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NESTING STATUS OF THE COMMON EIDER AND OTHER BARRIER ISLAND NESTING BIRDS ON CENTRAL ALASKAN BEAUFORT SEA BARRIER ISLANDS, 1999

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ABSTRACT

Common eider (*Somateria mollissima v-nigrum)*, glaucous gull (*Larus hyperboreus*), arctic tern (*Sterna paradisaea*), king eider (*Somateria spectabilis*), and American golden plover (*Pluvialis dominica*) nests were located and quantified on barrier islands along the central Alaskan Beaufort Sea coast from Thetis Island to the McClure Islands during 12 to 17 July 1999. Common eider nests were most numerous, accounting for 82% (214 of 260) of all active nests within the approximately 520 ha area searched. Glaucous gulls accounted for 15% (38 of 260) of active nests, and arctic terns accounted for 2% (5 of 260). Mean and 95% confidence intervals of clutch size for common eider nests were 3.03 $\pm$ 0.229 eggs/nest (n = 69), for glaucous gulls 1.80 $\pm$ 0.657 eggs/nest (n = 10), and for arctic terns 1.75 $\pm$ 0.796 eggs/nest (n = 4). When distribution of active common eider nests were compared among the Jones Islands, the Return Islands, the Midway Islands, the McClure Islands, Thetis Island, and Spy Island; active nests were concentrated on the Return Islands (Egg Island) and the McClure Islands (χ^2 = 145.55, df = 5, p < 0.0001, Table 2). Egg Island had by far the highest density of active common eider nests with 7.8 active nests/ha followed by Karluk Island with 1.8 nests/ha and Jeanette Island with 1.0 nests/ha. Glaucous gull nests were also most concentrated on Egg Island with 1.5 nests/ha, followed by Karluk Island with 0.6 nests/ha. Of the 295 recorded common eider nest sites for which habitat data were collected, 10 nest sites (3%) had no driftwood, 90 nest sites (31%) were located in low-density driftwood habitat, 125 (42%) were in medium-density driftwood, and 70 (24%) were in high-density driftwood habitat. Common eider nest sites appeared to occur more frequently in medium-density driftwood and less frequently in no driftwood (χ^2 = 93.43, df = 3, p < 0.0001). The most productive nesting islands during the period 1970 to 1999 were Cross Island (mean and 95% CI = 122.9 $\pm$ 37.41 nests/year), Pole Island (mean = 59.8 $\pm$ 40.35 nests/year), Lion Point (mean = 55.6 $\pm$ 50.59 nests/year), Egg Island (mean = 42.8 $\pm$ 13.37 nests/year), Thetis Island (mean = 41.6 $\pm$ 14.94 nest/year), and Stump Island (mean = 39.6 $\pm$ 22.63 nests/year). The barrier islands have gradually shifted westward and changed configurations over the years, and the boundaries between islands can be confused or non-existent in some years. Because common eiders are long-lived and exhibit remarkable fidelity to nest sites, nest census activities should focus on these locations. Predation by glaucous gulls and arctic foxes (*Alopex lagopus*) had a marked impact on nesting of common eiders in 1999. Of the 85 failed common eider nests, 74 (87%) failed due to depredation, with 86% (64 of 74) of these due to glaucous gulls or undetermined avian predators, and 5% (4 of 74) due to arctic foxes.

Key words: Common eider, *Somateria mollissima v-nigrum,* Pacific eider, glaucous gull, arctic tern, arctic fox, egg predation, central Alaskan Beaufort Sea, Alaska, barrier islands

INTRODUCTION

Although several hundred thousand eiders of four species migrate into the Beaufort Sea each spring (Dickson 1997), only 2,000 to 3,000 common eiders (*Somateria mollissima v-nigrum,* Pacific race of the common eider) nest along the Beaufort Sea coast of Alaska (Johnson and Herter 1989, Johnson 2000). Most common eiders nest in loose aggregations or colonies on coastal sand and gravel barrier islands and many of the most productive aggregations occur in driftwood accumulations on relatively high-elevation islands that lie in the flood plumes of large rivers. Common eiders initiate nests during mid- to late June (Johnson and Herter 1989), producing an average of 4 eggs, which are incubated for approximately 26 days. Female common eiders generally select nest sites in areas of relatively dense driftwood and/or lymegrass (*Elymus arenarius*) cover. Peat banks may also be used for nesting, with hens making nest bowls within the eroded and terraced peat shorelines. Hatching success is positively correlated with cover density (Schamel 1977, Johnson et al. 1987). Broods remain near lakes, in tidal ponds or lagoons, or in the nearshore-ocean for up to 6 to 12 weeks (Johnson 2000) before migrating out of the Beaufort Sea. Details on the biology of common eiders in the Alaskan Beaufort Sea are given in Johnson (2000).

Predation on eggs and ducklings by arctic foxes (*Alopex lagopus*) and glaucous gulls (*Larus hyperboreus*) can be heavy in some years (Larson 1960), and has been shown to be a major factor in population declines of common eiders in southern Sweden (Pehrsson 1973). A study that assessed impacts of petroleum development activities on nest success of common eiders on Thetis Island, off the Colville River delta, indicated that restrictions of low-level aircraft over flights, limited human intrusions, and removal of arctic foxes, substantially increased common eider hatching and fledging success compared to most other wild populations (Johnson 1984, Johnson et al. 1987).

Other barrier island nesting species include the glaucous gull and the arctic tern (*Sterna paradisaea*). In the Alaskan Beaufort Sea, glaucous gulls nest on coastal gravel/sand bars and low islands (Johnson and Herter 1989) and are most abundant on barrier islands adjacent to river outflows. As with common eiders, glaucous gulls probably select these islands because they are surrounded by open water during spring runoff, which isolates these sites from terrestrial predators. Arctic terns nest in areas of sparse vegetation, which makes the barrier islands an important nesting habitat for them as well (Hawksley 1957 in Johnson and Herter 1989).

The central Alaskan Beaufort Sea barrier islands included in this study are between Thetis Island and Karluk Island (Fig. 1, Table 1). Most of these islands are composed of sand and

gravel substrates, with varying amounts of driftwood cover, although portions of remnant tundra occur on Pingok, Bodfish, and Cottle islands. Search efforts were concentrated on gravel portions of the barrier islands and along the southern edges of peat banks.

Issues

Issues concerning common eiders and other barrier island gravel-nesting species in the central Beaufort Sea are 1) disturbance and displacement during nesting, 2) loss of nesting habitat, and 3) increased predation by arctic foxes, glaucous gulls, grizzly bears (*Ursus arctos*) and polar bears (*Ursus maritimus*) attracted to the development area.

Objectives

1. Determine the distribution and abundance of nesting common eiders and other gravel-nesting species on barrier islands in the central Alaskan Beaufort Sea.

2. Determine the presence of foxes and avian predators on these barrier islands and document nest depredations.

3. Visually mark a sample of common eider females to determine nest site fidelity among selected barrier islands.

METHODS

Nest searches were conducted on coastal barrier islands in the central Alaskan Beaufort Sea: Thetis Island, Spy Island, the Jones Islands (Leavitt, Pingok, Bertoncini, and Bodfish), the Return Islands (Cottle, Long, and Egg), the Midway Islands (Reindeer), and the McClure Islands (Narwhal, Jeanette, and Karluk). Surveys were conducted between 12 and 17 July 1999 and documented the number of nesting common eiders (common eiders), glaucous gulls and arctic terns. During surveys, we recorded the number of active nests, failed nests, and nest attempts by each species, and recorded any evidence of predators or depredation. Access to the islands was by helicopter.

Nests searches were conducted on foot by 2 to 4 observers spaced across the width of the island. Surveys were initiated on the Return Islands, proceeded westward to the Jones Islands, Spy and Thetis islands, and finished with Reindeer and Egg islands, and the McClure Islands. For each nest we recorded the bird species, nest type (pre-nest scrape or actual nest), status, (active nest or depredated), driftwood density near the nest, and the presence and numbers of

eggs. Driftwood density was classified into four categories based on the percentage of ground covered with driftwood in a 1-m diameter area centered on the nest bowl. These densities included none (0%), low (1 to 33%), medium (34 to 66%), and high (67 to 100%) density (after Johnson et al. 1987). Observers minimized disturbance to nesting birds by avoiding flushing incubating adults from nests, and by covering nests with down and twigs when birds were accidentally flushed. Nest positions and times were recorded on field maps based on either 1:6000-scale digital mapping or outline figures based on 1:6000-scale enlargements of 12 July 1998 natural color aerial photography. Nests and sightings were then geo-referenced by digitizing these locations with date, time and observer identification; date, time, and observer then linked these two databases. Available island areas were calculated using MapInfo Professional™ (1997) geographic information system (GIS). Gravel habitats mapped on 1:6000-scale digital base maps were used to prepare polygons for area calculations.

Nesting effort for each species on each island was calculated by dividing the total number of nests and scrapes found on one island by the total number of nests and scrapes found on all the islands searched during our surveys. Nests included a pronounced bowl with some associated down and often contained small sticks (Johnson 1990, 2000). Nests were classified as active if they contained one or more live eggs, or were occupied by a laying/incubating female (Fig. 2). Pre-nesting scrapes were depressions in the ground with or without small sticks but with no associated down (Fig. 2, Johnson 1990). Scrapes are frequently made by juvenile females attempting their first nests, or by adult females prospecting for nest sites. These scrapes are subsequently abandoned when the juvenile female fails to nest or the adult female nests in a more suitable or different location.

Nests were considered depredated when eggshell fragments in the nest bowl or vicinity indicated a bird or mammal had eaten or dislodged the eggs, or when nests with down contained no eggs. Predator type was determined by the presence of fox or gull tracks near the disturbed nest, the characteristics of remaining egg fragments, or direct observation of predators on the island. Crushed eggs were generally attributed to arctic fox when there was evidence of foxes on the island. Depredated eggs with rounded openings were generally attributed to avian predators, especially when there were no signs of other predators. Nests with down and no eggs or egg shell fragments were generally considered depredated by avian species when avian predators were also observed and there were no obvious signs of foxes on the island.

In order to determine nest site fidelity among islands, we banded and marked a small sample of female common eiders with nasal disks. We chose Narwhal Island for our capture efforts because few glaucous gulls were nesting on this island. Birds were captured using a

salmon dip net while they sat on their nests. Tarsus bands and colored nasal disks were applied. Standard bill and tarsal measurements and body weight were recorded.

RESULTS

Between 2 and 4 people spent a total of 94.7 person hours searching the gravel portions of the barrier islands over a 6-day period from 12 to 17 July 1999 (Table 1). Search effort included 10.3 person hours on Thetis Island (entire surface not covered), 10.8 person hours on Spy Island, 17.7 person hours on the Jones Islands, 38.1 person hours on the Return Islands, 4.0 person hours on Reindeer Island, and 9.8 person hours on the McClure Islands (Table 1). Two hundred sixty active nests, 127 failed nests, and 570 pre-nesting scrapes were recorded for 5 species on 13 of the 14 islands searched from 12 to 17 July 1999 (Table 2). Fox sign was detected on only the Jones and Return Island groups (7 of the 14 islands searched, Table 1). Four female common eiders were captured and banded on Narwhal Island on 17 July 1999.

Nesting Effort

Five species, common eider, glaucous gull, arctic tern, king eider (*Somateria spectabilis*), and American golden plover (*Pluvialis dominica*) were recorded nesting on central Alaskan Beaufort Sea islands during July 1999 (Table A-1, Figures 3 to 7). Common eiders dominated the total nesting effort at 85% (812 of 957 total nests and scrapes recorded), followed by glaucous gulls at 14% (134 of 957), and arctic terns at 1% (6 of 957, Table 2). A total of 260 active nests were recorded (Table 2). Common eider nests were most numerous, accounting for 82% of the total active nests (214 of 260 nests), followed by glaucous gulls at 15% (38 of 260), and arctic terns at 2% (5 of 260, Table 2). Mean and 95% confidence intervals (95% CI) of clutch size for common eider nests were 3.03 ± 0.229 eggs per nest ($n = 69$), for glaucous gulls 1.80 ± 0.657 eggs per nest ($n = 10$), and for arctic terns 1.75 ± 0.796 eggs per nest ($n = 4$). Many nests with incubating adults remained undisturbed, which limited data on clutch sizes.

Between 287 and 440 common eiders in 29 to 32 groups were recorded during 3 aerial surveys of the barrier island-lagoon systems between Spy Island and Brownlow Point from 30 July to 5 August 1999 (Noel et al. 2000). These included from 70 to 116 adults and 203 to 324 young-of-year (yoy). Plots of crèche locations on 30 July 1999, based on 30-sec time periods indicate that common eiders nesting on Cottle Island, Stump Island, Reindeer Island, the McClure Islands, the Stockton Islands, and the Maguire Islands may have hatched successfully (Figures A-1 to A-3). Plots of crèche locations on 1 and 5 August indicate that crèches may have moved between islands and to mainland shoreline locations (Figures A-4 to A-9). Mean and

95% CI of crèche size based on these aerial data ranged from 13.7 $\pm$ 4.33 eiders per crèche on 30 July to 9.9 $\pm$ 2.99 eiders per crèche on 1 August. Mean and 95% CI of yoy within crèches ranged from 10.3 $\pm$ 4.22 yoy per crèche on 5 August to 7.0 $\pm$ 2.30 yoy per crèche on 1 August accompanied by 2.4 $\pm$0.65 and 2.9 $\pm$ 0.97 females per crèche, respectively. Extrapolating the expected number of yoy eiders based on mean clutch size and the 214 active eider nests located in 1999 (214 nests * 3.03 eggs/nest = 648 yoy eiders), indicates that the number of yoy based on this aerial survey data is smaller than expected (50%, 324/648). These aerial data may underestimate the number hatched for the following reasons: 1) some eider crèches present may not have been detected or size was underestimated; 2) significant mortality of eider eggs/ducklings may have occurred; or 3) crèches may have moved out of these lagoon systems before 30 July. By 26 August few common eiders and eider crèches remained within our aerial survey area (Noel et al. 2000).

For all 5 species combined and for common eiders, total nesting effort (sum of active, failed and attempted nests) was greatest on Thetis, Spy, and Egg islands followed by Narwhal Island and Long Island-East (Table 2). Glaucous gull nesting effort was greatest on Long Island-East and Egg Island followed by Long Island-West and Thetis Island. Arctic terns nested on Spy, Bodfish, Long Island-West, Narwhal, and Jeanette islands with 1 active nest on each island (Table 2).

When active common eider nests were compared among the Jones Islands, the Return Islands, the Midway Islands, the McClure Islands, Thetis Island, and Spy Island; active nests were concentrated on the Return Islands (Egg Island) and the McClure Islands ($\chi^2 = 145.55$, df = 5, $p < 0.0001$, Table 2). Common eider nest attempts, expressed as the number of pre-nesting scrapes, were also not evenly distributed among island groups. Nesting attempts were also concentrated on the Return and McClure island groups and Thetis Island ($\chi^2 = 146.82$, df = 5, $p < 0.0001$, Table 2). In addition, the distribution of attempted nesting did not reflect the distribution of active nests ($\chi^2 = 29.31$, df = 5, $p < 0.0001$, Table 2). Fewer than expected common eider nests occurred on Thetis and Spy islands, while more nests than expected occurred on the Return and McClure island groups. Conversely more scrapes than expected occurred on Thetis and Spy islands, while fewer scrapes than expected occurred on the Return Islands. These differences reflect differential nesting success across the island groups.

Habitat

The total surface area of sand and gravel habitat on each barrier island in the study area was computed in order to compare nest density among islands (Table 1, Figures 3 to 7). Not all

available sand and gravel habitats represents good nesting habitat for common eiders, glaucous gulls, or arctic terns, but these numbers provide a basis for comparison among islands. Egg Island had by far the highest density of active common eider nests with 7.8 active nests/ha followed by Karluk with 1.8 nests/ha and Jeanette Island with 1.0 nests/ha (Table 3). Glaucous gull nesting was also most concentrated on Egg Island with 1.5 nests/ha followed by Karluk Island with 0.6 nests/ha. Unfortunately, island configuration and the extent of exposed habitat are not consistent among years. Channels defining individual islands are not consistent year-to-year as well, which further confuses definition of island areas.

Of the 295 recorded common eider nest sites for which habitat data were collected, 10 nest sites (3%) had no driftwood, 90 nest sites (31%) were located in low-density driftwood habitat, 125 (42%) were in medium-density driftwood, and 70 (24%) were in high-density driftwood habitat (Table 4, Fig. 2). Common eider nest sites appeared to occur more frequently in medium-density driftwood and less frequently in no driftwood habitat ($\chi^2 = 93.43$, df = 3, $p < 0.0001$, Table 4). Vegetation was also used as nesting cover by common eiders: common species included lymegrass, seabeach sandwort (*Honckenya peploides*), *Puccinellia phryganodes*, scurvy grass (*Cochlearia officinalis)*, dwarf willow (*Salix* spp.), and wormwood (*Artemisia* spp.). Of the 7 common eider nest sites in vegetation cover, 3 were in lymegrass and 4 were in other vegetation types. Of these 7 nest sites, 5 had no driftwood and 2 were in low-density driftwood cover.

Common eider pre-nesting scrapes occurred more frequently in low-density driftwood cover and less frequently than expected in no and high driftwood covers ($\chi^2 = 491.81$, df = 3, $p < 0.0001$, Table 4). These analyses, however, do not account for the availability of driftwood habitats. Comparison of active and predated common eider nest sites by driftwood cover shows a trend for active nests to occur more frequently within high and medium-density driftwood covers; while predated nests occur less frequently within high and medium-density driftwood covers. This trend was not significant however ($\chi^2 = 3.76$, df = 3, $p = 0.2890$, Table 4). When active and failed common eider nest sites are compared to pre-nesting scrapes, more nest sites and fewer scrapes occur in high and medium-density driftwood covers ($\chi^2 = 118.32$, df = 3, $p < 0.0001$, Table 4).

Glaucous gull nest sites occurred most frequently in low-density driftwood cover ($\chi^2 = 87.40$, df = 3, $p < 0.0001$, Table 4). Active glaucous gull nests were more likely to occur in medium-density driftwood when compared to predated nest sites, which occurred more frequently than expected in low-density driftwood cover. Nests and pre-nesting scrapes had

similar driftwood cover ($\chi^2 = 2.74$, df = 3, $p = 0.4336$, Table 4). Arctic terns nested in medium and low-density driftwood cover, with more nests occurring in low-density driftwood (Table 4).

Predation

Of 299 common eider nests recorded during this study, 214 (72%) were active nests with live eggs or already hatched young (Table 2). Of the 85 failed nests, 74 (87%) failed due to depredation with 86% (64 of 74) of these due to glaucous gull or undetermined avian predators and, 5% (4 of 74) due to arctic foxes (Table 3). There was evidence of possible human depredation of common eider nests on Thetis Island. Bodfish and Spy islands had the highest proportion of depredated eider nests (4 of 4, 100% and 36 of 63, 57%, respectively, Table 3). The scarcity of common eider nests and pre-nesting scrapes on the Jones Islands are likely due to the presence of an arctic fox (Table 1). This fox was likely on the islands prior to nest initiation and resulted in low nesting effort on these islands (Table 2).

Fate of glaucous gull nests was more difficult to determine than fate of common eider nests. The use of a nest site during the current nesting season was based on the presence of feathers. It is likely that some glaucous gull nests determined to be active in 1999 may not have been active. This could lead to an overestimate of the number of failed glaucous gull nests. Of the 42 failed glaucous gull nests recorded, there was direct evidence of avian depredation at 2 nests (Table 3).

Banding

Four female common eiders were captured on Narwhal Island between 12:40 and 14:50 on 17 July 1999. Capture locations on Narwhal Island along with color codes for nasal disks put on each female are illustrated in Figure 8. Weights, measurements, nest identification, clutch size, and band codes are listed in Table 5.

DISCUSSION

Nesting Effort

Common eiders, glaucous gulls, and arctic terns use Beaufort Sea barrier islands as nesting sites (Johnson and Herter 1987). Nest searches on barrier islands from the Maguire Island group to Flaxman Island in 1998 indicated that nesting success on Flaxman, Northstar, and Duchess islands was low, probably because of arctic fox predation. Nesting success on

Challenge and Alaska islands in 1998, where no fox signs were evident, appeared to be high (Noel et al. 1999a). During 1999, we concentrated efforts on the Jones-Return Islands, which were contiguous from Bertoncini Island eastward through to Long Island. There was evidence that a fox had traveled the length of these islands and an arctic fox was sighted on Pingok Island. Fifteen percent of recorded common eider nesting effort was expended on this length of the Jones-Return Island group, which represented nearly 61% of the habitat searched (Tables 1 and 2). The highest concentration of active nests was on Egg Island with 7.8 nests/ha. Nests and pre-nesting scrapes on Egg Island represented 19% of the total recorded effort, while they occurred on 2% of the total nesting habitat searched (Tables 1 and 2).

Data on active common eider nests along barrier islands in the central Alaskan Beaufort Sea have been recorded from 1970 to 1999 (Table 6). The most productive islands have included Cross Island (mean and 95% CI = 122.9 $\pm$ 37.41 nests/year), Pole Island (mean = 59.8 $\pm$ 40.35 nests/year), Lion Point (mean = 55.6 $\pm$ 50.59 nests/year), Egg Island (mean = 42.8 $\pm$ 13.37 nests/year), Thetis Island (mean = 41.6 $\pm$ 14.94 nest/year), and Stump Island (mean = 39.6 $\pm$ 22.63 nests/year). Because common eiders are long-lived and exhibit remarkable fidelity to nest sites (Reed 1975 in Johnson 2000; Wiggins and Johnson 1992), it seems reasonable to concentrate nest census activities at these locations. Although it is not apparent from these data, the barrier islands have shifted configurations over the years and the boundaries between islands can be confused or non-existent in some years. Mapping of the Jones-Return Islands based on 1997 aerial photography indicates that divisions between islands remained distinct, however in 1999, islands from Long Island-East to Bertoncini Island were contiguous.

Habitat

The presence of remnant tundra on an island may lead to lower nesting success for common eiders; even though remnant tundra can provide nesting habitat along the peat shorelines. Pingok, Cottle, Bodfish and Flaxman islands, all with remnant tundra, have averaged < 3 nests/year (Table 6). Although we did identify 5 active common eider nests on Cottle Island in 1999, these nests were located on the peat bank above the beach. Many previous searches may not have included these shoreline tundra habitats, and may have missed these inconspicuous nests. However, it is also likely that the larger size and presence of tundra provides habitat for arctic foxes, which prey heavily on common eiders and decrease nesting success. An arctic fox was sighted in 1998 on Flaxman Island (Noel et al. 1999a) and in 1999 on Pingok Island.

Female common eiders select nest sites with medium to heavy cover generally composed of lymegrass, driftwood, and other debris (Schamel 1977, Johnson et al. 1987, Wiggins and

Johnson 1991, 1992). Lymegrass cover was rare on the islands searched during 1999. Small lymegrass patches where common eiders attempted nesting occurred on Bodfish Island, Long Island-East, and Spy Island. Seven common eider nest sites included vegetation cover; of these, 3 were in lymegrass and 4 included other vegetation types. Schamel (1977) and Johnson et al. (1987) found that hatching success was positively correlated with cover density in the vicinity of the nest site. Although we could not determine hatching success in this study, there were significantly more common eider nest sites than pre-nesting scrapes in high- and medium-density driftwood habitats (Table 4). Although there was a trend toward more active nest sites and fewer predated nest sites in high- and medium-density driftwood these differences were not significant (Table 4).

The concentration of eider nests and scrapes in low- and medium-density driftwood cover may be a reflection of greater abundance of these habitat types compared to high-density driftwood habitats. Nests located in low and medium-density driftwood may be more conspicuous and more available to predators. Wiggins and Johnson (1991, 1992) stated that eiders prefer areas with dense driftwood cover partly for protection from predators.

Two other factors, which are related to each other, that probably influence common eider nesting habitat selection were (1) elevation and (2) the location of driftwood above the waterline. Johnson (2000) stated that common eiders that occupy high-elevation barrier islands have the highest nesting success and are the most productive. Height of driftwood above the waterline is determined by the elevation of the barrier island (Wiggins and Johnson 1991). Fall storm surges typically move driftwood to the highest points on the barrier islands thus it follows that the sand-gravel barrier islands with the highest elevation typically accumulate the most driftwood. Driftwood patches deposited high above the waterline can essentially protect nests from future storms and inclement weather. Another beneficial characteristic of high elevation islands is the potential for accumulation of wind-blown soil and the establishment of vegetation, which may also be used as nesting cover.

Predation

Wiggins and Johnson (1991, 1992) found that arctic foxes and common ravens (*Corvus corax*) were the main predators of common eider eggs and that glaucous gulls were the main predators of common eider ducklings along the Endicott Causeway, which was constructed in 1984-1985 and colonized by common eiders in 1988. Most recently, Johnson (2000) reported that predation by foxes, ravens, and gulls on common eider eggs and young is likely the major factor regulating the abundance of common eiders in the North Slope oil fields. These findings

correspond to our data, which show that both arctic foxes and glaucous gulls prey heavily on barrier island nesting birds. The principal predators identified on islands searched in 1998 were arctic foxes (Noel et al. 1999a), and in 1999 were glaucous gulls. The arctic fox present on the contiguous Jones-Return Islands (Long Island to Bertoncini Island) during 1999, probably influenced common eider nesting during nest initiation resulting in fewer nesting attempts on these islands rather than more predated nests. Female common eiders do not feed while they are incubating their eggs and thus are on a strict energy budget (Gorman and Milne 1971, 1972). Because of this, eiders may not have sufficient energy reserves to deal with disturbances by predators during incubation and still successfully incubate their clutch.

Predation pressures on individual islands can be variable from year to year (Johnson 2000) and this variability may account for some of the differences in nest activity and success among the islands. Access of mammalian predators, such as arctic fox, grizzly bears or polar bears, to large nesting colonies can severely depress nesting success (Johnson et al. 1993, Noel et al. 1999b). Predation pressure also accounts for some of the annual variation in nesting success on individual islands apparent in the historical data (Table 6, Johnson 2000). Other researchers have also found that arctic foxes prey heavily on common eider eggs (Quinlan and Lehnhausen 1982, Wiggins and Johnson 1991, 1992). The Endicott Causeway, situated in the Sagavanirktok River delta, was constructed during winter 1984-1985. Driftwood and other debris that serve as nesting cover for common eiders, began to accumulate and five years after construction, the causeway had a healthy and increasing common eider population. Johnson et al. (1993) described the dramatic decline in the number of eider nests and eider nest success after an arctic fox gained access to the causeway in 1992.

In general, predation on marine birds nesting on the barrier islands appears to be directly related to the degree of accessibility to the island by foxes. In particular, accessibility to the barrier islands by arctic foxes in the spring may have dramatic detrimental effects on the nesting birds of an island and likely is the primary cause of variability in predation from island to island and from year to year. Ice corridors to the islands and the timing of the ice melt are two possible factors that can create accessibility for foxes, isolating them on the island. Generally, according to Johnson et. al. (1987), common eiders begin nesting on the barrier islands after ice connections to the mainland have melted and after delta islands have become isolated due to river flooding. In 1998, sea ice on the northern sides of Flaxman, Northstar, and Duchess islands remained intact past the initiation of nesting (Noel et al. 1999a); and in 1999, the sand-gravel connections between the Jones-Return Islands allowed an arctic fox access to nearly this entire island group. It was likely that arctic foxes on the sea ice moving in to the mainland accessed these islands via the sea ice.

Most avian predation on common eider eggs that we observed was attributable to glaucous gulls. During the summer months, glaucous gulls opportunistically prey on the eggs of other birds (Eberhardt et al. 1982; Hiruki and Sterling 1989), but because common eiders and glaucous gulls often nest in close proximity to each other, glaucous gulls prey most heavily on eider eggs (Johnson and Herter 1989). Parasitic jaegers (*Stercorarius parasiticus*) and common ravens also prey on eggs of common eiders.

Development

Oil development activities may affect predator abundance in various ways. Oil development and production infrastructure may attract, and even create new habitat for certain avian predators, such as common ravens and glaucous gulls. Some of the abandoned offshore exploration islands support colonies of nesting glaucous gulls. Ravens may be attracted to man-made structures such as towers and production modules for nest sites. Landfill sites provide food sources for ravens and glaucous gulls. Oil field activities and garbage around landfill sites and dumpsters may also attract terrestrial predators such as foxes and brown bears.

Certain types of industrial development may not adversely affect common eider nest success. Wiggins and Johnson (1991, 1992) found that common eiders could colonize man-made permanent gravel islands and causeways, such as the Endicott Causeway. Johnson et al. (1987) found that mitigation measures implemented during industrial activities on Thetis Island helped increase common eider hatching and fledging success on the island. This was at least in part due to the mitigation program implemented during the nesting season which controlled certain development activities that had the potential to disturb nesting common eiders, such as aircraft over flights and human intrusions. The development permit also called for the removal of arctic foxes from Thetis Island. In addition, Johnson (1984) found that man-made nesting structures placed on barrier islands did attract nesting females and could also be used as a mitigative tool during industrial development on barrier islands.

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A. Pacific eider hen on nest, low density driftwood (NE58 Alaska Island, 29 June 1998).

B. Pacific eider nest, medium density driftwood (NE57 Alaska Island, 29 June 1998).

Figure 2. Pacific eider nest types encountered during searches on barrier islands in the central Alaskan Beaufort Sea, June 1998 and July 1999.

C. Pacific eider predated nest, medium density driftwood (NE17 Northstar Island, 28 June 1998).

D. Pacific eider pre-nesting scrape, low density driftwood, (Alaska Island, 29 June 1998).

Figure 2. Continued.

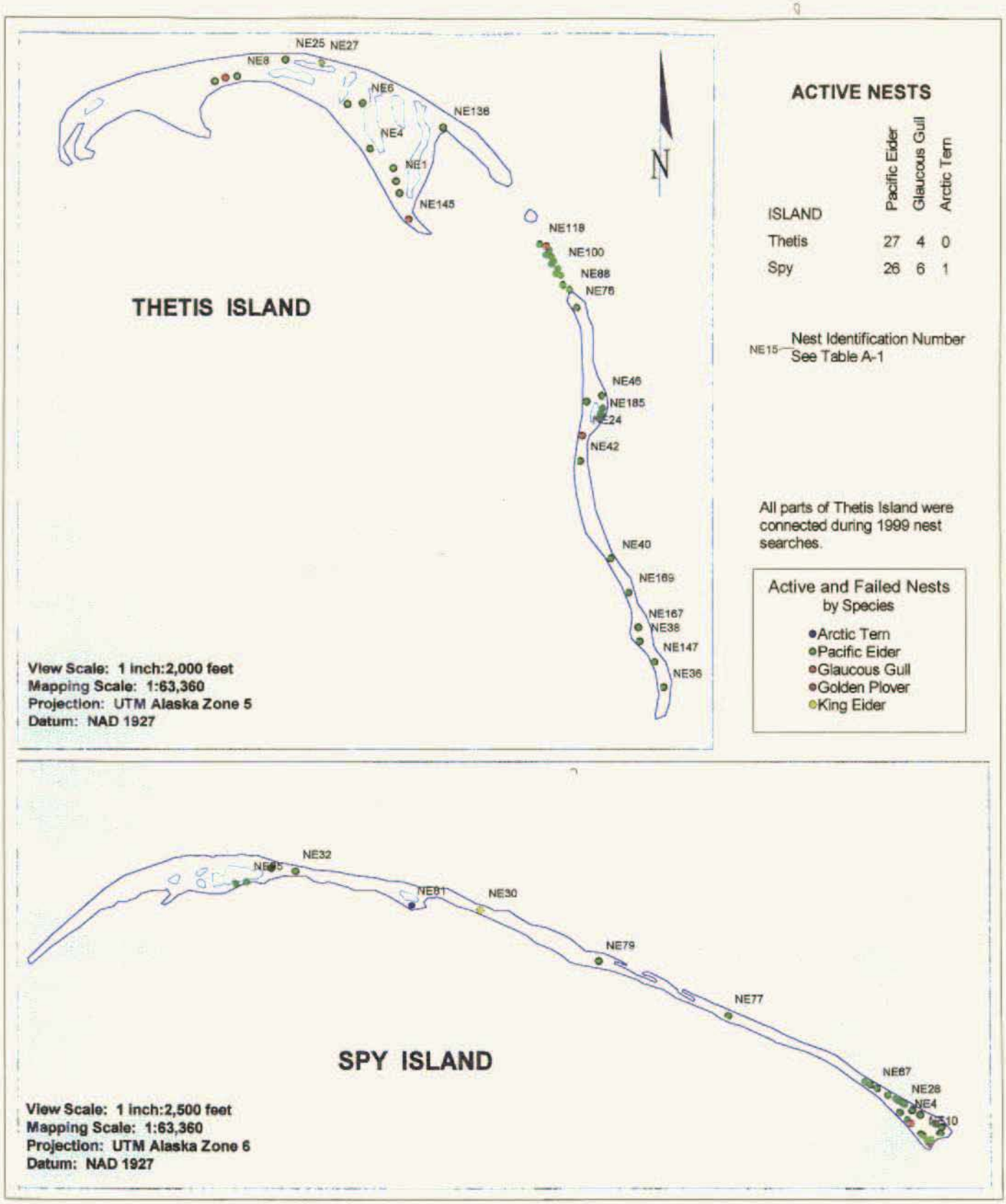

Figure 3. Distribution of active and failed nests on Thetis Island and Spy Island, central Alaskan Beaufort Sea, Alaska, 12 to 17 July 1999.

