

TITLE: WALRUS ISLANDS STATE GAME SANCTUARY ANNUAL REPORT

REPORT PERIOD: 01 JANUARY - 31 AUGUST 1996

PROJECT LOCATION: GMU 17A (Round Island, Northern Bristol Bay)

PROJECT GOALS:

A management plan for the Walrus Islands State Game Sanctuary was drafted in October 1992. The plan has not been finalized and no formal management goals have been developed by the Department. In the interim, the management goals for the Sanctuary are to:

- 1) protect walrus and other wildlife within the Sanctuary;
- 2) provide an opportunity for scientific and educational study of walrus; and,
- 3) provide an opportunity for the public to view, photograph, and enjoy walrus.

WORK ACCOMPLISHED DURING THE PROJECT REPORT PERIOD:

Two wildlife technicians, Kiana Koenen from Alaska Department of Fish and Game, Division of Wildlife Conservation (ADFG) and Steve Rice from U.S. Fish & Wildlife Service, Marine Mammals Management (USFWS), were stationed on Round Island from 09 May to 11 August 1996. Their mutual duties included: patrolling the island for access violations, conducting daily walrus (*Odobenus rosmarus*) counts, conducting sea lion (*Eumetopias jubata*) counts, visitor services, facility/trail upkeep, and walrus disturbance monitoring/research. Two volunteers also contributed to the upkeep and research on island.

PROGRESS TOWARDS MEETING GOALS:

Cooperative Staffing Agreement

The 1996 season marks the fourth year of cooperative staffing on Round Island. A cooperative agreement between ADFG and USFWS for mutual support of the Walrus Islands Sanctuary program was signed and implemented in spring 1993 and extended for the 1994 through 1996 field seasons. USFWS and ADFG each agreed to provide 1 wildlife biologist and half of the transportation and supply costs for the program. ADFG provided all facility and logistic support during the field season. ADFG and USFWS field staff shared responsibilities for sanctuary management (ADFG lead) and walrus research (USFWS lead) activities on the island.

Round Island Walrus Hunt

Background: In March 1995, the Alaska Board of Game adopted regulations that enabled ADFG, for the first time in 35 years, to provide access permits and allow the discharge of firearms for a subsistence hunt of up to 10 walrus on Round Island. In response to this regulatory change

a management plan was signed by the ADFG, USFWS, Qayassiq Walrus Commission, and the Eskimo Walrus Commission.

1995: The Round Island walrus proceeded as planned between 1 through 31 October with a total harvest of 10 bull walruses. One person each from ADFG and USFWS were present on Round Island to monitor the hunt, collect biological samples, and continue the walrus behavioral study. A summary of the hunt is outlined by L. J. VanDaele, in an April 1996 ADFG report to the Alaska Board of Game, Juneau.

1996: The 1996 walrus hunt on Round Island is planned to proceed following the same time schedule, monitoring guidelines, and walrus harvest limit (i.e., 10) as outlined in the 1995 Round Island hunt cooperative management plan.

Viewing Assistant Volunteer Program

The Viewing Assistant Volunteer Program initiated in 1994 was continued on a limited basis this season on Round Island due to the uncertainty of island funding. The intent of the program is to provide a first-hand educational opportunity for volunteers while they assist with visitor program management and ongoing wildlife research.

We had 2 volunteers on the island as part of the 1996 program. One volunteer, Frank Staub, was a camp visitor who volunteered to extend his stay for 3 days to cut grass along trails and help with the boat during visitor exchange, which freed up 1 staff person to monitor walrus behavior during boating activity. He also assisted with visitor orientation.

