

Kodiak National Wildlife Refuge

Annual Work Plan/Accomplishment Report FY-2008

Purposes of Kodiak National Wildlife Refuge

On August 14, 1941, President Franklin D. Roosevelt signed Executive Order 8857 establishing Kodiak National Wildlife Refuge . . . for the purpose of protecting the natural feeding and breeding ranges of the brown bears and other wildlife on Uganik and Kodiak Islands . . .

Under the Alaska National Interests Lands Conservation Act, the purpose of Kodiak Refuge was expanded beyond that identified in the original establishing order. Section 303(5)(B) of ANILCA states: The purposes for which the Kodiak National Wildlife Refuge is established and shall be managed include:

- (i) to conserve fish and wildlife populations (and) habitats in their natural diversity including, but not limited to, Kodiak brown bears, salmonids, sea otters, sea lions and other marine mammals and migratory birds;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and other habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents; and
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

Refuge Vision Statement

The Kodiak Refuge staff has developed the following statement about what they believe the Refuge will be in the future given the mission of the Refuge System, the specific purposes of Kodiak Refuge, and other relevant Service mandates:

Brown bear, fish, and other wildlife populations will continue to thrive on the Kodiak National Wildlife Refuge in their natural diversity, living in pristine habitats. Refuge management will blend public and private partners in a dynamic alliance that fulfills the purposes and goals of Kodiak Refuge. The Refuge will provide a long and lasting legacy of resource stewardship for the enjoyment of current and future generations.

Refuge Goals, Objectives, and Accomplishments

The Refuge vision statement and the Refuge purposes provide the framework for developing goals and objectives for managing the Refuge. Goals are broad statements of desired future conditions. Objectives are concise statements of what the Refuge wants to accomplish.

Objectives identified for one goal are often applicable to other goals. To avoid unnecessary duplication, each objective is listed only under the goal that represents the clearest connection. Objectives are numbered and organized in priority order under each goal.

GOAL 1: Increase our knowledge of fish and wildlife populations, their habitats, and their interrelationships. Subsequently, update the inventory and monitoring plan annually with a regional review and sign off by the Alaska Refuge Chief every five years.

1.1 Within two years of approval of this plan, complete a step-down plan to integrate and direct inventory and monitoring of plants, fish, and wildlife.

1.1.a. Draft wildlife monitoring protocols.

The protocol for the Intensive Aerial Survey (IAS) has been drafted and will be submitted for review by November 28. Revision of the bear stream use protocol has been deferred to fall 2009, pending completion of evaluation of the protocol by Mark Udevitz, biometrician with Alaska Science Center/USGS. Information required for development of protocols for primary bird surveys, reviews of survey design and analysis methods initiated in 2006, are expected to be completed in winter 2009. [LEACOCK, PYLE, ZWIEFELHOFER]

1.2 Collaborate with the Alaska Department of Fish & Game (ADF&G) when monitoring and conducting research on State of Alaska trust species within the Refuge.

1.2.a. Seek collaboration opportunities.

Biologists regularly attended meetings of bear and ungulate subcommittees of ADF&G's Fish and Game Advisory Subcommittee.

Refuge managers and biologists met with ADF&G biologists in February to discuss status of populations, issues, and information needs pertaining to introduced non-native Sitka black-tailed deer, mountain goat, Roosevelt elk, and reindeer. The general conclusion drawn was that deer, elk, and reindeer populations seem to be generally stable and current management practices (hunting seasons, permits issued, and bag limits) seem to be adequate and don't need to be changed. The deer population has been reduced in numbers on portions of the island due to three heavy snow winters in a row. The mountain goat population, currently estimated at around 2,200 animals, appears to be growing rapidly in the southern portion of its range. It was recommended by managers of both agencies that changes be made in the hunting regulations to increase the goat harvest.



Introduced blacktail deer are widespread on the Refuge.

Cooperation has continued with ADF&G and through collaborative work with the Brown Bear Working Group of the Northern Forum and Washington State University regarding monitoring stream use by bears, regional density, and bear-human interactions. Two related pilot studies, called Old Harbor and Karluk River Basin, were initiated this year. The objective of the pilot studies is to evaluate the utility of GPS technology to study movements and habitat preference. In late May, a combined total of 13 bears were captured in two study areas and outfitted with GPS transmitter collars. Periodically downloaded GPS data is presently under analysis. Funding support is being sought to substantially expand the sample of transmitted bears to examine patterns of habitat selection, movement corridors, productivity, behavior, impacts of public use (bear viewing at Karluk) and village activities (Old Harbor). Cooperator commitments have been secured from researchers at Washington State University and the University of Idaho. [LEACOCK, PYLE, SAITO]

- 1.3 Curate wildlife study records using professional database-management standards and methods so data and reports may be readily accessed and understood by future Refuge biologists and others. **[WILDLIFE STAFF]**
- 1.3.a. Create Portable Document Files (pdf) of biological publications and final reports and archive these electronic documents on the refuge's network.
- New publications, survey reports, news articles, and public use maps were converted to pdf's and archived. **[PYLE, SAITO, ZWIEFELHOFER]**
- 1.4 In cooperation with ADF&G, monitor for fish, wildlife, and avian diseases that may affect the Kodiak ecosystem, including chronic wasting disease and West Nile virus.
- The refuge was not funded to sample for avian influenza, and no specific efforts on disease monitoring were undertaken during FY-2008.
- 1.5 In cooperation with ADF&G, other external partners, and other programs within the Service, monitor for aquatic invasive species such as green crab, mitten crab, Atlantic salmon, New Zealand mudsnails, crayfish, amphibians, and aquatic weeds. With these same partners, participate in the development and distribution of effective education and outreach materials.
- New Kodiak NWR video, completed in FY-2008, [Kodiak NWR: Home of the Great Kodiak Bear](#) includes an excellent discussion about the need to prevent introduction of invasive species.
- 1.6 Strive to publish results from Refuge-sponsored research in peer-reviewed journals. Report routine fish and wildlife survey results regularly in publicly accessible reports.
- [Stenhouse, I.J., Stuebaker, S., & Zwiefelhofer, D. 2008. Kittlitz's murrelet *Brachyramphus brevirostris* in the Kodiak Archipelago, Alaska. *Marine Ornithology* 36:59-66. **\[ZWIEFELHOFER\]**](#)
- 1.6.a. Submit progress and final reports to ARLIS.
- [Reports detailing results of eagle and coastal bird surveys in 2007 were submitted to ARLIS. **\[ZWIEFELHOFER\]**](#)

GOAL 2: Ensure that Kodiak brown bears continue to flourish throughout the Refuge and congregate at traditional concentration areas and that this unique population continues into the foreseeable future.

Based on ADF&G sealing records, total mortality on Kodiak Island was 246 bears in 2008. The sport harvest accounted for 89% or 219 of these mortalities. The sport harvest of 219 bears is significantly higher than the average (~150/year) over the past 49 years and also in more recent years (2001-2004 = 165). Overall, males comprised 69% (152 bears) of the sport harvest and females 31% (67 bears). These figures are similar to levels over the past 49 years. There were 17 defense of life or property (DLP) and illegal mortalities. Approximately 61% of the harvest occurred on Refuge lands (134 bears) and 39% on non-Refuge lands. Total harvest on the Archipelago comprised 6.3% of the population (est. 3,500) – only slightly above the 5.7% maximum level suggested by Miller (1990) and the 6% level cited by Hovey and McLellan

(1996). Mean skull size of males harvested on the Refuge was 25.88 in. vs. 24.53 for non-Refuge males.

To complement ADF&G objectives for brown bear populations, Refuge objectives include the following:

2.1 In cooperation with ADF&G, continue to use all available knowledge to monitor and evaluate trends in bear population size, composition, and mortality associated with recreation, subsistence, research, defense-of-life-or-property (DLP), and illegal kills. [LEACOCK]

2.1.a. Carry out IAS in 2 survey areas (Spiridon and Aliulik) and carry out stream use surveys in the SW survey area.

Due to a shortage of available pilots and aircraft the IAS was not conducted this year. This constraint has now been resolved and we plan on carrying out the IAS on the Spiridon and Aliulik Peninsulas in May 2009.

During July to mid August we conducted aerially-based monitoring of bears on six streams in southwestern Kodiak Island, as well as two streams in the Karluk Lake area, and the upper Dog Salmon River. The number of bears counted per survey on the SW river network was slightly lower than the long-term average. Composition of bears was notably different from the long-term average. The proportion of cubs observed this year was lower than the long-term average – 20% vs. 37%. Timing of salmon runs deviated slightly from normal. In general, salmon runs started later than usual and lasted longer. Additionally, reconnaissance flights also indicated delayed salmon runs and congregations of bears along streams. Accordingly, the survey schedule started and ended later than normal. [LEACOCK]

2.2. In cooperation with ADF&G, maintain surveyed bear densities no lower than 10 percent below the lowest number within the following ranges: southeastern Kodiak and southwestern Kodiak 0.69–0.76 bears per square mile; northwestern Kodiak 0.64–0.72 bears per square mile.

Bear densities remain within specified parameters.

2.3 Increase frequency of bear density estimates to improve bear population–trend monitoring in areas of high public use or special management concern (e.g., Karluk Lake vicinity).

No areas of special management concern were identified. The Dog Salmon River, the area of highest public use on the refuge was included in the bear use stream surveys.

2.4 Monitor and evaluate bear use, human use, and bear–human interactions at bear concentration areas that have established public use. Specifically study bear use, bear movements, and bear–human interactions in the O’Malley River area. Apply results to guide adaptive management in these bear concentration areas using an open planning process with ample opportunities for stakeholder involvement.