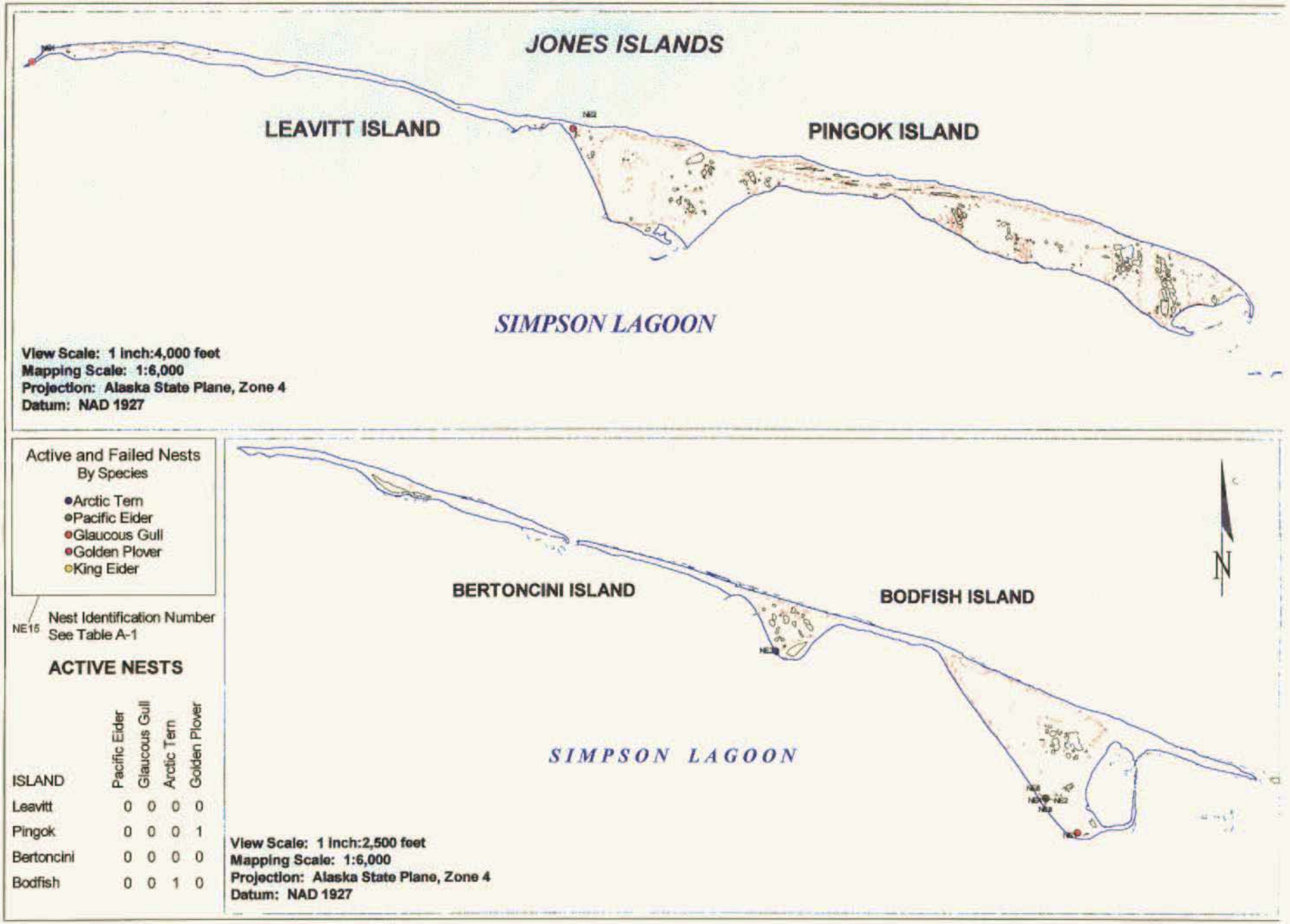

Figure 4. Distribution of active and failed nests on the Jones Islands, central Alaskan Beaufort Sea, Alaska, 12 to 17 July 1999.

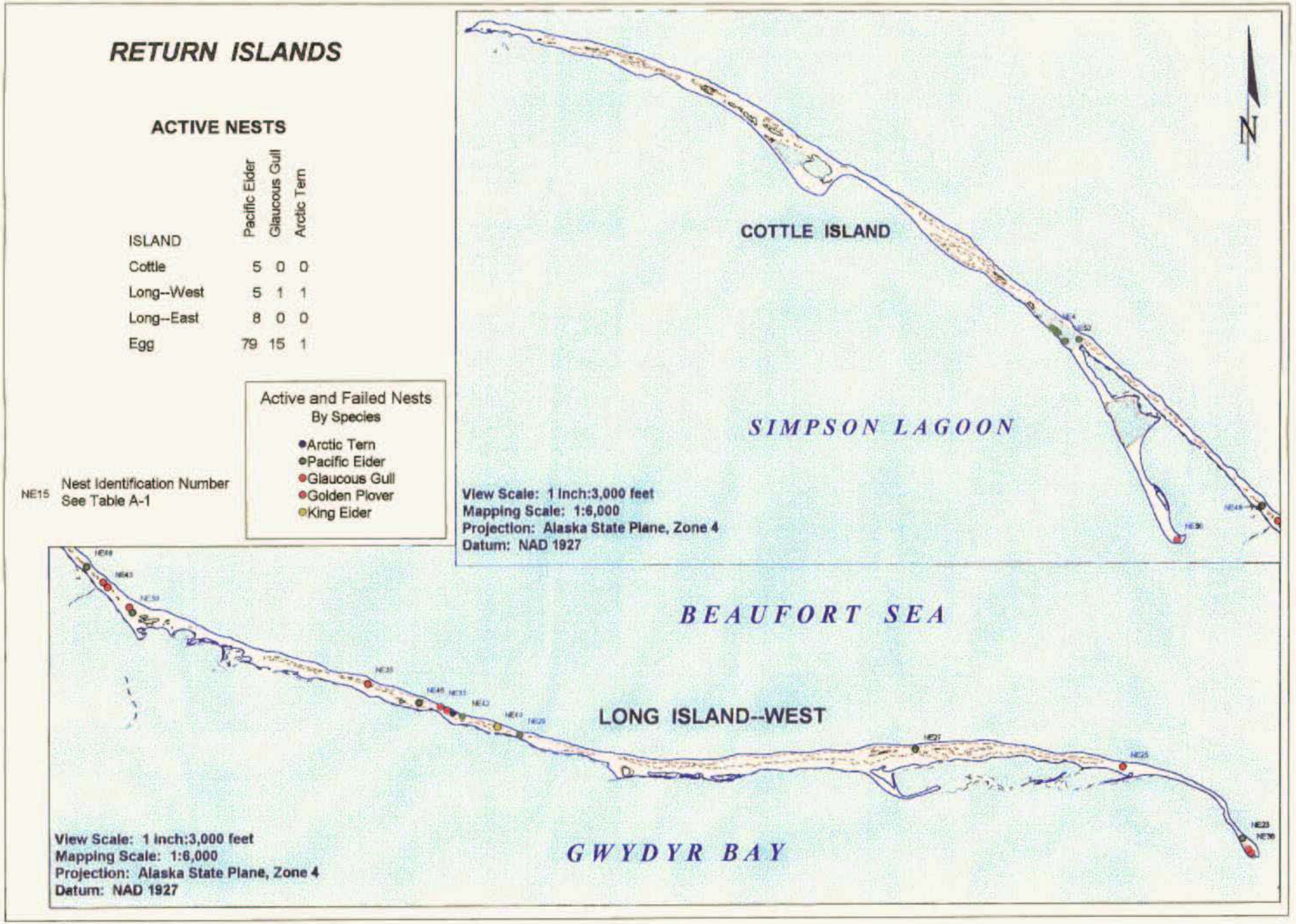

Figure 5. Distribution of active and failed nests on the Return Islands, central Alaskan Beaufort Sea, 12 to 17 July 1999.

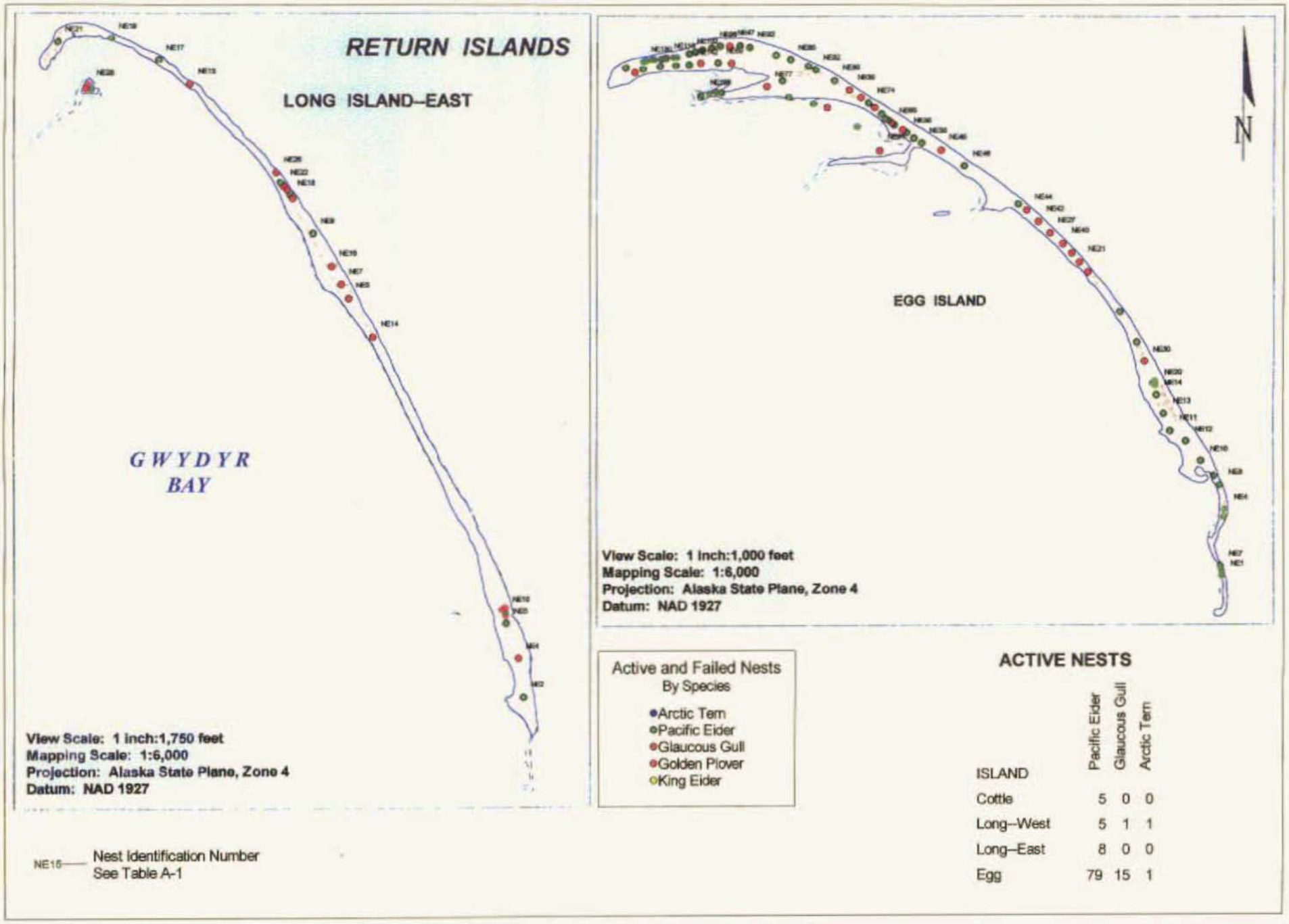

Figure 5. Continued.

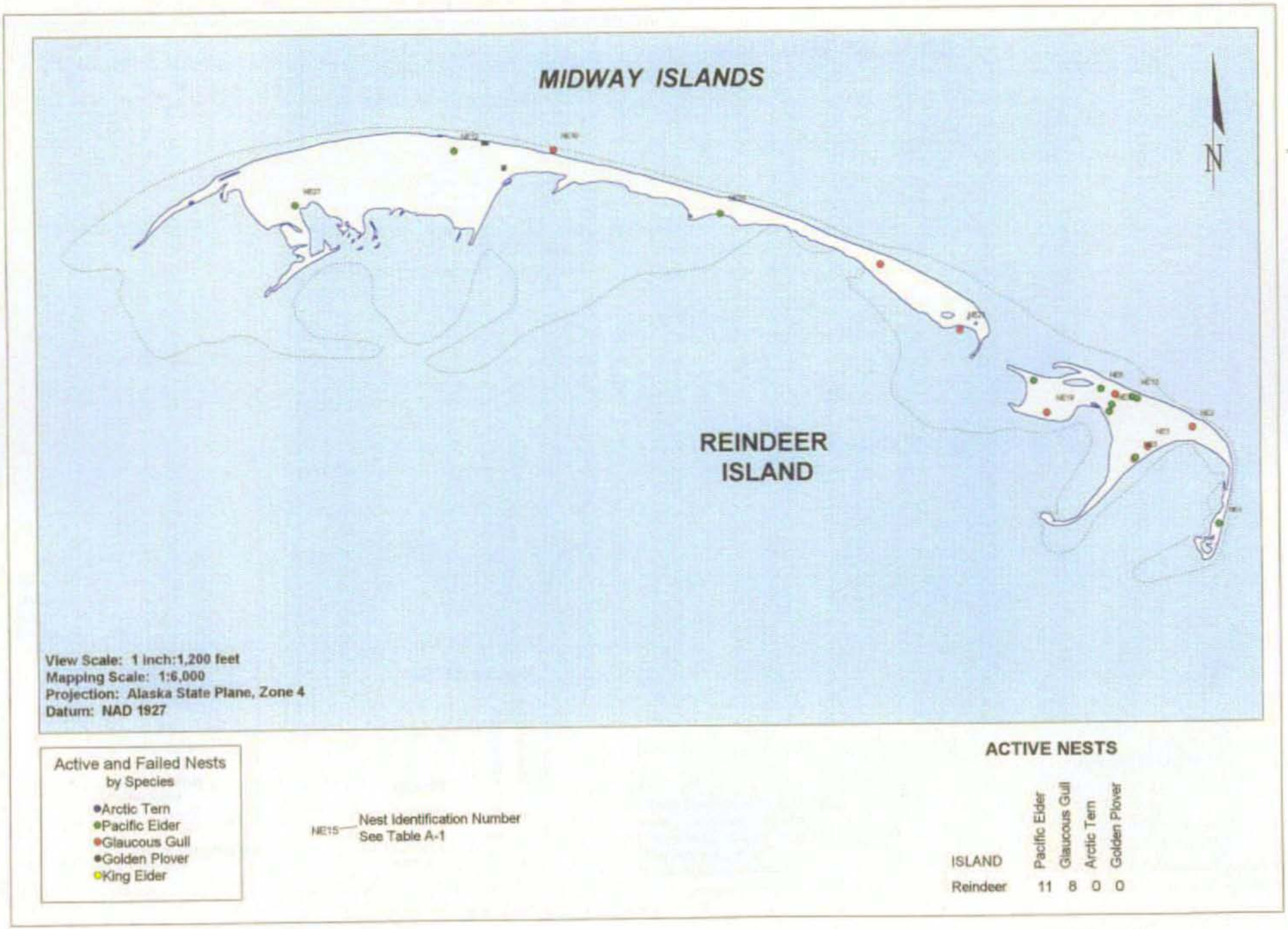

Figure 6. Distribution of active and failed nests on the Midway Islands, central Alaskan Beaufort Sea, 12 to 17 July 1999.

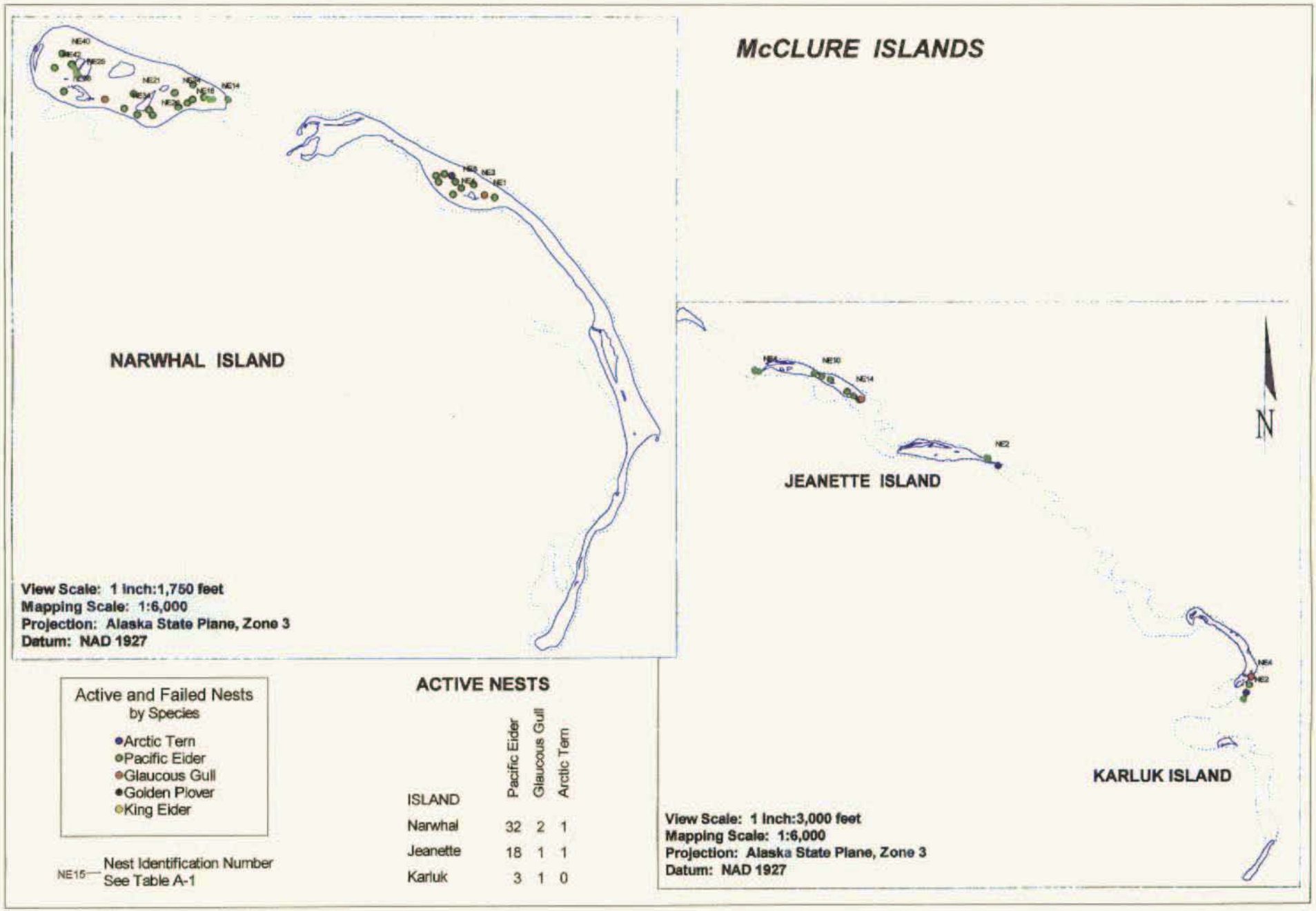

Figure 7. Distribution of active and failed nests on the McClure Islands, central Alaskan Beaufort Sea, 12 to 17 July 1999.

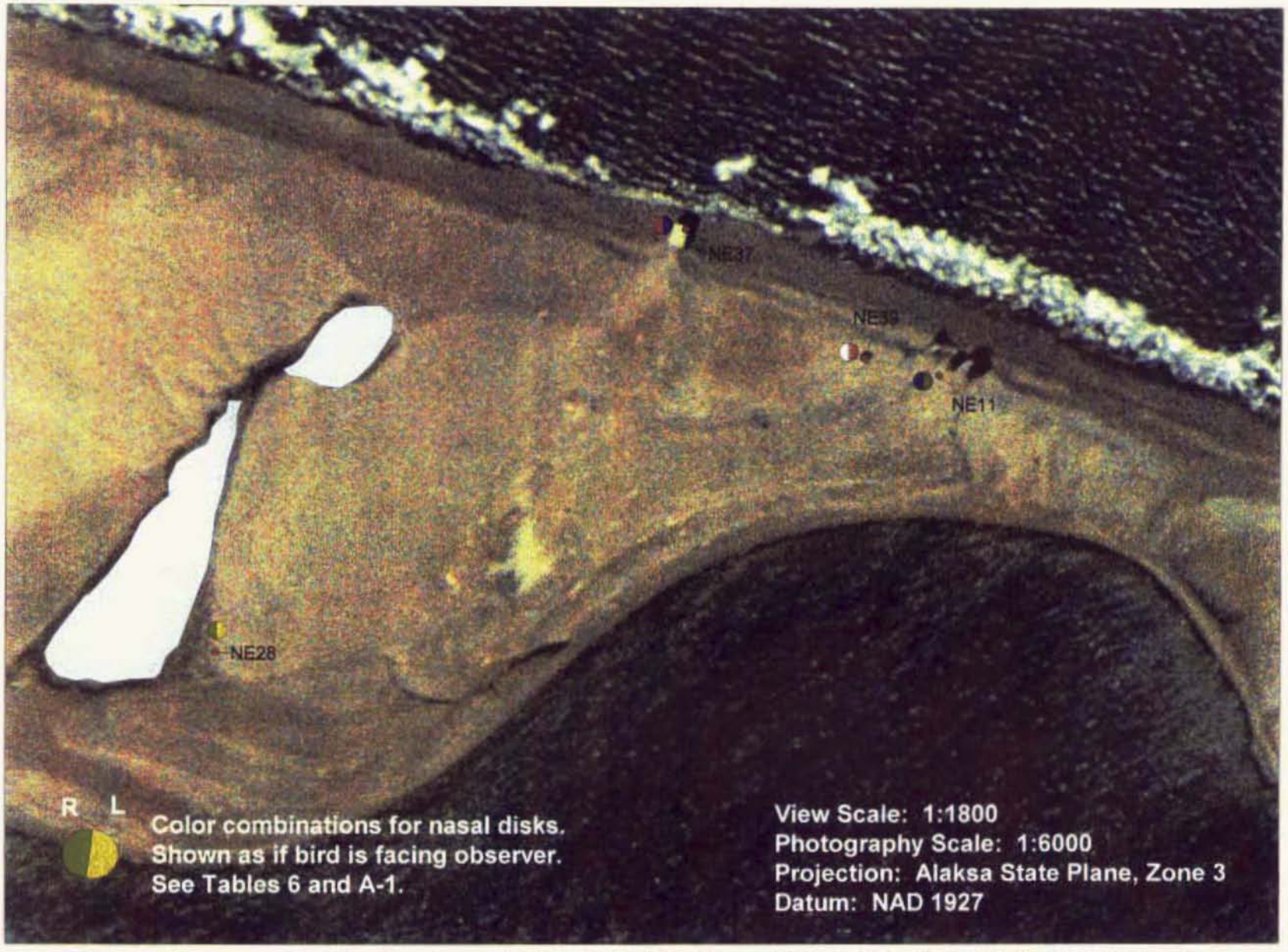

Figure 8. Capture and nest locations for marked female Pacific eiders on Narwhal Island, central Alaskan Beaufort Sea, 17 July 1999.

Table 1. Nest search effort on barrier islands along the central Alaskan Beaufort Sea from Thetis Island to the McClure Islands, 12 to 17 July 1999.

Island (West to East)	Approximate Island Area[2] (ha)	Date	Start Time	End Time	Duration (hours)	Number of Observers	People Hours	Fox Sign
Thetis[1]	51.2	15 Jul 99	16:55	19:35	2.65	3	7.95	None Noted
		15 Jul 99	18:20	19:30	1.17	2	2.34	None Noted
Spy	47.3	15 Jul 99	14:05	17:50	3.60	3	10.80	None Noted
Jones Islands								
Leavitt	47.2	15 Jul 99	14:00	16:15	2.25	3	6.75	Tracks
Pingok-West[2]	46.1	15 Jul 99	13:40	14:00	0.33	3	0.99	Arctic Fox Sighted
Pingok-East[2]	2.3	13 Jul 99	16:45	17:45	1.00	3	3.00	Tracks and Hair
Bertoncini	22.3	13 Jul 99	14:00	15:20	1.33	3	3.99	None Noted
Bodfish	20.8	13 Jul 99	12:50	13:51	1.00	3	3.00	Tracks
Return Islands								
Cottle	73.3	12 Jul 99	16:45	18:20	1.58	3	4.74	Tracks
		13 Jul 99	9:05	12:00	2.92	3	8.76	Tracks
Long-West	85.8	12 Jul 99	12:30	16:30	3.58	3	10.74	Scats, tracks over length of island
Long-East	20.4	12 Jul 99	10:00	12:30	2.50	3	7.50	Tracks, headed east
Egg	10.1	16 Jul 99	13:00	19:10	3.16	2	6.32	None Noted
Midway Islands								
Reindeer	35	16 Jul 99	17:35	19:35	2.00	2	4.00	None Noted
McClure Islands								
Narwhal	37.7	17 Jul 99	9:15	12:00	2.75	2	5.50	None Noted
Jeanette	17.2	17 Jul 99	10:25	12:00	1.41	2	2.82	None Noted
Karluk	1.7	17 Jul 99	9:15	10:10	0.75	2	1.50	None Noted
Total	518.4				33.98		94.70	

[1] The entire surface area of Thetis Island was not covered during nest search.

[2] Area of gravel and driftwood habitats searched included the spits at the eastern and western ends of Pingok Island.

Table 2. Nesting effort expressed as the number of active nests, failed nests, and pre-nesting scrapes on barrier islands along the central Alaskan Beaufort Sea coast from Thetis Island to the McClure Islands, 12 to 17 July 1999.

Species and Nest Information[1]	Thetis	Spy	Jones Islands					Return Islands			Midway Islands	McClure Islands			Total Nests and Scrapes
			Leavitt	Pingok	Bertoncini	Bodfish	Cottle	Long-West	Long-East	Egg	Reindeer	Narwhal	Jeanette	Karluk	
Pacific Eider															
Active Nests	27	26	0	0	0	0	5	5	8	79	11	32	18	3	214
Failed Nests	5	37	0	0	0	4	2	2	4	21	1	5	4	0	85
Pre-nesting Scrapes	129	94	2	0	0	13	3	21	60	57	31	67	27	9	513
Total Effort	161	157	2	0	0	17	10	28	72	157	43	104	49	12	812
% Effort by Island	20	19	0	0	0	2	1	3	9	19	5	13	6	1	100
Glaucous Gull															
Active Nests	4	6	0	0	0	0	0	1	0	15	8	2	1	1	38
Failed Nests	0	2	1	0	0	1	1	9	15	13	0	0	0	0	42
Pre-nesting Scrapes	8	2	1	0	0	6	6	8	17	0	0	4	0	2	54
Total Effort	12	10	2	0	0	7	7	18	32	28	8	6	1	3	134
% Effort by Island	9	7	1	0	0	5	5	13	24	21	6	4	1	2	100
Arctic Tern															
Active Nests	0	1	0	0	0	1	0	1	0	0	0	1	1	0	5
Failed Nests	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pre-nesting Scrapes	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total Effort	0	1	0	0	0	1	0	1	0	0	0	2	1	0	6
% Effort by Island	0	17	0	0	0	17	0	17	0	0	0	33	17	0	100
All Species[2]															
Active Nests	31	34	0	1	0	1	5	8	8	94	19	35	20	4	260
Failed Nests	5	39	1	0	0	5	3	11	19	34	1	5	4	0	127
Pre-nesting Scrapes	137	96	3	0	0	19	9	31	77	57	31	72	27	11	570
Total Effort for All Species	173	169	4	1	0	25	17	50	104	185	51	112	51	15	957
% Effort by Island for All Species	18	18	0	0	0	3	2	5	11	19	5	12	5	2	100

[1] See text for definition of active and failed nests, and scrapes. Total effort is equal to the number of active and failed nests, and pre-nesting scrapes. % effort by island is equal to the total effort for an island divided by the total effort over all islands for that species.

[2] All species include the three species listed above, plus a Golden Plover (1 nest on Pingok Island), King Eider (1 nest on Long-west and Spy), and 3 scrapes from an unknown species.

Table 3. Productivity and fate of nests on barrier islands in the Beaufort Sea from Thetis Island to the McClure Islands, Alaska, 12 to 17 July 1999.

Island and Species	Nests[1]	Active Nests[2]	Nest Density (No./ha)	Mean Clutch Size[3]	Failed Nests: Depredated	Failed Nests: Fate Unknown	% of Nests Depredated[4]	Predator[5]: Arctic Fox	Predator[5]: Glaucous Gull	Predator[5]: Avian
Thetis Island (51.2 ha)										
Pacific Eider	32	27	0.53	3.1±0.70 (n = 8)	5	0	15.6	0	4	0
Glaucous Gull	4	4	0.08	1 (n = 1)	0	0	0.0	---	---	---
Spy Island (47.3 ha)										
Pacific Eider	63	26	0.55	3.6±0.45 (n = 11)	36	1	57.1	0	32	3
Glaucous Gull	8	6	0.13	---	0	2	0.0	---	---	---
Arctic Tern	1	1	0.02	2 (n = 1)	0	0	0.0	---	---	---
Jones Islands										
Leavitt Island (47.2 ha)										
Glaucous Gull	1	0		---	0	1	0.0	---	---	---
Pingok Island (48.4 ha)										
Bertoncini Island (22.3 ha)										
Bodfish Island (20.8 ha)										
Pacific Eider	4	0		---	4	0	100.0	4	0	0
Glaucous Gull	1	0		---	0	1	0.0	---	---	---
Arctic Tern	1	1	0.05	1 (n = 1)	0	0	0.0	---	---	---
Return Islands										
Cottle Island (73.3 ha)										
Pacific Eider	7	5	0.07	---	0	2	0.0			
Glaucous Gull	1	0		---	0	1	0.0	---	---	---
Long Island -West (85.8 ha)										
Pacific Eider	7	5	0.06	3.3±2.87 (n = 3)	2	0	28.6	0	1	1
Glaucous Gull	10	1	0.01	3 (n = 1)	0	9	0.0	---	---	---
Arctic Tern	1	1	0.01	2 (n = 1)	0	0	0.0	---	---	---

Table 3. Continued.

Island and Species	Nests[1]	Active Nests[2]	Nest Density (No./ha)	Mean Clutch Size[3]	Failed Nests: Depredated	Failed Nests: Fate Unknown	% of Nests Depredated[4]	Predator[5]: Arctic Fox	Predator[5]: Glaucous Gull	Predator[5]: Avian
Return Islands Continued.										
Long Island - East (20.4 ha)										
Pacific Eider	12	8	0.39	4 (n = 1)	3	1	25.0	0	1	2
Glaucous Gull	15	0		---	2	13	13.3	0	0	2
Egg Island (10.1 ha)										
Pacific Eider	100	79	7.82	3.0±0.43 (n = 21)	15	6	15.0	0	12	0
Glaucous Gull	28	15	1.49	1.0±0.00 (n = 4)	0	13	0.0	---	---	---
Midway Islands										
Reindeer Island (35.0 ha)										
Pacific Eider	12	11	0.31	2.8±1.04 (n = 5)	1	0	8.3	0	1	0
Glaucous Gull	8	8	0.23	2.3±1.43 (n = 3)	0	0	0.0	---	---	---
McClure Islands										
Narwhal Island (37.7 ha)										
Pacific Eider	37	32	0.85	2.8±0.66 (n = 11)	4	1	10.8	0	3	0
Glaucous Gull	2	2	0.05	1 (n = 1)	0	0	0.0	---	---	---
Arctic Tern	1	1	0.03	---	0	0	0.0	---	---	---
Jeanette Island (17.2 ha)										
Pacific Eider	22	18	1.05	2.4±0.87 (n = 9)	4	0	18.2	0	2	2
Glaucous Gull	1	1	0.06	---	0	0	0.0	---	---	---
Arctic Tern	1	1	0.06	2 (n = 1)	0	0	0.0	---	---	---
Karluk Island (1.7 ha)										
Pacific Eider	3	3	1.76	---	0	0	0.0	---	---	---
Glaucous Gull	1	1	0.59	---	0	0	0.0	---	---	---

[1] Total active and failed nests.

[2] Active nests include nests with live eggs, nests with hatched eggs, and nests with an incubating bird.

[3] Mean clutch size includes those nests where the adult left the nest and eggs could be counted.

[4] Percentage of all nests that were depredated.

[5] Type of nest predation was determined by direct observation of predators, evidence that predators had been on an island (animal hair, feathers, scat, or tracks), and morphology of predated eggs.

Table 4. Summary of driftwood density at nesting sites on barrier islands along the central Alaskan Beaufort Sea coast from Thetis Island to the McClure Islands, 12 to 17 July 1999.

	Driftwood Density								
	High Density		Medium Density		Low Density		No Driftwood		Total Nests
Island and Species	Nests	Scrapes	Nests	Scrapes	Nests	Scrapes	Nests	Scrapes	and Scrapes
Thetis									
Pacific Eider	3	3	22	56	7	69	0	1	161
Glaucous Gull	0	1	2	3	2	4	0	0	12
Spy									
Pacific Eider	18	0	17	29	25	65	3	0	157
Glaucous Gull	1	0	5	0	1	2	1	0	10
Arctic Tern	0	0	0	0	1	0	0	0	1
Jones Islands									
Leavitt									
Pacific Eider	0	0	0	1	0	1	0	0	2
Glaucous Gull	0	0	0	0	1	1	0	0	2
Pingok (no nests or scrapes)									
Bertoncini (no nests or scrapes)									
Bodfish									
Pacific Eider	0	0	4	1	0	5	0	7	17
Glaucous Gull	0	0	0	0	1	6	0	0	7
Arctic Tern	0	0	0	0	1	0	0	0	1
Return Islands									
Cottle									
Pacific Eider	0	0	1	1	2	1	4	1	10
Glaucous Gull	0	0	0	0	0	3	1	3	7
Long-East									
Pacific Eider	0	2	5	29	7	29	0	0	72
Glaucous Gull	1	0	0	2	14	12	0	3	32
Long-West									
Pacific Eider	0	0	1	1	6	20	0	0	28
Glaucous Gull	0	0	0	0	8	7	2	1	18
Arctic Tern	0	0	0	0	1	0	0	0	1
Egg									
Pacific Eider	42	3	43	32	15	22	0	0	157
Glaucous Gull	1	0	5	0	21	0	1	0	28
Midway Islands									
Reindeer									
Pacific Eider	0	0	3	4	8	26	1	0	42
Glaucous Gull	0	0	5	0	3	0	0	0	8
McClure Islands									
Narwhal									
Pacific Eider	6	6	20	17	5	43	2	0	99
Glaucous Gull	0	0	0	2	2	2	0	0	6
Arctic Tern	0	0	0	0	1	1	0	0	2
Jeanette									
Pacific Eider	1	0	6	4	15	21	0	0	47
Glaucous Gull	0	0	0	0	1	0	0	0	1
Arctic Tern	0	0	1	0	0	0	0	0	1
Karluk									
Pacific Eider	0	0	3	1	0	8	0	0	12
Glaucous Gull	0	0	0	1	1	1	0	0	3
Pacific Eider Total	70	14	125	176	90	310	10	9	804
Glaucous Gull Total	3	1	17	8	55	38	5	7	134
Arctic Tern Total	0	0	1	0	4	1	0	0	6

Table 5. Female Pacific eiders captured and marked with round colored nasal disks on Narwhal Island in the central Alaskan Beaufort Sea, 17 July 1999.