Our other volunteer was Dr. Stephen DeStefano, the Assistant Unit leader from the Arizona Cooperative Fish and Wildlife Research Unit, University of Arizona, Tucson. He spent 25 days on the island and assisted staff with various sanctuary research and maintenance activities. These activities included visitor orientation, facility upkeep (building a box to hold 3-12 volt batteries outside the cabin, repairing and replacing a rotten section of cabin flooring). In addition to assisting with current field and research activities, Dr. DeStefano documented wildlife observations on red fox (*Vulpes vulpes*) population and ecology and common raven (*Corvus corax*) seabird egg predation, and initiated a study on nest attendance and breeding behavior of pelagic cormorant (*Phalacrocorax pelagicus*) during incubation. He also set up a avian scavenger and predator monitoring program that will be used as an index to numbers over time. Further details of this study are documented by DeStefano in a July 1996 memorandum to ADFG, Dillingham.

Staff Exchange Program

The exchange program to encourage ADFG staff participation as volunteers on Round Island did not take place this season due lack of funding.

Budget

The Round Island program was not funded during FY 97 due to a legislative directive which prohibited the use of Pittman-Robertson funds for programs that did not directly benefit hunters.

We were able to maintain the program from 1 July to 15 August 1996 by using funds from the Marine Mammals program, and proceeds from visitor fees. Funding, and continuation of the program for next field season are uncertain.

COOPERATIVE RESEARCH:

Round Island Walrus Behavior Study

We continued a 1993 and 1994 cooperative USFWS/ADFG research program to examine behavioral responses of walrus to human activities (S. Kruse and K. Koenen, unpubl. USFWS Round Island Walrus Res. Rep., 1993; and, T. Spencer, unpubl. USFWS Round Island Walrus Res. Rep. 1995.)

1995 National Natural Landmark Plant Inventory on Round Island

A National Natural Landmark project, done in cooperation with ADFG, was conducted in 1995 to provide managers with a baseline plant inventory on Round Island. An unpublished report was finalized in April 1996, *A Description of the Vegetation of Round Island, Walrus islands State Game Sanctuary, Alaska*, by L. Hasselbach and P. Neitlich. (including plant list) for the National Natural Landmark Program of Alaska, the National Park Service, and ADFG. In conjunction with this report, there is also a limited Round Island plant collection housed in the ADFG office in Dillingham.

1995 Round Island Acoustical Recordings

Douglas Quin provided preliminary copies of acoustical recordings of Round Island wildlife sounds for the Dillingham ADFG files in November 1995. These recordings were collected July 1995, in cooperation with ADFG, by Quin an independent acoustical recorder.

VISITOR PROGRAM:

There were 63 public visitors this season (66 in 1995), including 47 campers (50 in 1995) and 16 day use visitors with a cumulative total of 323 visitor days (314 in 1995). Visitors came from a variety of locations within the United States (Alaska, Arizona, Florida, Washington, Vermont, Maryland, California), as well as from Germany and Switzerland. In addition to these public visitors, there were 3 administrative visitors with a cumulative of 40 visitor days.

Day Visitors

High winds, snow, rain, and rough seas made much of the summer uninviting to most day visitors. In the past fishermen waiting in the nearby herring fishing grounds usually made up the majority of day use visitors. There were around 800 vessels in the Togiak fishing district associated with herring fishing when we arrived on island, but most fishermen were unable to find time for an island visit between inclement weather and fishing openings.

Campers

Visitor Cancellations: Due to the uncertainty of legislative funding for the Round Island Sanctuary program, Don Winkelman of Round Island Charters, advised clients of the possibility that the Round Island visitor program could end mid-season, thus voiding all access permits out to the island. Don Winkelman is currently the only US Coast Guard licensed operator catering to Round Island visitors. This concerned many of our foreign and out of state guests who require travel plans well in advance, and resulted in some visitor cancellations.

Delayed Arrivals and Departures: Weather was extremely variable this season and inclement weather delayed many of our camping visitors. High winds >30 mph and seas to 8 feet were common throughout the season and we had snow/hail on 19 May and 10 June when temperatures dipped below freezing. Twelve campers were delayed for 1 to 4 days and weather prevented 3 campers from making it out to the island during their permit period and allocated vacation time.

Professional Visitors

Two television film crews (Audubon and Sea World San Diego) came on island this season to film Round Islands flora, fauna, and research/management activities. Television broadcasts of these films are scheduled for 1996-97. There were also 2 authors, of children's books, on island to photograph wildlife and collect ideas for scheduled book publications.

