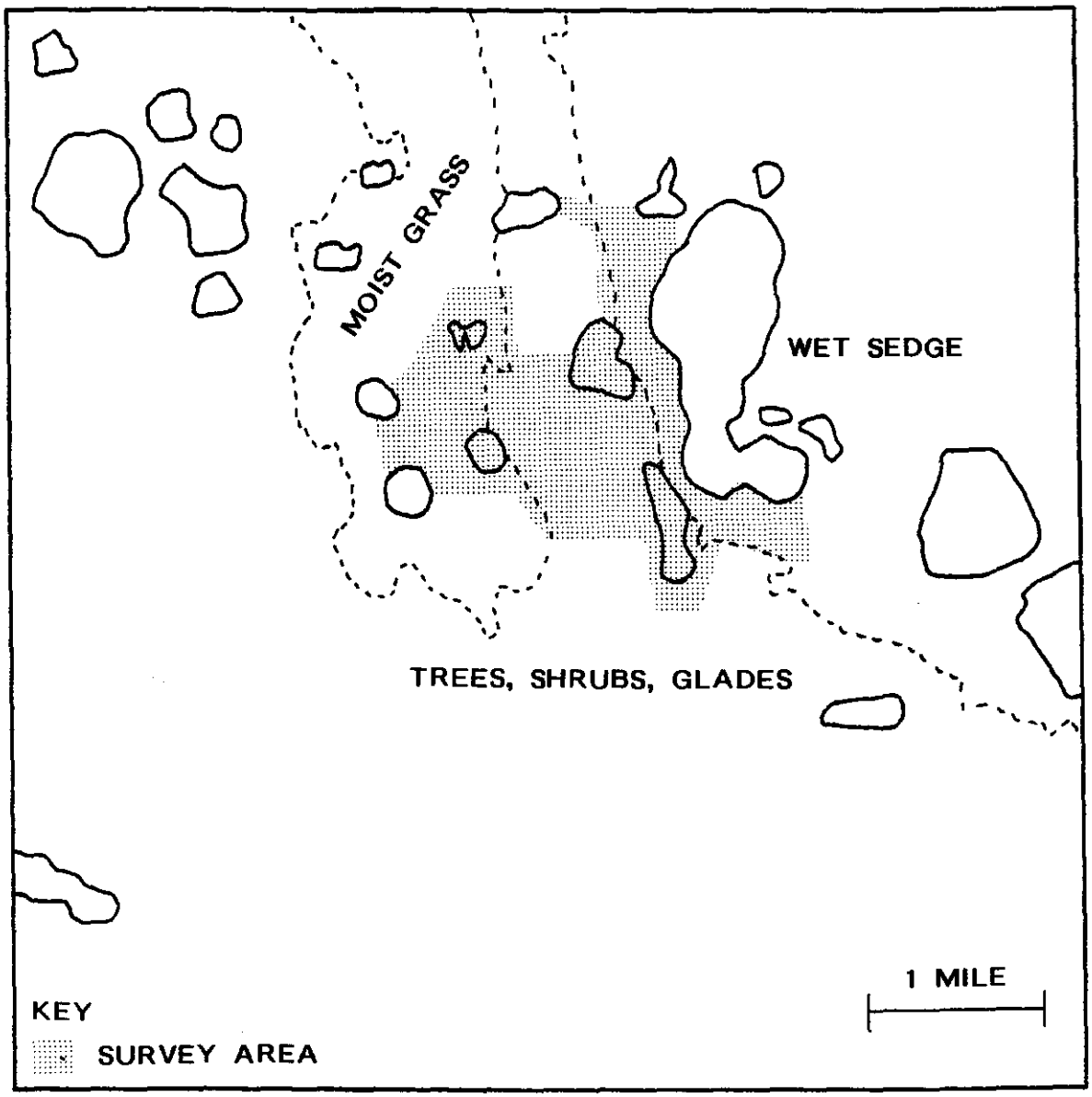

FIGURE 2. THE SURVEY AREA AND GENERAL HABITAT TYPES IN T.33 S., R. 50 W., SEWARD MERIDIAN.