#	Right Disk	Left Disk	USFWS Band #	Status	Leg	Wt. w/bag kg1	Culmen Short mm	Culmen Long mm	Ant. Nares Width mm	Bill Width at feather line mm	Rt. Tarsis mm	Date	Time ADST	Location
10	Blue	Green	103740021	New	Rt	1.7	49.3			23.5	52.5	17-Jul-99	~13:50	Narwhal I., AK, Nest 11
21	Green	Yellow	103740023	New	Rt	2.0	42.0			22.1	51.5	17-Jul-99	~14:50	Narwhal I., AK, Nest 28-3 eggs
23	Orange	Blue	103740020	New	Rt	1.7	48.6				52.6	17-Jul-99	~13:08	Narwhal I., AK, Inside doorway of NW bldg along N beach, Nest 37-3 eggs
39	White	Orange	103740022	New	Rt	2.2	52.7			24.0	51.1	17-Jul-99	~14:11	Narwhal I., AK, Nest 39

[1]Bag Wt. = 75 gm

Table 6. Active Pacific eider nests counted on barrier islands along the central Alaskan Beaufort Sea coast, 1970 to 1999.

Location	Year of Census[1]																														N	Max.	Mean	SD
	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999				
Thetis I.	19	15	18	14	15	35	40	-	34	-	41	-	0	112	66	82	-	88	57	58	-	27	-	-	-	-	-	-	-	27	18	112	41.6	30.0
Spy I.	2	1	3	1	2	5	4	0	4	-	-	-	0	30	16	26	-	10	16	5	-	2	-	-	-	-	-	-	-	26	18	30	8.5	9.9
Leavitt I.	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	1	-	1	-	4	-	-	-	-	-	-	-	-	-	0	6	4	1.0	1.5
Pingok I.	2	2	1	1	0	6	0	-	17	0	-	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	13	17	2.2	4.7
Bertoncini I.	0	0	0	0	0	0	0	-	-	-	-	-	0	0	0	1	-	-	-	-	-	0	-	-	-	-	-	-	-	0	13	1	0.1	0.3
Bodfish I.	0	0	0	0	0	0	0	-	0	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	0	13	0	0.0	0.0
Cottle I.	3	4	4	2	2	6	0	-	2	2	-	-	0	0	0	5	-	7	4	0	-	-	-	-	-	-	-	-	-	5	17	7	2.7	2.3
Long I. (W)	3	6	4	2	3	7	25	-	-	2	-	-	-	11	2	15	-	17	24	15	-	-	-	-	-	8	-	-	-	5	16	25	9.3	7.7
Long I. (E)	-	-	-	-	-	-	1	-	4	29	-	-	0	-	2	25	-	23	31	1	-	-	-	-	-	16	-	-	-	8	11	31	12.7	12.3
Egg I. (W)[2]	8	25	38	15	8	14	24	-	-	16	-	-	-	63	58	87	-	61	68	62	-	47	-	-	-	54	-	-	-	79	17	87	42.8	26.0
Egg I. (E)	-	-	-	-	-	-	-	-	-	-	-	-	-	10	13	17	-	14	-	-	8	-	-	-	-	6	-	-	-	-	6	17	11.3	4.1
Stump I.	1	0	1	1	1	4	10	-	30	15	-	-	-	21	5	60	-	70	107	66	89	152	-	-	-	80	-	-	-	-	18	152	39.6	45.5
Gull I.	-	-	-	-	-	-	-	-	-	-	-	-	-	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	1.0	1.4
Reindeer I.	0	0	0	0	0	0	4	-	-	-	-	-	1	9	4	2	-	2	0	0	-	-	-	-	-	-	-	-	-	11	15	11	2.2	3.5
Argo I.	0	0	0	0	0	0	0	-	-	-	-	-	1	0	3	6	-	3	3	4	-	-	-	-	-	-	-	-	-	-	14	6	1.4	2.0
Cross I.	97	73	90	91	27	115	139	-	-	0	-	-	129	216	192	243	-	223	166	60	-	105	-	-	-	-	-	-	-	-	16	243	122.9	70.2
NoName I.	0	0	0	0	0	0	-	-	-	-	-	-	6	10	17	13	-	11	8	7	-	-	-	-	-	-	-	-	-	-	13	17	5.5	6.0
Narwhal I.	2	3	2	4	6	8	33	-	-	-	-	-	30	35	48	40	-	61	63	30	-	62	-	-	-	-	-	-	-	32	16	63	28.7	22.4
Jeanette I.	1	2	2	1	0	4	5	-	-	-	-	-	0	10	13	22	-	28	24	0	-	-	-	-	-	-	-	-	-	18	15	28	8.7	9.9
Karluk I.	1	1	2	1	0	3	0	-	-	-	-	-	3	7	18	14	-	4	3	0	-	-	-	-	-	-	-	-	-	3	15	18	4.0	5.3
Lion Point	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	77	-	90	88	17	-	-	-	-	-	-	-	-	-	-	5	90	55.6	40.7
Pole I.	7	5	50	5	4	16	64	-	-	10	-	-	0	141	60	215	-	158	162	0	-	-	-	-	-	-	-	-	-	-	15	215	59.8	72.9
Belvedere I.	1	0	1	0	0	1	10	-	-	-	-	-	0	1	4	1	-	15	7	1	-	-	-	-	-	-	-	-	-	-	14	15	3.0	4.6
Challenge I.	0	0	0	0	0	1	4	-	-	-	-	-	4	17	3	11	-	4	9	28	-	-	-	-	-	-	-	-	14	-	15	28	6.3	8.1
Alaska I.	1	0	1	1	0	2	12	-	-	0	-	-	-	44	29	41	-	26	38	21	-	-	-	-	-	-	-	-	21	-	15	44	15.8	16.6
Duchess I.	0	1	0	1	0	2	0	-	-	9	-	-	-	11	6	21	-	31	27	42	-	-	-	-	-	-	-	-	8	-	15	42	10.6	13.4
Northstar I.	1	1	1	1	0	2	0	-	-	-	-	-	4	6	18	15	-	2	17	28	-	-	-	-	-	-	-	-	0	-	15	28	6.4	8.7
Flaxman I. (W)	3	6	7	3	2	5	0	-	-	0	-	-	0	-	0	2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	12	7	2.4	2.5
Flaxman I. (E)	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	2	2	1.0	1.4
All Locations	152	145	225	144	70	236	381	-	91	83	41	-	178	758	577	1042	-	949	922	449	97	395	-	-	-	164	-	-	44	214	380	1342	507.2	27.9

[1] Censuses were conducted on various dates from 25 June to 31 July. Timing may influence census results because of the possibilities of missing late-initiated nests and early failed nests, or censusing after the peak of hatch and not recognizing some empty nests as active nests. Sources: Schamel (1974); Gavin (1976); Divoky (1978); Johnson and Richardson (1981); Johnson (1984); U.S. Fish and Wildlife Service, Office of Ecological Services, Fairbanks, Alaska (unpublished data); Moitoret (1998); Noel et al. (1999a); this study. Dashes indicate no data.

[2] In years when Egg Island is not split into 2 pieces, numbers appear to be recorded for the west end only. 1999 data are presented accordingly.

APPENDIX A

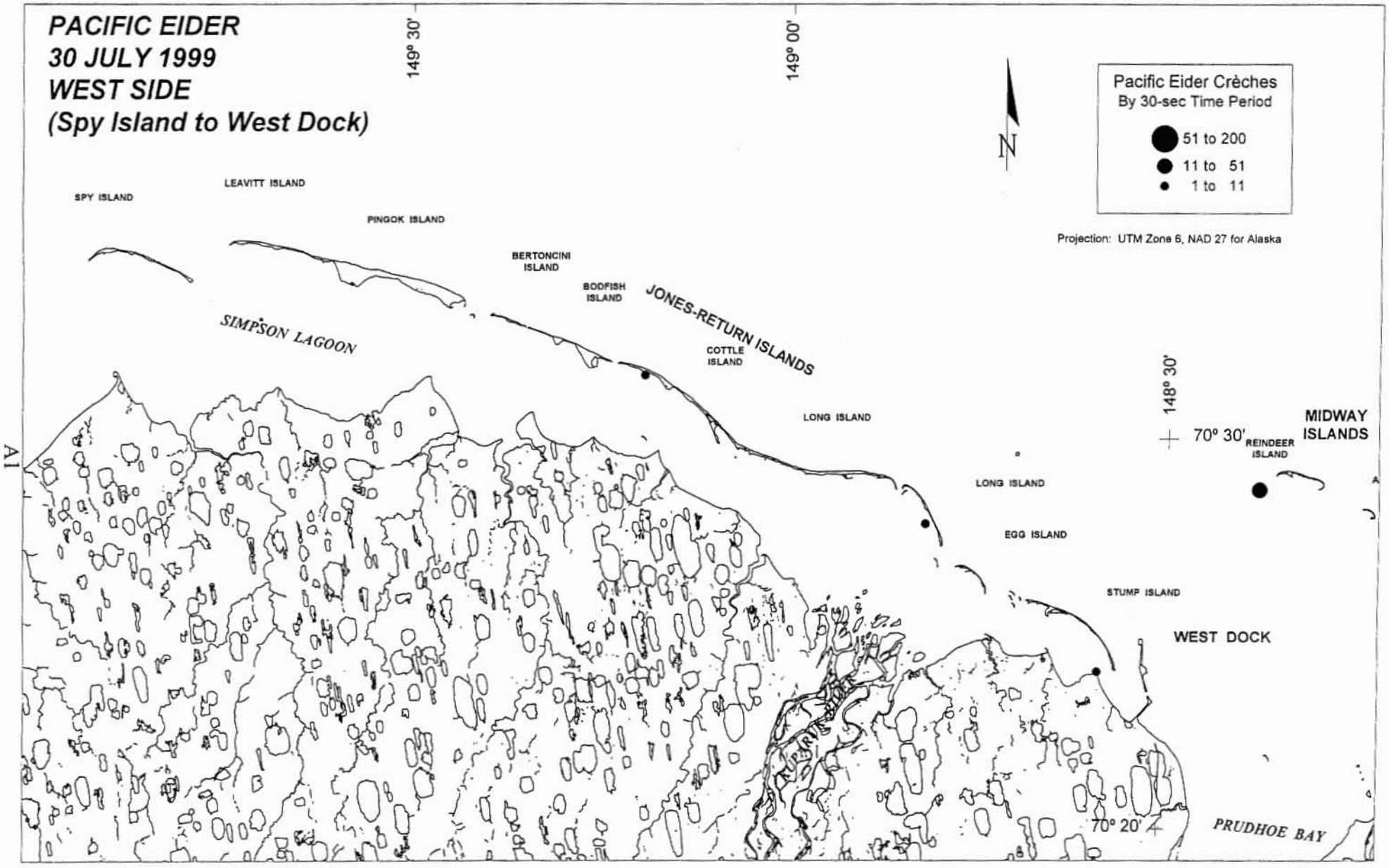

Figure A-1. Summary of total Pacific eiders in crèches by 30-second time period segments in the barrier island-lagoon system between Spy Island and West Dock, Alaska, 30 July 1999.

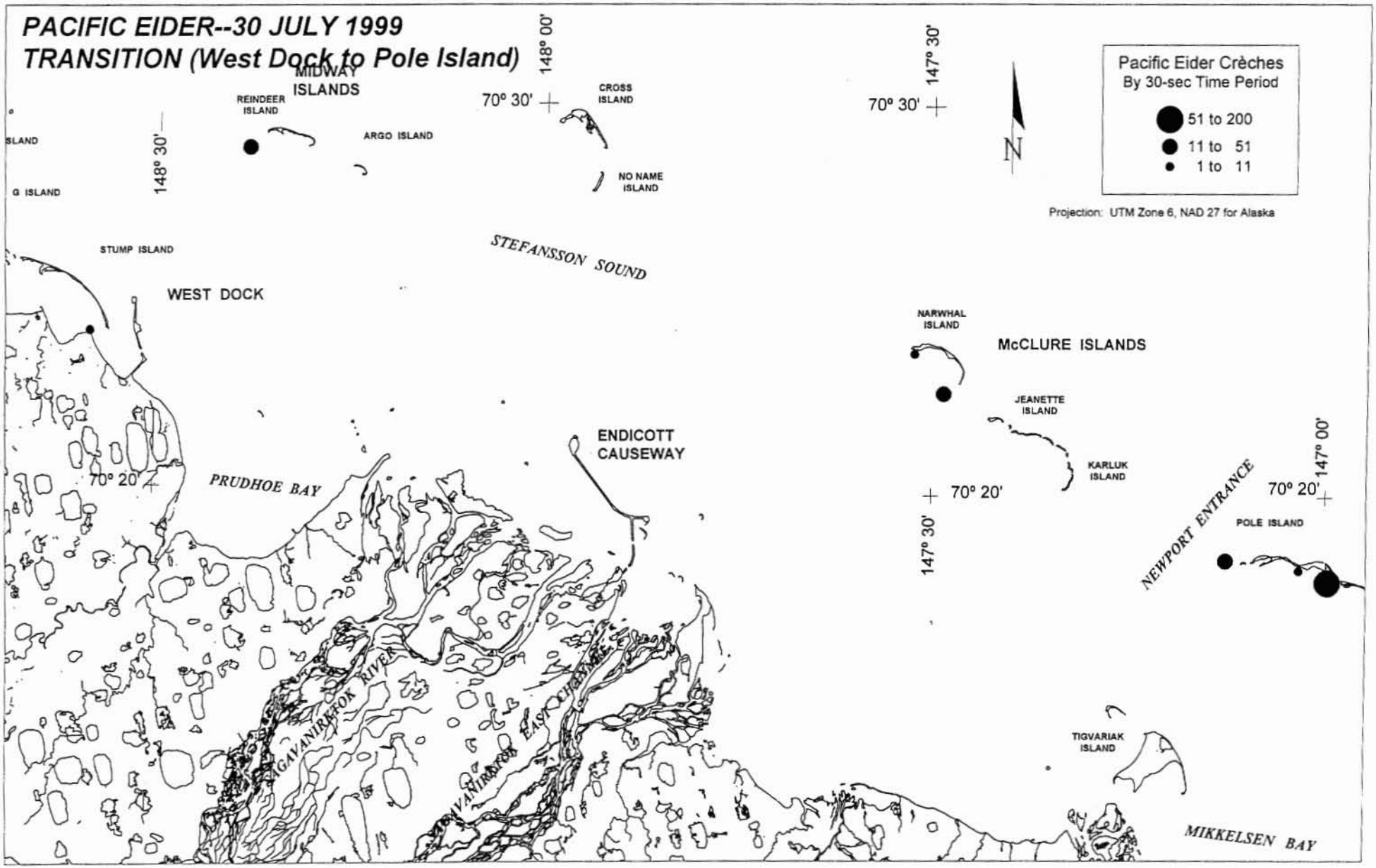

Figure A-2. Summary of total Pacific eiders in crèches by 30-second time period segments in the barrier island-lagoon system between West Dock and Pole Island, Alaska, 30 July 1999.

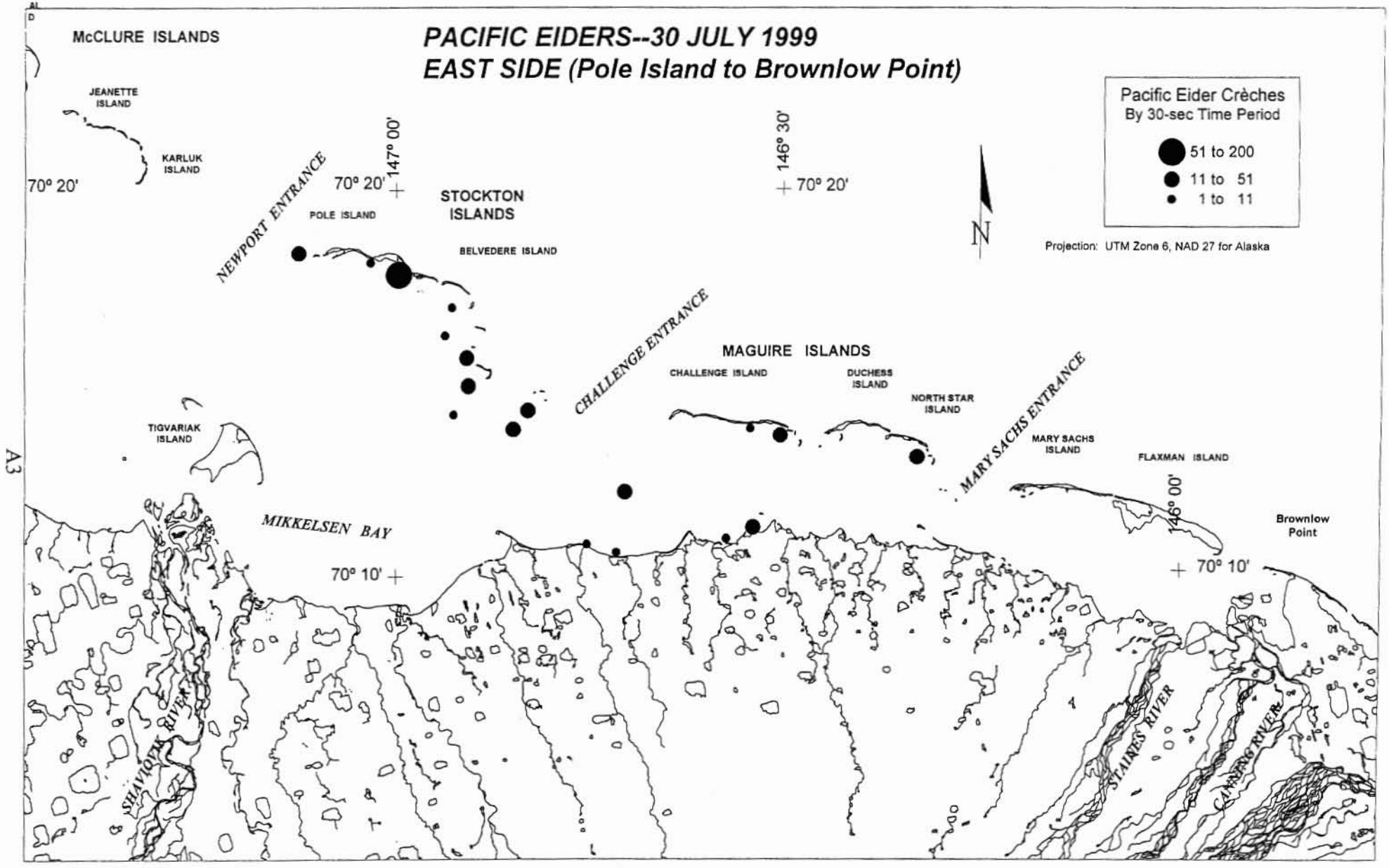

Figure A-3. Summary of total Pacific eiders in crèches by 30-second time period segments in the barrier island-lagoon system between Pole Island and Brownlow Point, Alaska, 30 July 1999.

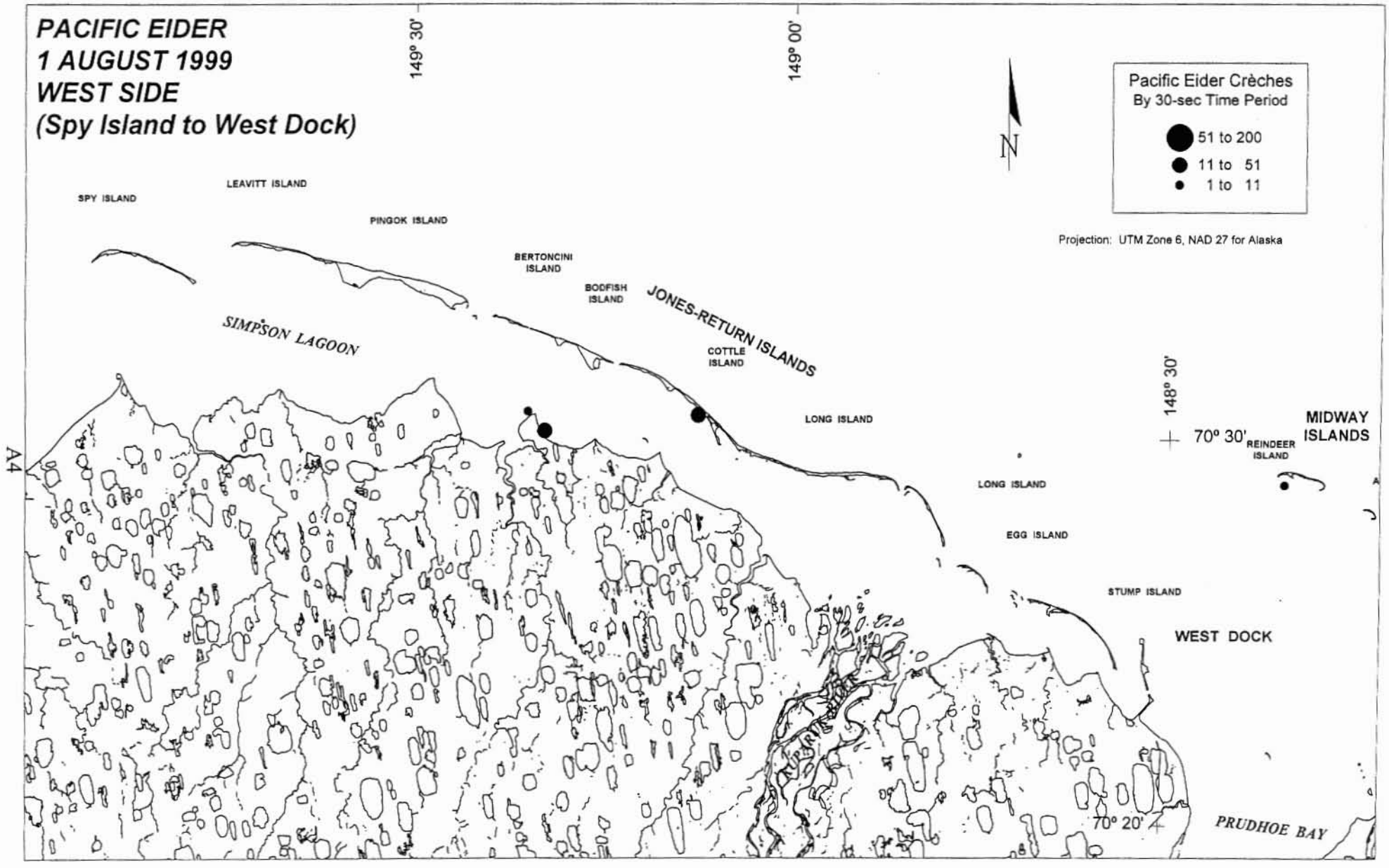

Figure A-4. Summary of total Pacific eiders in crèches by 30-second time period segments in the barrier island-lagoon system between Spy Island and West Dock, Alaska, 1 August 1999.

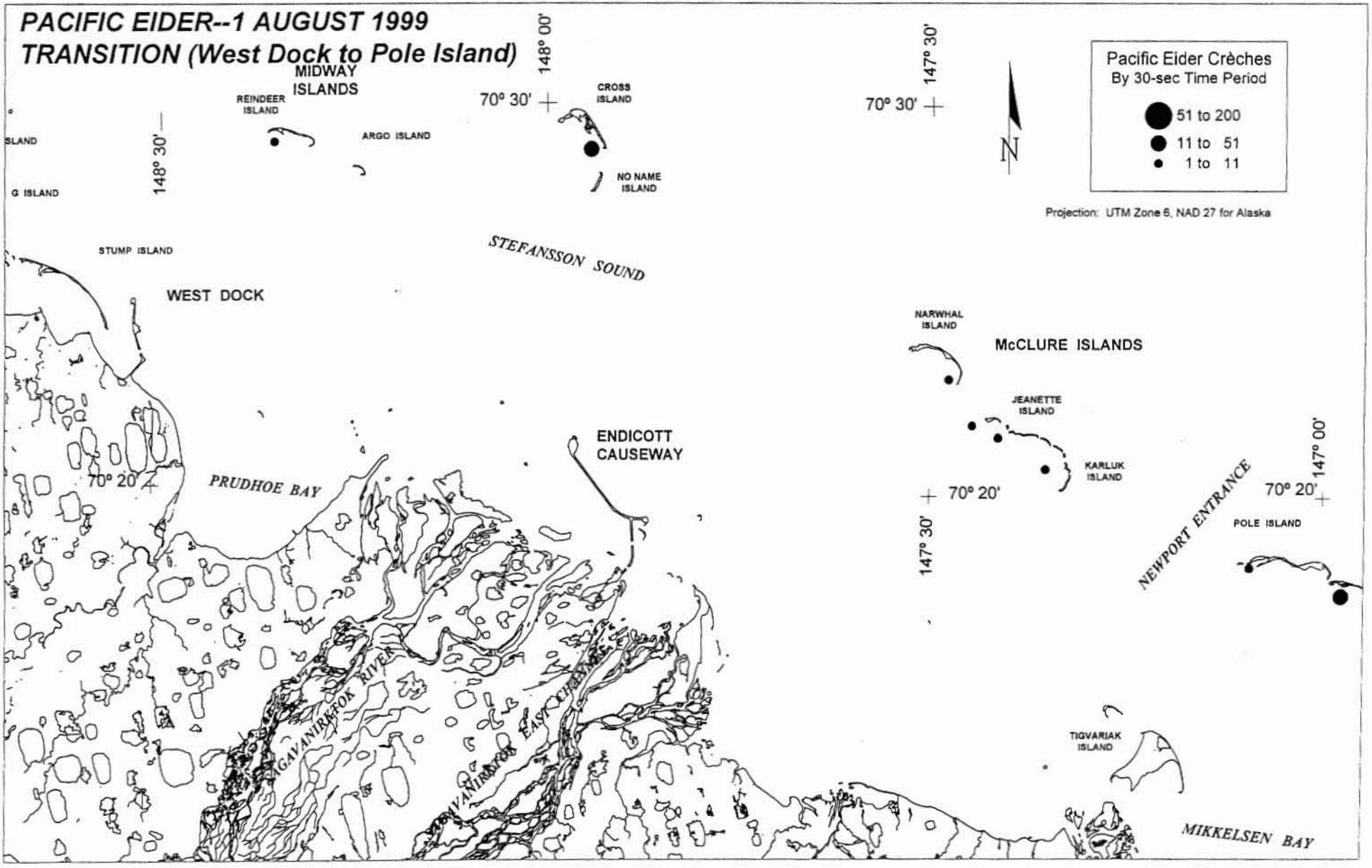

Figure A-5. Summary of total Pacific eiders in crèches by 30-second time period segments in the barrier island-lagoon system between West Dock and Pole Island, Alaska, 1 August 1999.

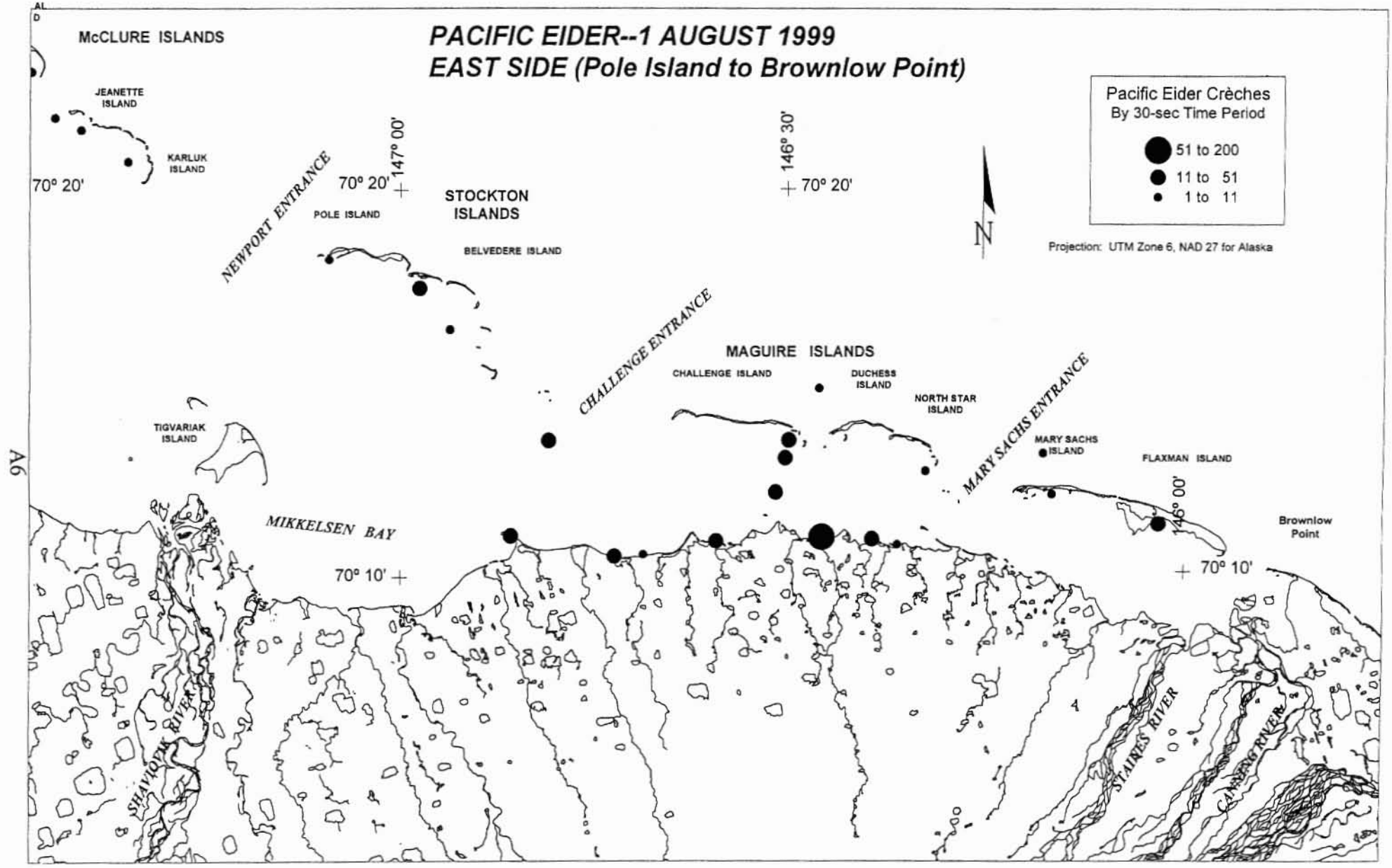

Figure A-6. Summary of total Pacific eiders in crèches by 30-second time period segments in the barrier island-lagoon system between Pole Island and Brownlow Point, Alaska, 1 August 1999.

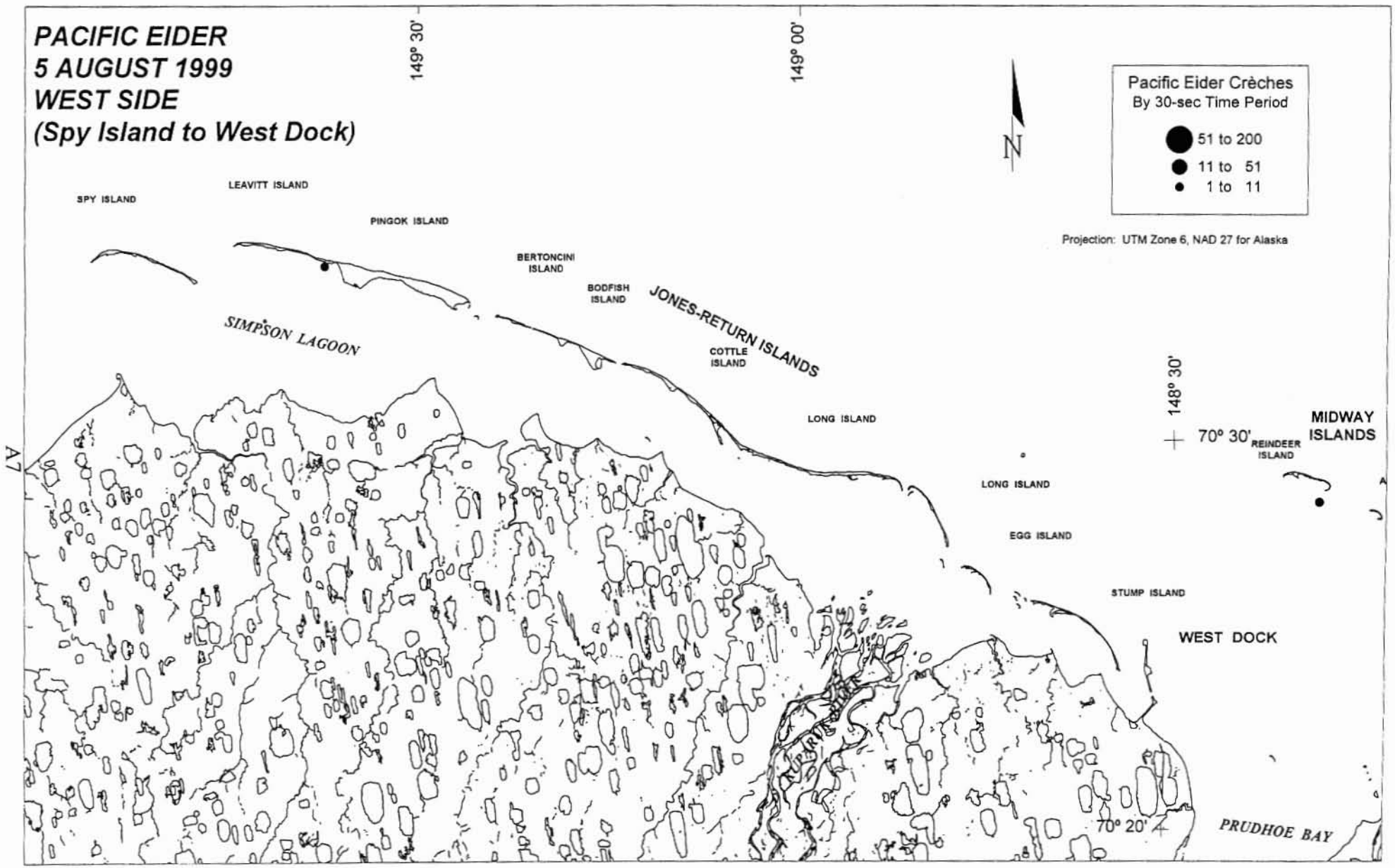

Figure A-7. Summary of total Pacific eiders in crèches by 30-second time period segments in the barrier island-lagoon system between Spy Island and West Dock, Alaska, 5 August 1999.