VIOLATIONS:

Airspace

We documented 6 airspace violations, 5 of these violations resulted in groups of 4 to 30 walrus moving off the Round Island beaches. All violations were reported to the ADFG Dillingham office. Larry Van Daele, ADFG Dillingham area wildlife biologist, was able to contact the pilots of 2 of these aircraft at the Dillingham airport and issue a verbal warning.

Access

We observed 17 vessels within the 3-mile restricted access zone. We attempted to contact all vessels by VHF radio and 4 vessels responded via radio and moved out immediately beyond the 3-mile zone. Two of these vessels told us that their National Oceanic and Atmospheric Administration (NOAA) charts indicated that it was a 2 mile closed zone. We told them that it was 3-mile zone and that we would check on the charts and alert NOAA. Out of the 13 vessels not responding verbally to our radio contact, all but 4 moved out beyond the 3-mile zone immediately after call.

We witnessed a simultaneous access violation by 2 vessels that resulted in an observable walrus disturbance. The 2 fishing vessels approached the island from the NW and came to within 100 meters from Main Beach causing >150 walrus to move off the beach. We tried repeated radio contact with the vessels with no response. They appeared to be fishing vessels sightseeing on their way out of the Togiak fishing district. The incident was reported to the state Fish and Wildlife

Protection officer in Dillingham. It was well documented and 1 visitor took photographs which may aid in identification.

WILDLIFE RESEARCH:

We continued established walrus and sea lion counts and the research program initiated in 1993 to examine the responses of walrus to human activities (S. Kruse and K. Koenen, unpubl. USFWS Round Island Walrus Res. Rep. 1993.)

WALRUS

Counts: We used 2 established methods of counting walrus on Round Island beaches: 1) daily east side land-based counts; and, 2) total island counts conducted from a skiff.

1) Daily Counts. Views of the most populous beaches (on the north and east sides of the island) are accessible from footpaths. Daily counts of walrus on these beaches and in near-shore waters (within 15 m of shore) were made within 2 hours of the most convenient low tide. The daily walrus count total was derived by adding beach and near-shore counts.

We completed 94 daily counts (107 in 1995) from 09 May through 10 August 1996. The counts ranged from a low of 0 on 11 July to a high of 6331 on 25 July 1996. The high daily count in 1995 was 7804 on 27 May. In 1995 the highest walrus count occurred during a non-census time on 25 May when 9550 animals were counted on Main Beach and Main Beach Spit.

2) Total Island Counts. Total island counts were conducted from a skiff using binoculars to observe the haulout beaches. The entire island was surveyed from approximately 100-200 m off-shore when weather, tides, and time permitted. We conducted 6 total island counts from 15 June through the 22 July. The highest walrus count made from the skiff was 5038 on 15 July. On that day our scheduled daily count from land was completed approximately 2 hours earlier with a total of 3690 walrus counted on East side beaches. There were an additional 1875 walrus counted on the West side of the island that were not visible during the daily count.

West Side Walrus Counts Because of the constraints of timing, weather, and tides involved in doing total island counts via skiff, we explored the feasibility of 2 types of weekly land based walrus counts for the West side of the island.

1). West Main Beach Overlook: By hiking across Traverse Trail, a steep and treacherous trail traversing 125 to 300 m above East Main Beach, we were able to gain access to an overlook above West Main Beach. This is the largest walrus haulout on the West side of the island and approximately 80% of the beach can be seen from the overlook. We felt that this additional count is useful but may be impractical and/or impossible at times due to the following considerations/problems: 1) *Time*-It takes >2 hours for the round trip hike to the overlook; 2) *Trail Access*-Traverse Trail is not readily accessible until it is snow free in June; and, 3) **Safety-**

We have personal safety concerns over using this deteriorating trail on weekly basis, especially during the long stretches of inclement weather encountered on Round Island. (This trail is currently closed to the public due to its unstable trail conditions.)