2.4.a. Continue monitoring bear use and bear-human interactions in the upper Karluk River in late summer and early fall.

For the third consecutive year we collected data on bear and human use on the upper Karluk River between early September and mid-October. Field study was conducted primarily by James Lawonn, seasonal Wildlife Science Technician, and two highly capable volunteers (Prescott Weldon and Amy Westmark). Overall bear numbers on the upper Karluk were lower than in the past two years probably related to lower salmon numbers. Study findings will be reported in spring 2009. [LEACOCK]

2.4.b. Initiate pilot projects to study bear movements and habitat preference.

Two pilot projects were initiated this year in the vicinity of the community of Old Harbor and in the upper Karluk River watershed. The objective of these studies was to evaluate the utility of GPS technology to study movements and habitat preference. In late May, a combined total of 13 bears were captured in the two study areas and collared with GPS transmitters. Transmitters were programmed to record location data every 2 hours for bears near Old Harbor and every 20 minutes for bears in the Karluk watershed. GPS data is uploaded to an aircraft circling overhead every two weeks, and this data is presently under analysis. Funding support is being sought to substantially expand the number of collared bears to examine patterns of habitat selection, movement corridors, productivity, behavior, impacts of public use (Karluk) and village activities (Old Harbor). Presently, we are developing a study plan and seeking funding support from the National Fish & Wildlife Foundation, the Rockefeller Foundation, and the Kodiak Brown Bear Trust. Thus far, study collaboration commitments have been secured from researchers at Washington State University and the University of Idaho. [LEACOCK]



A cooperative research project involved ADF&G and Refuge personnel.

2.4.c. Explore research opportunities and partnerships for Karluk Basin Project.

We hosted a meeting at Camp Island in late July to explore and refine research needs within the Karluk Basin and Old Harbor – two areas of increasing human pressure. Purposes of the gathering included identification of interested partners, priority needs, best means to address those needs, and funding options. Participants included Brian Glaspell (Supervisory Ranger), Gary Wheeler (Refuge Manager), Mike Getman (Deputy Manager), and William Leacock (Wildlife Biologist) from KNWR; Dr. Charlie Robbins (Washington State University); Dr. Janet Rachlow (University of Idaho); Vic Barnes (former USGS Biologist-Kodiak and Executive Director of the Brown Bear Trust); Dr. Joel Reynolds (USFWS Biometrician-Anchorage); and Dr. Larry VanDaele (ADF&G Area Biologist-Kodiak and Brown Bear Researcher). The group decided that the top priority was bear study in the upper Karluk River watershed. The goal will be to gather information critical to balancing sustainable tourism with the conservation needs of bears in an area of high use. Specific objectives include the identification of areas of intensive and/or repeated use, identification of the associated habitat resources selected by bears within areas of intensive use, and identification of movement corridors and landscape characteristics that facilitate use as corridors. Anticipated outcomes include:

- 1) identification and a map of areas of intensive use by bears and movement corridors;
- 2) a database and map relating probability of use to habitat resources and human use;
- 3) a database and map documenting spatial patterns of mercury loads and relative contribution of vegetative, salmon, and terrestrial meat resources to bear diets; 4) an improved understanding of habitat use and resource selection by bears in the Karluk Basin; and 5) protocols for monitoring the impacts of climate change on bear habitat and salmon productivity in the Karluk Basin. These data will be used to guide the design of bear-viewing and other recreation operations that minimize impacts on bears, especially females with cubs. In a second phase of research, this information will be used to evaluate changes in activity, movement, and resource selection by bears during initiation and after establishment of a bear-viewing program and increased recreation within the Karluk watershed. [LEACOCK]



Bear Study Workshop Participants

2.4.d. Work in visits to other concentration areas.

In conjunction with other operations, site visits were made to portions of several concentration areas including Connecticut Creek, Dog Salmon River, Pinnell Creek, Red Lake River, Sitkalidak Island, Thumb River, O'Malley River, and the Aliulik Peninsula. [LEACOCK]

2.5 Evaluate the management utility of the bear stream surveys using appropriate cross-comparisons with bear density survey data, climatic data, fish escapement data, and biological modeling efforts. Complete evaluation with assistance of Alaska Biological Science Center, U.S. Geological Survey, by 2007.

2.5.a. Complete evaluation.

We concurred with USGS's request to revise the timeline for completion of a comprehensive evaluation of the stream use protocol from April 2008 to December 2009. [PYLE]

2.6 Investigate population size, movements, and habitat use of bears on Afognak Island. Develop a method for indexing trends in population size by 2008 and complete research on movements and habitat use four years after funding is obtained. [LEACOCK]

2.6.a. Explore opportunities for funding and study design with Larry Van Daele.

Study of bears on Afognak Island is currently of lower priority than studies on Kodiak Island. The refuge has neither the resources nor the staff to conduct studies in both places simultaneously.

- 2.7 By 2006, complete assessment of the genetic diversity of the Kodiak brown bear so as to understand gene flow between the southern and northern Archipelago, the vulnerability of Kodiak brown bears to wildlife diseases, environmental stresses, and parameters of population viability.

Completed.

- 2.8 By 2010, develop and implement a method of monitoring the supply of berries suspected of being essential to the welfare of the Refuge's brown bear population.

2.8.a. Explore possible protocols in upper Karluk River watershed.

We are currently working on details that will be incorporated into the upcoming collaborative Karluk Project. [LEACOCK]

GOAL 3: Manage nonnative species to minimize impacts on native resources, while continuing to provide opportunities for harvest.

- 3.1 To facilitate population and habitat management, monitor—in collaboration with ADF&G—trends in summer distribution, size, and productivity of the mountain goat population on the Refuge. By 2008, initiate monitoring of trends in winter distribution of the mountain goat population.

Summer distribution surveys of Goat Management Units (GMU) 474-477 were conducted in August by the Refuge and remainder of GMUs were surveyed by ADF&G. Analysis yielded a population estimate of 2,200 on Kodiak Island, more than 60% of which ranged on the Refuge during summer. Average productivity, as assessed by the ratio of kids: 100 adults in mid summer, was 15%, however, higher levels (30%) were observed in recently colonized areas (Deadman Bay, Marin Range). A poster was generated that illustrates differences in distribution and population size in 1999 and 2008.

Winter distribution was surveyed in the upper portion of GMU 475 in March. The subunit is known to have 56 goats during summer, but only 17 were counted on the March survey. All sightings were at low elevations, (below 1,000ft.) below the normal summer range of goats. [SAITO]



Mountain Goats on Kodiak Island

- 3.2 By 2008, design and implement studies to evaluate habitat use and preference of deer on Kodiak Island to facilitate understanding of deer influence on the condition of winter range habitat.

Refuge managers and biologists met with ADF&G wildlife biologists in February to discuss research needs, scope, and purposes. The Refuge subsequently evaluated potential project personnel, objectives, study area, methods, budget, and potential collaborators. We concluded that the preferred method of study would involve use of GPS transmitters outfitted on at least 25 female deer captured on summer range. Discussion about study area centered on the upper Karluk River watershed given its accessibility, funding considerations, and potential to concurrently examine deer-brown bear relationships due to the occurrence of a bear study that is expected to apply similar methods and objectives. In 2009, our goal is to garner cooperative commitments, including ADF&G; complete a study plan, acquire some seed funding, and test study feasibility based on capture, transmittering, and tracking of up to five female deer. Additional funding will need to be secured for this study to move forward. [SAITO, PYLE]

- 3.3 By 2008, develop methods, in partnership with ADF&G, to monitor deer population trends on Kodiak Island to facilitate harvest and habitat management. [SAITO, PYLE]

Initial internal discussions were held regarding objectives and options. A February meeting with ADF&G focused mainly on research of deer movements and not on population monitoring. Our goal in 2009 is to develop a plan to test one or more new methods of population monitoring. [SAITO, PYLE]

- 3.4 By 2010, evaluate and report habitat use and preference of mountain goats to improve understanding of goat influence on habitat conditions.

Initial internal discussions were held regarding need to evaluate movements, habitat use, and carrying capacity in areas of concern where the Refuge, in collaboration with ADF&G, has documented relatively high goat populations and a trend of continued population increase (e.g., goat management units 475 and 477). [SAITO, PYLE]

- 3.5 In cooperation with ADF&G, annually monitor trends in distribution, size, and composition of the elk population on Afognak Island. Maintain the sample of marked animals to enable this population monitoring by assisting with funding and logistics related to animal-capture operations.

We assisted ADF&G, in partnership with the Rocky Mountain Elk Foundation, Afognak Native Corporation, and Alaska Wildlife Troopers, in collaring 14 elk with 12 VHF and 2 GPS/VHF transmitters in May. Assistance was provided by assigning Refuge Biologist Saito to assist with the collaring operation, and in purchasing helicopter fuel for capture and collaring. This mission addressed the periodic need to maintain a large sample of VHF-collared animals for use in population monitoring. [SAITO, PYLE]

- 3.6 By 2012, develop an objective understanding of the effect of deer on supply of berry-producing shrubs of primary importance to brown bears of Kodiak Island.

See discussion of objective 3.2. [SAITO, PYLE]

GOAL 4: Continue to improve understanding and management of furbearing and nongame mammals that use Kodiak Refuge.

- 4.1 By 2007, in cooperation with the Region 7 (Alaska) Marine Mammals Management Office, develop and implement a sea otter survey to annually index population trends. Provide staff support for periodic, Archipelago-wide surveys conducted by Marine Mammals Management Office staff.