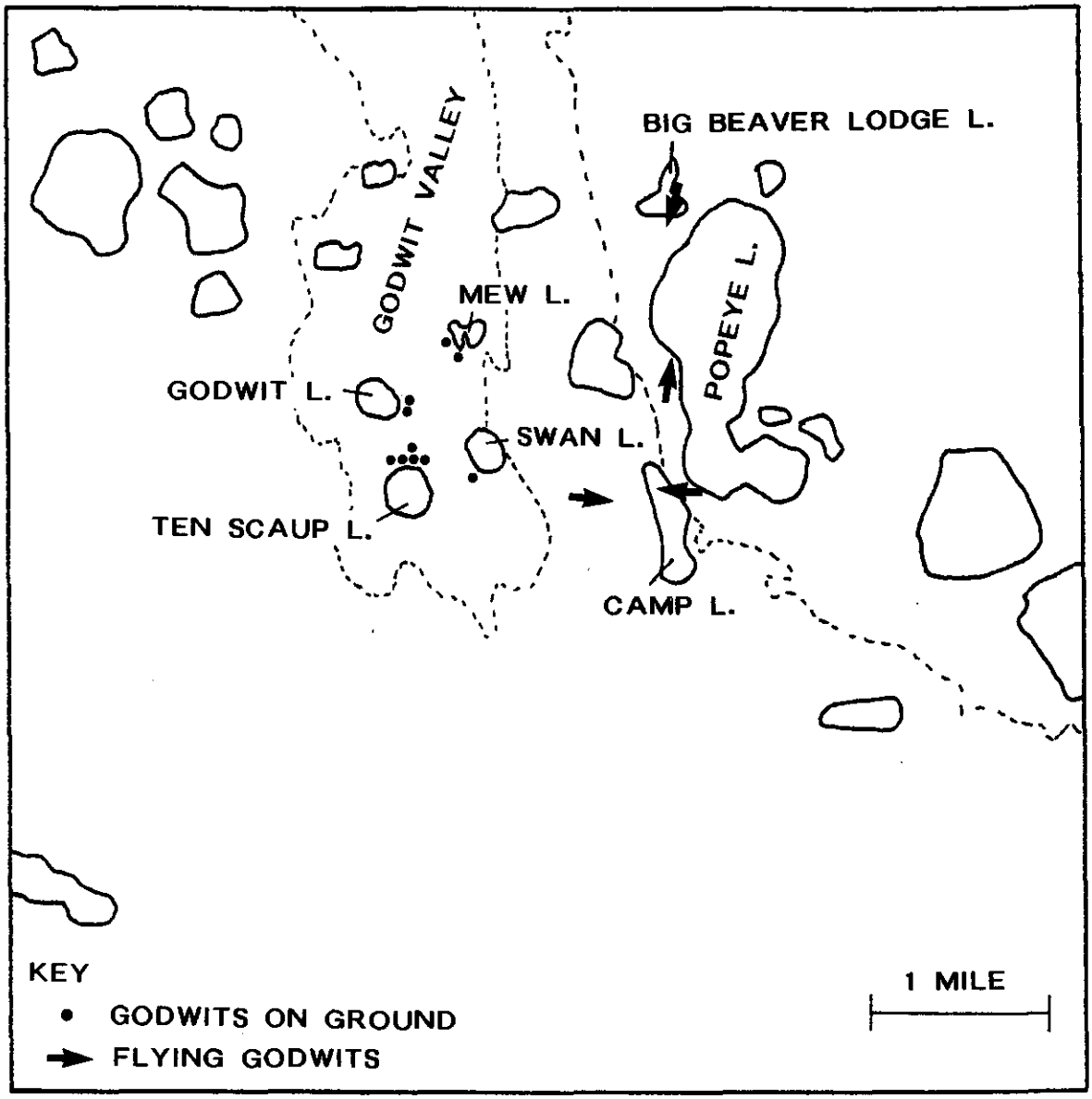

FIGURE 3. LOCATIONS OF GODWITS FOUND 30 MAY - 2 JUNE 1992.

between the two habitats and appropriate widths assigned. The area we effectively searched was probably greater than this because when we did encounter godwits they usually observed us and flew towards us from greater than 200 m away.

Results

We conducted surveys on 4 days (30 May - 2 June) and observed godwits each day (Figure 3).

On 30 May at 10:50, 1 marbled godwit was observed flying north along the west shore of Popeye Lake, at about 10 m altitude. It appeared to want to land, but then kept flying north out of sight. At 13:20, 1 marbled godwit flew over Big Beaver Lodge Lake, flew a figure-8 pattern in front of us at the south end of the lake, gave the "gowit" call a few times, then flew back over Big Beaver Lodge Lake. Later observations of territorial godwits lead us to believe this second bird was exhibiting territorial behavior.