2). Remote Photo Counts: This season we also investigated several areas along the West side of the island for possible remote camera locations to supplement our established daily walrus counts. We located a few potential sites and identified an area, accessible from Traverse Trail, to test and evaluate the feasibility of incorporating this method into our walrus count protocol. In addition to providing counts of the West side, remote photography may also provide a good way of checking and calibrating counts of high-density walrus groups of East Main Beach.

Behavioral Observations: We continued monitoring walrus haulout behavior for effects of human activities. We conducted >200 hours of walrus behavioral observations from 11 May through 4 August 1995. We also collected anecdotal observations of walrus responses to disturbances on an opportunistic basis. The results of this study will be summarized in a USFWS 1996-97 report.

Walrus Observations:

Second Prime Beach This season walrus started hauling out on the Second Prime Beach more than in the past 3 seasons. Several times in June there were >100 walrus hauled out on it, while in the past 3 years <20 walrus have used this area at any one time.

Walrus Calf: In early July a 2 yr-old calf was sighted on West Main Beach and throughout July a single 2 yr-old was seen by staff and visitors on several East side beaches. This calf appeared in good physical condition and had no observable difficulty making it around >100 large bull walruses on the haulouts.

Walrus carcasses: There were at least 24 carcasses (12 in 1995) sighted on land or near-shore at Round Island this season. We verified that 75% had at least 1 tusk.

Ivory Collection: We recovered 11 tusks (5 in 1995) and 1 head with tusks (3 in 1995) from walrus carcasses found on Round Island beaches.

STELLER (NORTHERN) SEA LIONS

Counts: We conducted weekly sea lion counts at East Cape/Third Beach. The peak summer sea lion count was 364 on 13 May (467 on 11 May 1995).

As noted in the past 3 years, many of the sea lions had moved off the main section of Third Beach by early June. They either left the area, or moved below cliffs along East Cape where it is difficult to count them due to overhanging cliffs and rough terrain. The most consistently used haulout was again the rock ledge below the Third Beach observation point. This area is used by approximately 20 to 30 sea lions (comprised of 1 to 2 large males and an undetermined mixture of adult females, yearlings, and sub adults).

Observations: Staff searched for flipper tags and recorded any unusual observations during surveys. Although we did not observe any flipper tags during our surveys a visitor reported seeing red flipper tags on 2 sub-adult sea lions on 22 June on observation point haulout.

Other anecdotal sea lion observations were recorded. Nursing behavior was observed once when 1 young sea lion attempted to nurse, but was not successful during our observation. Copulation was not observed but on 1 occasion we did observe a large bull actively pursuing a female who was in the immediate proximity of 2 other females with blood on the upper body head, neck, and shoulder region that may be indicative of recent breeding.

Mortalities included 2 adult male sea lion carcasses found 11 June on the South end of Third Beach. They were apparently killed by falling rock, though we could not determine whether it was from cliffs above or teeter-totter boulders that were tipped loose by neighboring animals. Both animals were laying semi-circled with heads trapped under rock, making it impossible to collect teeth or useful measurements. Animals were bloated with skin peeling, and appeared to have been dead >1 week.

Red Foxes: Visitors and staff confirmed at least 6 fox kits and 8 adults. Two den sites at East Cape, 1 behind the cabin, 1 by Boat Cove, and 1 off Traverse Trail were active. Foxes with birds or eggs in their mouths were routinely observed by visitors and staff.

Birds: We recorded our first sightings of birds and their locations along with the first eggs and chicks observed for pelagic cormorants, black-legged-kittiwakes (*Rissa tridactyla*), and common murre (*Uria aalge*). Pelagic cormorants were on eggs by 12 May; chicks were visible on 8 June; and we observed fledglings on 30 July. Black-legged kittiwakes were on eggs by 2 June; chicks were visible on 8 July; and fledglings were not observed. Common murre eggs were visible by 14 June; chicks were seen on 29 July; and fledglings were observed by 7 August. Two adult bald eagles (*Haliaeetus leucocephalus*) with at least 1 chick were seen on the traditional nest site on the top SE corner of the island.