Pyle and Wheeler met with MMM biologists in January to discuss survey status, training needs, and cooperation. Specific discussions focused on a Refuge proposal to convert the existing survey, which is geared to sample most of the archipelago's otter population at five-year intervals, to a survey which would sequentially apportion annual sampling among one of three newly-defined regional survey subunits (east side Kodiak Island, west side Kodiak Island, and Afognak-Shuyak). Additional key aspects of the proposal included Refuge funding and survey operation, analysis by MMM, and joint interpretation and reporting. We were told the proposal merited serious consideration but that additional data needed to be acquired by MMM on the validity of the survey method

before a change could be instituted. Currently, MMM is focused on a strict aerial survey protocol that requires extensive and expensive training for pilots and observers. Under the current program, it appears unlikely that the Refuge would have significant involvement in surveys. In the future, we will periodically follow-up with MMM and USGS, to offer our expertise and assistance in developing and conducting a cost effective and scientifically rigorous survey program. [PYLE]



River Otter on Kodiak Refuge

- 4.2 In cooperation with the Region 7 Marine Mammals Management Office, expand communication on sea otters with the Alaska Sea Otter Commission, village councils, and others.

We worked with John Trent (MMM) to update Kodiak Island tagger training, recruit members, and update records and presentation materials; facilitate collaboration with Alaska Stellar Sea Lion and Sea Otter Board; and travel to the village of Port Lions with Brad Bentner (MMMTP) to enlist and train a new sea otter tagger for the Port Lions area. [SAITO, LEE]

- 4.3 In cooperation with ADF&G, develop a method for monitoring trends in river otter populations, modify the existing ADF&G trapper questionnaire to capture information on refuge-specific furbearer harvest, and document estimated furbearer harvest and population trends in the annual refuge narrative report.

No action in FY-2008.

4.4 Initiate study of habitat ecology of snowshoe hares by 2012.

No action in FY-2008.

4.5 During cabin maintenance and management of derelict structures, take precautions to minimize damage to native bat populations.

Care was taken during the replacement of the Uganik Lake cabin in July to ensure that bat populations were not harmed. [BANYAS]

GOAL 5: Monitor populations of resident and migratory birds as indicators of ecosystem health.

5.1 Continue to monitor coastal populations of environmentally sensitive resident birds in winter, spring, and summer for general information on species composition, distribution, and population trends to use as indices of marine and coastal resource health.

5.1.a. Study nesting ecology of Kittlitz's murrelet.

This summer marked the first year of a multi-year field study of Kittlitz's Murrelet (KIMU) breeding ecology on Kodiak National Wildlife Refuge. Cost-share funds were matched with 1,484 hours of in-kind services contributed by two volunteers, who assisted a wildlife science technician with KIMU field research during May 19-August 11, 2008. An area near the southwest corner of Kodiak Island was chosen for this investigation after members of a botanical survey team heard KIMUs vocalizing near their study site in 2007.



Kittlitz's Murrelet Nest in 2008 on the Refuge

Over the 10-week period spanning early-June to mid-August, the research team successfully located five active nests and 10 inactive nests on talus-strewn mountain slopes comprised of ultramafic rock--a regionally uncommon type which is relatively inhospitable to plant growth. Of the five active nests, none made it to the chick stage, and four disappeared; presumably eaten by predators such as common raven and red fox. Because no eggs hatched, we were unable to gather any information associated with chicks (feeding rate or fledging). In late July we began to revisit each nest site to characterize nesting habitat. At each nest site, rock dimensions and vegetation cover were measured, and corresponding measurements were taken on random plots to ascertain what features are preferred.

Another objective of the study was to conduct frequent early morning audio-visual surveys for KIMUs. These "dawn watches" have been used extensively to study Marbled Murrelets, but no comparable data have ever been collected on KIMU. A total of 49 dawn watches were conducted during the 10-week study period. These surveys revealed that KIMUs are most active during the early morning hours, particularly when overcast or foggy. In a pattern that closely mirrors behavior of Marbled Murrelets, inland activity of KIMU was greatest in July and then tapered off in August, until consecutive surveys held in mid-August yielded no detections. Many novel observations were made during these stakeouts.

In sum, our pilot project was highly successful. In addition to characterizing nest sites and early morning attendance behavior, we collected material that will be used to expand the genetic database of KIMUs in Alaska (including an egg, embryo, egg fragments and feathers). Because we established that KIMUs were active in two other areas relatively close to our base camp, we plan to expand this study next year to include all three sites. We will employ additional tools to study murrelets on Kodiak Island, including at-sea surveys, radar scans and satellite telemetry. Presently, USGS is analyzing data collected in 2008 and we and our partners are seeking funding support to enable continued study.

[LAWONN,PYLE]

5.1.b. In collaboration with Migratory Bird Management and Alaska Maritime NWR, census seabird nesting colonies in the vicinity of Afognak Island and Shuyak Island.

Commitments were secured from two partners, and during mid to late June, a total of 172 seabird nesting colony sites were visited and re-censused. Data was collected by two cooperators: Leslie Slater, Wildlife Biologist with Maritime Refuge, and Bill Ritchie, Wildlife Biologist with the Washington Department of Fish and Game. Field operations were supported by Jeff Lewis, who piloted the M/V Ursa Major II, and Brandon Saito, who operated the survey skiff. In addition to the re-census, at-sea transects were established and surveyed to measure trends in the marbled murrelet population. In total, more than 800 miles of skiff travel was logged during the survey! Survey data was entered into a computer and is pending analysis, interpretation, and reporting by MBM.

[PYLE]



Conducting Nesting Bird surveys off Afognak

5.1.c. Conclude the evaluation of the winter seabird and waterfowl procedure.

Draft findings were issued by Zwiefelhofer, Reynolds, and Kiem in: "Population Trends and Annual Density estimates for select Wintering Seabird Species on Kodiak Island, Alaska". This report is based on data collected by Zwiefelhofer in the 'winter marine survey' over the course of nearly 30 years. Final findings will be issued in winter 2009 pending completion of a peer review. Analysis methods described in this study will be incorporated into the survey protocol and Wildlife Inventory and Monitoring Plan.

[ZWIEFELHOFER, PYLE]

5.1.d. Evaluate and prescribe survey design and analysis methods for estimating trends of selected bird and mammal species from data collected on the summer coastal survey.

The evaluation is being directed by Joel Reynolds, Region 7 biometrician. Presently, Joel is collaborating on the evaluation with Alice Shelly a contracted biometrician. Results will be subjected to peer review and a final report will be delivered to the Refuge by June 2009. [ZWIEFELHOFER, PYLE]

- 5.2 Continue to monitor populations of wintering waterfowl to provide information to the State of Alaska and the Alaska Migratory Bird Co-management Council in support of sound management of recreation and subsistence harvest of waterfowl. Monitoring should emphasize species such as black scoter, harlequin duck, and Barrow's goldeneye, which make up much of the waterfowl harvest in the Archipelago.

We presented information about the Uyak Bay harlequin duck population decline to the Larsen Bay Tribal Council, and a poster summarizing this issue was hung in the Larsen Bay Community Center informational hallway, the Senior Center, and Post Office.

[SAITO, LEE]

- 5.3 Continue periodic monitoring of trends in distribution, size, and reproductive success of the Refuge's population of nesting bald eagles. By 2007, determine appropriate frequency and sample sizes for long-term monitoring.

Work continued on development of the protocol used to survey nest occupancy by and productivity of bald eagles. Joel Reynolds, regional refuge biometrician, managed a contract with biometrician Alice Shelly to evaluate the survey protocol. The draft report they generated "Study Design Assessment for Surveys of Bald Eagle Nesting and Productivity on Kodiak NWR" is currently undergoing peer-review. [ZWIEFELHOFER]



Bald Eagle at Nest on Kodiak Refuge

- 5.4 By 2007, develop a banding program to monitor trends in survival and productivity with a focus on sea duck species (black scoter, harlequin ducks, and Barrow's goldeneye) that make up much of the local waterfowl harvest. Areas along the Kodiak road system and adjacent to the villages would be given priority for the program.

No action was accomplished on this in FY-2008 due to a lack of staff and funding.

- 5.5 Identify important habitat areas on the Refuge for bird species of conservation concern, including bald eagles, Steller's eiders, harlequin ducks, emperor geese, marbled and Kittlitz's murrelets, red-throated loons, gray-cheeked thrush, orange-crowned warblers, and yellow warblers. Develop habitat maps by 2010.

Proposals for establishment of three important bird areas (IBA) were reviewed and approved by U.S. IBA Technical Committee. Two of these IBA areas received the highest possible importance ranking due the fact that they harbor globally significant seasonal use of Steller's eider, black oystercatcher, and emperor goose (Chiniak Bay) and black oystercatcher (Uganik and Viekoda Bays). The area adjacent to the Afognak Unit of Kodiak Refuge was recognized for its importance continentally to black oystercatcher. [ZWIEFELHOFER]

- 5.6 Continue collaboration with the Migratory Bird Management Office, Alaska Region, on periodic monitoring of wintering Steller's eider populations to contribute to monitoring and recovery efforts under the Endangered Species Act. Expand this effort to include monitoring of emperor geese.

No action was accomplished on this in FY-2008 due to a lack of staff and funding.

- 5.7 Develop baseline contaminants information for environmentally sensitive resident birds by 2010.

No action was accomplished on this in FY-2008 due to a lack of staff and funding.

- 5.8 Facilitate annual operation and completion of two breeding bird surveys in the Kodiak vicinity.

Established in the early 1980s, both road-based surveys were successfully completed by volunteers Cindy Trussel (observer) and Rich MacIntosh (data recorder, navigator) in mid June 2008. Results were issued to USGS in July. One significant survey result was the observation of a single common greenshank, a Eurasian shorebird, which is a new species for the Kodiak Archipelago. [PYLE]

GOAL 6: Maintain and restore native plant populations, communities, and habitats.