On 31 May we heard a marbled godwit calling between Camp Lake and Popeye Lake at 08:15. We then saw it circling over a male northern harrier (Circus cyaneus), calling. After the harrier left, the godwit flew over camp and out-of-sight behind the ridge west of camp.

On June 1, at 12:40, 1 marbled godwit flew in and landed on the west shore of Mew Lake. At 12:50 another godwit flew in from the south, circled, and the two flew to the south together. At 13:20, 1 godwit (probably 1 of the 2 previous godwits) landed on the west shore of Mew Lake, and remained there until after 14:00. At 14:10, 1 godwit flew in and landed near Mew Lake. Just before that we heard 1 godwit call to the north and 1 to the south. The bird that landed may have been one of those that we heard calling.

On 2 June we found several pairs of marbled godwits. At 09:25 a single godwit flew towards us from the west of Camp Lake when we were in a glade not far from camp. It made a "U" turn in front of us and headed back west out-of-sight over the ridge. At 11:05 a single godwit took off from west of Swan Lake and landed near the southwest corner of Swan Lake. It flew off to the south when we disturbed it.

From 11:30-11:45, 5 godwits (2 pairs and a single) landed in a pond of emergent buckbean (Menyanthes trifoliata) and horsetails (Equisetum sp.) north of Ten Scaup Lake and foraged. One pair departed to the southeast, and shortly thereafter the three remaining godwits took off and circled to the southwest. The single bird veered off from the pair and returned to the pond. We watched the bird off-and-on until 12:20 as it foraged and we ate lunch. From 12:20-12:40 we walked around to try to find the godwit which had disappeared for awhile. We soon flushed it, and it flew around us calling (but not acting defensive of a nest). That calling caused 1 godwit from the north and 1 godwit from the south to fly into the vicinity, each of them calling also (possibly territorial defense). Meanwhile, we relocated one of the original pairs on the ground immediately west of the buckbean pond. The pair just stood there and called at us as we walked around. They appeared to

be on their territory (but not yet nesting) in an expanse of sedges (Carex sp.) with mosses and dwarf shrubs, that was moist but not too wet.

At 13:00 we observed a marbled godwit chase a short-billed dowitcher (Limnodromus griseus) around in several figure-8 patterns until the dowitcher left, then the godwit landed in an area of moist-Carex/dwarf-shrub habitat at the east-southeast corner of Godwit Lake. While chasing the dowitcher, the godwit was calling. That prompted 1 godwit to the north and one of those to the south to do an aerial display. Soon after, a second godwit joined the first one on the ground. They appeared to be a territorial pair.

We identified four major types of habitat, excluding open waters, within our survey area:

1. Super-saturated Carex/dwarf-shrub expanses predominated around Popeye and Big Beaver Lodge lakes. This habitat was dominated by unidentified sedges (Carex spp.) and mosses. Dwarf willows (Salix spp.), dwarf birch (Betula nana), and horsetails were also abundant; and bog rosemary (Andromeda polifolia), marsh fivefinger (Potentilla palustris), and marsh marigolds (Caltha palustris) were common. A few scattered willows measuring 1-2 m tall and a few natural hydrocarbon seeps were present. We surveyed 120 ha (6008 linear m) of this habitat (Table 1) and observed 3 individual godwits flying over it. Two of the godwits appeared to be simply flying over this habitat but the other (at Big Beaver Lodge Lake) may have been exhibiting territorial behavior.

2. Moist Calamagrostis/dwarf-shrub expanses predominated in the valley that contained Swan, Mew, Godwit, and Ten Scaup lakes; and south of Popeye Lake along the base of the hill where tall shrub habitat begins. This habitat is dominated by reed bentgrass (Calamagrostis sp.), but within this major habitat type numerous pockets of other habitats are interspersed. It has scattered willows measuring 1-2 m tall, a few shallow ponds, some deep ponds, and interspersed moist sedge meadows. We surveyed 142 ha (7135 linear m) of this habitat (Table 1). This is the habitat in which most marbled godwits were observed, including all godwits that were observed on the ground and in pairs. Most godwits were actually using the more moist habitat types interspersed among the Calamagrostis expanse.