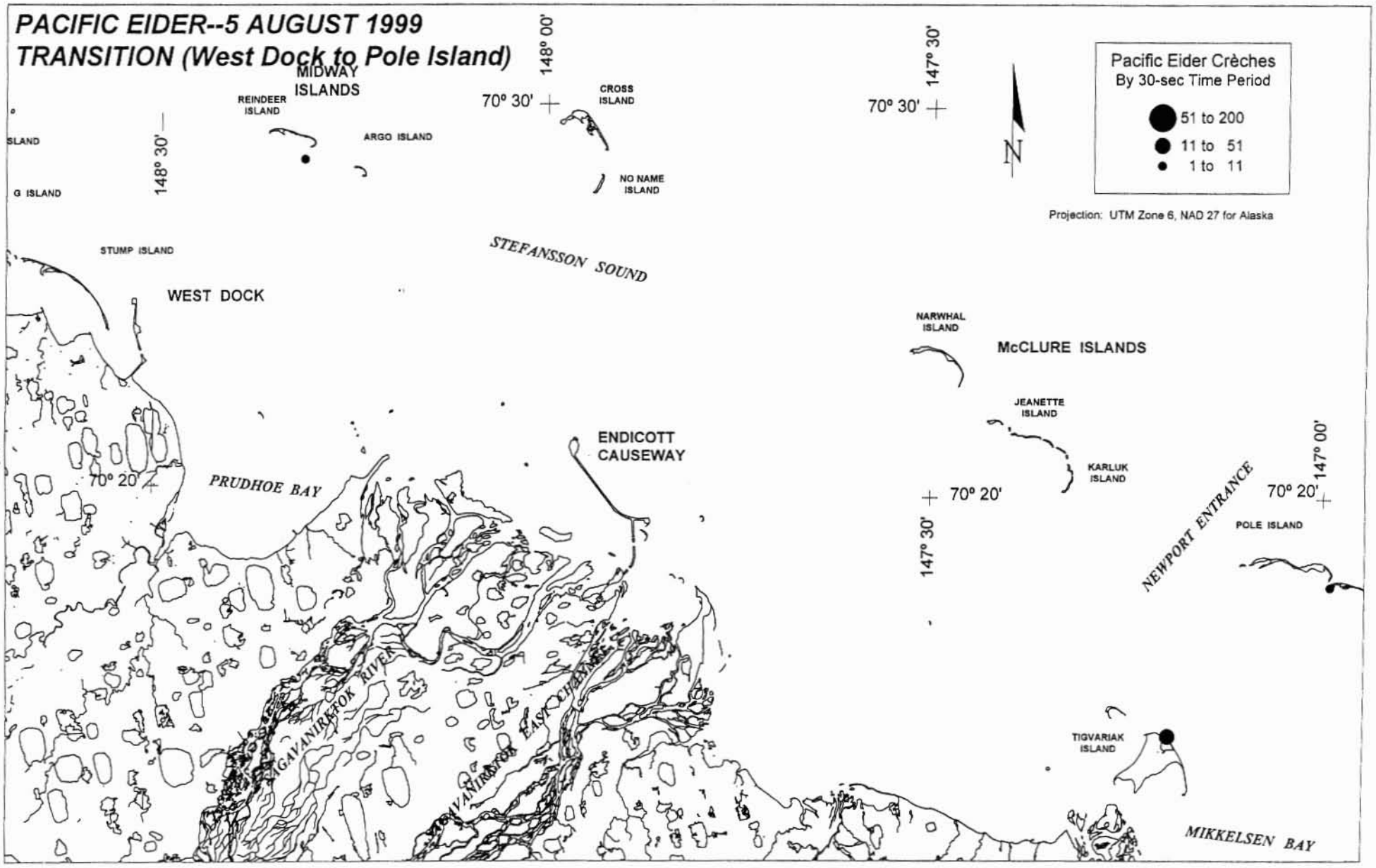

Figure A-8. Summary of total Pacific eiders in crèches by 30-second time period segments in the barrier island-lagoon system between West Dock and Pole Island, Alaska, 5 August 1999.

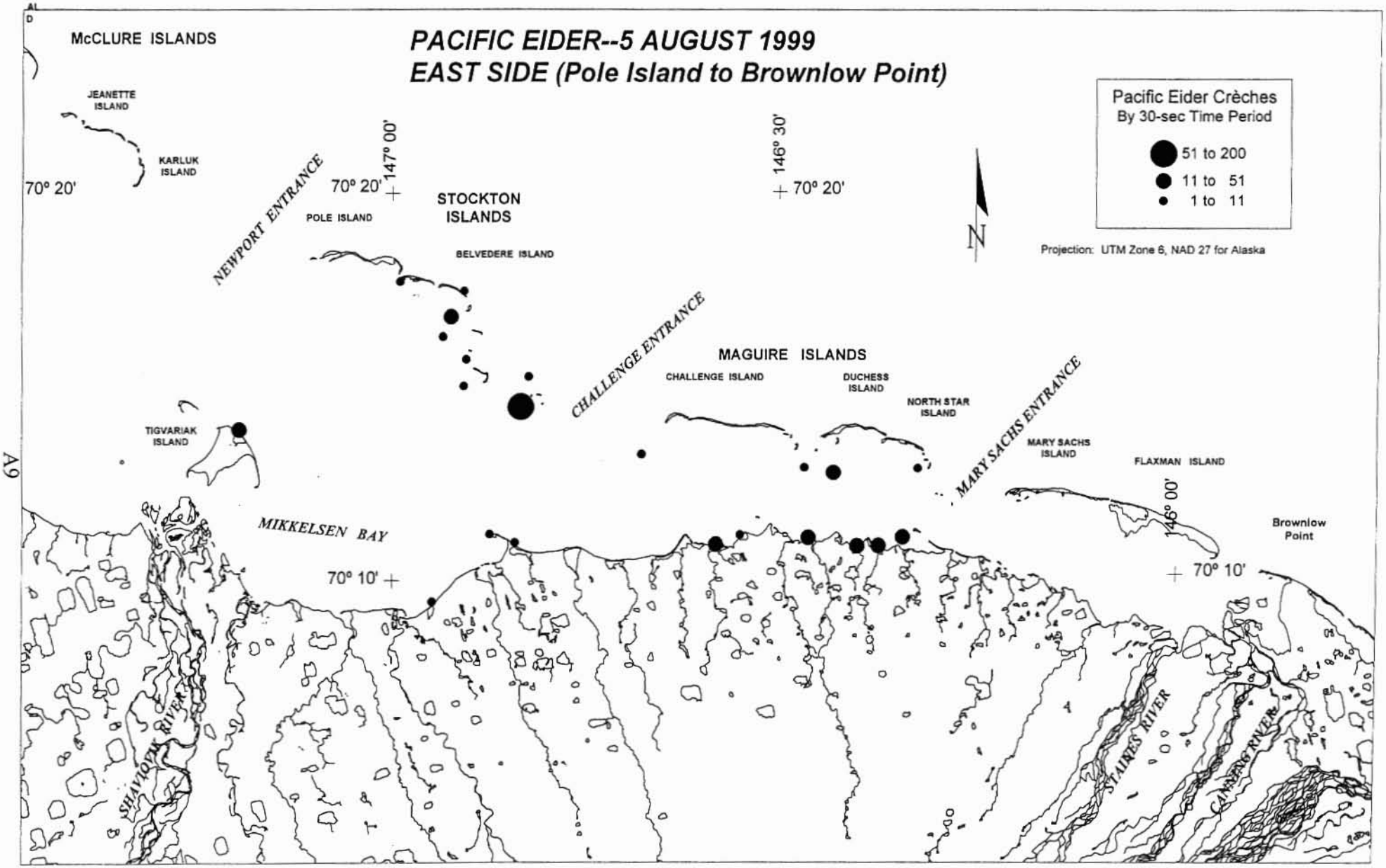

Figure A-9. Summary of total Pacific eiders in crèches by 30-second time period segments in the barrier island-lagoon system between Pole Island and Brownlow Point, Alaska, 5 August 1999.

Table A-1. Nest census data for Pacific eider and other barrier island nesting birds along the central Alaskan Beaufort Sea coast from Thetis Island to the McClure Islands, 12 to 17 July 1999.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
LONG-E	1	COEI	-148.788620	70.450977	NA	SC2	SC		M					7/12/1999	10:09	LN	1		1-1
LONG-E	2	COEI	-148.789643	70.451947	NA	NE2	NE	Y	M					7/12/1999	10:11	LN	2		1-1
LONG-E	3	COEI	-148.789643	70.451947	NA	SC4	SC		M					7/12/1999	10:11	LN	3		1-1
LONG-E	4	GLGU	-148.790212	70.453392	NA	NE4	NE	0	L		U			7/12/1999	10:15	LN	4		1-1
LONG-E	5	COEI	-148.790496	70.453716	NA	SC6	SC		M					7/12/1999	10:18	LN	5		1-1
LONG-E	6	COEI	-148.790951	70.454020	NA	SC8	SC		M					7/12/1999	10:19	LN	6		1-1
LONG-E	7	COEI	-148.791406	70.454363	NA	SC10	SC		M					7/12/1999	10:20	LN	7		1-1
LONG-E	8	COEI	-148.791406	70.454363	NA	SC12	SC		M					7/12/1999	10:20	LN	8		1-1
LONG-E	9	COEI	-148.790553	70.451661	NA	SC14	SC		M					7/12/1999	10:22	LN	9		1-1
LONG-E	10	COEI	-148.790553	70.451661	NA	SC16	SC		M					7/12/1999	10:22	LN	10		1-1
LONG-E	11	COEI	-148.791577	70.454686	NA	NE6	NE	Y	M					7/12/1999	10:23	LN	11	Another female flushed ahead	1-1
LONG-E	12	COEI	-148.791463	70.454857	NA	SC18	SC		M					7/12/1999	10:25	LN	12		1-1
LONG-E	13	COEI	-148.791463	70.454857	NA	SC20	SC		L					7/12/1999	10:25	LN	13		1-1
LONG-E	14	COEI	-148.792145	70.454914	NA	SC22	SC		L					7/12/1999	10:26	LN	14		1-1
LONG-E	15	GLGU	-148.791634	70.454971	NA	NE8	NE	0	L		U			7/12/1999	10:27	LN	15		1-1
LONG-E	16	COEI	-148.791634	70.454971	NA	SC24	SC		L					7/12/1999	10:27	LN	16		1-1
LONG-E	17	COEI	-148.791634	70.454971	NA	SC26	SC		M					7/12/1999	10:27	LN	17		1-1
LONG-E	18	COEI	-148.792145	70.455047	NA	SC28	SC		H					7/12/1999	10:28	LN	18		1-1
LONG-E	19	COEI	-148.791690	70.455104	NA	NE10	NE	0	M		U			7/12/1999	10:29	LN	19		1-1
LONG-E	20	COEI	-148.792368	70.455120	NA	SC30	SC		L					7/12/1999	10:33	LN	20		1-1
LONG-E	21	COEI	-148.792368	70.455120	NA	SC32	SC		L					7/12/1999	10:33	LN	21		1-1
LONG-E	22	COEI	-148.792535	70.455204	NA	SC34	SC		L					7/12/1999	10:34	LN	22		1-1
LONG-E	23	COEI	-148.792201	70.455343	NA	SC36	SC		L					7/12/1999	10:36	LN	23		1-1
LONG-E	24	COEI	-148.792201	70.455343	NA	SC38	SC		L					7/12/1999	10:36	LN	24		1-1
LONG-E	25	COEI	-148.791951	70.455343	NA	SC40	SC		M					7/12/1999	10:37	LN	25	*Cochleria tufts*	1-1
LONG-E	26	COEI	-148.791951	70.455343	NA	SC42	SC		L					7/12/1999	10:37	LN	26		1-1
LONG-E	27	COEI	-148.792088	70.455200	NA	NE12	NE	0	L		Y		AVIAN	7/12/1999	10:38	LN	27	Shell fragments and down	1-1
LONG-E	28	COEI	-148.791701	70.455274	NA	SC44	SC		M					7/12/1999	10:39	LN	28		1-1
LONG-E	29	COEI	-148.794807	70.457683	NA	SC46	SC		M					7/12/1999	10:41	LN	29	Sticks	1-1
LONG-E	30	COEI	-148.794807	70.457683	NA	SC48	SC		L					7/12/1999	10:41	LN	30		1-1
LONG-E	31	GLGU	-148.806521	70.465273	NA	NE14	NE	0	H		U			7/12/1999	10:43	LN	31		1-2
LONG-E	32	COEI	-148.806521	70.465273	NA	SC50	SC		L					7/12/1999	10:43	LN	32	Sticks	1-2
LONG-E	33	COEI	-148.806521	70.465273	NA	SC52	SC		M					7/12/1999	10:43	LN	33	Sticks	1-2
LONG-E	34	COEI	-148.807104	70.465521	NA	SC54	SC		M					7/12/1999	10:44	LN	34	Sticks	1-2
LONG-E	35	COEI	-148.807694	70.465787	NA	SC56	SC		M					7/12/1999	10:45	LN	35	Sticks	1-2
LONG-E	36	COEI	-148.807694	70.465787	NA	SC58	SC		M					7/12/1999	10:45	LN	36	Sticks	1-2
LONG-E	37	COEI	-148.808090	70.466092	NA	SC60	SC		L					7/12/1999	10:46	LN	37		1-2
LONG-E	38	COEI	-148.808471	70.466397	NA	SC62	SC		L					7/12/1999	10:47	LN	38	Sticks	1-2
LONG-E	39	COEI	-148.809619	70.466990	NA	SC64	SC		M					7/12/1999	10:51	LN	39	Sticks, Tracks	1-2
LONG-E	40	COEI	-148.810499	70.467521	NA	SC66	SC		M					7/12/1999	10:54	LN	40	Sticks, Tracks	1-2
LONG-E	41	GLGU	-148.811042	70.467869	NA	NE16	NE	0	L		U			7/12/1999	10:55	LN	41		1-2
LONG-E	42	COEI	-148.811042	70.467869	NA									7/12/1999	10:55	LN	42	COEI pair fly east	1-2
LONG-E	43	COEI	-148.811042	70.467869	NA	SC68	SC		M					7/12/1999	10:55	LN	43	Sticks	1-2

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
LONG-E	44	COEI	-148.811042	70.467869	NA	SC70	SC		M					7/12/1999	10:55	LN	44		1-2
LONG-E	45	GLGU	-148.811493	70.468144	NA	SC72	SC		L	E40				7/12/1999	10:56	LN	45	Large mound, feathers	1-2
LONG-E	46	COEI	-148.812141	70.468514	NA	SC74	SC		L					7/12/1999	10:59	LN	46	Sticks	1-2
LONG-E	47	GLGU	-148.813400	70.469263	NA	SC76	SC		N					7/12/1999	11:05	LN	47	Sandwort	1-2
LONG-E	48	COEI	-148.813680	70.469450	NA	SC78	SC		L					7/12/1999	11:07	LN	48	Sticks, Tracks	1-2
LONG-E	49	COEI	-148.813959	70.469590	NA									7/12/1999	11:09	LN	49	Female flys to south of island	1-2
LONG-E	50	GLGU	-148.814589	70.469917	NA	EE1	EE						AVIAN	7/12/1999	11:20	LN	50	Not with nest, last years?	1-2
LONG-E	51	GLGU	-148.814799	70.470058	NA	SC80	SC		L					7/12/1999	11:24	LN	51		1-2
LONG-E	52	OLDS	-148.815079	70.470245	NA									7/12/1999	11:26	LN	52	7 OLDS, 19 SCOT swim, had been loafing on beach	1-2
LONG-E	53	COEI	-148.815638	70.470502	NA	NE18	NE	Y	M					7/12/1999	11:29	LN	53		1-2
LONG-E	54	USGS	-148.815988	70.470689	NA									7/12/1999	11:30	LN	54	Marker DTS (CM1-367-439) T13N, R13E, UM 813-S 1981	1-2
LONG-E	55	GLGU	-148.815988	70.470689	NA	NE20	NE	0	L		U			7/12/1999	11:30	LN	55	Tracks, old?	1-2
LONG-E	56	GLGU	-148.816408	70.470829	NA	NE22	NE	0	L		U			7/12/1999	11:34	LN	56	Feathers	1-2
LONG-E	57	COEI	-148.816688	70.470946	NA	NE24	NE	Y	M					7/12/1999	11:35	LN	57		1-2
LONG-E	58	GLGU	-148.817037	70.471133	NA	SC82	SC		L					7/12/1999	11:36	LN	58	Tracks	1-2
LONG-E	59	GLGU	-148.817037	70.471133	NA	SC84	SC		L					7/12/1999	11:36	LN	59	Sandwort	1-2
LONG-E	60	COEI	-148.817457	70.471297	NA	SC86	SC		L					7/12/1999	11:38	LN	60	Tracks	1-2
LONG-E	61	COEI	-148.817177	70.471320	NA	SC88	SC		M					7/12/1999	11:40	LN	61	Sticks, Tracks	1-3
LONG-E	62	COEI	-148.817177	70.471320	NA	NE26	NE	0	L	E40	Y		AVIAN	7/12/1999	11:40	LN	62		1-3
LONG-E	63	GLGU	-148.822703	70.473238	NA	SC90	SC		L					7/12/1999	11:42	LN	63	Sandwort, old nest	1-3
LONG-E	64	COEI	-148.826621	70.474594	NA	SC92	SC		L	E20				7/12/1999	11:44	LN	64	Few pieces of down	1-3
LONG-E	65	COEI	-148.830048	70.475483	NA	SC94	SC		M					7/12/1999	11:45	LN	65	Sticks, Tracks	1-3
LONG-E	66	GLGU	-148.837743	70.474571	NA	NE28	NE	0	L		U			7/12/1999	12:00	LN	66	Isolated spit south of island	1-3
LONG-E	67	GLGU	-148.837953	70.474407	NA	NE30	NE	0	L		U			7/12/1999	12:03	LN	67	Isolated spit south of island	1-3
LONG-E	68	COEI	-148.837393	70.474384	NA	NE32	NE	Y	L					7/12/1999	12:05	LN	68	Isolated spit south of island	1-3
LONG-E	69	COEI	-148.837393	70.474384	NA									7/12/1999	12:05	LN	69	Female walking on Isolated spit south of island	1-3
LONG-E	70	COEI	-148.838302	70.476535	NA	SC96	SC		M					7/12/1999	12:13	LN	70		1-3
LONG-E	71	GLGU	-148.838302	70.476535	NA	SC98	SC		L					7/12/1999	12:13	LN	71		1-3
LONG-E	72	COEI	-148.839422	70.476629	NA	SC100	SC		L					7/12/1999	12:14	LN	72		1-3
LONG-E	73	COEI	-148.839422	70.476629	NA	SC102	SC		L					7/12/1999	12:14	LN	73		1-3
LONG-E	74	COEI	-148.842779	70.475506	NA	SC104	SC		L					7/12/1999	12:25	LN	74		1-3
LONG-W	75	GLGU	-148.849005	70.474594	NA	NE34	NE	0	N		U			7/12/1999	12:31	LN	75	Feathers	1-3
LONG-W	76	OLDS	-148.849005	70.474594	NA									7/12/1999	12:31	LN	76	54 OLDS loafing move into water, 2 GLGU fly	1-3
LONG-W	77	GLGU	-148.849564	70.474852	NA	NE36	NE	0	L		U			7/12/1999	12:32	LN	77		1-3
LONG-W	78	COEI	-148.850054	70.475156	NA	SC106	SC		L					7/12/1999	12:35	LN	78	Dried grass	1-3
LONG-W	79	COEI	-148.850614	70.475530	NA	SC108	SC		L					7/12/1999	12:36	LN	79	Tracks, dried grass	1-3
LONG-W	80	PALO	-148.852642	70.476559	NA									7/12/1999	12:41	LN	80	1 PALO fly	1-3
LONG-W	81	COEI	-148.874327	70.481095	NA									7/12/1999	13:05	LN	81	2 male COEI	1-3

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
LONG-W	82	COEI	-148.876915	70.480721	NA	SC110	SC		L					7/12/1999	13:38	LN	82	Sticks, feathers	1-3
LONG-W	83	COEI	-148.878804	70.480768	NA	SC112	SC		L					7/12/1999	13:39	LN	83	Sticks, feathers	1-3
LONG-W	84	COEI	-148.881602	70.480932	NA	SC114	SC		L					7/12/1999	13:40	LN	84	Sticks, feathers	1-3
LONG-W	85	ARFO	-148.886428	70.481119	NA	AFT	AFT							7/12/1999	13:44	LN	85	Traveling east to west	1-3
LONG-W	86	COEI	-148.890765	70.481540	NA	SC116	SC		L					7/12/1999	13:48	LN	86	Tracks	1-3
LONG-W	87	COEI	-148.908883	70.481820	NA	SC118	SC		L					7/12/1999	14:02	LN	87	Tracks	1-3
LONG-W	88	USGS	-148.915108	70.481002	NA									7/12/1999	14:07	LN	88	USGS Marker	1-3
LONG-W	89	COEI	-148.930357	70.481376	NA	SC120	SC		L					7/12/1999	14:30	LN	89	Tracks	1-3
LONG-W	90	ARFO	-148.937213	70.481329	NA	AFT	AFT							7/12/1999	14:35	LN	90		1-4
LONG-W	91	COEI	-148.949104	70.480932	NA	SC122	SC		L					7/12/1999	14:43	LN	91	Sticks	1-4
LONG-W	92	COEI	-148.963864	70.481212	NA	SC124	SC		L					7/12/1999	14:44	LN	92	Sticks	1-4
LONG-W	93	COEI	-148.963864	70.481212	NA	SC126	SC		L					7/12/1999	14:44	LN	93	Sticks	1-4
LONG-W	94	USGS	-148.979883	70.482545	NA									7/12/1999	14:45	LN	94	USGS Marker (CMI-367-437) T13N, R12E, UM 813-S 1981	1-4
LONG-W	95	COEI	-148.982402	70.482685	NA	NE38	NE98		M					7/12/1999	14:50	LN	95	Last years, Tracks	1-4
LONG-W	96	COEI	-148.984080	70.482825	NA	SC128	SC		L					7/12/1999	14:51	LN	96	Tracks, Sticks	1-4
LONG-W	97	OLDS	-148.989397	70.483386	NA									7/12/1999	14:55	LN	97	54 OLDS, 2 BRAN, 1 female COEI flushed	1-4
LONG-W	98	ARTE	-148.991635	70.483713	NA									7/12/1999	14:57	LN	98	1 ARTE fly over	1-4
LONG-W	99	KIEI	-148.991635	70.483713	NA	NE40	NE	3	L					7/12/1999	14:57	LN	99		1-4
LONG-W	100	COEI	-148.993734	70.483947	NA	SC130	SC		M					7/12/1999	15:01	LN	100	Sticks	1-4
LONG-W	101	COEI	-148.996112	70.484181	NA	SC132	SC		L					7/12/1999	15:02	LN	101	Tracks, Sticks	1-4
LONG-W	102	COEI	-148.998210	70.484414	NA	NE42	NE	4	L					7/12/1999	15:06	LN	102	2 hens flushed, only found 1 nest	1-4
LONG-W	103	GLGU	-148.998210	70.484414	NA	SC134	SC		L					7/12/1999	15:06	LN	103		1-4
LONG-W	104	COEI	-148.999190	70.484555	NA	SC136	SC		L					7/12/1999	15:07	LN	104	Tracks, Sticks	1-4
LONG-W	105	COEI	-149.000029	70.484648	NA	SC138	SC		L					7/12/1999	15:09	LN	105	Tracks	1-4
LONG-W	106	ARTE	-149.000029	70.484648	NA	NE44	NE	2	L					7/12/1999	15:09	LN	106		1-4
LONG-W	107	OLDS	-149.004086	70.485162	NA									7/12/1999	15:20	LN	107	97 OLDS, loaf then swim @ approach	1-4
LONG-W	108	OLDS	-149.005345	70.485302	NA									7/12/1999	15:30	LN	108	20 OLDS, loaf then swim @ approach	1-4
LONG-W	109	COEI	-149.006465	70.485349	NA	NE46	NE	0	L		Y		AVIAN	7/12/1999	15:33	LN	109	Egg shell, no down	1-4
LONG-W	110	OLDS	-149.007724	70.485443	NA									7/12/1999	15:37	LN	110	10 OLDS	1-4
LONG-W	111	SUSC	-149.008283	70.485583	NA									7/12/1999	15:43	LN	111	7 SUSC and 3 OLDS swim	1-4
LONG-W	112	OLDS	-149.012201	70.486051	NA									7/12/1999	15:46	LN	112	20 OLDS, swim	1-4
LONG-W	113	ARFO	-149.019615	70.486985	NA	AFT	AFT							7/12/1999	15:53	LN	113	Traveled the length of the island	1-4
LONG-W	114	OLDS	-149.024232	70.487406	NA									7/12/1999	15:58	LN	114	42 OLDS	1-4
LONG-W	115	GLGU	-149.062145	70.492127	NA	SC140	SC		L					7/12/1999	16:20	LN	115	Old, Tracks	1-4
LONG-W	116	COEI	-149.064384	70.492968	NA									7/12/1999	16:27	LN	116	2 female COEI swim	1-4
LONG-W	117	OLDS	-149.064384	70.492968	NA									7/12/1999	16:27	LN	117	54 OLDS	1-4
COTTLE	118	COEI	-149.068151	70.494270	NA	NE48	NE	0	M		U			7/12/1999	16:55	LN	118	Down	1-5
COTTLE	119	ARFO	-149.082567	70.499423	NA	AFT	AFT							7/12/1999	17:02	LN	119		1-5
COTTLE	120	GLGU	-149.086498	70.493833	NA	SC142	SC		N					7/12/1999	17:32	LN	120	Sticks, roots, grass	1-5
COTTLE	121	COEI	-149.085843	70.493047	NA	SC144	SC		N	V20				7/12/1999	17:33	LN	121	By sandwort mound	1-5
COTTLE	122	COEI	-149.085057	70.492611	NA	SC146	SC		L	V20				7/12/1999	17:36	LN	122	By sandwort mound	1-5

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
COTTLE	123	GLGU	-149.085057	70.492611	NA	SC148	SC		N					7/12/1999	17:36	LN	123	Sticks, sandwort	1-5
COTTLE	124	GLGU	-149.083877	70.492261	NA	NE50	NE	0	N		U			7/12/1999	17:39	LN	124	Sticks, feathers	1-5
COTTLE	125	GLGU	-149.082829	70.492305	NA	SC150	SC		N					7/12/1999	17:40	LN	125		1-5
COTTLE	126	COEI	-149.104321	70.504838	NA	NE52	NE	0	L		U			7/12/1999	17:52	LN	126	Sticks, old down?	1-5
COTTLE	127	COEI	-149.101700	70.504925	NA	NE54	NE	Y	N					7/12/1999	18:20	LN	127	On peat bank	1-5
COTTLE	128	COEI	-149.105632	70.505362	NA	NE2	NE	Y	N	V50				7/13/1999	09:11	LN	128	Peat Bank, Salix and Artemesia	1-6
COTTLE	129	COEI	-149.106287	70.505537	NA	NE4	NE	Y	N	V40				7/13/1999	09:14	LN	129	Peat Bank, Artemesia and Astragalus	1-6
COTTLE	130	COEI	-149.106812	70.505624	NA	NE6	NE	Y	L					7/13/1999	09:17	LN	130	Peat Bank, off ledge at beach, no veg	1-6
COTTLE	131	COEI	-149.106812	70.505624	NA	NE8	NE	Y	N	V40				7/13/1999	09:17	LN	131	Peat Bank, Salix and moss	1-6
COTTLE	132	COEI	-149.11035	70.506759	NA	EE	EE						ARFO	7/13/1999	09:29	LN	132	Bleached, may be last years, fox?	1-6
COTTLE	133	COEI	-149.112316	70.507458	NA	NE10	NE98							7/13/1999	09:41	LN	133	Last years nest, 3 eggs/membranes	1-6
COTTLE	134	POBE	-149.14023	70.514969	NA	PBT	PBT							7/13/1999	09:48	LN	134	POBE prints at end of tundra, several excavations in sandy soils along south edge of tundra/Elymus portions, den sites?	1-6
COTTLE	135	ARFO	-149.143507	70.515668	NA	AFT	AFT							7/13/1999	09:58	LN	135		1-6
COTTLE	136	GLGU	-149.149928	70.514751	NA	SC2	SC		L					7/13/1999	10:16	LN	136	Last years, not active	1-6
COTTLE	137	GLGU	-149.151239	70.514707	NA	SC4	SC		L					7/13/1999	10:17	LN	137	Last years, not active	1-6
COTTLE	138	COEI	-149.151632	70.514882	NA	SC6	SC		M					7/13/1999	10:20	LN	138	Sticks, 1 piece of down	1-6
COTTLE	139	GLGU	-149.152287	70.514882	NA	SC8	SC		L					7/13/1999	10:21	LN	139		1-6
COTTLE	140	ARFO	-149.156088	70.515974	NA	AFT	AFT							7/13/1999	10:30	LN	140		1-6
BODFISH	141	COEI	-149.258965	70.524576	NA	NE2	NE	0	M		Y		ARFO	7/13/1999	12:58	LN	141	Down, no eggs	1-7
BODFISH	142	COEI	-149.258965	70.524576	NA	NE4	NE	0	M		Y		ARFO	7/13/1999	12:58	LN	142	Down, no eggs	1-7
BODFISH	143	COEI	-149.258965	70.524576	NA	NE6	NE	0	M		Y		ARFO	7/13/1999	12:58	LN	143	Down, no eggs	1-7
BODFISH	144	COEI	-149.258965	70.524576	NA	NE8	NE	0	M		Y		ARFO	7/13/1999	12:58	LN	144	Down, no eggs	1-7
BODFISH	145	COEI	-149.258965	70.524576	NA	SC2	SC		N	E80				7/13/1999	12:58	LN	145	*Elymus 80%*	1-7
BODFISH	146	COEI	-149.258965	70.524576	NA	SC4	SC		N	E80				7/13/1999	12:58	LN	146	*Elymus 80%*	1-7
BODFISH	147	COEI	-149.258965	70.524576	NA	SC6	SC		N	E100				7/13/1999	12:58	LN	147	*Elymus 100%*	1-7
BODFISH	148	COEI	-149.258965	70.524576	NA	SC8	SC		L	E100				7/13/1999	12:58	LN	148	*Elymus 100%*	1-7
BODFISH	149	COEI	-149.25962	70.524751	NA	SC10	SC		L	E50				7/13/1999	13:01	LN	149	*Elymus 50%*	1-7
BODFISH	150	COEI	-149.25962	70.524751	NA	SC12	SC		M					7/13/1999	13:01	LN	150	Sticks	1-7
BODFISH	151	COEI	-149.258441	70.52462	NA	SC14	SC		N	E80				7/13/1999	13:02	LN	151	*Elymus 80%*	1-7
BODFISH	152	COEI	-149.258441	70.52462	NA	SC16	SC		L	V5				7/13/1999	13:02	LN	152	Peat, Sticks	1-7
ERTOUCI	153	COEI	-149.344019	70.539686	NA									7/13/1999	14:55	LN	153	Female COEI fly over	1-7
PINGOK-E	154	ARFO	-149.423651	70.549479	NA									7/13/1999	16:45	LN	154	Fox hair	1-7
PINGOK-E	155	ARFO	-149.420993	70.547562	NA	AFT	AFT							7/13/1999	16:55	LN	155		1-7
SPY	156	COEI	-149.783876	70.554471	NA									7/15/1999	14:00	LN	156	3 females flushed by helicopter	1-8
SPY	157	ARTE	-149.782859	70.554224	NA				M					7/15/1999	14:04	LN	157	1 chick, 6 adults fly over	1-8
SPY	158	COEI	-149.782109	70.554017	NA	NE2	NE	Y	L					7/15/1999	14:05	LN	158		1-8
SPY	159	COEI	-149.781012	70.553663	NA	NE4	NE	Y	M					7/15/1999	14:07	LN	159		1-8