- 6.1 Develop and conduct reconnaissance surveys for invasive plants—particularly orange hawkweed (*Hieracium aurantiacum*), a known invasive on Kodiak Island—every five years in the vicinity of villages, private lands within the Refuge (e.g., lodges, canneries),

and Refuge sites subject to routine use by people. Where invasive plants are detected, initiate collaborative control and eradication actions.

Consistent with previous years, the Refuge was awarded a grant to maintain its program of invasive plant management. In 2008 we received a total of \$26 K in support under the DOI initiative "Management of Invasives with Volunteers". Field operations, which consisted of surveys, outreach, and control, once again relied upon extensive volunteer support: 15 individuals collectively contributed 735 hours of labor!

Lessons learned and successes achieved by the Refuge were presented to participants of the 9th Annual Alaska Noxious and Invasive Plants Management Workshop in October 2008. Actions included: a presentation about orange hawkweed management on Alaska NWRs, participation in a panel discussion about Canada thistle control efforts in Alaska, and poster presentation of hawkweed control efforts at Camp Island. Bill Pyle, Supervisory Wildlife Biologist, was nominated and approved to represent the FWS on the Alaska-based interagency Committee for Noxious and Invasive Plant Management.

[PYLE]



Volunteer Crews Picking Orange Hawkweed Flowers

6.1.a. Continue implementation of hawkweed IPM plan.

Results from continued monitoring of hawkweed response at Camp Island, Karluk Lake, indicated that hawkweed frequency, a measure of plant distribution, declined from 78 to 33% over four years following a total of nine applications of clopyralid-based herbicide (Transline[®]). Since 2005, native herbs have dominated ground cover on meadow sites formerly infested by hawkweed, as revealed by photo retakes. Following the initial treatment, most hawkweed growth has consisted of seedlings and young plants, which apparently germinated from the extensive pre-treatment seed pool. Prior to the 2008 treatment in June, the infestation site was re-surveyed, cleared of previous years' growth of non-target vegetation, and marked with biodegradable flagging. During mid-summer, infestation sites were visited twice and hawkweed flowers were removed. Consistent with previous years, a second herbicide application occurred in early September.

[PYLE, LEE]

6.1.b. Complete and implement IPM plans for Canada thistle and oxeye daisy.

We continued implementation of IPM plans approved in 2007 for management of Canada thistle and oxeye daisy. Monitoring data collected in August 2008 revealed that a fall 2007 application of Milestone[®] VM reduced thistle density (stems/m²) by 95 percent. Milestone[®] VM also was applied to manage oxeye daisy. Although both June and September treatments substantially reduced cover (%) of daisy, as indicated by monitoring results, observational evidence indicated that the September treatment was most effective (>95% reduction in daisy cover). As with hawkweed, during mid-summer we systematically removed flowers of plants apparently missed by treatments. [PYLE,

LEE]



The “Weed Crew” Enjoys a Lighter Moment Around the Dinner Table Aboard the Ursa Major II

6.1.c. Conduct reconnaissance survey of setnet sites.

The Refuge partnered with local volunteers and the Kodiak Soil and Water Conservation District on reconnaissance surveys and outreach at remote settlements, most of which were lodges and base camps of commercial salmon fishermen, along the coast in and adjacent to the refuge (Olga Bay, Uganik Bay). Collectively, field crews visited 63 sites and contacted and exchanged information with 54 parties! Of the seven relatively small infestations of invasive plants observed, four were found on the refuge and three were found on land adjacent to the Refuge. Species included orange hawkweed, oxeye daisy, creeping buttercup (*Ranunculus repens*), common tansy (*Chrysanthemum uliginosum*), and purple foxglove (*Digitalis purpurea*). In concert with landowners and the District, the Refuge will plan and institute control of these populations over the next two years. [PYLE, WHEELER, LEE, LEWIS]

6.2 By 2008, describe species composition of plant communities for selected areas of the Refuge, with special emphasis on the Kodiak Refugium and areas likely to contain endemic plants.

6.2.a. Survey flora of the Afognak Unit of Kodiak NWR.

Cost-share and Kodiak/Bristol Bay Ecosystem Team funds were matched with 1,016 hours of in-kind services contributed by five volunteers, including three botanists and two bear guards, in support of the field survey, which operated during 2-30 July 2008.



Afognak Survey Team – Carolyn Parker, Karen Dillman, and Stacy Studebaker.

Botanists collected 570 specimens and preliminary results indicate that 330 vascular plant species were identified. At least 35 species were first documented records for Kodiak Refuge and a smaller subset, perhaps eight species, comprised first records for the Kodiak Archipelago. Among the confirmed new finds were: copperbush (*Cladothamus pyroliflorus*), a shrub; northern holly-fern (*Polystichum lonchitis*); and sticky false asphodel (*Tofieldia glutinosa*), a brightly colored forb that inhabits saturated bogs soils. In general, many of the newly catalogued species consisted of forbs commonly affiliated with mature Sitka spruce forest, a land cover type which is abundantly represented on Afognak Island but sparsely represented where the bulk of Refuge land occurs on Kodiak Island. Additionally, more than 300 lichen specimens comprising at least 150 species were collected by a lichen specialist who joined the survey for a week. Many of these species are suspected to be new records for the Refuge and archipelago. The lichenologist also established and sampled three permanent plots for purposes of comparing forest lichen communities and assessing the influence of airborne contaminants. Identified, catalogued, and prepared plant and lichen specimens will be archived in herbariums at the University of Alaska Museum and Kodiak Refuge. An unanticipated bonus of the 2008 survey was the discovery of breeding activity by solitary sandpiper, a species not previously known to breed in the Kodiak Archipelago, including Kodiak Refuge. [PYLE]

- 6.3 By 2010, develop a monitoring program to evaluate major plant communities in the vicinity of remote weather stations.

No action taken in FY-2008.

GOAL 7: Conserve the abundance of natural salmonid populations for continued human and wildlife use and to ensure the diversity of species as indicators of the health of the Refuge's ecosystem.

- 7.1 In collaboration with ADF&G, annually monitor escapement of salmon by means of aerial surveys and weir counts to ensure adequate escapement for future production and to support important commercial, recreation, and subsistence fisheries.

The 2008 Kodiak area salmon escapement counts were weak to poor. There are five systems on Kodiak Refuge lands and two systems on Federal submerged lands administered by Maritime Refuge (Litnik and Buskin). Three of these systems failed to meet certain lower escapement goals.

Target escapements were not met on the Karluk River for Chinook (752 fish; escapement range 3,600 to 7,300) and sockeye salmon (early run – 82,071; escapement range 100,000 to 210,000; late run – 164,419; escapement range 170,000 to 380,000); on the Ayakulik River for Chinook (3,071 fish; escapement range 3,600 to 7,300) and sockeye salmon (162,888 fish; escapement range 200,000 to 500,000); and on the Buskin for sockeye (5,900 fish; escapement range 8,000-13,000).

However, the sockeye salmon escapement counts for Dog Salmon (153,276 fish; escapement range 95,000 to 190,000), Frazer (105,363 fish; escapement range 70,000 to 150,000), Upper Station (early run 38,800 fish; escapement range 30,000 to 65,000; late run 184,856 fish; escapement range 120,000 to 265,000), and Litnik (26,874 fish; escapement range 20,000 to 50,000) systems did meet their respective escapement goals.

The Buskin River drainage was closed to fishing for sockeye salmon due to poor escapement counts. These management decisions were made to protect both the Chinook and sockeye salmon populations in all of these drainages. Decisions for these management practices are based on historical data for run timing



Nice Rainbow Trout Taken on the Sturgeon System

The ADF&G – Commercial Fisheries Division conducted aerial surveys this summer on various systems. To date this information is being analyzed and summarized and will be provided to the Kodiak Refuge staff at a later date. [VAN HATTEN]

- 7.2 Monitor salmon escapement in streams on the Refuge that are key seasonal feeding areas for brown bears and bald eagles and work collaboratively with ADF&G to maintain escapement levels that reflect wildlife needs.

Salmon escapement counts were monitored by ADF&G on Karluk, Ayakulik, Dog Salmon Rivers, and at Frazer Fish pass as these are the only refuge systems that have weirs on them. Salmon escapements were as described above in 7.1. Other areas of interest are Sturgeon, Little, Uganik, and Humpy Rivers, and 7-Mile Creek. Escapement data is not available for these systems. [VAN HATTEN]

- 7.3 Annually review commercial, recreation, and subsistence harvest of salmon by means of ADF&G commercial harvest reports, special use permit reports, creel censuses, and subsistence reporting. Harvest data, along with escapement data, will be used to monitor productivity of salmon populations that occur in waters within Refuge boundaries.

The 2008 field season was the first time that our office tried to get in-season information about subsistence harvest level of effort and success from the villages. The Kodiak Refuge Information Technician established contact with all village tribal councils which were used to collect information about subsistence activities. The information collected by the Refuge Information Technician was provided to the Fishery Biologist (or who ever was acting), which was then summarized into a weekly report and submitted to the Office of Subsistence Management. Due to confidentiality, ADF&G is reluctant to provide any harvest data pertaining to recreational and subsistence user groups. [VAN HATTEN, LEE]

- 7.4 Continue to review management plans and harvest regulations that may affect exploitation of fish populations located within the Refuge. Make recommendations to ADF&G, regional advisory councils, the Federal Subsistence Board, local advisory committees, and the Alaska Board of Fisheries, as needed, for modifications to existing plans and regulations and/or for new plans and regulations.