3. Moist Calamagrostis/dwarf-shrub habitat also occurred in glades in tall shrub habitat on hillsides, and contained more scattered willows than the former habitat type. We searched 110 ha (5499 linear m) of this glade habitat (Table 1), and only 1 godwit was first observed there. It flew towards us as we were walking, circled us once, and flew back towards the valley containing expanses of moist Calamagrostis/dwarf-shrub habitat.

4. Salix/Populus stands occurred only on slopes and hillsides, and could actually be considered two habitat types. Willows were usually 1-2 m tall, whereas cottonwoods (Populus balsamifera) were 2-5 m tall. We searched 22 ha (4345 linear m) of these habitats and found no evidence marbled godwits used them.

Table 1. Habitat types sampled and numbers of marbled godwits observed inland from Ugashik Bay.

Habitat type	Linear meters searched (m)	Effective search width (m)	Area effectively searched (ha)	No. godwits obs. (flying/ on ground/ heard)
Carex/dwarf-shrub expanses	6008	200	120	3/0/0
Calamagrostis/dwarf-shrub expanses	7135	200	143	0/10/1
Calamagrostis/dwarf-shrub glades	5499	200	110	1/0/0
Salix/*Populus* stands	4345	50	22	0/0/0

Potential predators on marbled godwit adults, eggs and chicks observed were northern harriers (Wishart and Sealy 1980), rough-legged hawks (Buteo lagopus), bald eagles (Hiliaeetus leucocephalus), glaucous-winged gulls (Larus glaucescens), parasitic jaegers (Stercorarius parasiticus), common ravens (Corvus corax), and brown bears (Ursus arctos) (see Appendix A). A hypothetical sighting of a northern goshawk (Accipiter gentilis) also occurred. Red foxes (Vulpes vulpes) and weasels (Mustela spp.) are likely to be common in the area, and short-eared owls (Asio flammeus) probably occur in fluctuating numbers (M. North pers. obs. from Izembek NWR).

Discussion and Recommendations

Marbled godwits showed a distinct preference for Calamagrostis/dwarf-shrub habitat expanses from among the habitat types available to them. Within that broad habitat type, numerous other habitats were available, and godwits seemed to prefer the more moist areas. In North Dakota, marbled godwits selected areas with a greater abundance and variety of wetland classes than were generally available in order to increase the likelihood preferred habitat components would be available throughout the breeding period (Ryan et al. 1984). The tall Calamagrostis sp. may provide an essential escape cover for chicks.

Only one territorial pair of marbled godwits has previously been reported (in Gibson and Kessel 1989), but no specific location was given. The habitat type where the pair occurred was only generally described as "dwarf shrub meadow," which is probably synonymous with our Calamagrostis/dwarf-shrub expanses. Now that territorial pairs of marbled godwits have been precisely located, we believe additional studies can and should be planned. Aspects of additional work that we believe should be conducted include:

1. Nest searches should be conducted in Godwit Valley during 10-25 June from a base camp set up near Swan Lake (if by helicopter) or Ten Scaup Lake (if by float plane). Vegetation and other characteristics of nest sites should be described and quantified.

2. Total population counts should be made at Cinder River Lagoon and Ugashik Bay at least once a month from May through September to estimate total population, identify critical staging and foraging habitats, and further describe the chronology of the breeding season (e.g., pre- and post-breeding dispersal).

3. Adults and chicks should be captured and fitted with colored (preferably orange) tarsal bands so that the winter range of this population can be delineated through visual returns. Morphological measurements should be taken on captured adults to refine the range of individual variability and confirm (or reject) the findings of Gibson and Kessel (1989) regarding subspecific status of the Alaska population.

4. A contract should be let with EROS Data Center to conduct SPOT MSS mapping and habitat classification of the area from north of Ugashik Bay to at least south of Cinder River Lagoon. Habitats showing the same spectral image as Godwit Valley should be spot checked for godwit

territories. Pending those results, development activities in the Ugashik area should be examined with godwit habitat in mind and directed away from potential godwit habitat.

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Appendix A

The following birds and mammals were observed during our search for marbled godwits, 29 May - 3 June 1992. Refer to Figure 3 for locations of lakes.

Common Loon. A pair was observed regularly on Kidney Lake. One or two individuals were occasionally present on Camp Lake.

Red-necked Grebe. One was observed on Popeye Lake 30 May.

Tundra Swan. A pair with a nest south of Popeye Lake was observed each day. On 31 May the nest contained 4 eggs. A non-nesting pair was observed on Camp Lake and Popeye Lake, and 2 singles were observed (1 on Swan Lake and 1 on Kidney Lake). Other distant pairs were frequently heard calling, apparently during territorial disputes.