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
SPY	160	COEI	-149.781012	70.553663	NA	NE6	NE	Y	M					7/15/1999	14:07	LN	160		1-8
SPY	161	GLGU	-149.780396	70.553476	NA	NE8	NE	0	L		U			7/15/1999	14:09	LN	161		1-8
SPY	162	COEI	-149.779849	70.553309	NA	SC2	SC		L					7/15/1999	14:10	LN	162		1-8
SPY	163	COEI	-149.779299	70.553121	NA	SC4	SC		M					7/15/1999	14:11	LN	163		1-8
SPY	164	COEI	-149.778482	70.552894	NA	NE10	NE	Y	H					7/15/1999	14:15	LN	164		1-8
SPY	165	GLGU	-149.777649	70.552557	NA	NE12	NE	H	M					7/15/1999	14:20	LN	165	1 Chick	1-8
SPY	166	COEI	-149.777649	70.552557	NA	NE14	NE	4	M					7/15/1999	14:20	LN	166		1-8
SPY	167	GLGU	-149.777649	70.552557	NA	NE16	NE	0	M		U			7/15/1999	14:20	LN	167	Hatched?	1-8
SPY	168	GLGU	-149.777337	70.552671	NA	SC6	SC		L					7/15/1999	14:21	LN	168		1-8
SPY	169	COEI	-149.777337	70.552671	NA	SC8	SC		M					7/15/1999	14:21	LN	169	Sticks	1-8
SPY	170	COEI	-149.777337	70.552671	NA	SC10	SC		M					7/15/1999	14:21	LN	170	Sticks	1-8
SPY	171	COEI	-149.777337	70.552671	NA	NE18	NE	4	M					7/15/1999	14:21	LN	171		1-8
SPY	172	COEI	-149.776018	70.553084	NA	NE20	NE	Y	M					7/15/1999	14:24	LN	172		1-8
SPY	173	COEI	-149.776018	70.553084	NA	NE22	NE	0	M		Y		AVIAN	7/15/1999	14:24	LN	173	Down, sticks	1-8
SPY	174	COEI	-149.775631	70.553134	NA	SC12	SC		L					7/15/1999	14:25	LN	174	Sticks	1-8
SPY	175	COEI	-149.775798	70.553393	NA	SC14	SC		M					7/15/1999	14:32	LN	175	Sticks, Tracks	1-8
SPY	176	COEI	-149.776009	70.553499	NA	SC16	SC		L					7/15/1999	14:33	LN	176	Sticks	1-8
SPY	177	COEI	-149.776803	70.553552	NA	SC18	SC		M					7/15/1999	14:34	LN	177		1-8
SPY	178	COEI	-149.776803	70.553552	NA	NE24	NE98		L					7/15/1999	14:34	LN	178	Sticks, down, last years	1-8
SPY	179	COEI	-149.777403	70.553631	NA	SC20	SC		L					7/15/1999	14:35	LN	179	Sticks	1-8
SPY	180	COEI	-149.77801	70.553752	NA	SC22	SC		M					7/15/1999	14:37	LN	180	Sticks	1-8
SPY	181	COEI	-149.778411	70.553812	NA	SC24	SC		L					7/15/1999	14:38	LN	181	Sticks, has gotten wet	1-8
SPY	182	COEI	-149.778747	70.553872	NA	SC26	SC		L					7/15/1999	14:39	LN	182	Sticks, few bits down	1-8
SPY	183	COEI	-149.779083	70.553932	NA	NE26	NE	Y	L					7/15/1999	14:40	LN	183		1-8
SPY	184	COEI	-149.780763	70.554234	NA	SC28	SC		L					7/15/1999	14:46	LN	184	Sticks	1-8
SPY	185	COEI	-149.779083	70.553932	NA									7/15/1999	14:40	LN	185	1 Female flys	1-8
SPY	186	COEI	-149.781441	70.554399	NA	NE28	NE	3	L					7/15/1999	14:50	LN	186		1-8
SPY	187	COEI	-149.782113	70.554519	NA	SC30	SC		L					7/15/1999	14:52	LN	187	Sticks, Tracks	1-8
SPY	188	COEI	-149.782113	70.554519	NA	SC32	SC		L					7/15/1999	14:52	LN	188	Tracks	1-9
SPY	189	COEI	-149.784667	70.554983	NA									7/15/1999	15:00	LN	189	2 female COEI, loaf on shoreline, fly @ approach	1-9
SPY	190	COEI	-149.790046	70.55597	NA	SC34	SC		M					7/15/1999	15:14	LN	190		1-9
SPY	191	KIEI	-149.845712	70.563101	NA	NE30	NE	3	M					7/15/1999	15:42	LN	191		1-9
SPY	192	COEI	-149.848652	70.563492	NA	SC36	SC		L					7/15/1999	15:56	LN	192		1-9
SPY	193	COEI	-149.854209	70.563842	NA	SC38	SC		L					7/15/1999	15:57	LN	193	Sticks	1-9
SPY	194	COEI	-149.859337	70.563936	NA	SC40	SC		L					7/15/1999	16:06	LN	194	Sticks	1-9
SPY	195	COEI	-149.873337	70.564633	NA	NE32	NE	Y	M					7/15/1999	16:26	LN	195		1-9
SPY	196	COEI	-149.875699	70.564639	NA	SC42	SC		L					7/15/1999	16:28	LN	196		1-9
SPY	197	COEI	-149.876889	70.564708	NA	NE34	NE	Y	M					7/15/1999	16:30	LN	197		1-9
SPY	198	COEI	-149.879007	70.564849	NA	SC44	SC		L					7/15/1999	16:32	LN	198		1-9
SPY	199	GLGU	-149.880584	70.563951	NA	SC46	SC		L					7/15/1999	16:33	LN	199	COEI down	1-9
SPY	200	COEI	-149.880197	70.564918	NA	SC48	SC		L					7/15/1999	16:34	LN	200	Sticks, Tracks	1-9
SPY	201	COEI	-149.882142	70.563839	NA	SC50	SC		M					7/15/1999	16:36	LN	201	Sticks, Tracks	1-9
SPY	202	COEI	-149.882142	70.563839	NA	SC52	SC		L					7/15/1999	16:37	LN	202	Sticks, Tracks	1-9
SPY	203	GLGU	-149.882142	70.563839	NA									7/15/1999	16:40	LN	203	2 Chicks	1-9
SPY	204	COEI	-149.882142	70.563839	NA	SC54	SC		M					7/15/1999	16:42	LN	204	Sticks	1-9
SPY	205	COEI	-149.882142	70.563839	NA	SC56	SC		L					7/15/1999	16:49	LN	205	Sticks	1-9
SPY	206	COEI	-150.127023	70.531955	NA	SC58	SC		L					7/15/1999	16:50	LN	206	Sticks, Tracks	1-9

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
SPY	207	COEI	-150.127023	70.531955	NA	NE36	NE	0	M		Y		AVIAN	7/15/1999	17:02	LN	207	Down	1-9
SPY	208	COEI	-150.12802	70.532987	NA	SC60	SC		L					7/15/1999	17:04	LN	208		1-9
SPY	209	COEI	-150.12802	70.532987	NA	SC62	SC		M					7/15/1999	17:04	LN	209	Sticks	1-9
SPY	210	COEI	-150.12802	70.532987	NA	SC64	SC		M					7/15/1999	17:04	LN	210	Sticks, Tracks	1-9
SPY	211	COEI	-150.129613	70.533838	NA	NE38	NE	2	L					7/15/1999	17:07	LN	211		1-9
SPY	212	COEI	-150.129613	70.533838	NA	SC66	SC		M					7/15/1999	17:07	LN	212		1-9
SPY	213	COEI	-150.129613	70.533838	NA	SC68	SC		M					7/15/1999	17:08	LN	213	Sticks, Tracks	1-9
SPY	214	COEI	-150.129613	70.533838	NA	SC70	SC		M					7/15/1999	17:09	LN	214	Sticks, Tracks	1-9
SPY	215	COEI	-150.129722	70.534411	NA	SC72	SC		M					7/15/1999	17:10	LN	215		1-9
SPY	216	COEI	-150.129722	70.534411	NA	SC74	SC		L					7/15/1999	17:11	LN	216		1-9
SPY	217	COEI	-150.129722	70.534411	NA	SC76	SC		L					7/15/1999	17:12	LN	217		1-10
SPY	218	COEI	-150.130012	70.535051	NA	SC78	SC		L					7/15/1999	17:13	LN	218		1-10
SPY	219	COEI	-150.130665	70.535824	NA	SC80	SC		L					7/15/1999	17:14	LN	219	Sticks, Down	1-10
SPY	220	COEI	-150.130665	70.535824	NA	SC82	SC		L					7/15/1999	17:14	LN	220	Sticks	1-10
SPY	221	COEI	-150.132558	70.537251	NA	SC84	SC		L					7/15/1999	17:15	LN	221		1-10
SPY	222	COEI	-150.132558	70.537251	NA	SC86	SC		M					7/15/1999	17:16	LN	222		1-10
SPY	223	COEI	-150.132558	70.537251	NA	SC88	SC		M					7/15/1999	17:16	LN	223	Sticks	1-10
SPY	224	COEI	-150.132558	70.537251	NA	NE40	NE	0	M		U			7/15/1999	17:16	LN	224	Down, Sticks	1-10
SPY	225	COEI	-150.132558	70.537251	NA	SC90	SC		L					7/15/1999	17:16	LN	225		1-10
SPY	226	COEI	-150.132558	70.537251	NA									7/15/1999	17:16	LN	226	2 Females flushed near	1-10
SPY	227	COEI	-150.132558	70.537251	NA	SC92	SC		L					7/15/1999	17:17	LN	227	Sticks	1-10
SPY	228	ARTE	-150.132558	70.537251	NA									7/15/1999	17:18	LN	228	3 ARTE chicks	1-10
SPY	229	COEI	-150.132558	70.537251	NA	SC94	SC		L					7/15/1999	17:18	LN	229	Down, Sticks	1-10
SPY	230	COEI	-150.135614	70.541225	NA	NE42	NE	0	L		Y		AVIAN	7/15/1999	17:23	LN	230	Down, Sticks	1-10
SPY	231	COEI	-150.135614	70.541225	NA	SC96	SC		M					7/15/1999	17:25	LN	231	Sticks, Vegetation	1-10
SPY	232	COEI	-150.135202	70.541929	NA	SC98	SC		L					7/15/1999	17:28	LN	232	Sticks	1-10
SPY	233	COEI	-150.135202	70.541929	NA	SC100	SC		M					7/15/1999	17:29	LN	233	Sticks, Tracks	1-10
SPY	234	COEI	-150.135202	70.541929	NA	SC102	SC		L					7/15/1999	17:29	LN	234	Tracks	1-10
SPY	235	COEI	-150.135034	70.542588	NA	SC104	SC		L					7/15/1999	17:35	LN	235	Sticks	1-10
SPY	236	COEI	-150.135034	70.542588	NA	SC106	SC		M					7/15/1999	17:35	LN	236	Sticks	1-10
SPY	237	COEI	-150.135034	70.542588	NA	SC108	SC		L					7/15/1999	17:35	LN	237	Sticks	1-10
SPY	238	COEI	-150.132758	70.543163	NA	SC110	SC		L					7/15/1999	17:40	LN	238	Sticks	1-10
SPY	239	COEI	-150.132758	70.543163	NA	SC112	SC		L					7/15/1999	17:40	LN	239	Sticks	1-10
THETIS	240	COEI	-150.155544	70.552197	NA	NE2	NE	Y	M					7/15/1999	18:24	LN	240		1-11
THETIS	241	COEI	-150.157565	70.553317	NA	SC2	SC		L					7/15/1999	18:28	LN	241	Sticks, Tracks	1-11
THETIS	242	COEI	-150.15634	70.553797	NA	SC4	SC		L					7/15/1999	18:29	LN	242	Sticks	1-11
THETIS	243	COEI	-150.158763	70.553994	NA	NE4	NE	Y	L	V90				7/15/1999	18:30	LN	243	*Puccinellia phryganodes*	1-11
THETIS	244	COEI	-150.158763	70.553994	NA	SC6	SC		M	V60				7/15/1999	18:30	LN	244	Sticks, Tracks, Puccinellia phryganodes	1-11
THETIS	245	COEI	-150.159466	70.555774	NA	NE6	NE	2	L					7/15/1999	18:32	LN	245		1-11
THETIS	246	USGS	-150.159466	70.555774	NA									7/15/1999	18:32	LN	246	VICKY GPS 1987	1-11
THETIS	247	COEI	-150.159466	70.555774	NA	SC8	SC		M					7/15/1999	18:32	LN	247	Sticks, Tracks	1-11
THETIS	248	COEI	-150.16282	70.55662	NA	SC10	SC		M					7/15/1999	18:35	LN	248	Sticks, Tracks	1-11
THETIS	249	COEI	-150.16282	70.55662	NA	SC12	SC		M					7/15/1999	18:35	LN	249	Sticks, Tracks	1-11
THETIS	250	COEI	-150.16724	70.556666	NA	SC14	SC		L					7/15/1999	18:37	LN	250		1-11
THETIS	251	COEI	-150.17114	70.557022	NA	SC16	SC		M					7/15/1999	18:47	LN	251	Tracks	1-11
THETIS	252	COEI	-150.1742	70.557047	NA	NE8	NE	Y	M					7/15/1999	18:51	LN	252		1-11
THETIS	253	GLGU	-150.175637	70.557001	NA	NE10	NE	H	L	V20				7/15/1999	18:54	LN	253	Hatched	1-11

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
THETIS	254	COEI	-150.175013	70.557082	NA	SC18	SC		M					7/15/1999	18:55	LN	254	Tracks	1-11
THETIS	255	COEI	-150.175013	70.557082	NA	SC20	SC		M					7/15/1999	18:55	LN	255	Tracks, few Sticks	1-11
THETIS	256	COEI	-150.176947	70.556885	NA	NE12	NE	0	L		Y		GLGU	7/15/1999	18:58	LN	256	Down, few Sticks	1-11
THETIS	257	COEI	-150.17826	70.556746	NA	SC22	SC		M					7/15/1999	18:59	LN	257		1-11
THETIS	258	COEI	-150.177136	70.557478	NA	SC24	SC		M					7/15/1999	19:02	LN	258	Tracks, last years?	1-11
THETIS	259	COEI	-150.175972	70.557528	NA	SC26	SC		L					7/15/1999	19:03	LN	259	Tracks	1-11
THETIS	260	COEI	-150.174467	70.557572	NA	SC28	SC		M					7/15/1999	19:05	LN	260	Sticks, Tracks	1-11
THETIS	261	COEI	-150.172559	70.557588	NA	SC30	SC		L					7/15/1999	19:06	LN	261	Sticks, Tracks	1-11
THETIS	262	COEI	-150.170375	70.557622	NA	SC32	SC		M	V30				7/15/1999	19:19	LN	262	Sticks, Tracks, Puccinellia phryganodes	1-11
THETIS	263	COEI	-150.15845	70.556711	NA	SC34	SC		M					7/15/1999	19:26	LN	263	Sticks, Tracks	1-11
REINDEER	264	GLGU	-148.31964	70.476769	NA									7/16/1999	17:36	LN	264	9 GLGU, 2 ARTE, 1 PAJA flush and dive	1-12
REINDEER	265	COEI	-148.753687	70.44191	NA	SC2	SC		L					7/16/1999	17:45	LN	265		1-12
REINDEER	266	GLGU	-148.754991	70.442253	NA	NE2	NE	2	M					7/16/1999	17:50	LN	266		1-12
REINDEER	267	COEI	-148.755732	70.442418	NA	SC4	SC		L					7/16/1999	17:51	LN	267	Tracks, few Sticks	1-12
REINDEER	268	COEI	-148.760421	70.443162	NA	NE4	NE	Y	M					7/16/1999	17:59	LN	268		1-12
REINDEER	269	COEI	-148.762114	70.443327	NA	SC6	SC		L					7/16/1999	18:01	LN	269	Sticks, few Tracks	1-12
REINDEER	270	COEI	-148.76638	70.44315	NA	NE6	NE	3	L					7/16/1999	18:10	LN	270	No down	1-12
REINDEER	271	COEI	-148.76638	70.44315	NA	SC8	SC		L					7/16/1999	18:10	LN	271	Old	1-12
REINDEER	272	GLGU	-148.768954	70.442867	NA	NE8	NE	H	M					7/16/1999	18:34	LN	272	1+ hatched, 2 chicks swim, nest on sand over driftwood	1-12
REINDEER	273	GLGU	-148.356874	70.485188	NA	NE10	NE	2	M					7/16/1999	18:54	LN	273	1chick, 1 egg hatching	1-12
REINDEER	274	COEI	-148.360556	70.485078	NA	SC10	SC		M					7/16/1999	18:55	LN	274	Had been sat in after earlier rain on 16 July	1-12
REINDEER	275	COEI	-148.765217	70.4423	NA	SC12	SC		M					7/16/1999	18:59	LN	275	Sticks, Tracks	1-12
REINDEER	276	POBE	-148.364857	70.483936	NA	PBT	PBT							7/16/1999	19:00	LN	276		1-12
REINDEER	277	COEI	-148.753792	70.441131	NA	NE12	NE	Y	L					7/16/1999	19:09	LN	277		1-12
REINDEER	278	COEI	-148.378685	70.484041	NA	SC14	SC							7/16/1999	19:20	LN	278	Tracks, In old GLGU nest	1-12
REINDEER	279	COEI	-148.378685	70.484041	NA									7/16/1999	19:20	LN	279	Female flushed, broken wing display	1-12
REINDEER	280	COEI	-148.376869	70.484159	NA	SC16	SC		M					7/16/1999	19:21	LN	280	Tracks	1-12
REINDEER	281	COEI	-148.379445	70.484404	NA	SC18	SC		L					7/16/1999	19:24	LN	281	Tracks	1-12
REINDEER	282	COEI	-148.386415	70.483468	NA	SC20	SC		L					7/16/1999	19:34	LN	282	Tracks	1-12
REINDEER	283	COEI	-148.384963	70.483742	NA	SC22	SC		M					7/16/1999	19:35	LN	283	Old	1-12
KARLUK	284	COEI	-147.344508	70.34272	NA	SC1	SC		L					7/17/1999	09:18	LN	284	Tracks	1-13
KARLUK	285	COEI	-147.344082	70.342944	NA	SC2	SC		M					7/17/1999	09:19	LN	285	Tracks	1-13
KARLUK	286	COEI	-147.343961	70.34318	NA	NE1	NE	Y	M					7/17/1999	09:20	LN	286		1-13
KARLUK	287	COEI	-147.343472	70.34362	NA	NE2	NE	Y	M					7/17/1999	09:21	LN	287		1-13
KARLUK	288	COEI	-147.343472	70.34362	NA	SC3	SC		L					7/17/1999	09:21	LN	288	Sticks, Tracks	1-13
KARLUK	289	COEI	-147.343472	70.34362	NA	SC4	SC		L					7/17/1999	09:21	LN	289		1-13
KARLUK	290	COEI	-147.342867	70.344098	NA	NE3	NE	Y	M					7/17/1999	09:22	LN	290		1-13
KARLUK	291	GLGU	-147.342867	70.344098	NA	SC5	SC		L					7/17/1999	09:22	LN	291		1-13
KARLUK	292	GLGU	-147.342605	70.344658	NA	NE4	NE	H	L					7/17/1999	09:25	LN	292	1 Chick, dead	1-13
KARLUK	293	COEI	-147.342071	70.345225	NA	SC6	SC		L					7/17/1999	09:26	LN	293	Tracks	1-13
KARLUK	294	COEI	-147.342071	70.345225	NA	SC7	SC		L					7/17/1999	09:26	LN	294	Tracks	1-13
KARLUK	295	ARTE	-147.343472	70.34362	NA	NE5	NE							7/17/1999	09:21	LN	295	1 pair, +2 more pair mob, probable nest, not found	1-13

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
KARLUK	296	COEI	-147.361112	70.347452	NA	SC8	SC		L					7/17/1999	09:46	LN	296		1-13
KARLUK	297	COEI	-147.360106	70.347868	NA	SC9	SC		L					7/17/1999	09:47	LN	297	Sticks	1-13
KARLUK	298	COEI	-147.360106	70.347868	NA	SC10	SC		L					7/17/1999	09:47	LN	298	Grass, Sticks	1-13
KARLUK	299	GLGU	-147.34731	70.347768	NA	SC11	SC		M					7/17/1999	09:55	LN	299	Sticks, Algae, Tracks	1-13
KARLUK	300	KIEI	-147.354529	70.346119	NA									7/17/1999	10:10	LN	300	female KIEI swims near island	1-13
JEANETTE	301	COEI	-147.404705	70.358721	NA	EE	EE							7/17/1999	10:28	LN	301		1-14
JEANETTE	302	COEI	-147.404159	70.358817	NA	SC1	SC		L					7/17/1999	10:29	LN	302	Tracks, Sticks	1-14
JEANETTE	303	COEI	-147.400963	70.358715	NA	SC2	SC		L					7/17/1999	10:34	LN	303		1-14
JEANETTE	304	COEI	-147.400963	70.358715	NA	SC3	SC							7/17/1999	10:34	LN	304		1-14
JEANETTE	305	OLDS	-147.397828	70.358664	NA									7/17/1999	10:35	LN	305	29 OLDS	1-14
JEANETTE	306	COEI	-147.397828	70.358664	NA	SC4	SC		L					7/17/1999	10:35	LN	306	Sticks	1-14
JEANETTE	307	COEI	-147.396943	70.358686	NA	EE	EE						AVIAN	7/17/1999	10:36	LN	307		1-14
JEANETTE	308	ARTE	-147.396943	70.358686	NA									7/17/1999	10:36	LN	308	Pair of ARTE	1-14
JEANETTE	309	COEI	-147.394714	70.358656	NA	NE1	NE	Y	M					7/17/1999	10:37	LN	309		1-14
JEANETTE	310	COEI	-147.394714	70.358656	NA	SC5	SC		L					7/17/1999	10:37	LN	310		1-14
JEANETTE	311	COEI	-147.394714	70.358656	NA	SC6	SC		L					7/17/1999	10:37	LN	311		1-14
JEANETTE	312	COEI	-147.394743	70.35856	NA	SC7	SC		L					7/17/1999	10:38	LN	312	Tracks	1-14
JEANETTE	313	COEI	-147.395068	70.358691	NA	SC8	SC		L					7/17/1999	10:39	LN	313	Tracks	1-14
JEANETTE	314	COEI	-147.395068	70.358691	NA	NE2	NE	2	L					7/17/1999	10:39	LN	314	1 egg away from nest	1-14
JEANETTE	315	COEI	-147.395068	70.358691	NA	SC9	SC		M					7/17/1999	10:39	LN	315		1-14
JEANETTE	316	COEI	-147.394275	70.358561	NA	EE	EE							7/17/1999	10:40	LN	316		1-14
JEANETTE	317	COEI	-147.394275	70.358561	NA	SC10	SC		L					7/17/1999	10:40	LN	317		1-14
JEANETTE	318	COEI	-147.394275	70.358561	NA	SC11	SC		L					7/17/1999	10:40	LN	318	Sticks, Tracks	1-14
JEANETTE	319	ARTE	-147.392775	70.358188	NA	NE3	NE	2	M					7/17/1999	10:46	LN	319	Eggs pipping	1-14
JEANETTE	320	COEI	-147.392775	70.358188	NA	SC12	SC		M					7/17/1999	10:46	LN	320	Tracks	1-14
JEANETTE	321	COEI	-147.396207	70.358846	NA	SC13	SC		L					7/17/1999	10:47	LN	321	Tracks, few Sticks	1-14
JEANETTE	322	COEI	-147.396207	70.358846	NA	SC14	SC		L					7/17/1999	10:47	LN	322		1-14
JEANETTE	323	COEI	-147.404857	70.359608	NA	SC15	SC		L					7/17/1999	10:52	LN	323	Sticks, feathers	1-14
JEANETTE	324	COEI	-147.410355	70.358736	NA	SC16	SC		M					7/17/1999	10:59	LN	324	Sticks, algae, Tracks	1-14
JEANETTE	325	COEI	-147.442088	70.364049	NA	SC17	SC		L					7/17/1999	11:17	LN	325	Tracks	1-14
JEANETTE	326	COEI	-147.441523	70.364047	NA	NE4	NE	3	M					7/17/1999	11:18	LN	326		1-14
JEANETTE	327	COEI	-147.441541	70.364119	NA	NE5	NE	Y	M					7/17/1999	11:19	LN	327		1-14
JEANETTE	328	COEI	-147.44061	70.36402	NA	NE6	NE	2	L					7/17/1999	11:22	LN	328	Eggs pipping	1-14
JEANETTE	329	COEI	-147.44061	70.36402	NA	NE7	NE	Y	M					7/17/1999	11:22	LN	329		1-15
JEANETTE	330	COEI	-147.44061	70.36402	NA	NE8	NE	Y	H					7/17/1999	11:22	LN	330		1-15
JEANETTE	331	COEI	-147.44061	70.36402	NA	NE9	NE	Y	M					7/17/1999	11:22	LN	331		1-15
JEANETTE	332	COEI	-147.433938	70.364103	NA	SC18	SC		L					7/17/1999	11:25	LN	332		1-15
JEANETTE	333	COEI	-147.432727	70.36411	NA	SC19	SC		L					7/17/1999	11:26	LN	333	Tracks, Sticks	1-15
JEANETTE	334	COEI	-147.431431	70.364076	NA	EE	EE						AVIAN	7/17/1999	11:27	LN	334		1-15
JEANETTE	335	COEI	-147.431431	70.364076	NA	SC20	SC		L					7/17/1999	11:27	LN	335		1-15
JEANETTE	336	COEI	-147.429753	70.363979	NA	NE10	NE	0	L		Y		GLGU	7/17/1999	11:29	LN	336		1-15
JEANETTE	337	COEI	-147.428254	70.36377	NA	NE11	NE	0	L		Y		GLGU	7/17/1999	11:30	LN	337		1-15
JEANETTE	338	COEI	-147.426608	70.363605	NA	NE12	NE	2	L					7/17/1999	11:31	LN	338		1-15
JEANETTE	339	COEI	-147.426608	70.363605	NA	SC21	SC		L					7/17/1999	11:31	LN	339		1-15
JEANETTE	340	COEI	-147.426608	70.363605	NA	NE13	NE	5	M					7/17/1999	11:31	LN	340	Eggs pipping	1-15
JEANETTE	341	COEI	-147.426608	70.363605	NA	SC22	SC		L					7/17/1999	11:31	LN	341	Sticks, Tracks	1-15
JEANETTE	342	COEI	-147.426608	70.363605	NA	SC23	SC		M					7/17/1999	11:31	LN	342	Tracks, Sticks	1-15

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
JEANETTE	343	COEI	-147.423157	70.362834	NA	NE14	NE	1	L					7/17/1999	11:34	LN	343		1-15
JEANETTE	344	GLGU	-147.423157	70.362834	NA									7/17/1999	11:34	LN	344	GLGU Carcass	1-15
JEANETTE	345	COEI	-147.42179	70.362562	NA	NE15	NE	2	L					7/17/1999	11:35	LN	345		1-15
JEANETTE	346	COEI	-147.42179	70.362562	NA	NE16	NE	Y	L					7/17/1999	11:35	LN	346		1-15
JEANETTE	347	COEI	-147.42179	70.362562	NA	NE17	NE	Y	L					7/17/1999	11:35	LN	347		1-15
JEANETTE	348	COEI	-147.42179	70.362562	NA	NE18	NE	Y	L					7/17/1999	11:35	LN	348		1-15
JEANETTE	349	COEI	-147.420926	70.362486	NA	EE	EE						AVIAN	7/17/1999	11:36	LN	349		1-15
JEANETTE	350	COEI	-147.42069	70.362327	NA	NE19	NE	0	L		Y		AVIAN	7/17/1999	11:37	LN	350		1-15
JEANETTE	351	COEI	-147.42069	70.362327	NA	NE20	NE	0	L		Y		AVIAN	7/17/1999	11:37	LN	351		1-15
JEANETTE	352	COEI	-147.42069	70.362327	NA	SC24	SC		L					7/17/1999	11:37	LN	352		1-15
JEANETTE	353	COEI	-147.42069	70.362327	NA	SC25	SC		L					7/17/1999	11:37	LN	353		1-15
JEANETTE	354	COEI	-147.420325	70.362338	NA	NE21	NE	3	L					7/17/1999	11:38	LN	354		1-15
JEANETTE	355	COEI	-147.420325	70.362338	NA	NE22	NE	Y	L					7/17/1999	11:38	LN	355		1-15
JEANETTE	356	COEI	-147.420325	70.362338	NA	NE23	NE	2	L					7/17/1999	11:38	LN	356		1-15
JEANETTE	357	GLGU	-147.420325	70.362338	NA	NE24	NE	H	L					7/17/1999	11:38	LN	357	1 Chick	1-15
JEANETTE	358	COEI	-147.432984	70.364556	NA	SC26	SC		L					7/17/1999	11:43	LN	358		1-15
JEANETTE	359	COEI	-147.444573	70.363843	NA	EE	EE						AVIAN	7/17/1999	11:58	LN	359		1-16
JEANETTE	360	COEI	-147.444573	70.363843	NA	SC27	SC							7/17/1999	11:58	LN	360	Few Sticks	1-16
LONG-E	1	ARFO	-148.788734	70.450805	NA	AFT	AFT							7/12/1999	10:10	TO	361	Old tracks, headed east	2-1
LONG-E	2	GLGU	-148.788734	70.450805	NA	SC1	SC		L					7/12/1999	10:10	TO	362	Twigs & down	2-1
LONG-E	3	UNKN	-148.790553	70.451661	NA	SC3	SC		L					7/12/1999	10:22	TO	363	Shallow, few twigs, no down	2-1
LONG-E	4	UNKN	-148.792088	70.454800	NA	SC5	SC		N					7/12/1999	10:24	TO	364	Shallow, no twigs	2-1
LONG-E	5	UNKN	-148.792088	70.454800	NA	SC7	SC		N					7/12/1999	10:24	TO	365	Shallow, no twigs	2-1
LONG-E	6	COEI	-148.792145	70.454914	NA	SC9	SC		M					7/12/1999	10:26	TO	366	Some down, scattered twigs	2-1
LONG-E	7	GLGU	-148.792145	70.455047	NA	SC11	SC		L					7/12/1999	10:28	TO	367		2-1
LONG-E	8	COEI	-148.791690	70.455104	NA	SC13	SC		L					7/12/1999	10:29	TO	368	Some twigs	2-1
LONG-E	9	COEI	-148.791690	70.455200	NA	SC15	SC		L					7/12/1999	10:30	TO	369	No twigs	2-1
LONG-E	10	COEI	-148.792451	70.455287	NA	SC17	SC		L					7/12/1999	10:35	TO	370	Twigs	2-1
LONG-E	11	GLGU	-148.792088	70.455200	NA	NE1	NE	0	L		U			7/12/1999	10:38	TO	371		2-1
LONG-E	12	GLGU	-148.791701	70.455274	NA	NE3	NE	0	L		U			7/12/1999	10:39	TO	372		2-1
LONG-E	13	COEI	-148.793343	70.456312	NA	SC19	SC		L					7/12/1999	10:40	TO	373	Twigs	2-1
LONG-E	14	GLGU	-148.794807	70.457683	NA	SC21	SC		M					7/12/1999	10:41	TO	374		2-1
LONG-E	15	COEI	-148.796857	70.459103	NA	SC23	SC		M					7/12/1999	10:42	TO	375	Twigs	2-1
LONG-E	16	COEI	-148.806521	70.465273	NA	SC25	SC		M					7/12/1999	10:43	TO	376	Twigs	2-1
LONG-E	17	COEI	-148.807104	70.465521	NA	SC27	SC		M					7/12/1999	10:44	TO	377		2-1
LONG-E	18	GLGU	-148.807694	70.465787	NA	SC29	SC		M					7/12/1999	10:45	TO	378		2-1
LONG-E	19	COEI	-148.807694	70.465787	NA	SC31	SC		L					7/12/1999	10:45	TO	379	Twigs	2-1
LONG-E	20	COEI	-148.807694	70.465787	NA	SC33	SC		L					7/12/1999	10:45	TO	380	Twigs	2-1
LONG-E	21	GLGU	-148.809210	70.466680	NA	NE5	NE	0	L		Y		AVIAN	7/12/1999	10:49	TO	381	No shells or tracks, part of a gull wing in nest	2-1
LONG-E	22	GLGU	-148.810020	70.467209	NA	NE7	NE	0	L		U			7/12/1999	10:53	TO	382	No predation evidence	2-1
LONG-E	23	COEI	-148.811493	70.468144	NA	SC35	SC		L					7/12/1999	10:56	TO	383		2-1
LONG-E	24	COEI	-148.811884	70.468347	NA									7/12/1999	10:57	TO	384	Pair flying East of island	2-1
LONG-E	25	GLGU	-148.812421	70.468701	NA	SC37	SC		L					7/12/1999	11:00	TO	385		2-1
LONG-E	26	GLGU	-148.812421	70.468701	NA	SC39	SC		N					7/12/1999	11:00	TO	386		2-1
LONG-E	27	COEI	-148.812770	70.468865	NA	SC41	SC		H					7/12/1999	11:01	TO	387		2-1

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
LONG-E	28	COEI	-148.813120	70.469075	NA	NE9	NE	4	L					7/12/1999	11:03	TO	388	Hen flushed	2-1
LONG-E	29	COEI	-148.813120	70.469075	NA	SC43	SC		L					7/12/1999	11:03	TO	389		2-2
LONG-E	30	COEI	-148.813959	70.469590	NA	SC45	SC		M					7/12/1999	11:09	TO	390	Twigs	2-2
LONG-E	31	COEI	-148.814309	70.469754	NA									7/12/1999	11:12	TO	391	Flushed from water, flew E to return to NE9	2-2
LONG-E	32	GLGU	-148.815359	70.470362	NA	NE11	NE	0	L		Y		AVIAN	7/12/1999	11:27	TO	392	Lots of gull tracks around	2-2
LONG-E	33	GLGU	-148.817037	70.471133	NA	SC47	SC		L					7/12/1999	11:36	TO	393		2-2
LONG-E	34	GLGU	-148.817597	70.471227	NA	SC49	SC		N					7/12/1999	11:39	TO	394		2-2
LONG-E	35	GLGU	-148.817177	70.471320	NA	NE13	NE	0	L		Y			7/12/1999	11:40	TO	395	Few feathers around nest	2-2
LONG-E	36	COEI	-148.819136	70.471999	NA	SC51	SC		L					7/12/1999	11:41	TO	396		2-2
LONG-E	37	GLGU	-148.822703	70.473238	NA	SC53	SC		L					7/12/1999	11:42	TO	397		2-2
LONG-E	38	GLGU	-148.824942	70.474080	NA	SC55	SC		L					7/12/1999	11:43	TO	398		2-2
LONG-E	39	GLGU	-148.826621	70.474594	NA	NE15	NE	0	L		U			7/12/1999	11:44	TO	399	No evidence of predation	2-2
LONG-E	40	COEI	-148.830048	70.475483	NA	NE17	NE	0	L		Y	2	GLGU	7/12/1999	11:45	TO	400	Predated eggs by GLGU	2-2
LONG-E	41	COEI	-148.835225	70.476301	NA	NE19	NE	Y	L					7/12/1999	12:10	TO	401		2-2
LONG-E	42	POBE	-148.839422	70.476629	NA	PBT	PBT							7/12/1999	12:14	TO	402		2-2
LONG-E	43	COEI	-148.841100	70.476161	NA	NE21	NE	Y	L					7/12/1999	12:20	TO	403		2-2
LONG-W	44	COEI	-148.849005	70.474594	NA	SC57	SC		L					7/12/1999	12:31	TO	404		2-2
LONG-W	45	COEI	-148.849564	70.474852	NA	SC59	SC		L					7/12/1999	12:32	TO	405	No twigs, shallow	2-2
LONG-W	46	COEI	-148.850614	70.475530	NA	NE23	NE	0	M		Y	1	GLGU	7/12/1999	12:36	TO	406		2-2
LONG-W	47	GLGU	-148.851523	70.476021	NA	SC61	SC		L					7/12/1999	12:38	TO	407		2-2
LONG-W	48	OLDS	-148.853552	70.477050	NA									7/12/1999	12:51	TO	408	20 OLDS went into water	2-2
LONG-W	49	GLGU	-148.872578	70.480277	NA	NE25	NE	3	L					7/12/1999	13:03	TO	409	Eggs warm	2-2
LONG-W	50	GLGU	-148.874397	70.480487	NA	SC63	SC		L					7/12/1999	13:07	TO	410		2-2
LONG-W	51	COEI	-148.911821	70.481680	NA	NE27	NE	Y	L					7/12/1999	14:04	TO	411	Scan spit with binoculars	2-2
LONG-W	52	COEI	-148.911821	70.481680	NA	NE29	NE	Y	L					7/12/1999	14:04	TO	412		2-2
LONG-W	53	USGS	-148.915598	70.481727	NA									7/12/1999	14:10	TO	413	USGS marker, 1976 survey	2-2
LONG-W	54	OLDS	-148.919235	70.481657	NA									7/12/1999	14:17	TO	414	120 OLDS along spit	2-2
LONG-W	55	COEI	-148.920494	70.481446	NA	SC65	SC		L					7/12/1999	14:18	TO	415		2-2
LONG-W	56	OLDS	-148.920494	70.481446	NA									7/12/1999	14:18	TO	416	260 OLDS	2-2
LONG-W	57	OLDS	-148.937213	70.481329	NA									7/12/1999	14:35	TO	417	45 OLDS, 1 SUSC, 22 OLDS went from shore into water	2-2
LONG-W	58	OLDS	-148.981142	70.482545	NA									7/12/1999	14:49	TO	418	60 OLDS, 3 BRAN, 10 SUSC onshore to off as pass by	2-3
LONG-W	59	COEI	-148.985619	70.483059	NA	SC67	SC		L					7/12/1999	14:52	TO	419	Twigs	2-3
LONG-W	60	COEI	-148.987438	70.483199	NA	NE29	NE	2	L					7/12/1999	14:53	TO	420	Hen flushed	2-3
LONG-W	61	COEI	-148.997371	70.484274	NA	SC69	SC		L					7/12/1999	15:03	TO	421		2-3
LONG-W	62	GLGU	-149.000029	70.484648	NA	SC71	SC		L					7/12/1999	15:09	TO	422		2-3
LONG-W	63	GLGU	-149.001148	70.484835	NA	NE31	NE	0	L		U			7/12/1999	15:11	TO	423	No evidence of tracks on gravel	2-3
LONG-W	64	GLGU	-149.002407	70.485069	NA	NE33	NE	0	L		U			7/12/1999	15:12	TO	424	No evidence of tracks on gravel, small bowl	2-3
LONG-W	65	GLGU	-149.016118	70.486612	NA	NE35	NE	0	L		U			7/12/1999	15:48	TO	425	Small size nest	2-3
LONG-W	66	GLGU	-149.016118	70.486612	NA	NE37	NE	0	L		U			7/12/1999	15:48	TO	426	Small size nest	2-3
LONG-W	67	COEI	-149.059907	70.491379	NA	NE39	NE	4	L					7/12/1999	16:14	TO	427	Hen flushed	2-3