Reports were provided to and oral presentations given to the Kodiak Regional Advisory Committee at their spring and fall meetings outlining our Refuge's activities associated with subsistence species. The Alaska Board of Fisheries provided a list of proposals for changes to the state's fishing regulations. These proposals for change were addressed at the March 2008 Kodiak Regional Advisory Council meeting. Public user groups and state and federal biologists worked diligently on providing input in the best way to conserve the Kodiak Management Area fishery. A total of 10 proposals were reviewed by Refuge staff and comments were submitted to Regional Office staff. [VAN HATTEN]

- 7.5 Work with ADF&G to evaluate the need for steelhead escapement goals for Karluk, Ayakulik, and Sturgeon rivers. Additionally, recommend to ADF&G management actions or regulatory proposals that foster conservation of population structure and productivity of stocks that use these rivers.

There are currently no escapement goals for steelhead on the Karluk, Ayakulik, or Sturgeon Rivers. The Kodiak Refuge office has consulted with ADF&G – Sport Fish Division to start the process in establishing escapement goals for these systems. [VAN HATTEN]

- 7.6 Assess and monitor populations to gather baseline data on noncommercial fish species such as Arctic char in Karluk Lake, Dolly Varden char, and resident rainbow trout. Use study methods such as mark-recapture, radio-tagging, weirs, video, and creel surveys with assistance of the Service's King Salmon Fish & Wildlife Service field office and ADF&G.

It was intended to conduct a Dolly Varden/ Arctic Char study on the Karluk River but due to a lack of staff and funding this project could not be accomplished. Proposals will be submitted this winter to try to get funding for a project of this nature. In addition we

are contacting other partners (Kodiak Regional Aquaculture Association) to provide support. [VAN HATTEN]

- 7.7 Continue to require ADF&G to implement monitoring programs for Kodiak Regional Aquaculture Association (KRAA) enhancement projects conducted on the Refuge, as outlined in specific refuge management plans (i.e., Spiridon and Hidden lakes enhancement management plans). Annually review project reports provided by ADF&G to ensure that biological parameters continue to meet management plan criteria, which will ensure protection of wild salmon stocks, char populations, and wildlife within the project area.

Steve Schrof, Kodiak Finfish Biologist for the ADF&G – Division of Commercial Fisheries, has provided our office with a copy of the 2007 Spiridon (Fishery Management Report No. 08-16) and Hidden Lakes (Fishery Management Report No. 08-07) Sockeye Salmon Stocking Project and Related Monitoring Parameters report. [VAN HATTEN]

- 7.8 Through a collaborative effort with ADF&G, evaluate situations when fish populations are determined not to be meeting escapement goals or management targets. When weak stocks are identified (e.g., the early run of sockeye in Akalura Creek) develop strategies to improve and stabilize runs, which may include implementation of specific management actions and research or rehabilitation projects, while maintaining genetic integrity of these fish populations.

Due to projected weak runs and in order to preserve the Chinook and sockeye salmon populations on the Ayakulik and Karluk Rivers, in consultation with the Refuge, the ADF&G – Sport Fish Division issued an emergency order on February 27, 2008, reducing the daily bag to one, possession limit to one, and annual limit to two for Chinook salmon on the Ayakulik River and restricting Chinook salmon fishing to non-retention on the Karluk River. Effective June 17 an emergency order restricted Ayakulik River Chinook salmon fishing to non-retention. The Ayakulik River sport fishery was closed to Chinook salmon fishing on July 14, 2008. Also effective July 14 the Ayakulik sockeye limit was also reduced from five fish per day and ten in possession to two fish per day and four fish in possession. The sport and subsistence fisheries were closed to sockeye and Chinook salmon for the entire Karluk River drainage, including the Karluk Lagoon, on June 30, 2008. The sport and subsistence sockeye fishery were both closed on the Buskin River on June 19, 2008. [VAN HATTEN]

- 7.9 Complete data collection and write a report describing and classifying genetic characteristics of salmon populations in the Kodiak Refugium by 2008.

We are in the process of obtaining this information. [VAN HATTEN]

- 7.10 In cooperation with ADF&G, document and describe genetic characteristics and variability of natural fish populations that are important indicators of the diversity on the Refuge for both human and wildlife use.

We are in the process of obtaining this information. [VAN HATTEN]

- 7.11 Through a coordinated effort with ADF&G, evaluate salmon spawning and rearing habitat to determine productivity of salmon-producing systems within the Refuge.

We are in the process of submitting proposals to conduct studies on the Karluk River to study Chinook salmon productivity. [VAN HATTEN]

- 7.12 Through a collaborative effort among ADF&G, the Refuge, and the Anchorage Fish & Wildlife Service Field Office, use escapement, habitat, and other pertinent data to establish sustainable or biological escapement goals—subject to review by the Alaska Board of Fisheries—for all species of salmon within the Refuge.

We currently do not have the staff or funding to accomplish this.

- 7.13 Establish and implement monitoring plans for streamside areas to ensure salmon and Arctic char rearing and spawning habitats remain productive.

We currently do not have the staff or funding to accomplish this.



Sockeye Salmon in Thumb River

GOAL 8: Provide the opportunity for local residents to continue their subsistence uses on the Refuge, consistent with the subsistence priority and with other Refuge purposes.

- 8.1 Coordinate with ADF&G and the Federal Subsistence Board to issue special actions, as authorized under federal in-season management, when necessary to ensure conservation of healthy fish stocks and to provide for subsistence uses (subject to Title 8 of ANILCA) of fish in federal waters. Efforts will be made to minimize disruption to resource users and existing agency programs, as agreed to in the Interim Memorandum of Agreement for Coordinated Fisheries and Wildlife Management for Subsistence Uses on Federal Public Lands in Alaska.

Due to the low salmon escapement counts on the Ayakulik, Karluk, and Buskin Rivers, emergency orders were submitted to close sport and subsistence fishing on these systems. Effective June 17 an emergency order restricted Ayakulik River Chinook salmon fishing to non-retention. The Ayakulik River sport fishery was closed to Chinook salmon fishing on July 14, 2008. Also effective July 14, the Ayakulik sockeye limit was reduced from five fish per day and ten in possession to two fish per day and four fish in possession. The sport and subsistence fisheries were closed to sockeye and Chinook salmon for the entire Karluk River drainage, including the Karluk Lagoon, on June 30, 2008. The sport and subsistence sockeye fishery were both closed on the Buskin River on June 19, 2008.

[VAN HATTEN]



Refuge Technician Brandon Saito Discusses Subsistence Rules

- 8.2 Continue to coordinate with and assist the Division of Migratory Bird Management in completing the annual Migratory Bird Harvest Survey in rural communities surrounding Kodiak Refuge.

Although the Kodiak area was scheduled to conduct a harvest survey, one did not occur due to changes in key personnel who operated the program at MBM and ADF&G. This personnel change likely also affected the data analysis and reporting of results from the 2006 harvest survey data; we have yet to receive the report. [LEE]

- 8.3 Coordinate with ADF&G and the Service's Office of Subsistence Management to complete subsistence use surveys as needed.

We are in the process of obtaining this information for fish. [VAN HATTEN]

GOAL 9: Improve baseline understanding of natural flowing waters on the Refuge and maintain the water quality and quantity necessary to conserve fish and wildlife populations and habitats in their natural diversity.

- 9.1 In coordination with the Service's Fisheries and Ecological Services and the Water Resources Branch, in the Regional Office, ensure the Four Dam Pool and the Kodiak Electric Association comply with instream-flow requirements of the Terror Lake Project agreement and the Federal Energy Regulatory Commission license. Additionally, monitor and maintain water quantity and water quality that could be affected by future hydroelectric or other water development projects.

The Four Dam Pool Hydropower Agency met with representatives of FWS, ADF&G, and NMFS to propose a change in the way that instream flows are measured on the Terror River. They proposed that minimum instream flows be measured on a 24-hour rolling average with an instantaneous deviation not to exceed 7.5% of the minimum flow value. After reviewing the proposal, the resource agencies agreed to a 5-year trial period in accordance with the parameters proposed by the Four Dam Pool. ADF&G will continue to conduct aerial surveys of salmon escapement in the Terror River and these will be compared to counts in nearby index streams to determine trends in escapements and if escapements are reduced in the Terror River under the new minimum flow regime. The consulting firm HDR was hired by the Four Dam Pool to look at salmon habitat quality in the Terror River and to look for changes in the extent of spawning use of the river. Kodiak Electric Association has offered to purchase the Terror Lake Hydroelectric Project from the Four Dam Pool Agency. It is likely that the sale will be accomplished in late 2008. [WHEELER]

- 9.2 By 2009, complete the Five-Year Plan of Study for the Water Resources Inventory and Assessment on the Kodiak Refuge and, in coordination with the Service's Water Resources Branch, quantify and file for instream water rights for the maintenance and protection of fish and wildlife habitats.

Nine stream gages were installed in September/October of 2001. Good stage data was collected beginning in June 2002. August 2008 was Water Resources Branch last regular visit to the gages. One or two more site visits will be made to install new batteries so the gages will continue collecting stage data until the gages are removed in spring/summer 2009.

Beginning in the summer of 2002, physical water quality parameters were measured at the gages during site visits. PH, conductance, water temperature, and salinity were measured with a multi-probe water quality meter. Beginning September 2002, water quality samples were collected at four gage sites: Akalura Creek, Ayakulik River, Dog Salmon Creek, and Karluk River below Karluk Lake. At the four water quality sites continuous water temperature data was collected beginning in the fall 2004 and continuing to present.