In addition to our common avian species, the following rare [R], uncommon [U], or accidental [A] species were observed on island or in near-shore water: Pacific loon [U], (*Gavia stellata*), emperor goose [R] (*Chen canagica*), Steller's eider [R] (*Polysticta stelleri*), harlequin duck [U] (*Histrionicus histrionicus*), sandhill crane [R] (*Grus canadensis*), northern harrier [R] (*Circus cyaneus*), peregrine falcon [R] (*Falco peregrinus*), wandering tattler [U] (*Heteroscelus incanus*), rock sandpiper [R] (*Calidris ptilocnemis*), red-necked phalarope [A] (*Phalaropus lobatus*), least auklet [U] (*Aethia pusilla*), crested auklet [U] (*A. cristatella*), thick-billed murre {R} (*Uria aalge*), short-eared owl (*Asio flammeus*), and rosy finch [R] (*Leucosticte arctoa*).

Other Marine Mammals: Gray whales (*Eschrichtius robustus*) were observed passing the island throughout May. On 12 May we watched for >30 minutes as a closely knit group of 4 gray whales and >20 sea lions rolled, twisted, and dove together. On 21 May, 2 minke whales (*Balaenoptera acutorostrata*) were sighted as they surfaced in front of the cabin heading east 50 meters off shore.

FACILITIES:**New equipment:**

1. Generator
2. 400' of 1/2" galvanized cable
3. Propane refrigerator/freezer

Cabin:

1. Floor. Replaced a 4 X 8 foot rotten section of floor in SW corner of back radio room.
2. Battery Box. Built a plywood battery box to hold 3-4 marine 12 volt batteries outside for safety and convenience.
3. Propane Refrigerator/Freezer Box. Built a plywood compartment to house propane refrigerator/freezer on the outside of the cabin near battery storage box.
4. Tarred Roof Seams.
5. Reinforced Shutters.

Trails: We improved the existing trails by widening and reinforcing them with small cobble. To improve trail safety, we constructed, weather-sealed, and placed 80 feet of boardwalk through wetland trail areas and installed 2 sections of rope guide lines along the trail up to Main Beach overlook. Grass cutting continued throughout the summer to keep trails clear. Upper Traverse Trail was not opened due to wet and deteriorating trail conditions. No new trails were created.

RECOMMENDATIONS:**1. Facility Maintenance Needs:**

- a) Cabin. Secure funding and implement plan to replace existing cabin.
- b) Campground. Paint or weather-seal all exterior structures (i.e., cabin, shed, outhouses, cook stations, and tent platforms).

2. Violations: On-island visitor infractions: Develop and initiate a plan to respond to visitor infractions.

3. Liability/Safety: Obtain a formal Attorney General opinion (i.e. written recommendations) concerning: 1) Liability of transporting visitors and their gear via ADFG inflatable boat; and, 2) Extent of our responsibility for visitor safety while they are on the island, particularly if the Traverse Trail is reopened.

4. Update visitor information handouts: Ensure that area ADFG offices and public information centers have current information.

5. Access: a) Develop a vessel access restriction policy and design a violation reporting form, similar to the airspace policy; and, b) Develop a day-use visitor access policy that includes vessel

moorage, transport to and from vessels, radio-contact protocol, "open" times, and revise visitor information handout.

6. **Cooperative studies:** Continue cooperation with USFWS on sanctuary operations and walrus research activities during 1997. Also expand cooperation with Togiak National Wildlife Refuge including an exchange with Cape Peirce staff.

7. **Management plan:** Complete the Sanctuary Management Plan.

EQUIPMENT NEEDS

1. Weather station
2. 14 foot inflatable boat
3. Spare outboard motor for inflatable boat (10 hp)
4. Portable computer and printer with 12 volt battery adapter
5. Waterproof VCR camera
6. Lightweight low aspect tripod
7. Lightweight spotting scope (Bushnell Zoom 20X-45X)
1 or 2 (8X40 or 10X30) high quality binoculars (Leitz or Zeiss)

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