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
LONG-W	68	GLGU	-149.059907	70.491379	NA	SC73	SC		N					7/12/1999	16:14	TO	428		2-3
LONG-W	69	GLGU	-149.060467	70.491706	NA	NE41	NE	0	N		U			7/12/1999	16:15	TO	429	No predation evidence	2-3
LONG-W	70	GLGU	-149.059487	70.491659	NA	SC75	SC		L					7/12/1999	16:18	TO	430		2-3
LONG-W	71	GLGU	-149.062145	70.492127	NA	SC77	SC		L					7/12/1999	16:20	TO	431	3 GLGU hover over area and land	2-3
LONG-W	72	POBE	-149.062985	70.492547	NA	PBT	PBT							7/12/1999	16:22	TO	432	Fairly old track	2-3
LONG-W	73	GLGU	-149.064384	70.492968	NA	NE43	NE	0	L		U			7/12/1999	16:27	TO	433	No evidence of predation	2-3
LONG-W	74	GLGU	-149.065223	70.493295	NA	NE45	NE	0	L		U			7/12/1999	16:29	TO	434	No evidence of predation	2-3
LONG-W	75	ARFO	-149.065223	70.493295	NA	AFS	AFS							7/12/1999	16:29	TO	435	Very old scat, probably fox, on tundra west end of survey	2-3
COTTLE	76	ARTE	-149.109302	70.506323	NA									7/13/1999	09:25	TO	436	2 Arctic Terns fly over	2-4
COTTLE	77	POBE	-149.142851	70.515493	NA	PBT	PBT							7/13/1999	09:53	TO	437	Old tracks	2-4
COTTLE	78	ARFO	-149.147438	70.515712	NA	AFT	AFT							7/13/1999	10:14	TO	438	Old tracks	2-4
COTTLE	79	POBE	-149.147438	70.515712	NA	PBT	PBT							7/13/1999	10:14	TO	439	In sand, a little blownout	2-4
BODFISH	80	GLGU	-149.254116	70.522742	NA	NE1	NE	0	L		U			7/13/1999	12:50	TO	440	No evidence of predation	2-5
BODFISH	81	GLGU	-149.255689	70.523179	NA	SC1	SC		L					7/13/1999	12:54	TO	441		2-5
BODFISH	82	GLGU	-149.25713	70.52379	NA	SC3	SC		L					7/13/1999	12:56	TO	442		2-5
BODFISH	83	GLGU	-149.258965	70.524751	NA	SC5	SC		L					7/13/1999	13:00	TO	443		2-5
BODFISH	84	GLGU	-149.25962	70.524751	NA	SC7	SC		L					7/13/1999	13:01	TO	444		2-5
BODFISH	85	GLGU	-149.2608	70.525231	NA	EE	EE						ARFO	7/13/1999	13:06	TO	445	Crushed halves	2-5
BODFISH	86	POBE	-149.27325	70.531039	NA	BED	BED							7/13/1999	13:25	TO	446	Looks like old den site with day bed in front	2-5
BODFISH	87	ARTE	-149.298543	70.532131	NA									7/13/1999	13:44	TO	447	5 Arctic Terns	2-5
BODFISH	88	OLDS	-149.298543	70.532131	NA									7/13/1999	13:44	TO	448	140 OLDS move from beach to water, most not flying much	2-5
BODFISH	89	COEI	-149.299723	70.532349	NA	SC9	SC		L					7/13/1999	13:46	TO	449		2-5
BODFISH	90	GLGU	-149.300509	70.532349	NA	SC11	SC		L					7/13/1999	13:47	TO	450		2-5
BODFISH	91	COEI	-149.301426	70.53248	NA	SC13	SC		N	E100				7/13/1999	13:48	TO	451	*Elymus 100% (together with SC15 and SC17)*	2-5
BODFISH	92	COEI	-149.301426	70.53248	NA	SC15	SC		N	E100				7/13/1999	13:48	TO	452	*Elymus 100% (together with SC13 and SC17)*	2-5
BODFISH	93	COEI	-149.301426	70.53248	NA	SC17	SC		N	E100				7/13/1999	13:48	TO	453	*Elymus 100% (together with SC13 and SC15)*	2-5
BODFISH	94	ARTE	-149.301426	70.53248	NA	NE3	NE	1	L					7/13/1999	13:48	TO	454		2-5
BODFISH	95	GLGU	-149.292777	70.534402	NA	SC19	SC		L					7/13/1999	13:50	TO	455		2-5
BODFISH	96	COEI	-149.303916	70.534446	NA	SC21	SC		L					7/13/1999	13:51	TO	456		2-5
SPY	97	COEI	-149.781559	70.553829	NA	SC1	SC		L					7/15/1999	14:06	IH	457	Tracks	2-6
SPY	98	COEI	-149.781012	70.553663	NA	SC3	SC		M					7/15/1999	14:07	IH	458	Tracks	2-6
SPY	99	COEI	-149.780396	70.553476	NA	SC5	SC		L					7/15/1999	14:09	IH	459	Tracks	2-6
SPY	100	COEI	-149.779849	70.553309	NA	SC7	SC		L					7/15/1999	14:10	IH	460	Tracks	2-6
SPY	101	COEI	-149.779299	70.553121	NA	SC9	SC		L					7/15/1999	14:11	IH	461		2-6
SPY	102	COEI	-149.778889	70.552997	NA	SC11	SC		L					7/15/1999	14:12	IH	462		2-6
SPY	103	COEI	-149.778889	70.552997	NA	NE13	NE	0	L		Y		GLGU	7/15/1999	14:12	IH	463		2-6
SPY	104	COEI	-149.77827	70.552788	NA	SC15	SC		M					7/15/1999	14:16	IH	464	Tracks, Sticks	2-6
SPY	105	COEI	-149.777997	70.552705	NA	SC17	SC		L					7/15/1999	14:18	IH	465	Tracks	2-6
SPY	106	COEI	-149.777997	70.552705	NA	SC19	SC		L					7/15/1999	14:18	IH	466		2-6
SPY	107	COEI	-149.777997	70.552705	NA	NE21	NE	0	M		Y		GLGU	7/15/1999	14:18	IH	467	Tracks, Sticks	2-6

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
SPY	108	COEI	-149.777649	70.552557	NA	SC23	SC		M					7/15/1999	14:20	IH	468	Sticks	2-6
SPY	109	COEI	-149.777349	70.552758	NA	SC25	SC		M					7/15/1999	14:22	IH	469	Sticks, Tracks	2-6
SPY	110	COEI	-149.777349	70.552758	NA	NE27	NE	0	L		Y		GLGU	7/15/1999	14:23	IH	470		2-6
SPY	111	COEI	-149.775631	70.553134	NA	SC29	SC		L					7/15/1999	14:25	IH	471	Sticks, Tracks	2-6
SPY	112	COEI	-149.775313	70.553204	NA	SC31	SC		L					7/15/1999	14:27	IH	472	Sticks, Tracks	2-6
SPY	113	COEI	-149.775459	70.553311	NA	SC33	SC		L					7/15/1999	14:31	IH	473	Sticks	2-6
SPY	114	COEI	-149.775798	70.553393	NA	NE35	NE	0	L		Y		GLGU	7/15/1999	14:32	IH	474		2-6
SPY	115	COEI	-149.776803	70.553552	NA	NE37	NE	0	M		Y		GLGU	7/15/1999	14:34	IH	475		2-6
SPY	116	COEI	-149.776803	70.553552	NA	NE39	NE	0	M		Y		GLGU	7/15/1999	14:34	IH	476		2-6
SPY	117	COEI	-149.777403	70.553631	NA	SC41	SC		L					7/15/1999	14:35	IH	477		2-6
SPY	118	COEI	-149.777403	70.553631	NA	SC43	SC		M					7/15/1999	14:35	IH	478		2-6
SPY	119	COEI	-149.779484	70.553992	NA	SC45	SC		L					7/15/1999	14:41	IH	479		2-6
SPY	120	COEI	-149.779886	70.554051	NA	SC47	SC		L					7/15/1999	14:42	IH	480	Tracks	2-6
SPY	121	COEI	-149.780293	70.554154	NA	NE49	NE	0	L		Y		GLGU	7/15/1999	14:44	IH	481		2-6
SPY	122	COEI	-149.781036	70.554318	NA	SC51	SC		L					7/15/1999	14:48	IH	482		2-6
SPY	123	COEI	-149.781777	70.554459	NA	NE53	NE	0	L		Y		GLGU	7/15/1999	14:51	IH	483		2-6
SPY	124	COEI	-149.782517	70.554601	NA	NE55	NE	4	L					7/15/1999	14:55	IH	484	No down, eggs cold, flushed by helicopter	2-6
SPY	125	COEI	-149.782856	70.554683	NA	SC57	SC		L					7/15/1999	14:56	IH	485	Tracks	2-6
SPY	126	COEI	-149.782856	70.554683	NA	NE59	NE	0	L		Y		GLGU	7/15/1999	14:56	IH	486		2-6
SPY	127	COEI	-149.783519	70.554738	NA	SC61	SC		L					7/15/1999	14:57	IH	487		2-7
SPY	128	COEI	-149.783519	70.554738	NA	SC63	SC		L					7/15/1999	14:57	IH	488		2-7
SPY	129	COEI	-149.783992	70.55484	NA	NE65	NE	0	L		Y		GLGU	7/15/1999	14:59	IH	489		2-7
SPY	130	COEI	-149.785737	70.555141	NA	NE67	NE	Y	M					7/15/1999	15:04	IH	490		2-7
SPY	131	COEI	-149.786677	70.555301	NA	NE69	NE	0	L		Y		GLGU	7/15/1999	15:07	IH	491		2-7
SPY	132	COEI	-149.786677	70.555301	NA	SC71	SC		L					7/15/1999	15:07	IH	492	Sticks	2-7
SPY	133	COEI	-149.787548	70.555441	NA	NE73	NE	Y	H					7/15/1999	15:08	IH	493		2-7
SPY	134	COEI	-149.788758	70.555662	NA	SC75	SC		L					7/15/1999	15:10	IH	494	Sticks	2-7
SPY	135	COEI	-149.808342	70.558397	NA	NE77	NE	Y	L					7/15/1999	15:30	IH	495	Under root system	2-7
SPY	136	COEI	-149.82795	70.560801	NA	NE79	NE	Y	M					7/15/1999	15:41	IH	496		2-7
SPY	137	ARTE	-149.855949	70.563159	NA	NE81	NE	2	L					7/15/1999	15:59	IH	497	Really dark eggs	2-7
SPY	138	COEI	-149.859337	70.563936	NA	SC83	SC		L					7/15/1999	16:06	IH	498	Sticks, Tracks	2-7
SPY	139	COEI	-149.862652	70.56419	NA	SC85	SC		L					7/15/1999	16:11	IH	499		2-7
SPY	140	COEI	-149.862652	70.56419	NA	SC87	SC		L					7/15/1999	16:11	IH	500		2-7
SPY	141	COEI	-149.867007	70.564383	NA	SC89	SC		L					7/15/1999	16:18	IH	501	Sticks	2-7
SPY	142	COEI	-149.875699	70.564639	NA	SC91	SC		L					7/15/1999	16:28	IH	502		2-7
SPY	143	COEI	-149.877612	70.56426	NA	SC93	SC		M					7/15/1999	16:31	IH	503	Sticks, Tracks	2-7
SPY	144	COEI	-149.880584	70.563951	NA	NE95	NE	4	M					7/15/1999	16:33	IH	504		2-7
SPY	145	COEI	-149.880584	70.563951	NA	SC97	SC		L					7/15/1999	16:33	IH	505		2-7
SPY	146	COEI	-149.880584	70.563951	NA	SC99	SC		L					7/15/1999	16:33	IH	506		2-7
SPY	147	GLGU	-149.882142	70.563839	NA	NE101	NE	H	N					7/15/1999	16:35	IH	507	Hatched, 1 chick	2-7
SPY	148	COEI	-149.882142	70.563839	NA	SC103	SC		L					7/15/1999	16:36	IH	508		2-7
SPY	149	COEI	-149.882142	70.563839	NA	NE105	NE	Y	L					7/15/1999	16:37	IH	509		2-7
SPY	150	COEI	-149.882142	70.563839	NA	NE107	NE	0	L		Y		GLGU	7/15/1999	16:39	IH	510		2-7
SPY	151	COEI	-149.882142	70.563839	NA	NE109	NE	0	L		Y		GLGU	7/15/1999	16:40	IH	511		2-7
SPY	152	COEI	-149.882142	70.563839	NA	SC111	SC		L					7/15/1999	16:40	IH	512		2-7
SPY	153	COEI	-149.882142	70.563839	NA	NE113	NE	0	L		Y		GLGU	7/15/1999	16:42	IH	513		2-7
SPY	154	COEI	-149.882142	70.563839	NA	NE115	NE	0	N		Y			7/15/1999	16:46	IH	514	Doorway of box	2-7

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
SPY	155	COEI	-149.882142	70.563839	NA	NE117	NE	0	L		Y		GLGU	7/15/1999	16:49	IH	515		2-7
SPY	156	COEI	-150.127023	70.531955	NA	SC119	SC		M					7/15/1999	16:52	IH	516	Sticks	2-7
SPY	157	COEI	-150.127023	70.531955	NA	NE121	NE	0	N	E50	Y		GLGU	7/15/1999	16:53	IH	517	Elymus 50%	2-8
SPY	158	COEI	-150.127023	70.531955	NA	NE123	NE	0	H		Y		GLGU	7/15/1999	16:54	IH	518		2-8
SPY	159	COEI	-150.127023	70.531955	NA	NE125	NE	0	H		Y		GLGU	7/15/1999	16:55	IH	519		2-8
SPY	160	COEI	-150.127023	70.531955	NA	NE127	NE	3	H					7/15/1999	16:56	IH	520	Hen flushed	2-8
SPY	161	COEI	-150.127023	70.531955	NA	NE129	NE	0	H		Y		GLGU	7/15/1999	16:56	IH	521		2-8
SPY	162	COEI	-150.127023	70.531955	NA	NE131	NE	0	H		Y		GLGU	7/15/1999	16:56	IH	522		2-8
SPY	163	COEI	-150.127023	70.531955	NA	NE133	NE	0	H		Y		GLGU	7/15/1999	16:56	IH	523		2-8
SPY	164	GLGU	-150.127023	70.531955	NA	NE135	NE	H	H					7/15/1999	16:57	IH	524	Hatched, 2 chicks	2-8
SPY	165	COEI	-150.127023	70.531955	NA	SC137	SC		M					7/15/1999	16:57	IH	525		2-8
SPY	166	COEI	-150.127023	70.531955	NA	SC139	SC		M					7/15/1999	16:57	IH	526		2-8
SPY	167	COEI	-150.127023	70.531955	NA	NE141	NE	4	L					7/15/1999	16:59	IH	527		2-8
SPY	168	COEI	-150.127023	70.531955	NA	NE143	NE	0	L		Y		GLGU	7/15/1999	17:01	IH	528		2-8
SPY	169	COEI	-150.127023	70.531955	NA	NE145	NE	0	N	E60	Y		GLGU	7/15/1999	17:02	IH	529		2-8
SPY	170	GLGU	-150.12802	70.532987	NA	NE147	NE	H	M					7/15/1999	17:03	IH	530	Hatched, 2 chicks	2-8
SPY	171	COEI	-150.12802	70.532987	NA	NE149	NE	0	H		Y		GLGU	7/15/1999	17:04	IH	531		2-8
SPY	172	COEI	-150.12802	70.532987	NA	NE151	NE	0	H		Y		GLGU	7/15/1999	17:04	IH	532		2-8
SPY	173	COEI	-150.12802	70.532987	NA	NE153	NE	0	H		Y		GLGU	7/15/1999	17:04	IH	533		2-8
SPY	174	COEI	-150.12802	70.532987	NA	NE155	NE	0	H		Y		GLGU	7/15/1999	17:04	IH	534		2-8
SPY	175	COEI	-150.12802	70.532987	NA	NE157	NE	4	H					7/15/1999	17:04	IH	535	Hen flushed	2-8
SPY	176	COEI	-150.129613	70.533838	NA	NE159	NE	0	H		Y		GLGU	7/15/1999	17:07	IH	536		2-8
SPY	177	COEI	-150.129613	70.533838	NA	NE161	NE	0	H		Y		GLGU	7/15/1999	17:07	IH	537		2-8
SPY	178	COEI	-150.129613	70.533838	NA	SC163	SC		L					7/15/1999	17:09	IH	538	Sticks	2-8
SPY	179	COEI	-150.129722	70.534411	NA	SC165	SC		L					7/15/1999	17:10	IH	539	Sticks	2-8
SPY	180	COEI	-150.129722	70.534411	NA	NE167	NE	0	L		Y		GLGU	7/15/1999	17:12	IH	540		2-8
SPY	181	GLGU	-150.130665	70.535824	NA	NE169	NE	H	M					7/15/1999	17:14	IH	541		2-8
SPY	182	GLGU	-150.130665	70.535824	NA	NE171	NE	H	M					7/15/1999	17:14	IH	542		2-8
SPY	183	COEI	-150.130665	70.535824	NA	NE173	NE	Y	H					7/15/1999	17:14	IH	543		2-8
SPY	184	COEI	-150.132558	70.537251	NA	NE175	NE	4	M					7/15/1999	17:15	IH	544		2-8
SPY	185	COEI	-150.132558	70.537251	NA	NE177	NE	0	H		Y		GLGU	7/15/1999	17:18	IH	545		2-8
SPY	186	COEI	-150.132558	70.537251	NA	NE179	NE	0	H		Y		GLGU	7/15/1999	17:18	IH	546		2-8
SPY	187	COEI	-150.135614	70.541225	NA	SC181	SC		L					7/15/1999	17:20	IH	547		2-9
SPY	188	COEI	-150.135614	70.541225	NA	NE183	NE	4	L					7/15/1999	17:21	IH	548	Eggs pipped	2-9
SPY	189	COEI	-150.133224	70.542884	NA	NE185	NE	Y	L					7/15/1999	17:34	IH	549		2-9
SPY	190	POBE	-150.135614	70.541225	NA	PB	PB							7/15/1999	17:21	IH	550	Polar Bear carcass	2-9
THETIS	191	COEI	-150.155884	70.552679	NA	NE1	NE	Y	M					7/15/1999	18:25	IH	551		2-10
THETIS	192	COEI	-150.156154	70.553182	NA	NE3	NE	Y	M					7/15/1999	18:26	IH	552		2-10
THETIS	193	COEI	-150.158763	70.553994	NA	NE5	NE	Y	M					7/15/1999	18:30	IH	553		2-10
THETIS	194	COEI	-150.159466	70.555774	NA	NE7	NE	Y	M					7/15/1999	18:32	IH	554		2-10
THETIS	195	COEI	-150.161239	70.555756	NA	NE9	NE	Y	H					7/15/1999	18:34	IH	555		2-10
THETIS	196	COEI	-150.172353	70.557109	NA	SC11	SC		L					7/15/1999	18:50	IH	556	Sticks	2-10
THETIS	197	COEI	-150.172353	70.557109	NA	SC13	SC		L					7/15/1999	18:50	IH	557	Sticks	2-10
THETIS	198	COEI	-150.175013	70.557082	NA	SC15	SC		L					7/15/1999	18:55	IH	558	Sticks	2-10
THETIS	199	COEI	-150.175013	70.557082	NA	SC17	SC		L					7/15/1999	18:55	IH	559	Tracks	2-10
THETIS	200	COEI	-150.178239	70.557381	NA	SC19	SC		L					7/15/1999	19:00	IH	560	Sticks	2-10
THETIS	201	COEI	-150.171394	70.557638	NA	SC21	SC		L					7/15/1999	19:07	IH	561	Tracks	2-10
THETIS	202	COEI	-150.170375	70.557622	NA	SC23	SC		M					7/15/1999	19:19	IH	562		2-10

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
THETIS	203	COEI	-150.168401	70.557614	NA	NE25	NE	Y	H					7/15/1999	19:20	IH	563		2-10
THETIS	204	COEI	-150.164139	70.557412	NA	NE27	NE	0	L		Y		GLGU	7/15/1999	19:23	IH	564		2-10
THETIS	205	COEI	-150.153938	70.555869	NA	SC29	SC		L					7/15/1999	19:30	IH	565	Under 8" by 12"	2-10
REINDEER	206	GLGU	-148.7521	70.441509	NA	NE1	NE	H	L					7/16/1999	17:38	IH	566	3 Membranes	2-11
REINDEER	207	GLGU	-148.752593	70.441615	NA	NE3	NE	H	L					7/16/1999	17:40	IH	567	Dead chick	2-11
REINDEER	208	COEI	-148.752593	70.441615	NA	NE5	NE	Y	L					7/16/1999	17:40	IH	568		2-11
REINDEER	209	COEI	-148.752876	70.441674	NA	SC1	SC		L					7/16/1999	17:41	IH	569		2-11
REINDEER	210	COEI	-148.753228	70.441768	NA	SC3	SC		L					7/16/1999	17:43	IH	570		2-11
REINDEER	211	COEI	-148.753687	70.44191	NA	SC5	SC		L					7/16/1999	17:45	IH	571		2-11
REINDEER	212	COEI	-148.754498	70.442146	NA	NE7	NE	0	L		Y		GLGU	7/16/1999	17:48	IH	572		2-11
REINDEER	213	COEI	-148.313682	70.479214	NA	NE9	NE	Y	L					7/16/1999	17:49	IH	573		2-11
REINDEER	214	COEI	-148.313682	70.479214	NA	NE11	NE	4	N					7/16/1999	17:49	IH	574	By pallet	2-11
REINDEER	215	COEI	-148.754991	70.442253	NA	SC7	SC		L					7/16/1999	17:50	IH	575		2-11
REINDEER	216	COEI	-148.756684	70.442619	NA	NE13	NE	Y	M					7/16/1999	17:53	IH	576		2-11
REINDEER	217	COEI	-148.756684	70.442619	NA	NE15	NE	Y	M					7/16/1999	17:53	IH	577		2-11
REINDEER	218	GLGU	-148.760421	70.443162	NA	NE17	NE	H	L					7/16/1999	17:59	IH	578	3 Membranes	2-11
REINDEER	219	COEI	-148.762114	70.443327	NA	SC7	SC		L					7/16/1999	18:01	IH	579	Tracks	2-11
REINDEER	220	COEI	-148.31667	70.479222	NA	SC9	SC		L					7/16/1999	18:02	IH	580	Tracks	2-11
REINDEER	221	COEI	-148.31667	70.479222	NA	SC11	SC		L					7/16/1999	18:02	IH	581	Tracks	2-11
REINDEER	222	COEI	-148.766028	70.443185	NA	SC13	SC		L					7/16/1999	18:09	IH	582		2-11
REINDEER	223	COEI	-148.76638	70.44315	NA	SC15	SC		L					7/16/1999	18:10	IH	583		2-11
REINDEER	224	COEI	-148.767015	70.443115	NA	SC17	SC		L					7/16/1999	18:12	IH	584		2-11
REINDEER	225	COEI	-148.767015	70.443115	NA	SC19	SC		L					7/16/1999	18:12	IH	585		2-11
REINDEER	226	COEI	-148.767473	70.443091	NA	SC21	SC		L					7/16/1999	18:14	IH	586		2-11
REINDEER	227	COEI	-148.319277	70.47937	NA	SC23	SC		L					7/16/1999	18:15	IH	587	Sticks, Tracks	2-11
REINDEER	228	GLGU	-148.767755	70.443079	NA	NE19	NE	H	M					7/16/1999	18:16	IH	588	1 Chick, no eggs	2-11
REINDEER	229	POBE	-148.76839	70.443067	NA	PBT	PBT							7/16/1999	18:22	IH	589	Not fresh	2-11
REINDEER	230	COEI	-148.768743	70.443044	NA	SC25	SC		L					7/16/1999	18:24	IH	590		2-11
REINDEER	231	COEI	-148.770012	70.442654	NA	NE21	NE	2	L					7/16/1999	18:29	IH	591		2-11
REINDEER	232	GLGU	-148.325371	70.480971	NA	NE23	NE	3	M					7/16/1999	18:31	IH	592	Not very well built	2-11
REINDEER	233	COEI	-148.343945	70.483713	NA	NE25	NE	2	L					7/16/1999	18:43	IH	593		2-11
REINDEER	234	COEI	-148.765217	70.4423	NA	SC27	SC		L					7/16/1999	18:59	IH	594	Tracks	2-11
REINDEER	235	COEI	-148.364701	70.484673	NA	SC29	SC		L					7/16/1999	19:01	IH	595		2-11
REINDEER	236	COEI	-148.372993	70.48396	NA	SC31	SC		L					7/16/1999	19:16	IH	596		2-12
REINDEER	237	COEI	-148.376511	70.483592	NA	SC33	SC		L					7/16/1999	19:18	IH	597	Tracks	2-12
REINDEER	238	COEI	-148.376511	70.483592	NA	NE27	NE	3	L					7/16/1999	19:18	IH	598		2-12
REINDEER	239	COEI	-148.378685	70.484041	NA	SC35	SC		L					7/16/1999	19:20	IH	599		2-12
REINDEER	240	COEI	-148.377333	70.484567	NA	EE1	EE		N		Y		GLGU	7/16/1999	19:22	IH	600		2-12
REINDEER	241	COEI	-148.388576	70.482728	NA	SC37	SC		L					7/16/1999	19:32	IH	601	Tracks, some sea lettuce	2-12
PINGOK	1	ARFO	-149.587949	70.563619	NA	AFT	AFT							7/15/1999	13:40	SJ	602	Lots of tracks along beach	3-1
PINGOK	2	GOPL	-149.591884	70.563561	NA	NE2	NE	4	M					7/15/1999	13:59	SJ	603		3-1
PINGOK	3	ARFO	-149.591884	70.563561	NA	AF	AF							7/15/1999	13:59	SJ	604	50 m from GOPL nest	3-1
LEAVITT	4	BGCA	-149.606603	70.564169	NA	CT	CT							7/15/1999	14:20	SJ	605	1 to 2 sets, no more fox tracks	3-1
LEAVITT	5	OLDS	-149.633417	70.56716	NA									7/15/1999	14:37	SJ	606	~50 male OLDS	3-1
LEAVITT	6	COEI	-149.705178	70.570615	NA				L					7/15/1999	15:39	SJ	607	Female sits on beach	3-1

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
LEAVITT	7	COEI	-149.708588	70.570357	NA	SC4	SC		L					7/15/1999	15:44	SJ	608	~75 m from bird, no down on beach	3-1
LEAVITT	8	COEI	-149.710758	70.570409	NA	SC6	SC		M					7/15/1999	15:46	SJ	609	No down, 1 bird flew from here	3-1
LEAVITT	9	COEI	-149.711068	70.569842	NA									7/15/1999	15:48	SJ	610	1male, 3 females, male flies, females swim ~5m from south beach	3-1
LEAVITT	10	GLGU	-149.730444	70.569171	NA	EE1	EE		L		Y		GLGU	7/15/1999	15:51	SJ	611	On island ~5 m from shoreline, predated by gull	3-1
THETIS	11	COEI	-150.129613	70.533838	NA	SC8	SC		M					7/15/1999	17:08	SJ	612		3-2
THETIS	12	COEI	-150.129722	70.534411	NA	SC10	SC		M					7/15/1999	17:12	SJ	613		3-2
THETIS	13	COEI	-150.132558	70.537251	NA	SC12	SC		M					7/15/1999	17:15	SJ	614		3-2
THETIS	14	COEI	-150.135504	70.540663	NA	SC14	SC		M					7/15/1999	17:22	SJ	615	1-2 feathers	3-2
THETIS	15	COEI	-150.135583	70.540996	NA	SC16	SC		M					7/15/1999	17:24	SJ	616		3-2
THETIS	16	COEI	-150.135583	70.540996	NA	SC18	SC		M					7/15/1999	17:24	SJ	617		3-2
THETIS	17	COEI	-150.135549	70.541694	NA	SC20	SC		M					7/15/1999	17:27	SJ	618	Few feathers	3-2
THETIS	18	COEI	-150.135202	70.541929	NA	SC22	SC		M					7/15/1999	17:28	SJ	619	No down or feathers	3-2
THETIS	19	GLGU	-150.135286	70.542246	NA	NE24	NE	3	M					7/15/1999	17:30	SJ	620	1 hatched, 2 eggs pipped	3-2
THETIS	20	COEI	-150.135034	70.542588	NA	SC26	SC		M					7/15/1999	17:35	SJ	621	Few feathers	3-2
THETIS	21	COEI	-150.134786	70.542897	NA	SC28	SC		L					7/15/1999	17:36	SJ	622		3-2
THETIS	22	COEI	-150.132758	70.543163	NA	SC30	SC		M					7/15/1999	17:40	SJ	623		3-2
THETIS	23	COEI	-150.132705	70.543298	NA	SC32	SC		M					7/15/1999	17:42	SJ	624		3-2
THETIS	24	COEI	-150.134628	70.54317	NA	SC34	SC		M					7/15/1999	17:44	SJ	625		3-2
THETIS	25	COEI	-150.134628	70.54317	NA	SC36	SC		M					7/15/1999	17:44	SJ	626		3-2
THETIS	26	COEI	-150.134663	70.543409	NA	SC38	SC		M					7/15/1999	17:46	SJ	627		3-2
THETIS	27	COEI	-150.134663	70.543409	NA	SC40	SC		M					7/15/1999	17:46	SJ	628		3-2
THETIS	28	COEI	-150.132742	70.543514	NA	SC42	SC		L					7/15/1999	17:48	SJ	629		3-2
THETIS	29	COEI	-150.132742	70.543514	NA	SC44	SC		L					7/15/1999	17:48	SJ	630		3-2
THETIS	30	OLDS	-150.132704	70.543786	NA									7/15/1999	17:50	SJ	631	~300 OLDS swim along south side	3-2
THETIS	31	COEI	-150.132704	70.543786	NA	NE46	NE	4	L					7/15/1999	17:50	SJ	632		3-2
THETIS	32	COEI	-150.134038	70.543977	NA	SC48	SC		M					7/15/1999	17:51	SJ	633		3-2
THETIS	33	COEI	-150.134038	70.543977	NA	SC50	SC		M					7/15/1999	17:51	SJ	634		3-2
THETIS	34	COEI	-150.134038	70.543977	NA	SC52	SC		M					7/15/1999	17:51	SJ	635		3-2
THETIS	35	COEI	-150.134247	70.544423	NA	SC54	SC		L					7/15/1999	17:53	SJ	636		3-2
THETIS	36	COEI	-150.134247	70.544423	NA	SC56	SC		M					7/15/1999	17:53	SJ	637		3-2
THETIS	37	COEI	-150.13422	70.544853	NA	SC58	SC		L					7/15/1999	17:56	SJ	638		3-2
THETIS	38	COEI	-150.134219	70.545103	NA	SC60	SC98		L					7/15/1999	17:58	SJ	639		3-2
THETIS	39	COEI	-150.134314	70.545388	NA	SC62	SC		M					7/15/1999	17:59	SJ	640		3-2
THETIS	40	COEI	-150.134281	70.545864	NA	SC64	SC		L					7/15/1999	18:01	SJ	641		3-3
THETIS	41	COEI	-150.134315	70.546103	NA	SC66	SC		L					7/15/1999	18:02	SJ	642		3-3
THETIS	42	COEI	-150.134253	70.54558	NA	SC68	SC		L					7/15/1999	18:00	SJ	643		3-3
THETIS	43	COEI	-150.134214	70.546339	NA	SC70	SC		M					7/15/1999	18:03	SJ	644		3-3
THETIS	44	COEI	-150.134384	70.54658	NA	SC72	SC		M					7/15/1999	18:04	SJ	645		3-3
THETIS	45	HUMAN	-150.134384	70.54658	NA									7/15/1999	18:04	SJ	646	Human tracks along south shore	3-3
THETIS	46	COEI	-150.134651	70.546856	NA	SC74	SC		M					7/15/1999	18:07	SJ	647	Few feathers	3-3