The stream stage/discharge data will be processed over the next year and water rights applications will be prepared. There is some biological data in the application that will need to be compiled by Refuge staff. Water quality data will be input into DASLER, a water quality database program that is used by the state of Alaska, and transferred from there into EPA's STORET database, as time permits. [HARDISON, GETMAN]

- 9.3 In cooperation with ADF&G and the Anchorage Fish & Wildlife Service Field Office, initiate limnological studies at lakes and streams within the Refuge that provide important habitat for fish and wildlife. Specifically, begin studies at Karluk, Ayakulik (Red Lake), Frazer, Akalura, Uganik, Sturgeon, Spiridon, and Little River systems.

ADF&G has been conducting limnological studies at Karluk, Frazer, and Spiridon Lakes to document zooplankton productivity and correlation with salmon productivity. No personnel or funding have been identified for the other lakes. [VAN HATTEN]

GOAL 10: Provide opportunities for quality public use and enjoyment of Refuge resources through compatible fish- and wildlife-dependent recreation activities, including hunting, fishing, wildlife observation, and photography.

- 10.1 Improve monitoring and continue appropriate onsite management of seasonal aggregations of public use at Ayakulik River, Karluk River, Frazer fish pass, and Uganik River and expand to other areas as use develops.

Frazer fish pass: Refuge personnel conducted two summer site visits for the purpose of evaluating Frazer bear viewing and sport fishing activities, placement options for new interpretive signs, and other potential developments (e.g., an outhouse near the existing viewing pad, remote cameras for wildlife viewing). The delivery date for design and fabrication of new directional and interpretive signs was extended to December 2008, and work with graphic designers at Alaska State Parks continued through the summer. In

August, Refuge staff completed an Environmental Assessment for a new Alaska Department of Fish and Game administrative cabin at the fish pass compound. The new cabin will have space for additional staff, which could include a visitor services specialist to provide bear viewing and fisheries interpretation for the more than 1,000 people that visit the fish pass each year. [GLASPELL, LEACOCK, SHAW]

Uganik River: With the assistance of two volunteers, Refuge personnel constructed and staffed a public use camp/contact station at the outlet of Uganik Lake. The purpose of the camp was to observe use patterns and mitigate the potential negative effects of increasingly high use during the silver salmon season. The camp operated from August 28 to September 19. Refuge representatives contacted more than 80 visitors as they arrived by floatplane for single and multi-day river trips, distributed a leaflet with visitor use guidelines and an area map, and patrolled down-river on foot. After a successful trial season, the Refuge is planning to operate the Uganik Public Use Camp again in 2009. [GLASPELL, GETMAN, SHAW]

On the Ayakulik River, voluntary camping area closure signs were posted at the beginning of the summer by ADF&G. They also installed the fenced food storage area at Bare Creek. Refuge officers while on patrol also installed the latrine and maintained the operational condition of the fence. Due to the low number of unguided users the past two years, and minimum potential for social conflicts, the refuge opted not to operate a public use camp during the king salmon season this year. [GETMAN, GLASPELL]

The Karluk public use camp was not operated again this year due to limited resources and low unguided visitor participation.

In lieu of these two camps, refuge officers patrolled both rivers during the peak of the king and sockeye runs. See Section 10.3 for further information on these patrols.

- 10.2 In cooperation with ADF&G, Koniag, Inc., Akhiok-Kaguyak, Inc., and Old Harbor, continue to implement and manage easement agreements to minimize impacts of public use on fish, wildlife, and habitat; to ensure compatibility with Refuge purposes; and to provide for sustainable fish, wildlife, and wildlands recreation.

10.2.a. Support implementation of Native of Larsen Bay's Tribal Wildlife Grant, much of which pertains to management of resources on the Koniag Conservation Easement.

The Refuge corresponded routinely with the Tribe, its cooperators, and vendors contracted by the Tribe regarding hardware purchase options and status of Tribe-contracted acquisition of geo-rectified orthoimagery of the Tribe's ¼ - million acre project area, which includes the entire Karluk River watershed. Unfortunately, persistent cloudy weather over the project area during July-September limited the number of suitable satellite-imaging opportunities and, ultimately, no images were collected that satisfied contract standards. The Tribe will be advised to request an extension on its grant to allow for another attempt at image acquisition in 2009. [PYLE]

10.2.b. Coordinate with the three native corporations and the State of Alaska to continue the successful implementation and management of conservation easements.

The annual coordination meeting as required by the Koniag conservation easement was conducted and included Koniag, Alaska Department of Fish and Game, and the Refuge. A major strategy modification was that Koniag would provide preference to shareholder guides to conduct commercial services on easement lands. This management change was requested by residents of Karluk and Larsen Bay during meetings held in these villages in October, 2007. This preference opportunity was provided by Koniag, but few shareholders participated, and therefore many non-shareholder guides were again licensed. This effort may take several years to successfully implement. Koniag continued renting their cabins to non-commercial clients with the October steelhead season period in highest demand. Koniag also established a Karluk River Board of Directors Committee consisting of three residents each from Karluk and Larsen Bay to advise Koniag on conservation easement matters. The refuge participated in training of these directors on the many aspects of the conservation easement at a three-day workshop. [GETMAN, WHEELER, GLASPELL]

The refuge was contacted by Akhiok-Kaguyak, Inc. (AKI) and a marine transporter in October 2007 concerning permitting for deer hunting on lands administered under conservation easement. This easement provides for limited unguided visitor use on these lands via permit issued by AKI. AKI also retained all commercial uses of these lands. A marine transporter (who also provides housing, meals, and other services to deer hunters) had his clients apply for unguided permits through AKI and were denied based on the conservation easement definition that a transporter who provided other services was considered a commercial use and the services requested were commercial not unguided. The marine transporter requested assistance from the refuge to obtain permits. Following a review of the easement and a recommendation from the Solicitors Office, we concurred that AKI was in compliance with the easement. This marine transporter then contacted the Regional Director and attempted to appeal this decision. The Regional Office also concurred with our ruling and the marine transporter was notified thereof. [GETMAN, WHEELER]

In July, AKI CEO/President David Goade and members of the AKI board met with refuge staff to discuss their business plan and options of modifying it. AKI was hopeful to have this completed prior mid-October, but are behind schedule. [GETMAN, GLASPELL, BEDINGFIELD]

- 10.3 In 2007, develop an operations plan encompassing all aspects of law enforcement to be completed by 2008. Annually monitor commercial activities on the Refuge, including compliance with special use permit conditions and operation plans. Expand law-enforcement outreach to include education programs and media releases regarding Refuge regulations, and increase the number of field patrols to protect resource values and to enhance visitor experiences on Refuge and conservation easement lands.

10.3.a Complete the Law Enforcement Needs Assessment (LENA) as per 8 RM 14.25.

Bill Raften (Zone Officer) completed the Law Enforcement Needs Assessment for Kodiak Refuge. The Executive Summary and Detailed Report was finalized in April 2008. The purpose was to evaluate the station's law enforcement program, and the final report contains findings and recommendations. A major finding was the lack of law

enforcement (1264) funding to perform an adequate amount of patrol work. Without supplemental funding, patrols will not be done often enough to provide a deterrent for illegal activities. [GETMAN, WHEELER, RAFTEN]

10.3.b. Conduct field patrols to maintain visibility and ensure compliance with fish and wildlife laws and refuge regulations:

Spring bear hunter checks - This patrol was conducted concurrently with the spring fuel haul to Camp Island and included checking hunters and guides in Spiridon, Zachar, and Uyak Bays. [GETMAN]

Ayakulik River, King Salmon Season, June – Refuge Officers patrolled the Ayakulik from 6/10-14 and on 6/16. Patrol objectives were to have an officer presence during this sport fishery and to educate visitors on and enforce the emergency orders issued by ADF&G to manage a weak run of Chinook and sockeye. [GETMAN, RAFTEN]



Patrolling the Pristine Ayakulik River

Karluk River, King Season, June - The Karluk River was patrolled from 6/16-23 with the objective to have a field presence during this sport fishery, to educate anglers and guides about the emergency orders issued, and to enforce the emergency orders issued by ADF/G to manage a forecasted weak run of Chinook and sockeye. In February, ADF/G issued an emergency order that established a non-retention sport fishery for king salmon in the Karluk River drainage, including the lagoon and its outlet stream. King salmon could not be possessed or retained; king salmon caught may not be removed from the water and must be released immediately. In addition, the use of bait was prohibited downstream of Karluk Lake. Effective 6/19 the ADF/G issued an emergency order that established a non-retention sport fishery for sockeye. Another order effective 6/30 was issued that closed the king sport fishery on the river.

This was the first year that ADF/G began the season with a non-retention or catch and release king fishery to minimize mortality of caught fish. It was important to meet with the guides and unguided visitors to explain the requirements of this order, what they were allowed to do, and what was unacceptable. This increased their awareness of the status of the king population and became more conscientious in doing everything they could to minimize the mortality of fish caught. [GETMAN, RAFTEN]

Set net site inspections – A post-season aerial inspection of each set net site was accomplished on September 16 to determine if permittees were complying with the season of use provision of their permits. Each site inspected was boarded up and closed. One site that was closed up for the winter still had a boat out on its anchor line. [GETMAN]

Patrol response: fish, goat, elk, misc. – On 1/11 the office received a report of about 50 bald eagles that had entered a dump truck partially filled with fish carcasses at the Ocean Beauty cannery. Special Agent Kim Speckman (who fortunately was in town to assist with waterfowl patrols) and Refuge Officer Getman went to the site and began an investigation as to what happened. A total of 25 bald eagles died in this incident. The case is now with the US Attorney's Office, and they will be prosecuting the case. No formal charges have been filed yet. [GETMAN]



Special Agents Speckman and Whisler gathering bald eagle carcasses following the mishap at the Ocean Beauty cannery.