White-fronted Goose. Numerous pairs and small flocks were observed daily, but no evidence of nesting was found. Most birds were observed in the valley west of our camp (i.e., Godwit Valley).

Mallard. A female with a brood of 12 Class 1A ducklings was observed on a beaver pond 31 May. Also, 2 pairs, 4 lone males, and 1 lone female were observed.

Northern Pintail. We observed 14 northern pintails.

American Wigeon. We observed 16 American wigeon.

Green-winged Teal. One male flying over Camp Lake was observed 1 June.

Greater Scaup. Very common. Observed on most lakes in the survey area.

Common Goldeneye. A flock of 4 (2 pairs) was observed flying east of camp 30 May.

Barrow's Goldeneye. A flock of 2 males and 1 female was observed at close range circling Camp Lake 31 May.

White-winged Scoter. The most abundant duck in the study area. Numerous birds, many in pairs, congregated on Popeye and Camp Lakes.

Common Merganser. A flock of 12 was observed flying west on 1 June.

Sandhill Crane. Very common, observed daily. Cranes used open sedge and grass expanses and open glades on willow-dominated hillsides. A group of 7 birds was observed in the open glade west of Kidney Lake on 2 June.

Greater Yellowlegs. Very common, observed daily.

Short-billed Dowitcher. Ten birds were observed, all only in the vicinity of Ten Scaup, Godwit, and Mew Lakes on 1 and 2 June.

Marbled Godwit. Observed daily. A minimum of 16 birds was observed. Paired birds acting territorial and individuals on the ground were observed only in the vicinity of Swan, Ten Scaup, Godwit, and Mew Lakes. Four birds were observed flying over/past the vicinity of Camp and Popeye Lakes, but the behavior of one of these birds suggested it may have a territory north of Big Beaver Lodge Lake.

Least Sandpiper. A total of 8 birds was observed.

Common Snipe. Very common, displaying in/over all habitat types available.

Red-necked Phalarope. We observed a flock of 6 and a pair near Swan Lake 2 June, and a pair on Camp Lake 3 June.

Arctic Tern. We observed 1 near Popeye Lake on 30 and 31 May; 1 on 1 June; and 12 near Swan, Ten Scaup, and Godwit Lakes on 2 June.

Mew Gull. Present only in Godwit Valley, where they were common. One bird was on a nest on an island in Mew Lake.

Glaucous-winged Gull. We observed 1 on 1 June and 2 on 3 June, all flying over Popeye Lake.

Parasitic Jaeger. We observed 1 dark-phase and 7 light-phase parasitic jaegers.

Willow Ptarmigan. Common in willow thickets and Calamagrostis/dwarf-shrub glades.

Northern Goshawk. Hypothetical. A gray-bodied bird with black wingtips and a long tail was observed gliding over a cottonwood grove. It may have been a male harrier, but it did not fly with its wingtips folded upwards.

Northern Harrier. Two males and 1 female were observed hunting over sedge and grass expanses.

Rough-legged Hawk. One was observed 31 May flying over Popeye Lake.

Bald Eagle. Seven adults were observed hunting in the area.

Tree Swallow. Abundant.

Common Raven. We observed 8 birds.

American Robin. We observed 7 birds.

Hermit Thrush. We heard 5 birds calling from cottonwood groves.

Orange-crowned Warbler. One was observed 31 May in some willows.

Yellow Warbler. We observed 1 bird each on 30 and 31 May in willow stands.

Wilson's Warbler. We observed 7 birds in willow thickets and cottonwood stands.

American Tree Sparrow. Very common in willow thickets.

Savannah Sparrow. Abundant in willow thickets and sedge and grass expanses.

White-crowned Sparrow. Common in willow thickets.

Golden-crowned Sparrow. Commonly heard but seldom observed in willow thickets.

Lapland Longspur. Ten birds were observed in sedge and grass expanses.

Common Redpoll. Very common in willow thickets.

Porcupine. One was observed 30 May on a saturated Carex/dwarf-shrub expanse.

Beaver. Very common, every lake had at least one lodge.

Brown Bear. One was observed walking along the shore of Popeye Lake investigating beaver lodges.

Caribou. Approximately 100 individuals were seen, but only 1 female was with a calf (on 2 June).

Moose. Droppings were seen fairly regularly in cottonwood stands and willow thickets.