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
THETIS	47	HUMAN	-150.134798	70.547017	NA									7/15/1999	18:08	SJ	648	Fresh camp fire area, Pepsi cans, bottles, Boat and 3 to 4 people were here	3-3
THETIS	48	COEI	-150.135266	70.54732	NA	NE76	NE	0	M		Y			7/15/1999	18:10	SJ	649	Predated egg pieces, ~20 m from camp fire, human tracks next to nest	3-3
THETIS	49	COEI	-150.135772	70.547589	NA	SC78	SC		M					7/15/1999	18:21	SJ	650		3-3
THETIS	50	COEI	-150.13552	70.547687	NA	SC80	SC		M					7/15/1999	18:22	SJ	651		3-3
THETIS	51	COEI	-150.13635	70.547835	NA	SC82	SC		M					7/15/1999	18:24	SJ	652	Some down	3-3
THETIS	52	COEI	-150.13635	70.547835	NA	SC84	SC		M					7/15/1999	18:24	SJ	653	Few pieces of down	3-3
THETIS	53	COEI	-150.13635	70.547835	NA	SC86	SC		M					7/15/1999	18:24	SJ	654		3-3
THETIS	54	COEI	-150.135982	70.548034	NA	NE88	NE	H	M					7/15/1999	18:26	SJ	655	2 membranes, down	3-3
THETIS	55	COEI	-150.136703	70.548227	NA	NE90	NE	Y	M					7/15/1999	18:29	SJ	656	Hen on nest, 1 GLGU overhead, fly/call	3-3
THETIS	56	COEI	-150.136703	70.548227	NA	SC92	SC		M					7/15/1999	18:29	SJ	657	GLGU overhead	3-3
THETIS	57	COEI	-150.13692	70.548616	NA	NE94	NE	0	M		Y	1	GLGU	7/15/1999	18:31	SJ	658	Down, feathers, GLGU overhead	3-3
THETIS	58	COEI	-150.13692	70.548616	NA	NE96	NE	H	M					7/15/1999	18:31	SJ	659	2 membranes, down, feathers, GLGU overhead	3-3
THETIS	59	COEI	-150.137453	70.548692	NA	SC98	SC		L					7/15/1999	18:33	SJ	660	GLGU overhead	3-3
THETIS	60	COEI	-150.137221	70.548893	NA	NE100	NE	Y	M					7/15/1999	18:35	SJ	661	Hen on nest, GLGU overhead	3-3
THETIS	61	COEI	-150.137221	70.548893	NA	SC102	SC		M					7/15/1999	18:35	SJ	662	Down, feathers, GLGU overhead	3-3
THETIS	62	COEI	-150.1377	70.548878	NA	SC104	SC		M					7/15/1999	18:36	SJ	663	GLGU overhead	3-3
THETIS	63	COEI	-150.137942	70.549086	NA	NE106	NE	Y	M					7/15/1999	18:38	SJ	664	Hen on nest, GLGU overhead	3-3
THETIS	64	COEI	-150.137655	70.549195	NA	NE108	NE	4	M					7/15/1999	18:39	SJ	665	GLGU overhead	3-3
THETIS	65	COEI	-150.138331	70.549228	NA	SC110	SC		M					7/15/1999	18:40	SJ	666	GLGU overhead	3-3
THETIS	66	COEI	-150.137901	70.54938	NA	NE112	NE	0	M		Y		GLGU	7/15/1999	18:41	SJ	667	1 broken egg, GLGU overhead	3-3
THETIS	67	COEI	-150.138137	70.549633	NA	SC114	SC		M					7/15/1999	18:43	SJ	668	Feathers, GLGU overhead	3-3
THETIS	68	COEI	-150.138816	70.549644	NA	SC116	SC		L					7/15/1999	18:44	SJ	669	Feathers, GLGU overhead	3-3
THETIS	69	COEI	-150.139257	70.5499	NA	NE118	NE	2	M					7/15/1999	18:46	SJ	670	GLGU overhead	3-4
THETIS	70	GLGU	-150.139257	70.5499	NA									7/15/1999	18:46	SJ	671	GLGU nest #133 ~20 m away from #118	3-4
THETIS	71	COEI	-150.138827	70.550052	NA	SC120	SC		L					7/15/1999	18:47	SJ	672	GLGU overhead	3-4
THETIS	72	COEI	-150.139509	70.55004	NA	SC122	SC		L					7/15/1999	18:49	SJ	673	GLGU overhead	3-4
THETIS	73	COEI	-150.139154	70.550148	NA	SC124	SC		M					7/15/1999	18:50	SJ	674	Feathers, GLGU overhead	3-4
THETIS	74	COEI	-150.139794	70.55043	NA	SC126	SC		M					7/15/1999	18:54	SJ	675	Feathers, GLGU overhead	3-4
THETIS	75	COEI	-150.140176	70.550618	NA	SC128	SC		M					7/15/1999	18:58	SJ	676	Feathers, GLGU overhead	3-4
THETIS	76	COEI	-150.140176	70.550618	NA	SC130	SC		M					7/15/1999	18:58	SJ	677	GLGU overhead	3-4
THETIS	77	COEI	-150.139679	70.550769	NA	SC132	SC		M					7/15/1999	18:59	SJ	678	GLGU overhead	3-4
THETIS	78	COEI	-150.139679	70.550769	NA	SC134	SC		M					7/15/1999	18:59	SJ	679	GLGU overhead	3-4

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
THETIS	79	GLGU	-150.140284	70.550824	NA									7/15/1999	19:04	SJ	680	2 adults with 2 newly hatched chicks ~20 m south of south beach, in water	3-4
THETIS	80	COEI	-150.150014	70.554719	NA	NE136	NE	3	M					7/15/1999	19:33	SJ	681	Hen on nest, flushed, GLGU overhead	3-4
EGG	81	COEI	-148.732107	70.433397	NA	NE2	NE	3	H					7/16/1999	13:05	SJ	682	GLGU overhead, fly, call	3-5
EGG	82	COEI	-148.732072	70.433538	NA	NE4	NE	0	M		Y		GLGU	7/16/1999	13:15	SJ	683	Some down, GLGU overhead, fly, call	3-5
EGG	83	COEI	-148.732072	70.433538	NA	NE6	NE	0	M		Y		GLGU	7/16/1999	13:15	SJ	684	Some down, GLGU overhead, fly, call	3-5
EGG	84	COEI	-148.732389	70.434058	NA	NE8	NE	Y	H					7/16/1999	13:20	SJ	685	Hen on nest, 20 ft from helicopter landing site, hen did not flush, GLGU overhead	3-5
EGG	85	COEI	-148.732707	70.434259	NA	SC2	SC		M					7/16/1999	13:23	SJ	686		3-5
EGG	86	COEI	-148.733553	70.434578	NA	NE10	NE	H	H					7/16/1999	13:28	SJ	687	1 egg shell and membrane, down, GLGU overhead	3-5
EGG	87	COEI	-148.73447	70.434991	NA	NE12	NE	H	M					7/16/1999	13:31	SJ	688	1 membrane, no shell fragments, down	3-5
EGG	88	COEI	-148.734893	70.435132	NA	SC4	SC		M					7/16/1999	13:32	SJ	689	Lots of small sticks	3-5
EGG	89	COEI	-148.735457	70.435215	NA	SC6	SC		M					7/16/1999	13:34	SJ	690	Lots of small sticks	3-5
EGG	90	COEI	-148.735704	70.435439	NA	SC8	SC		L					7/16/1999	13:35	SJ	691	Lots of small sticks	3-5
EGG	91	COEI	-148.735704	70.435439	NA	SC10	SC		L					7/16/1999	13:35	SJ	692	Few small sticks, GLGU overhead	3-5
EGG	92	COEI	-148.736092	70.435746	NA	SC12	SC		M					7/16/1999	13:38	SJ	693	Few small sticks, GLGU overhead	3-5
EGG	93	COEI	-148.736092	70.435746	NA	SC14	SC		M					7/16/1999	13:38	SJ	694	Kelp, few small sticks, GLGU overhead	3-5
EGG	94	COEI	-148.736162	70.435876	NA	SC16	SC		L					7/16/1999	13:39	SJ	695	Few small sticks, GLGU overhead	3-5
EGG	95	COEI	-148.736339	70.435971	NA	NE14	NE	Y	H					7/16/1999	13:40	SJ	696	GLGU overhead	3-5
EGG	96	COEI	-148.736339	70.435971	NA	NE16	NE	Y	H					7/16/1999	13:40	SJ	697	GLGU overhead	3-5
EGG	97	COEI	-148.736339	70.435971	NA	NE18	NE	Y	H					7/16/1999	13:40	SJ	698	GLGU overhead	3-5
EGG	98	COEI	-148.736409	70.436172	NA	NE20	NE	4	M					7/16/1999	13:44	SJ	699	GLGU overhead	3-5
EGG	99	COEI	-148.736409	70.436172	NA	NE22	NE	Y	H					7/16/1999	13:44	SJ	700	GLGU overhead	3-5
EGG	100	COEI	-148.736409	70.436172	NA	NE24	NE	Y	H					7/16/1999	13:44	SJ	701	GLGU overhead	3-5
EGG	101	COEI	-148.736621	70.436231	NA	NE26	NE	Y	H					7/16/1999	13:45	SJ	702	GLGU overhead	3-5
EGG	102	COEI	-148.736621	70.436231	NA	NE28	NE	Y	H					7/16/1999	13:45	SJ	703	GLGU overhead	3-5
EGG	103	GLGU	-148.737114	70.436691	NA	NE30	NE	H	L					7/16/1999	17:00	SJ	704	Lots of sticks, junk, peat, GLGU fly, call overhead	3-5
EGG	104	COEI	-148.737255	70.436821	NA	SC18	SC		L					7/16/1999	17:01	SJ	705	Few small sticks, GLGU overhead	3-5
EGG	105	COEI	-148.737608	70.437093	NA	NE32	NE	Y	M					7/16/1999	17:03	SJ	706	GLGU overhead	3-5
EGG	106	COEI	-148.738666	70.43773	NA	NE34	NE	4	H					7/16/1999	17:07	SJ	707	Hen flushed, peeping in eggs, GLGU fly, call overhead	3-6
EGG	107	GLGU	-148.740676	70.438569	NA	NE36	NE	H	M					7/16/1999	17:13	SJ	708	6 to 8 GLGU overhead	3-6
EGG	108	GLGU	-148.741698	70.43897	NA	NE38	NE	H	L					7/16/1999	17:16	SJ	709	6 to 8 GLGU overhead	3-6

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
EGG	109	GLGU	-148.742263	70.43916	NA	NE40	NE	1	M					7/16/1999	17:18	SJ	710	1 chick hatched and gone, near NE23 and NE25 ~2m away, 6 to 8 GLGU overhead	3-6
EGG	110	GLGU	-148.743813	70.439631	NA	NE42	NE	H	L					7/16/1999	17:21	SJ	711	Hatched and gone, ~10 m away from NE27, 6 to 8 GLGU overhead	3-6
EGG	111	GLGU	-148.744553	70.439879	NA	NE44	NE	H	L					7/16/1999	17:24	SJ	712	Hatched and gone, 6 to 8 yoy in water to south, 6 to 8 GLGU overhead	3-6
EGG	112	COEI	-148.744553	70.439879	NA	SC20	SC		M					7/16/1999	17:24	SJ	713	No sticks, some kelp, 3 m from NE29, 6 to 8 GLGU overhead	3-6
EGG	113	COEI	-148.748468	70.440812	NA	NE46	NE	Y	H					7/16/1999	17:29	SJ	714	10 to 12 GLGU overhead	3-6
EGG	114	GLGU	-148.749914	70.441143	NA	NE48	NE	H	L					7/16/1999	17:32	SJ	715	Hatched and gone, 10 to 12 GLGU overhead	3-6
EGG	115	GLGU	-148.751148	70.441296	NA	NE50	NE	H	M					7/16/1999	17:33	SJ	716	Hatched and gone, 10 to 12 GLGU overhead	3-6
EGG	116	GLGU	-148.751641	70.441391	NA	NE52	NE	H	M					7/16/1999	17:35	SJ	717	Hatched and gone, 10 to 12 GLGU overhead	3-6
EGG	117	COEI	-148.751641	70.441391	NA	NE54	NE	Y	H					7/16/1999	17:35	SJ	718	10 to 12 GLGU overhead	3-6
EGG	118	GLGU	-148.7521	70.441509	NA	NE56	NE	H	L					7/16/1999	17:38	SJ	719	Hatched and gone, 10 to 12 GLGU overhead	3-6
EGG	119	COEI	-148.7521	70.441509	NA	NE58	NE	Y	M					7/16/1999	17:38	SJ	720	10 to 12 GLGU overhead	3-6
EGG	120	COEI	-148.7521	70.441509	NA	NE60	NE	Y	M					7/16/1999	17:38	SJ	721	10 to 12 GLGU overhead	3-6
EGG	121	GLGU	-148.752347	70.441568	NA	NE62	NE	1	M					7/16/1999	17:39	SJ	722	10 to 12 GLGU overhead	3-6
EGG	122	COEI	-148.752876	70.441674	NA	NE64	NE	Y	M					7/16/1999	17:41	SJ	723	10 to 12 GLGU overhead	3-6
EGG	123	GLGU	-148.753052	70.441721	NA	NE66	NE	H	L					7/16/1999	17:42	SJ	724	Hatched and gone, 10 to 12 GLGU overhead	3-6
EGG	124	COEI	-148.753228	70.441768	NA	NE68	NE	0	M		Y		GLGU	7/16/1999	17:43	SJ	725	10 to 12 GLGU overhead	3-6
EGG	125	COEI	-148.753228	70.441768	NA	NE70	NE	Y	H					7/16/1999	17:43	SJ	726	10 to 12 GLGU overhead	3-6
EGG	126	COEI	-148.75344	70.441816	NA	NE72	NE	3	M					7/16/1999	17:44	SJ	727	10 to 12 GLGU overhead	3-6
EGG	127	COEI	-148.75411	70.44204	NA	SC22	SC		L					7/16/1999	17:46	SJ	728	10 to 12 GLGU overhead	3-6
EGG	128	COEI	-148.75411	70.44204	NA	SC24	SC		M					7/16/1999	17:46	SJ	729	10 to 12 GLGU overhead	3-6
EGG	129	COEI	-148.75411	70.44204	NA									7/16/1999	17:46	SJ	730	40 male, 2 female COEI fly west ~200 m north of island, ~ 1 ft above water, 10 to 12 GLGU overhead	3-6
EGG	130	COEI	-148.754498	70.442146	NA	NE74	NE	0	M		Y		GLGU	7/16/1999	17:48	SJ	731	10 to 12 GLGU overhead	3-6
EGG	131	GLGU	-148.754991	70.442253	NA	NE76	NE	0	L		U			7/16/1999	17:50	SJ	732	10 to 12 GLGU overhead	3-6
EGG	132	GLGU	-148.754991	70.442253	NA	NE78	NE	0	L		U			7/16/1999	17:50	SJ	733	10 to 12 GLGU overhead	3-6
EGG	133	COEI	-148.756155	70.442512	NA	SC26	SC		L					7/16/1999	17:52	SJ	734	8 to 10 GLGU fly/call overhead	3-7
EGG	134	COEI	-148.756155	70.442512	NA	SC28	SC		M					7/16/1999	17:52	SJ	735	8 to 10 GLGU fly/call overhead	3-7
EGG	135	COEI	-148.756684	70.442619	NA	NE80	NE	Y	H					7/16/1999	17:53	SJ	736	8 to 10 GLGU fly/call overhead	3-7
EGG	136	COEI	-148.757883	70.442855	NA	NE82	NE	H	M					7/16/1999	17:55	SJ	737	3 membranes, 8 to 10 GLGU fly/call overhead	3-7

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
EGG	137	COEI	-148.758341	70.442926	NA	NE84	NE	0	L		Y		GLGU	7/16/1999	17:56	SJ	738	Female flushed at 100 m, lots of down, 8 to 10 GLGU fly/call overhead	3-7
EGG	138	COEI	-148.759504	70.443067	NA	NE86	NE	Y	H					7/16/1999	17:58	SJ	739	8 to 10 GLGU fly/call overhead	3-7
EGG	139	COEI	-148.759504	70.443067	NA	NE88	NE	Y	H					7/16/1999	17:58	SJ	740	8 to 10 GLGU fly/call overhead	3-7
EGG	140	COEI	-148.759504	70.443067	NA	NE90	NE	0	M		Y		GLGU	7/16/1999	17:58	SJ	741	8 to 10 GLGU fly/call overhead	3-7
EGG	141	COEI	-148.761303	70.443256	NA	SC30	SC		M					7/16/1999	18:00	SJ	742	8 to 10 GLGU fly/call overhead	3-7
EGG	142	COEI	-148.761303	70.443256	NA									7/16/1999	18:00	SJ	743	6 female, 1 male COEI, 8 to 10 GLGU fly/call overhead	3-7
EGG	143	COEI	-148.762114	70.443327	NA	NE92	NE	0	M		Y		GLGU	7/16/1999	18:01	SJ	744	COEI nearby in water, 8 to 10 GLGU fly/call overhead	3-7
EGG	144	COEI	-148.762748	70.443362	NA	NE94	NE	H	M					7/16/1999	18:03	SJ	745	3 chicks, 8 to 10 GLGU fly/call overhead	3-7
EGG	145	COEI	-148.763383	70.443351	NA	SC32	SC		M					7/16/1999	18:04	SJ	746	8 to 10 GLGU fly/call overhead	3-7
EGG	146	COEI	-148.764018	70.443351	NA	SC34	SC		M					7/16/1999	18:05	SJ	747	8 to 10 GLGU fly/call overhead	3-7
EGG	147	COEI	-148.764582	70.443315	NA	NE96	NE	0	M		Y		GLGU	7/16/1999	18:06	SJ	748	8 to 10 GLGU fly/call overhead	3-7
EGG	148	COEI	-148.765181	70.443268	NA	SC36	SC		M					7/16/1999	18:07	SJ	749	8 to 10 GLGU fly/call overhead	3-7
EGG	149	COEI	-148.765181	70.443268	NA	NE98	NE	Y	M					7/16/1999	18:07	SJ	750	8 to 10 GLGU fly/call overhead	3-7
EGG	150	COEI	-148.765604	70.443221	NA	NE100	NE	Y	H					7/16/1999	18:08	SJ	751	8 to 10 GLGU fly/call overhead	3-7
EGG	151	COEI	-148.766028	70.443185	NA	NE102	NE	Y	H					7/16/1999	18:09	SJ	752	8 to 10 GLGU fly/call overhead	3-7
EGG	152	COEI	-148.766028	70.443185	NA	NE104	NE	0	H		Y		GLGU	7/16/1999	18:09	SJ	753	8 to 10 GLGU fly/call overhead	3-7
EGG	153	COEI	-148.766768	70.443115	NA	NE106	NE	0	H		Y		GLGU	7/16/1999	18:11	SJ	754	8 to 10 GLGU fly/call overhead	3-7
EGG	154	COEI	-148.767015	70.443115	NA	NE108	NE	Y	H					7/16/1999	18:12	SJ	755	8 to 10 GLGU fly/call overhead	3-7
EGG	155	COEI	-148.767226	70.443115	NA	SC38	SC		H					7/16/1999	18:13	SJ	756	8 to 10 GLGU fly/call overhead	3-7
EGG	156	COEI	-148.767473	70.443091	NA	NE110	NE	Y	H					7/16/1999	18:14	SJ	757	8 to 10 GLGU fly/call overhead	3-7
EGG	157	COEI	-148.767755	70.443079	NA	NE112	NE	Y	H					7/16/1999	18:16	SJ	758	0.5 m from NE114, 8 to 10 GLGU fly/call overhead	3-7
EGG	158	COEI	-148.767755	70.443079	NA	NE114	NE	Y	H					7/16/1999	18:16	SJ	759	0.5 m from NE112, 2 to 4 GLGU fly overhead	3-7
EGG	159	COEI	-148.768002	70.443067	NA	SC40	SC		M					7/16/1999	18:18	SJ	760	2 to 4 GLGU fly overhead	3-7
EGG	160	COEI	-148.768214	70.443067	NA	NE116	NE	3	L					7/16/1999	18:19	SJ	761	2 to 4 GLGU fly overhead	3-7
EGG	161	COEI	-148.768214	70.443067	NA	NE118	NE	3	M					7/16/1999	18:19	SJ	762	2 to 4 GLGU fly overhead	3-7
EGG	162	COEI	-148.768214	70.443067	NA	NE120	NE	3	M					7/16/1999	18:19	SJ	763	2 to 4 GLGU fly overhead	3-7

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
EGG	163	COEI	-148.768214	70.443067	NA	NE122	NE	H	M					7/16/1999	18:19	SJ	764	1 yoy and 1 egg, 2 to 4 GLGU fly overhead	3-7
EGG	164	COEI	-148.76839	70.443067	NA	NE124	NE	Y	H					7/16/1999	18:22	SJ	765	2 to 4 GLGU overhead	3-8
EGG	165	COEI	-148.768743	70.443044	NA	NE126	NE	Y	H					7/16/1999	18:24	SJ	766	2 to 4 GLGU overhead	3-8
EGG	166	COEI	-148.768954	70.44302	NA	NE128	NE	Y	H					7/16/1999	18:26	SJ	767	2 to 4 GLGU overhead	3-8
EGG	167	COEI	-148.768954	70.44302	NA	NE130	NE	Y	H					7/16/1999	18:26	SJ	768	2 to 4 GLGU overhead	3-8
EGG	168	COEI	-148.770082	70.44289	NA	NE132	NE	0	M				GLGU	7/16/1999	18:27	SJ	769	2 to 4 GLGU overhead	3-8
EGG	169	COEI	-148.770082	70.44289	NA	NE134	NE	Y	M					7/16/1999	18:27	SJ	770	2 to 4 GLGU overhead	3-8
EGG	170	COEI	-148.770082	70.44289	NA	NE136	NE	2	M					7/16/1999	18:27	SJ	771	2 to 4 GLGU overhead	3-8
EGG	171	COEI	-148.771035	70.442595	NA	SC42	SC		M					7/16/1999	18:28	SJ	772	2 to 4 GLGU overhead	3-8
EGG	172	COEI	-148.770012	70.442654	NA	SC44	SC		M					7/16/1999	18:29	SJ	773	2 to 4 GLGU overhead	3-8
EGG	173	COEI	-148.770012	70.442654	NA	SC46	SC		M					7/16/1999	18:29	SJ	774	2 to 4 GLGU overhead	3-8
EGG	174	COEI	-148.770012	70.442654	NA									7/16/1999	18:29	SJ	775	6 to 8 female COEI in water at west end of island	3-8
EGG	175	COEI	-148.768954	70.442867	NA	NE138	NE	Y	M					7/16/1999	18:34	SJ	776	2 to 4 GLGU overhead	3-8
EGG	176	COEI	-148.767861	70.442925	NA	NE140	NE	4	M					7/16/1999	18:35	SJ	777	Eggs pipped, 2 to 4 GLGU overhead	3-8
EGG	177	COEI	-148.766874	70.442938	NA	SC48	SC		L					7/16/1999	18:37	SJ	778	2 to 4 GLGU overhead	3-8
EGG	178	GLGU	-148.766027	70.442949	NA	NE142	NE	H	L					7/16/1999	18:39	SJ	779	Hatched and gone, 2 to 4 GLGU overhead	3-8
EGG	179	COEI	-148.765287	70.442985	NA	NE144	NE	3	M					7/16/1999	18:41	SJ	780	2 to 4 GLGU overhead	3-8
EGG	180	COEI	-148.763277	70.442985	NA	NE146	NE	0	M		Y		GLGU	7/16/1999	18:44	SJ	781	2 to 4 GLGU overhead	3-8
EGG	181	COEI	-148.76229	70.442926	NA	SC50	SC		M					7/16/1999	18:45	SJ	782	2 to 4 GLGU overhead	3-8
EGG	182	COEI	-148.761937	70.44289	NA	SC52	SC		M					7/16/1999	18:46	SJ	783	2 to 4 GLGU overhead	3-8
EGG	183	COEI	-148.761937	70.44289	NA	SC54	SC		M					7/16/1999	18:46	SJ	784	2 to 4 GLGU overhead	3-8
EGG	184	COEI	-148.761444	70.442867	NA	SC56	SC		M					7/16/1999	18:47	SJ	785	2 to 4 GLGU overhead	3-8
EGG	185	COEI	-148.760915	70.442855	NA	SC58	SC		M					7/16/1999	18:49	SJ	786	2 to 4 GLGU overhead	3-8
EGG	186	GLGU	-148.760351	70.442831	NA									7/16/1999	18:50	SJ	787	GLGU chick with wounds on head and neck, 2 to 4 GLGU overhead	3-8
EGG	187	COEI	-148.760351	70.442831	NA	SC60	SC		M					7/16/1999	18:50	SJ	788	2 to 4 GLGU overhead	3-8
EGG	188	COEI	-148.759998	70.442619	NA	NE148	NE	Y	M					7/16/1999	18:51	SJ	789	2 to 4 GLGU overhead	3-8
EGG	189	COEI	-148.763947	70.442359	NA	NE150	NE	1	M					7/16/1999	18:56	SJ	790	1 m from NE 152, 2 to 4 GLGU overhead	3-8
EGG	190	COEI	-148.763947	70.442359	NA	NE152	NE	H	M					7/16/1999	18:56	SJ	791	Hatched, 2 membranes, 2 m from NE154, 2 to 4 GLGU overhead	3-8
EGG	191	COEI	-148.763947	70.442359	NA	NE154	NE	3	L					7/16/1999	18:56	SJ	792	3 m from SC62, 2 to 4 GLGU overhead	3-8
EGG	192	COEI	-148.763947	70.442359	NA	SC62	SC		M					7/16/1999	18:56	SJ	793	2 to 4 GLGU overhead	3-8
EGG	193	COEI	-148.765217	70.4423	NA	NE156	NE	Y	H					7/16/1999	18:59	SJ	794	2 to 4 GLGU overhead	3-8
EGG	194	GLGU	-148.757142	70.44204	NA	NE158	NE	1	H					7/16/1999	19:07	SJ	795	2 to 4 GLGU overhead	3-8
EGG	195	COEI	-148.753792	70.441131	NA	NE160	NE	0	M					7/16/1999	19:09	SJ	796	2 to 4 GLGU overhead	3-8
NARWHAL	196	RISE	-147.473344	70.385333	NA									7/17/1999	09:28	SJ	797	RISE swims south of island ~100m	3-9
NARWHAL	197	ARTE	-147.473384	70.385638	NA									7/17/1999	09:30	SJ	798	1 ARTE and 1 SAGU fly/call overhead	3-9
NARWHAL	198	COEI	-147.47354	70.386383	NA	SC2	SC		M					7/17/1999	09:32	SJ	799	Few sticks, kelp	3-9

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
NARWHAL	199	COEI	-147.475966	70.386995	NA	SC4	SC		M					7/17/1999	09:34	SJ	800	Few sticks, kelp	3-9
NARWHAL	200	COEI	-147.474512	70.387785	NA	SC6	SC		L					7/17/1999	09:36	SJ	801	Few sticks, kelp	3-9
NARWHAL	201	COEI	-147.476892	70.388126	NA	SC8	SC		H					7/17/1999	09:38	SJ	802	Last years shell fragments, 2 GLGU overhead	3-9
NARWHAL	202	ARTE	-147.476417	70.388344	NA									7/17/1999	09:39	SJ	803	8 ARTE fly overhead	3-9
NARWHAL	203	KIEI	-147.480164	70.392663	NA									7/17/1999	09:50	SJ	804	~250 to 300 male KIEI fly west at ~25 m north of island, ~2 m above water	3-9
NARWHAL	204	COEI	-147.34731	70.347768	NA	NE2	NE	Y	H					7/17/1999	09:55	SJ	805	Big log, GLGU overhead	3-9
NARWHAL	205	COEI	-147.490308	70.392646	NA	SC10	SC		L					7/17/1999	09:58	SJ	806	Sticks, kelp, GLGU overhead, 1 ARTE overhead	3-9
NARWHAL	206	COEI	-147.491581	70.392677	NA	SC12	SC		L					7/17/1999	09:59	SJ	807	Few sticks, GLGU overhead	3-9
NARWHAL	207	PAJA	-147.491581	70.392677	NA									7/17/1999	09:59	SJ	808	PAJA tries to get GLGU chick on water ~100m south of island	3-9
NARWHAL	208	COEI	-147.492196	70.392796	NA	SC14	SC		L					7/17/1999	10:01	SJ	809	Few sticks, GLGU overhead, 1 m from SC16	3-9
NARWHAL	209	COEI	-147.492196	70.392796	NA	SC16	SC		L					7/17/1999	10:01	SJ	810	Few sticks, GLGU overhead, 1 m from SC14	3-9
NARWHAL	210	COEI	-147.493025	70.392908	NA	NE4	NE	Y	M					7/17/1999	10:02	SJ	811	Few sticks, GLGU overhead	3-9
NARWHAL	211	COEI	-147.492473	70.392992	NA	SC16	SC		M					7/17/1999	10:04	SJ	812	Kelp, rag, sticks, twigs, GLGU overhead	3-9
NARWHAL	212	COEI	-147.492121	70.393139	NA	NE6	NE	Y	H					7/17/1999	10:05	SJ	813	GLGU overhead	3-9
NARWHAL	213	COEI	-147.493502	70.393167	NA	SC18	SC		M					7/17/1999	10:06	SJ	814	Kelp, sticks, GLGU overhead	3-9
NARWHAL	214	COEI	-147.49282	70.393357	NA	NE8	NE	0	M		Y		GLGU	7/17/1999	10:08	SJ	815	Down, sticks, twigs, GLGU overhead	3-9
NARWHAL	215	COEI	-147.354529	70.346119	NA	SC20	SC		L					7/17/1999	10:10	SJ	816	Sticks, twigs, GLGU overhead	3-9
NARWHAL	216	KIEI	-147.494231	70.393248	NA									7/17/1999	10:11	SJ	817	250 KIEI fly west 1 m high, 200 m north of island	3-9
NARWHAL	217	COEI	-147.493197	70.393584	NA	SC22	SC		L					7/17/1999	10:12	SJ	818	3 m from SC24, kelp, sticks, GLGU overhead	3-9
NARWHAL	218	COEI	-147.493197	70.393584	NA	SC24	SC		L					7/17/1999	10:12	SJ	819	3 m from SC22, kelp, sticks, twigs, GLGU overhead	3-9
NARWHAL	219	COEI	-147.494286	70.393485	NA	SC26	SC		L					7/17/1999	10:14	SJ	820	Sticks, GLGU overhead	3-9
NARWHAL	220	COEI	-147.494286	70.393485	NA	SC28	SC		L					7/17/1999	10:14	SJ	821	Sticks, GLGU overhead	3-9
NARWHAL	221	COEI	-147.494639	70.393339	NA	NE10	NE	Y	M					7/17/1999	10:16	SJ	822	GLGU overhead	3-9
NARWHAL	222	COEI	-147.494908	70.393569	NA	NE12	NE	Y	N					7/17/1999	10:19	SJ	823	2 GLGU overhead	3-10
NARWHAL	223	COEI	-147.406768	70.358681	NA	SC30	SC		M					7/17/1999	10:21	SJ	824	2 GLGU overhead	3-10
NARWHAL	224	COEI	-147.506984	70.394956	NA	SC32	SC		M					7/17/1999	10:30	SJ	825	Sticks, twigs	3-10
NARWHAL	225	COEI	-147.507165	70.394719	NA	SC34	SC		L					7/17/1999	10:31	SJ	826	Sticks, twigs	3-10
NARWHAL	226	COEI	-147.400963	70.358715	NA	SC36	SC		M					7/17/1999	10:34	SJ	827	Sticks, twigs, sand with shells	3-10