Fall salmon anglers – The emphasis was to patrol the Uganik River during the silver salmon season as some conflicts between guided and unguided anglers had arisen there during the past few years. Several multiday patrols were conducted to ensure visitors adhered to regulations and to determine if some groups were unpermitted guides on the refuge. Patrols were also conducted on the Ayakulik, Karluk, Dog Salmon, Spiridon, and Zachar Rivers. [GETMAN, BEDINGFIELD]

Monitor easements – Easements were inspected in conjunction with the Ayakulik and Karluk June salmon angler patrols and during other aerial reconnaissance flights. [GETMAN, BEDINGFIELD]

Fall bear and deer hunters – No patrols were conducted during the fall 2007 season due to the transfer of the refuge officer/pilot in October.

Public use cabin inspections – Cabin inspections were performed through out the year. The Waterfall Lake cabin on Afognak Island was inspected and posted as closed in an effort to eventually include it in our public use cabin program. This cabin was acquired in the early 2000's when the land was purchased. It has not been rented out, but trespass use has occurred. Refuge Officers also investigated a report of a trespass hunting cabin on Hidden Lake on Afognak Island. The cabin was located and found to be in a dilapidated condition unsuitable for occupancy and the remaining debris will have to be cleaned up. [GETMAN, BEDINGFIELD]



Refuge Officers Find Waterfowl Lake Trespass Cabin in Dilapidated Condition

Subsistence – There was a significant amount of patrol time and investigative work completed on subsistence uses this year. One case investigated resulted in findings that confirmed a brown bear was actually harvested off-refuge and the case was turned over to the Alaska Wildlife Troopers. Another investigation concerned an applicant for a bear subsistence hunt that was unable to provide evidence that he was a local rural resident. The license was denied. Additional patrols were conducted on the Ayakulik (king salmon), Karluk (king and sockeye salmon), and Federal public (marine) waters near the Buskin River (sockeye salmon) after these waters were closed to subsistence harvest due to weak runs of fish entering these systems. [GETMAN]

ATV's – A report of two ATV's on the refuge from a local air transporter business was investigated on the East Fork of the Sturgeon River near the village of Karluk. A flight was immediately dispatched to confirm this report. ATV tracks on the refuge were confirmed, however, no ATV's were observed on refuge lands. An ATV handout was prepared describing refuge regulations pertaining to refuge and conservation easement lands and included a land status map showing the location of these lands. [GETMAN]

Special Use Permits – A citation and warning letter was issued to a sport fish guide for violation of their permit conditions. Another permittee was investigated for not meeting the minimal use conditions of their prospectus sport fishing permit. Fall salmon patrols were focused on reports of unpermitted guides operating on the refuge. None were confirmed. [BEDINGFIELD]



O'Malley Brown Bears as Seen from the Viewing Pad

A local lodge owner and guide contacted the refuge and inquired about options for his clients to recreate on the refuge. This information was forwarded to the Solicitor's Office and their recommendation was that it would be considered unguided use if the lodge owner did not provide any services or equipment for compensation and the visitors made their own arrangements including payment of costs for accessing the refuge to recreate. [GETMAN]

- 10.4 Assess the nature of visitor experiences available in different types of bear-viewing settings to support the design and development of viewing programs at O'Malley River and other potential sites. Complete the assessment(s) in advance of the implementation of any new bear-viewing program(s).

Participated in the development and delivery of a bear-viewing guide certification course, in cooperation with the Kodiak Unified Bear Subcommittee (KUBS), Alaska Department of Fish and Game, and Kodiak College. [GLASPELL,LEACOCK,GETMAN]

Refuge personnel conducted multiple site visits for the purpose of evaluating bear-viewing experience opportunities at O'Malley River, Thumb River, Karluk Lake Outlet, and Frazer fish pass. [GLASPELL,LEACOCK,SHAW]

Completed a draft prospectus and internal review for operation of the O'Malley bear viewing program. A public review of the draft will be completed before the end of calendar year 2008. [GLASPELL]

Prepared and submitted a draft regulation package that included three separate elements: 1) a modification of the existing seasonal closure at O'Malley River to allow for operation of a Refuge-sanctioned bear viewing program; 2) a prohibition on camping within one-quarter mile of public use cabins and federal and state administrative facilities within the Refuge; and, 3) a prohibition on snowmachine use on approximately 4,972 acres of important brown-bear denning habitat in the Den Mountain area of the Refuge. (See also objectives 10.6 and 10.8) [GLASPELL,RO STAFF]

- 10.5 Using rigorous social science methods, assess the nature of visitor experiences, significant influences on those experiences, and public acceptability of potential management actions at Frazer fish pass. Use results of the study as input to visitor-use management and potential visitor-capacity decisions at that site.

Site visits and two seasons of monitoring at Frazer fish pass indicate that previous concerns about crowding and angler/bear-viewer conflicts have been largely addressed by a minor trail re-route and conscientious behavior by guides and unguided visitors alike. New interpretive and directional signs to be installed in FY09 will further improve management. Site visits and monitoring conducted in FY08 will continue. [GLASPELL,LEACOCK]

- 10.6 Manage the public use cabin system to support a variety of compatible recreation activities by carefully considering the location of all current cabins and potential future additions to the system.

In April, Refuge personnel distributed more than 70 letters and hosted a public meeting to solicit comments on management of the public use cabin system. The public was specifically invited to comment on inclusion of two existing administrative cabins into the public use system, fee and reservation systems, and potential sites for construction of up to two new cabins. A cabin management document will be prepared and distributed during FY09. [GLASPELL,REFUGE STAFF]

Worked with RO staff and received Director's approval to increase cabin fee from \$30/night to \$45/night. Increase went into effect July 1. [GLASPELL,MONZON]

Refuge staff visited Viekoda Bay to consider relocating the existing public use cabin which needs to be replaced. The current site has limited access to uplands and a low angle beach that makes access at low tide difficult. Identified a superior site about two miles closer to the head of the bay which should provide easier access by boat or floatplane and better possibilities for hunting, hiking, bird watching, and other recreational pursuits. Intent is to construct a cabin at the new location during summer 2009, if funding allows. [WHEELER, BANYAS, GLASPELL, LEWIS]

Attended a meeting at Kenai Refuge in July with regional refuge personnel and representatives from the National Recreation Reservation program to assess the merits of adding Kodiak cabins to the web-based national reservation system. [GLASPELL]

10.7 Continue to monitor use of 17(b) easements and implement management actions as necessary to prevent resource impacts to the easements. (Also see Goal 1.)

10.7.a. Assist Koniag Inc. with their project to harden another 1,500 feet of the Portage Trail.

Koniag received a Wildlife Habitat Incentive Project grant from the Natural Resources Conservation Service in 2007 which will fund the restoration of the remaining 9,150 feet of damaged trail. Another 1,300 feet of hardened trail was constructed this year using geoblock. The refuge contributed personnel and \$5,000 for worker transportation to the site as a partner in this project. [GETMAN, WHEELER]



Another 1,300 feet of Geoblock was installed on the Portage Trail to eliminate the ATV caused damage to wetland areas.

- 10.8 By 2008, assess off-road vehicle (ORV) use on conservation easements lands.

An aerial reconnaissance was completed to determine if inappropriate use of ATV's on refuge and conservation easement lands was occurring. No distinct trails were discovered, but the presence of snow on the ground may have hidden ATV tracks and the survey will need to be repeated. [GETMAN]

Prepared a leaflet identifying Refuge and easement boundaries, and ORV use regulations for distribution to Kodiak communities. [GLASPELL,SAITO,GETMAN]

- 10.9 Initiate assessment of snowmachine use on the Refuge.

No work completed in FY08.

GOAL 11: Improve management of commercial use opportunities that are compatible with Refuge purposes, provide quality public use opportunities, enhance visitor experiences, and ensure compliance with provisions of ANILCA.

- 11.1 To accommodate an increasing number of permittees, review the current process for administrating special use permits and develop a simplified, more time-efficient system for receiving applications, issuing permits, processing use reports, and distributing billings.

Regular, minor adjustments have led to a system that works well for permit applicants and established permittees. No substantial changes were initiated in FY08. [MONZON]

Completed the transfer of two big-game guide use area permits. [MONZON, GLAPELL]

- 11.2 By 2008, develop an education program for commercial operators to inform permittees of refuge requirements, goals, and regulations. As a part of this, provide updated information on bear safety and awareness for distribution to clients.

Met with big-game guide and prospectus-area sport fishing permit holders. Worked closely with sport fish permit holders to make numerous adjustments to use allocations and related permits, and to clarify permit conditions. [GLASPELL, WHEELER, RO STAFF]

- 11.2 By 2008, develop an education program for commercial operators to inform permittees of refuge requirements, goals, and regulations. As a part of this, provide updated information on bear safety and awareness for distribution to clients.

Continue to work with commercial operators to inform them of refuge regulations and requirements. [GLASPELL, MONZON]

- 11.3 By 2007, obtain stakeholder input, determine if the 1987 Management Plan for Commercial Fishing Activities needs to be revised, and update this plan if warranted.

The revision process was initiated in November of 2007 via a letter to set net stakeholders to submit comments and/or questions concerning the need to revise the 1987 Management Plan. To date, the 1987 Management Plan for Commercial Fishing Activities has undergone public review by state and federal agencies as well as stake holders. A public meeting was held in January to allow stake holders an opportunity to comment about changes needed to the 1987 Plan. Kodiak Refuge staff has reviewed all comments and has drafted a new management plan. The plan is currently being reviewed

internally and a draft will be published for stake holder review either late in 2008 or early in 2009. A final plan should be issued by spring 2009. [VAN HATTEN, WHEELER]

GOAL 12: Provide outreach, environmental education, and interpretive programs that increase a sense of stewardship for wildlife, cultural resources, and the environment and that enhance visitor experiences on the Refuge.