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
NARWHAL	227	COEI	-147.397828	70.358664	NA	SC38	SC		M					7/17/1999	10:35	SJ	828	Kelp, sticks, twigs	3-10
NARWHAL	228	COEI	-147.394743	70.35856	NA	SC40	SC		M					7/17/1999	10:38	SJ	829	Sticks, twigs	3-10
NARWHAL	229	COEI	-147.394275	70.358561	NA	SC42	SC		L					7/17/1999	10:40	SJ	830	Kelp, styrofoam, sticks	3-10
NARWHAL	230	COEI	-147.511353	70.395655	NA	SC44	SC		L					7/17/1999	10:42	SJ	831	Few big sticks	3-10
NARWHAL	231	COEI	-147.396207	70.358846	NA	SC46	SC		L					7/17/1999	10:47	SJ	832	Kelp, sticks	3-10
NARWHAL	232	COEI	-147.396207	70.358846	NA	SC48	SC		L					7/17/1999	10:47	SJ	833	Kelp, sticks	3-10
NARWHAL	233	COEI	-147.519156	70.39613	NA	NE14	NE	0	L		Y		GLGU	7/17/1999	10:50	SJ	834	Sticks, kelp, looks like GLGU predation	3-10
NARWHAL	234	COEI	-147.519532	70.39611	NA	NE16	NE	Y	M					7/17/1999	10:53	SJ	835		3-10
NARWHAL	235	COEI	-147.521981	70.396226	NA	SC50	SC		L					7/17/1999	10:54	SJ	836	Kelp, sticks	3-10
NARWHAL	236	COEI	-147.521915	70.395974	NA	NE18	NE	Y	B					7/17/1999	10:56	SJ	837	In building, in dark, yellow fiberglass insulation	3-10
NARWHAL	237	COEI	-147.521915	70.395974	NA	NE20	NE	0	B		Y		GLGU	7/17/1999	10:56	SJ	838	3 broken eggs, yellow fiberglass insulation	3-10
NARWHAL	238	COEI	-147.522163	70.396126	NA	SC52	SC		B					7/17/1999	10:57	SJ	839	Fiberglass insulation	3-10
NARWHAL	239	COEI	-147.522833	70.395805	NA	NE22	NE	3	M					7/17/1999	11:03	SJ	840		3-10
NARWHAL	240	COEI	-147.523271	70.396325	NA	NE24	NE	2	M					7/17/1999	11:04	SJ	841		3-10
NARWHAL	241	COEI	-147.523271	70.396325	NA	SC54	SC		L					7/17/1999	11:04	SJ	842		3-10
NARWHAL	242	COEI	-147.523271	70.396325	NA	SC56	SC		M					7/17/1999	11:04	SJ	843		3-10
NARWHAL	243	COEI	-147.525529	70.395494	NA	NE26	NE	2	M					7/17/1999	11:10	SJ	844		3-10
NARWHAL	244	COEI	-147.525529	70.395494	NA	SC58	SC		L					7/17/1999	11:10	SJ	845		3-10
NARWHAL	245	COEI	-147.526388	70.395482	NA	SC60	SC		M					7/17/1999	11:12	SJ	846	Kelp	3-10
NARWHAL	246	COEI	-147.52593	70.395689	NA	NE28	NE	3	M					7/17/1999	11:13	SJ	847	Banded	3-10
NARWHAL	247	COEI	-147.52725	70.395606	NA	SC62	SC		L					7/17/1999	11:15	SJ	848	Sticks	3-10
NARWHAL	248	COEI	-147.441523	70.364047	NA	NE30	NE	2	M					7/17/1999	11:18	SJ	849		3-10
NARWHAL	249	COEI	-147.44061	70.36402	NA	SC64	SC		L					7/17/1999	11:22	SJ	850	Kelp, sticks	3-10
NARWHAL	250	COEI	-147.52854	70.395705	NA	NE34	NE	2	M					7/17/1999	11:24	SJ	851		3-10
NARWHAL	251	COEI	-147.433938	70.364103	NA	SC66	SC		M					7/17/1999	11:25	SJ	852		3-10
NARWHAL	252	COEI	-147.529341	70.395889	NA	SC68	SC		L					7/17/1999	11:28	SJ	853	Sticks, kelp	3-11
NARWHAL	253	COEI	-147.429753	70.363979	NA	SC70	SC		L					7/17/1999	11:29	SJ	854	Sticks, 3 m from SC72	3-11
NARWHAL	254	COEI	-147.429753	70.363979	NA	SC72	SC		L					7/17/1999	11:29	SJ	855	Sticks, 3 m from SC70	3-11
NARWHAL	255	COEI	-147.531124	70.396039	NA	SC74	SC		L					7/17/1999	11:33	SJ	856	Sticks	3-11
NARWHAL	256	GLGU	-147.42179	70.362562	NA	NE36	NE	H	L					7/17/1999	11:35	SJ	857	Hatched and gone	3-11
NARWHAL	257	POBE	-147.42069	70.362327	NA	BED	BED							7/17/1999	11:37	SJ	858	White hairs	3-11
NARWHAL	258	COEI	-147.534933	70.396278	NA	NE38	NE	Y	M					7/17/1999	11:40	SJ	859		3-11
NARWHAL	259	COEI	-147.535262	70.397637	NA	NE40	NE	Y	H					7/17/1999	11:47	SJ	860		3-11
NARWHAL	260	COEI	-147.535991	70.39712	NA	NE42	NE	0	M					7/17/1999	11:49	SJ	861		3-11
NARWHAL	261	POBE	-147.535991	70.39712	NA	BED	BED							7/17/1999	11:49	SJ	862		3-11
NARWHAL	262	COEI	-147.53691	70.397049	NA	SC76	SC		L					7/17/1999	11:50	SJ	863		3-11
NARWHAL	263	COEI	-147.536356	70.39692	NA	SC78	SC		H					7/17/1999	11:53	SJ	864	Sticks, plastic, 1 m from SC80	3-11
NARWHAL	264	COEI	-147.536356	70.39692	NA	SC80	SC		H					7/17/1999	11:53	SJ	865	Sticks, 1 m from SC78	3-11
NARWHAL	265	COEI	-147.53703	70.396852	NA	SC82	SC		H					7/17/1999	11:54	SJ	866	Kelp, sticks	3-11
LEAVITT	1	GLGU	-149.602729	70.564221	NA									7/15/1999	14:17	TO	867	17 GLGU offshore	4-1
LEAVITT	2	GLGU	-149.728272	70.569481	NA	NE1	NE	0	L		Y			7/15/1999	15:50	TO	868	Predated egg away from nest	4-1
LEAVITT	3	GLGU	-149.728272	70.569481	NA	EE1	EE							7/15/1999	15:50	TO	869		4-1
LEAVITT	4	GLGU	-149.729049	70.569274	NA	SC3	SC		L					7/15/1999	15:52	TO	870		4-1

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
THETIS	1	COEI	-150.127339	70.531071	NA	SC5	SC		L					7/15/1999	17:00	TO	871		4-2
THETIS	2	COEI	-150.127339	70.531071	NA	SC7	SC		L					7/15/1999	17:00	TO	872		4-2
THETIS	3	GLGU	-150.127023	70.531955	NA	SC9	SC		L					7/15/1999	17:01	TO	873		4-2
THETIS	4	COEI	-150.12802	70.532987	NA	NE11	NE	Y	M					7/15/1999	17:03	TO	874		4-2
THETIS	5	COEI	-150.129061	70.533702	NA	SC13	SC		M					7/15/1999	17:06	TO	875	Sticks	4-2
THETIS	6	COEI	-150.129722	70.534411	NA	SC15	SC		L					7/15/1999	17:12	TO	876	Sticks	4-2
THETIS	7	COEI	-150.130012	70.535051	NA	SC17	SC		L					7/15/1999	17:13	TO	877	Sticks	4-2
THETIS	8	COEI	-150.130665	70.535824	NA	SC19	SC		L					7/15/1999	17:14	TO	878	Sticks	4-2
THETIS	9	COEI	-150.135504	70.540663	NA	SC21	SC		L					7/15/1999	17:22	TO	879	Sticks	4-2
THETIS	10	COEI	-150.135614	70.541225	NA	SC23	SC		L					7/15/1999	17:25	TO	880	Sticks	4-2
THETIS	11	COEI	-150.135545	70.541433	NA	SC25	SC		M					7/15/1999	17:26	TO	881		4-2
THETIS	12	COEI	-150.135549	70.541694	NA	SC27	SC		L					7/15/1999	17:27	TO	882		4-2
THETIS	13	COEI	-150.135202	70.541929	NA	SC29	SC		L					7/15/1999	17:28	TO	883	Sticks	4-2
THETIS	14	COEI	-150.134493	70.542325	NA	SC31	SC		L					7/15/1999	17:31	TO	884	Sticks	4-2
THETIS	15	COEI	-150.13403	70.542525	NA	SC33	SC		L					7/15/1999	17:32	TO	885	Sticks	4-2
THETIS	16	COEI	-150.133384	70.542715	NA	SC35	SC		L					7/15/1999	17:33	TO	886		4-2
THETIS	17	COEI	-150.133224	70.542884	NA	SC37	SC		L					7/15/1999	17:34	TO	887	Sticks	4-2
THETIS	18	COEI	-150.132919	70.543061	NA	NE39	NE	3	M					7/15/1999	17:37	TO	888	Also a small plastic bottle	4-2
THETIS	19	GLGU	-150.132758	70.543163	NA	SC41	SC		L					7/15/1999	17:40	TO	889		4-2
THETIS	20	COEI	-150.134678	70.543057	NA	SC43	SC		L					7/15/1999	17:41	TO	890		4-2
THETIS	21	COEI	-150.132705	70.543298	NA	NE45	NE	Y	M					7/15/1999	17:42	TO	891		4-2
THETIS	22	COEI	-150.134605	70.543578	NA	NE47	NE	Y	L					7/15/1999	17:47	TO	892		4-2
THETIS	23	COEI	-150.134605	70.543578	NA	SC49	SC		H					7/15/1999	17:47	TO	893	Sticks	4-2
THETIS	24	GLGU	-150.13448	70.543735	NA	SC51	SC		H					7/15/1999	17:49	TO	894		4-2
THETIS	25	GLGU	-150.13448	70.543735	NA	SC53	SC		M					7/15/1999	17:49	TO	895		4-2
THETIS	26	COEI	-150.132704	70.543786	NA	SC55	SC		H					7/15/1999	17:50	TO	896	Sticks	4-2
THETIS	27	COEI	-150.134038	70.543977	NA	SC57	SC		L					7/15/1999	17:51	TO	897	Sticks	4-2
THETIS	28	GLGU	-150.134111	70.544182	NA	SC59	SC		M					7/15/1999	17:52	TO	898		4-2
THETIS	29	GLGU	-150.134111	70.544182	NA	SC61	SC		M					7/15/1999	17:52	TO	899		4-2
THETIS	30	COEI	-150.134247	70.544423	NA	SC63	SC		L					7/15/1999	17:53	TO	900		4-3
THETIS	31	GLGU	-150.134247	70.544423	NA	SC65	SC		L					7/15/1999	17:53	TO	901		4-3
THETIS	32	COEI	-150.13438	70.544686	NA	SC67	SC		M					7/15/1999	17:55	TO	902		4-3
THETIS	33	COEI	-150.13438	70.544686	NA	SC69	SC		L					7/15/1999	17:55	TO	903		4-3
THETIS	34	GLGU	-150.134219	70.545103	NA	SC71	SC		L					7/15/1999	17:58	TO	904		4-3
THETIS	35	COEI	-150.134253	70.54558	NA	SC73	SC		L					7/15/1999	18:00	TO	905	Sticks (stopped noting)	4-3
THETIS	36	COEI	-150.134281	70.545864	NA	SC75	SC		L					7/15/1999	18:01	TO	906		4-3
THETIS	37	COEI	-150.134315	70.546103	NA	SC77	SC		L					7/15/1999	18:02	TO	907		4-3
THETIS	38	COEI	-150.134214	70.546339	NA	SC79	SC		N					7/15/1999	18:03	TO	908		4-3
THETIS	39	COEI	-150.134384	70.54658	NA	SC81	SC		L					7/15/1999	18:04	TO	909		4-3
THETIS	40	COEI	-150.134384	70.54658	NA	SC83	SC		L					7/15/1999	18:04	TO	910		4-3
THETIS	41	COEI	-150.1345	70.546718	NA	SC85	SC		L					7/15/1999	18:05	TO	911		4-3
THETIS	42	COEI	-150.1345	70.546718	NA	SC87	SC		L					7/15/1999	18:05	TO	912		4-3
THETIS	43	COEI	-150.134798	70.547017	NA	SC89	SC		L					7/15/1999	18:08	TO	913		4-3
THETIS	44	COEI	-150.135015	70.547168	NA	SC91	SC		L					7/15/1999	18:09	TO	914		4-3
THETIS	45	COEI	-150.135266	70.54732	NA	SC93	SC		L					7/15/1999	18:10	TO	915		4-3
THETIS	46	COEI	-150.135007	70.547463	NA	SC95	SC		L					7/15/1999	18:15	TO	916		4-3
THETIS	47	COEI	-150.135551	70.547472	NA	SC97	SC		L					7/15/1999	18:18	TO	917		4-3
THETIS	48	COEI	-150.135197	70.547568	NA	SC99	SC		L					7/15/1999	18:19	TO	918		4-3

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
THETIS	49	COEI	-150.135772	70.547589	NA	SC101	SC		L					7/15/1999	18:21	TO	919		4-3
THETIS	50	COEI	-150.13552	70.547687	NA	SC103	SC		H					7/15/1999	18:22	TO	920		4-3
THETIS	51	COEI	-150.13552	70.547687	NA	SC105	SC		M					7/15/1999	18:22	TO	921		4-3
THETIS	52	COEI	-150.13635	70.547835	NA	SC107	SC		L					7/15/1999	18:24	TO	922		4-3
THETIS	53	COEI	-150.136231	70.548197	NA	SC109	SC		L					7/15/1999	18:27	TO	923		4-3
THETIS	54	COEI	-150.136535	70.548451	NA	SC111	SC		L					7/15/1999	18:28	TO	924		4-3
THETIS	55	COEI	-150.136703	70.548227	NA	SC113	SC		L					7/15/1999	18:29	TO	925		4-3
THETIS	56	COEI	-150.137016	70.548413	NA	SC115	SC		L					7/15/1999	18:30	TO	926		4-3
THETIS	57	COEI	-150.13692	70.548616	NA	SC117	SC		L					7/15/1999	18:31	TO	927		4-3
THETIS	58	COEI	-150.137453	70.548692	NA	NE119	NE	Y	M					7/15/1999	18:33	TO	928		4-3
THETIS	59	COEI	-150.137221	70.548893	NA	NE121	NE	3	M					7/15/1999	18:35	TO	929		4-3
THETIS	60	COEI	-150.138331	70.549228	NA	SC123	SC		L					7/15/1999	18:40	TO	930		4-4
THETIS	61	COEI	-150.138331	70.549228	NA	SC125	SC		L					7/15/1999	18:40	TO	931		4-4
THETIS	62	COEI	-150.13857	70.549458	NA	NE127	NE	Y	H					7/15/1999	18:42	TO	932		4-4
THETIS	63	COEI	-150.138137	70.549633	NA	NE129	NE	4	L					7/15/1999	18:43	TO	933		4-4
THETIS	64	COEI	-150.138137	70.549633	NA	SC131	SC		L					7/15/1999	18:43	TO	934		4-4
THETIS	65	GLGU	-150.138451	70.549819	NA	NE133	NE	H	L					7/15/1999	18:45	TO	935	1 chick	4-4
THETIS	66	COEI	-150.139619	70.550223	NA	SC135	SC		L					7/15/1999	18:51	TO	936		4-4
THETIS	67	COEI	-150.139193	70.550353	NA	SC137	SC		L					7/15/1999	18:53	TO	937		4-4
THETIS	68	COEI	-150.139633	70.550609	NA	EE	EE							7/15/1999	18:57	TO	938		4-4
THETIS	69	COEI	-150.139633	70.550609	NA	SC139	SC		L					7/15/1999	18:57	TO	939	Predated egg near this scrape	4-4
THETIS	70	COEI	-150.139967	70.551136	NA	SC141	SC		L					7/15/1999	19:09	TO	940		4-4
THETIS	71	COEI	-150.142764	70.552541	NA	SC143	SC		L					7/15/1999	19:30	TO	941		4-4
THETIS	72	GLGU	-150.1546	70.551161	NA	NE145	NE	H	M					7/15/1999	19:34	TO	942	1 chick, 1 egg hatching	4-4
EGG	73	COEI	-148.732248	70.432145	NA	NE1	NE	2	L					7/16/1999	13:03	TO	943		4-5
EGG	74	COEI	-148.732248	70.43224	NA	NE39	NE	4	L					7/16/1999	13:14	TO	944		4-5
EGG	75	COEI	-148.732707	70.434259	NA	NE5	NE	3	L					7/16/1999	13:23	TO	945		4-5
EGG	76	COEI	-148.732319	70.432346	NA	NE7	NE	Y	L					7/16/1999	13:24	TO	946		4-5
EGG	77	COEI	-148.733059	70.434471	NA	SC1	SC		L					7/16/1999	13:27	TO	947		4-5
EGG	78	COEI	-148.734082	70.434802	NA	SC3	SC		M					7/16/1999	13:30	TO	948	Sticks	4-5
EGG	79	COEI	-148.73447	70.434991	NA	NE9	NE	Y	H					7/16/1999	13:31	TO	949		4-5
EGG	80	COEI	-148.735457	70.435215	NA	NE11	NE	0	M		Y			7/16/1999	13:34	TO	950	Sticks, down, no tracks	4-5
EGG	81	COEI	-148.73588	70.435581	NA	NE13	NE	Y	H					7/16/1999	13:37	TO	951		4-5
EGG	82	COEI	-148.73655	70.436065	NA	SC5	SC		L					7/16/1999	13:42	TO	952	Sticks	4-5
EGG	83	COEI	-148.736656	70.43616	NA	SC7	SC		L					7/16/1999	13:43	TO	953		4-5
EGG	84	COEI	-148.736409	70.436278	NA	NE15	NE	4	M					7/16/1999	13:46	TO	954		4-5
EGG	85	COEI	-148.736409	70.436278	NA	NE17	NE	5	L					7/16/1999	13:46	TO	955		4-5
EGG	86	COEI	-148.737608	70.437093	NA	NE19	NE	Y	M					7/16/1999	17:03	TO	956		4-5
EGG	87	GLGU	-148.741204	70.438781	NA	NE21	NE	0	L					7/16/1999	17:15	TO	957		4-5
EGG	88	GLGU	-148.741698	70.43897	NA	NE23	NE	0	N					7/16/1999	17:16	TO	958	8 ft from NE40	4-5
EGG	89	GLGU	-148.741698	70.43897	NA	NE25	NE	0	L					7/16/1999	17:16	TO	959	8 ft from NE40	4-5
EGG	90	GLGU	-148.743073	70.439394	NA	NE27	NE	0	L					7/16/1999	17:20	TO	960	~45 ft from NE42	4-5
EGG	91	GLGU	-148.743073	70.439394	NA									7/16/1999	17:20	TO	961	3 GLGU chicks offshore	4-5
EGG	92	COEI	-148.745083	70.440009	NA	NE29	NE	3	L					7/16/1999	17:25	TO	962		4-5
EGG	93	COEI	-148.745929	70.440151	NA	SC9	SC		L					7/16/1999	17:27	TO	963		4-6
EGG	94	COEI	-148.747093	70.44047	NA	SC11	SC		L					7/16/1999	17:28	TO	964	Sticks	4-6
EGG	95	COEI	-148.748468	70.440812	NA	SC13	SC		L					7/16/1999	17:29	TO	965		4-6

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
EGG	96	COEI	-148.751148	70.441296	NA	NE31	NE	Y	M					7/16/1999	17:34	TO	966		4-6
EGG	97	COEI	-148.751641	70.441391	NA	NE33	NE	Y	H					7/16/1999	17:35	TO	967		4-6
EGG	98	COEI	-148.751853	70.44145	NA	SC15	SC		L					7/16/1999	17:37	TO	968	Sticks	4-6
EGG	99	COEI	-148.7521	70.441509	NA	SC17	SC		M					7/16/1999	17:38	TO	969		4-6
EGG	100	COEI	-148.752347	70.441568	NA	SC19	SC		M					7/16/1999	17:39	TO	970	Sticks	4-6
EGG	101	COEI	-148.752593	70.441615	NA	SC21	SC		M					7/16/1999	17:40	TO	971	Sticks	4-6
EGG	102	COEI	-148.752593	70.441615	NA	SC23	SC		L					7/16/1999	17:40	TO	972	Sticks	4-6
EGG	103	COEI	-148.753687	70.44191	NA	NE35	NE	0	L		Y			7/16/1999	17:45	TO	973	Sticks, ½ predated egg near nest	4-6
EGG	104	GLGU	-148.75411	70.44204	NA	NE37	NE	0	L		U			7/16/1999	17:46	TO	974		4-6
EGG	105	COEI	-148.754991	70.442253	NA	SC25	SC		L					7/16/1999	17:50	TO	975	Sticks	4-6
EGG	106	GLGU	-148.755732	70.442418	NA	NE39	NE	0	L		U			7/16/1999	17:51	TO	976		4-6
EGG	107	COEI	-148.756155	70.442512	NA	SC27	SC		L					7/16/1999	17:52	TO	977	Sticks	4-6
EGG	108	COEI	-148.756155	70.442512	NA	SC29	SC		L					7/16/1999	17:52	TO	978	Sticks, gull tracks	4-6
EGG	109	COEI	-148.757283	70.442737	NA	SC31	SC		L					7/16/1999	17:54	TO	979		4-6
EGG	110	COEI	-148.757283	70.442737	NA	SC33	SC		M					7/16/1999	17:54	TO	980	Sticks	4-6
EGG	111	COEI	-148.758341	70.442926	NA	NE41	NE	Y	M					7/16/1999	17:56	TO	981		4-6
EGG	112	COEI	-148.760421	70.443162	NA	NE43	NE	0	M		Y			7/16/1999	17:59	TO	982	½ predated egg shell by nest	4-6
EGG	113	COEI	-148.762748	70.443362	NA	NE45	NE	Y	L					7/16/1999	18:03	TO	983		4-6
EGG	114	GLGU	-148.763383	70.443351	NA	NE47	NE	0	L		U			7/16/1999	18:04	TO	984		4-6
EGG	115	COEI	-148.764018	70.443351	NA	NE49	NE	Y	H					7/16/1999	18:05	TO	985		4-6
EGG	116	COEI	-148.764582	70.443315	NA	NE51	NE	Y	H					7/16/1999	18:06	TO	986		4-6
EGG	117	COEI	-148.765181	70.443268	NA	SC35	SC		L					7/16/1999	18:07	TO	987	Sticks	4-6
EGG	118	COEI	-148.76638	70.44315	NA	SC37	SC		L					7/16/1999	18:10	TO	988	Sticks	4-6
EGG	119	COEI	-148.766768	70.443115	NA	SC39	SC		H					7/16/1999	18:11	TO	989	Sticks	4-6
EGG	120	COEI	-148.767015	70.443115	NA	SC41	SC		H					7/16/1999	18:12	TO	990	Sticks	4-6
EGG	121	COEI	-148.767473	70.443091	NA	NE53	NE	2	M					7/16/1999	18:14	TO	991		4-6
EGG	122	COEI	-148.767755	70.443079	NA	SC43	SC		L					7/16/1999	18:16	TO	992	Sticks	4-6
EGG	123	COEI	-148.767755	70.443079	NA	SC45	SC		M					7/16/1999	18:16	TO	993		4-7
EGG	124	COEI	-148.768002	70.443067	NA	SC47	SC		M					7/16/1999	18:18	TO	994		4-7
EGG	125	COEI	-148.768602	70.443032	NA	SC49	SC		M					7/16/1999	18:23	TO	995		4-7
EGG	126	COEI	-148.768743	70.443044	NA	NE55	NE	Y	H					7/16/1999	18:24	TO	996		4-7
EGG	127	GLGU	-148.769483	70.442796	NA	NE57	NE	0	L		U			7/16/1999	18:33	TO	997		4-7
EGG	128	COEI	-148.767861	70.442925	NA	NE59	NE	0	L		Y			7/16/1999	18:35	TO	998		4-7
EGG	129	COEI	-148.767861	70.442925	NA	NE61	NE	2	M					7/16/1999	18:35	TO	999		4-7
EGG	130	COEI	-148.766874	70.442938	NA	NE63	NE	H	M					7/16/1999	18:37	TO	1000	Hatched, 1 membrane	4-7
EGG	131	COEI	-148.766027	70.442949	NA	NE65	NE	2	H					7/16/1999	18:39	TO	1001		4-7
EGG	132	GLGU	-148.765287	70.442985	NA	NE67	NE	0	L		U			7/16/1999	18:41	TO	1002		4-7
EGG	133	COEI	-148.764159	70.442996	NA	NE69	NE	0	H		U			7/16/1999	18:42	TO	1003		4-7
EGG	134	COEI	-148.764159	70.442996	NA	NE71	NE	0	M		U			7/16/1999	18:42	TO	1004		4-7
EGG	135	COEI	-148.764159	70.442996	NA	NE73	NE	0	M		U			7/16/1999	18:42	TO	1005		4-7
EGG	136	GLGU	-148.763277	70.442985	NA	NE75	NE	0	L		U			7/16/1999	18:44	TO	1006		4-7
EGG	137	COEI	-148.761444	70.442867	NA	SC51	SC		M					7/16/1999	18:47	TO	1007		4-7
EGG	138	GLGU	-148.760985	70.442489	NA	NE77	NE	1	L					7/16/1999	18:53	TO	1008	Plus ½ shell	4-7
EGG	139	COEI	-148.7643	70.442371	NA	NE79	NE	Y	H					7/16/1999	18:57	TO	1009		4-7
EGG	140	COEI	-148.764723	70.442335	NA	NE81	NE	0	M		U			7/16/1999	18:58	TO	1010		4-7
EGG	141	COEI	-148.75961	70.442264	NA	NE83	NE	Y	H					7/16/1999	19:02	TO	1011		4-7

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
EGG	142	COEI	-148.75961	70.442264	NA	NE85	NE	Y	L					7/16/1999	19:02	TO	1012		4-7
EGG	143	GLGU	-148.758729	70.442217	NA									7/16/1999	19:05	TO	1013	2 GLGU chicks	4-7
EGG	144	COEI	-148.758024	70.442123	NA	NE87	NE	Y	L					7/16/1999	19:06	TO	1014		4-7
EGG	145	COEI	-148.755203	70.441639	NA	NE89	NE	Y	H					7/16/1999	19:08	TO	1015		4-7
EGG	146	COEI	-148.753792	70.441131	NA	NE91	NE	Y	H					7/16/1999	19:09	TO	1016		4-7
EGG	147	COEI	-148.753792	70.441131	NA	NE93	NE	Y	L					7/16/1999	19:09	TO	1017		4-7
EGG	148	GLGU	-148.753792	70.441131	NA	NE95	NE	0	L		U			7/16/1999	19:09	TO	1018		4-7
NARWHAL	149	GLGU	-147.473344	70.385333	NA	SC1	SC		M					7/17/1999	09:28	TO	1019	Sticks, misc stuff in bowl, ~10" diameter	4-8
NARWHAL	150	COEI	-147.47354	70.386383	NA	SC3	SC		L					7/17/1999	09:32	TO	1020	Sticks	4-8
NARWHAL	151	ARTE	-147.473894	70.386713	NA	SC5	SC		L					7/17/1999	09:33	TO	1021	Small shallow bowl	4-8
NARWHAL	152	COEI	-147.475966	70.386995	NA	SC7	SC		L					7/17/1999	09:34	TO	1022	Sticks	4-8
NARWHAL	153	COEI	-147.474512	70.387785	NA	SC9	SC		L					7/17/1999	09:36	TO	1023		4-8
NARWHAL	154	COEI	-147.474889	70.388013	NA	SC11	SC		M					7/17/1999	09:37	TO	1024	Sticks	4-8
NARWHAL	155	GLGU	-147.476417	70.388344	NA	SC13	SC		M					7/17/1999	09:39	TO	1025	Sticks and other debri in bowl	4-8
NARWHAL	156	COEI	-147.488167	70.392673	NA	SC15	SC		L					7/17/1999	09:53	TO	1026	Sticks	4-8
NARWHAL	157	COEI	-147.488429	70.392938	NA	SC17	SC		L					7/17/1999	09:56	TO	1027		4-8
NARWHAL	158	GLGU	-147.489611	70.392904	NA	NE1	NE	1	L					7/17/1999	09:57	TO	1028	Shell nearby, 1 chick in water	4-8
NARWHAL	159	COEI	-147.490809	70.393278	NA	NE3	NE	Y	M					7/17/1999	10:00	TO	1029		4-8
NARWHAL	160	COEI	-147.494231	70.393248	NA	SC19	SC		M					7/17/1999	10:11	TO	1030	Sticks	4-8
NARWHAL	161	ARTE	-147.493197	70.393584	NA	NE5	NE	H	L					7/17/1999	10:12	TO	1031	1 chick	4-8
NARWHAL	162	COEI	-147.493475	70.393781	NA	SC21	SC		L					7/17/1999	10:13	TO	1032	Sticks	4-8
NARWHAL	163	COEI	-147.494286	70.393485	NA	SC23	SC		L					7/17/1999	10:14	TO	1033	Sticks	4-8
NARWHAL	164	COEI	-147.494286	70.393485	NA	SC25	SC		L					7/17/1999	10:14	TO	1034	Sticks	4-8
NARWHAL	165	COEI	-147.494042	70.393628	NA	NE7	NE	2	L					7/17/1999	10:17	TO	1035		4-8
NARWHAL	166	COEI	-147.506984	70.394956	NA									7/17/1999	10:30	TO	1036	Female plus chick swim offshore	4-8
NARWHAL	167	COEI	-147.507165	70.394719	NA	SC27	SC		L					7/17/1999	10:31	TO	1037		4-8
NARWHAL	168	COEI	-147.394743	70.35856	NA	SC29	SC		L					7/17/1999	10:38	TO	1038	Sticks	4-8
NARWHAL	169	GLGU	-147.512517	70.395502	NA	SC31	SC		L					7/17/1999	10:44	TO	1039	Sticks plus other debri in bowl	4-8
NARWHAL	170	COEI	-147.516877	70.395636	NA	SC33	SC		L					7/17/1999	10:45	TO	1040	Sticks	4-8
NARWHAL	171	COEI	-147.516877	70.395636	NA	SC35	SC		L					7/17/1999	10:45	TO	1041	Sticks	4-8
NARWHAL	172	COEI	-147.392775	70.358188	NA	NE9	NE	Y	M					7/17/1999	10:46	TO	1042		4-8
NARWHAL	173	COEI	-147.396207	70.358846	NA	SC37	SC		L					7/17/1999	10:47	TO	1043		4-9
NARWHAL	174	COEI	-147.519532	70.39611	NA	NE11	NE	Y	B					7/17/1999	10:53	TO	1044	Banded, next to building	4-9
NARWHAL	175	COEI	-147.521365	70.396099	NA	NE13	NE	Y	M					7/17/1999	11:02	TO	1045		4-9
NARWHAL	176	COEI	-147.523271	70.396325	NA	NE15	NE	Y	M					7/17/1999	11:04	TO	1046		4-9
NARWHAL	177	COEI	-147.523271	70.396325	NA	NE17	NE	3	M					7/17/1999	11:04	TO	1047		4-9
NARWHAL	178	COEI	-147.523881	70.396102	NA	SC39	SC		L					7/17/1999	11:09	TO	1048	Sticks	4-9
NARWHAL	179	COEI	-147.524494	70.395996	NA	SC41	SC		H					7/17/1999	11:11	TO	1049	Sticks	4-9
NARWHAL	180	COEI	-147.526388	70.395482	NA	SC43	SC		M					7/17/1999	11:12	TO	1050	Sticks	4-9
NARWHAL	181	COEI	-147.441541	70.364119	NA	SC45	SC		L					7/17/1999	11:19	TO	1051		4-9
NARWHAL	182	COEI	-147.52854	70.395705	NA	NE19	NE	0	L		Y			7/17/1999	11:24	TO	1052	1 predated egg next to nest, sticks	4-9
NARWHAL	183	COEI	-147.433938	70.364103	NA	SC47	SC		L					7/17/1999	11:25	TO	1053	Sticks	4-9
NARWHAL	184	COEI	-147.431431	70.364076	NA	NE21	NE	Y	H					7/17/1999	11:27	TO	1054		4-9

Table A-1. Continued.

Island	Sighting_ID	Species	Longitude	Latitude	GPS	Nest_ID	Sight_Type	Eggs_Live	Drift	Veg	Pred	Pred_Egg	Pred_Type	Date	Time	Recorder	Rec_No	Comments	Bk_No
NARWHAL	185	COEI	-147.428254	70.36377	NA	SC49	SC		M					7/17/1999	11:30	TO	1055		4-9
NARWHAL	186	GLGU	-147.42179	70.362562	NA	SC51	SC		L					7/17/1999	11:35	TO	1056	Sticks, debris	4-9
NARWHAL	187	COEI	-147.420325	70.362338	NA	SC53	SC		H					7/17/1999	11:38	TO	1057	Sticks	4-9
NARWHAL	188	COEI	-147.534933	70.396278	NA	NE23	NE	5	L					7/17/1999	11:40	TO	1058		4-9
NARWHAL	189	COEI	-147.534933	70.396278	NA	SC55	SC		L					7/17/1999	11:40	TO	1059	Sticks	4-9
NARWHAL	190	COEI	-147.53347	70.396883	NA	NE25	NE	Y	H					7/17/1999	11:41	TO	1060		4-9
NARWHAL	191	COEI	-147.53347	70.396883	NA	NE27	NE	Y	L					7/17/1999	11:41	TO	1061		4-9
NARWHAL	192	COEI	-147.533717	70.396957	NA	NE29	NE	Y	M					7/17/1999	11:42	TO	1062		4-9
NARWHAL	193	COEI	-147.533717	70.396957	NA	NE31	NE	Y	M					7/17/1999	11:42	TO	1063		4-9
NARWHAL	194	COEI	-147.534027	70.397167	NA	NE33	NE	Y	H					7/17/1999	11:45	TO	1064		4-9
NARWHAL	195	COEI	-147.534213	70.397262	NA	NE35	NE	4	M					7/17/1999	11:46	TO	1065		4-9
NARWHAL	196	COEI	-147.535262	70.397637	NA	SC57	SC		M					7/17/1999	11:47	TO	1066		4-9
NARWHAL	197	COEI	-147.534404	70.397688	NA	SC59	SC		L					7/17/1999	11:48	TO	1067		4-9
NARWHAL	198	COEI	-147.521373	70.396644	NA	NE37	NE	3	B					7/17/1999	12:35	TO	1068	Banded, in building, about 60 m west of NE11 building	4-9
NARWHAL	199	COEI	-147.520114	70.396194	NA	NE39	NE	Y	N					7/17/1999	13:20	TO	1069	Missed on survey, Along wood crate wall, ~30 m west of 2 buildings where NE11 and NE? (SJ) were	4-10

Explanations:

Island: Name of barrier island

Sighting_ID: Identification number for sightings by island.

Species: Code for species--COEI=Common Eider (Pacific Eider), GLGU=Glaucous Gull, ARTE=Arctic Tern, KIEI=King Eider, GOPL=Lesser Golden Plover, ARFO=Arctic Fox, POBE=Polar Bear, PAJA=Parasitic Jaeger, OLDS=Oldsquaw, RISE=Ringed Seal, BGCA=Barren Ground Caribou

Longitude/Latitude: Decimal degrees, Datum WGS 1984

GPS: Type of GPS Coordinates

Nest_ID: Identification code for nest records.

Sight_Type: Type of sighting--NE=Nest, SC=Scrape, AFT=Arctic Fox Track, PBT=Polar Bear Track, EE=Depredated Egg, BED=Polar Bear Bed, AF=Arctic Fox, SC##=Previous years scrape, NE##=previous years nest

Eggs_Live: Number of live eggs in nest--0=predated or failed nest, 1 to 9=number of eggs, Y=hen on nest, H=hatched

Drift: Driftwood density within 1 m diameter of nest site. N=None (0% cover), L=Low (1 to 33% cover), M=Medium (34 to 66% cover), H=High (67 to 100% cover)

Veg: Vegetation and estimated cover. V50=50% vegetation cover, E100=100% *Elymus* cover

Pred: Was nest depredated? N=No, Y=Yes, U=Unknown

Pred_Egg: Number of depredated eggs in nest.

Pred_Type: Predator Type. ARFO=Arctic Fox, GLGU=Glaucous Gull, AVIAN=Unknown Avian

Date: Date as MM/DD/YYYY

Time: Time as HH:MM

Recorder: Data Recorder initials. TO=Tammy Olson, SJ=Steve Johnson, LN=Lynn Noel, IH=Isaac Helmericks

Rec_No: Record identification number, unique for each data line.

Comments: Comments.

Bk_No: Reference for data line to field data record book. Book (1 to 4), and page number (1-##).