12.1 Plan, design, and construct a Refuge visitor center in the vicinity of downtown Kodiak to be complete by 2009.

12.1.a Facilitate completion of building, exhibits and FF&E (fixtures, furniture and equipment). [Also reference Goal 12.2]

On November 17, 2007, the Refuge welcomed more than one thousand visitors on a crisp, autumn day to experience the new facility, hear a variety of guest speakers throughout the day and watch the new Refuge orientation film. Planned and coordinated all aspects of community opening for visitor center—including catering, volunteer and Refuge staff orientation/training, day-long staff scheduling and follow up appreciation after successful event. [SHAW]

Worked directly with FWS John Stricklan and John Harris, General Contractor, Fred Roberts, and the exhibit fabrication team (Kevin Painter, Split Rock Studios, Aldrich Pears and Assoc.) to finalize all aspects of the Kodiak Refuge Visitor Center and addressed warranty issues relating facility. [SHAW]



Alaska Regional Director, Tom Melius, and Alaska Geographic Executive Director, Charley Money, Cut the Ribbon November 17, 2007, at Visitor Center Community Opening

Provided coordination of exhibit and building repairs for Region 7 Engineering staff, Blazy Construction and numerous sub-contractors. [SHAW]

Facilitated purchasing materials and equipment through extraordinary needs funding to complete functionality of Visitor Center. Drafted sole source paperwork, clarified additional FF&E items and supporting documentation. [SHAW, POLITO]

Reviewed and commented on draft versions of Kodiak Refuge orientation film, *Kodiak National Wildlife Refuge—Home of the Great Kodiak Bear* in conjunction with NCTC and regional Visitor Services staff (Kevin Painter). This 12-minute film recently received two national awards—an Award of Excellence at the 14th Annual Communicators Award, and a Silver Award at the 29th Annual Telly Awards. [SHAW, GLASPELL, WHEELER]

12.1.b Facilitate rearticulation and installation of gray whale with The Gray Whale Project Coordinator.

Installation of gray whale was successfully completed October 31, 2007, due to the handy work of many dedicated and skilled members of the Kodiak Gray Whale Project and the assistance of Refuge staff. [BANYAS, KING, WHEELER]

Facilitated the installation of Bruce Nelson's original oil painting, *Migration Causality at Three Saints Bay*, in the upper lobby of the visitor center. [SHAW, BANYAS, KING]



Gray Whale Skeleton Suspended in the Visitor Center Atrium

Facilitated the interpretation of the gray whale exhibit and the efforts of The Gray Whale Project through the writing of a scope of work for whale panel and photo essay in upper lobby of Center. [SHAW]

12.1.c Plan, publicize and present public talks, radio and newspaper interviews and press releases informing the public about building/exhibit progress, mission and public involvement.

Acted as liaison with the local media to produce regular newspaper articles and radio stories about how the new facility was being received by the public and featuring events happening at the Center. Gave live and taped interviews for KMXT and the Kodiak Daily Mirror throughout the year. [SHAW, POLITO]

12.1.d Draft Standard Operating Procedures for visitor center operation, visitor center volunteer training, Alaska Natural History Association (ANHA) Scope of Sale and coordinate ANHA sales branch in sync with grand opening in Fall 2007. [See also Goal(s) 10, & 12.2]

Created new bookstore policies for donations to Friends of Kodiak NWR and defined consignment art policy. [SHAW]

Coordinated volunteer docent and temporary staff training in Alaska Geographic policies and procedures. [SHAW, POLITO]

Reviewed and evaluated new products for bookstore, assuring product relevance to Refuge mission. [SHAW, GLASPELL]

- 12.2 By 2007, provide better access to Refuge information on topics such as bear safety, campfire safety, permits, and public use cabins through a Web site and other electronic media. Information would also be available through a variety of non-electronic sources.

Created Public Use reference computer kiosk located within the trip planning area of visitor center. Kiosk includes public access to Refuge on-line resources, National Geographic TOPO MAP!® software, as well as myriad of other biological and visitor use resources. [SHAW]

Created reference library within the trip planning area of Visitor Center. This library includes books, field guides, maps, films (DVD and VHS) and other reference materials about Kodiak Refuge, the wider archipelago and southwestern region of Alaska. [SHAW]

Updated website to reflect changes in the Koniag conservation easement permit process (reverted from online to hardcopy system), and updated permit form and accompanying fact sheet explaining easement use rules. [GETMAN, MONZON]

- 12.3 Increase visitor center staffing to allow the center to be open seven days per week during peak visitor use season (dependent on funding).

Recruited and hired two seasonal park rangers as well as a 6-month Student Conservation Association (SCA) intern to staff visitor center through summer months and provide interpretation and environmental education activities for the public. [GLASPELL, SHAW]

12.3.a Coordinate with refuge management and regional office on the hiring of a permanent, full-time Environmental Education Specialist to be stationed at new visitor center and lead Salmon Camp planning and execution. [See also Goal(s) 12.7 & 12.8]

Upgraded permanent EE Specialist position to GS-9 level. [GLASPELL]

12.3.b Recruit volunteers for participation in new visitor center staffing (with focus on training them in for Fall 2007 opening) and continue to broadly recruit across Kodiak community for the regionally-based Friends of Alaska National Wildlife Refuges. [See also Goal 12.6]

Scheduled and tracked docent shifts for staffing information desk and roving Visitor Center. [SHAW,POLITO]

Volunteer Coordinator functioned as point of contact for all VC docents and conducted a “retention campaign” of calling and face-to-face meetings to keep docents active and scheduled for VC shifts. [POLITO]

12.3.d Provide visitor center staffing year-round.

Supervised, directed work, and mentored two temporary park rangers, full-time Volunteer Coordinator and a 6-month SCA volunteer. [SHAW]

12.4 Acquire base funds for the Kodiak Summer Science and Salmon Camp base camp and village outreach project through Refuge System funding processes to avoid depending on annual fund-raising.

Base funding has not yet been made available for summer science camps.



Liz, Andrea, and Tara - Salmon Camp Instructors 1988

12.4.a Seek Challenge Cost Share funding (\$20,000.00) to continue community education efforts through Kodiak Summer Science & Salmon Camp (now entering its 13th year). [See also Goal(s) 12.8]

Obtained the maximum allowed CCS funding of \$20,000.00 for Salmon Camp. [KNOTH]

12.4.b Collaborate with Alaska Geographic on generating our annual appeal letter (a.k.a., donation letter) in support of Salmon Camp. [See also Goal 12.4]

Collaborated with Alaska Geographic on generating Refuge annual appeal letter (a.k.a., donation letter) in support of Salmon Camp. [KNOTH]

12.4.c Bring Salmon Camp to Kodiak City and all 6 of Kodiak’s remote villages. [See also CCP Goal(s) 12.5 & 12.8]

Seven sessions of Salmon Camp were held in Kodiak City for nearly 100 campers ranging from kindergarten through eighth grade. Sessions ran June through August. Salmon Camp was also brought to the villages of Port Lions, Ouzinkie, Old Harbor, and Larsen Bay. Scheduling conflicts and weather prevented us from taking Salmon Camp to Karluk and Akhiok this year. Over 60 children ranging from kindergarten through middle school participated in these village camps. [KNOTH]



Counselors and Participants in the Inaugural “Adventure Camp” Session

12.4.d Conduct Salmon Adventure Camp for middle school students in the summer of 2008.

Eight campers participated in Salmon Adventure Camp held for the first time in 2008. Campers learned Leave No Trace camping skills and safe camping in bear country during this overnight camping experience. Fishing, hiking, and camp cooking were some of the many activities that took place during this session. [KNOTH]

12.5 Annually sponsor, co-sponsor, or participate in community events, festivals, and programs (e.g., Migratory Bird Day, Crab Fest, Whale Fest) to build awareness of the Refuge and Kodiak ecosystems.

12.5.a Sponsor National Wildlife Refuge Week, planning, promoting and presenting public talks in support of the National Wildlife Refuge System.

The Refuge welcomed Nobel laureate, Dr. Michael Schlesinger for a climate change lecture as a part of multi-city lecture series. Refuge staff provided logistical support and orientation for visiting guests, as well as full promotion of lecture series through flyers, PSA's and coordination of forward-promotion pieces in radio and print media. [POLITO, SHAW]

12.5.b Participate in WhaleFest 2008, both in planning (planning begins Winter 2007) and in facilitating environmental education efforts in the K-6 schools, home school groups and informal interpretive programs for all ages. [See also Goal 12.8]

Refuge staff participated in WhaleFest 2008, both in planning and in facilitating interpretation and environmental education efforts for all ages. Staff welcomed numerous Whale Fest 2008 public talks and presentations to the Visitor Center and offered logistical/technological support. [SHAW, KNOTH]

12.5.c Participate in Kiwanis Pink Salmon Derby, increasing awareness about Kodiak Refuge and educational programs.

Due to late Salmon run and schedule change, staff was unable to participate this year.

12.5.d Develop a Kodiak Envirothon event to foster environmental awareness and scientific skills in high school students..

Refuge staff initiated contact with Kodiak High School faculty and arranged meeting with Refuge staff to discuss event development. Event tentatively set for April 2009. [POLITO, SHAW, KNOTH]

12.6 By 2008, work within the community to increase partnerships and volunteers to form a friends group for Kodiak Refuge.

12.6.a Host preliminary 'Friends of Kodiak Refuge' information session for interested Kodiak residents to build upon current interest.

In March 2008, Refuge staff hosted preliminary *Friends of Alaska Refuges* workshop for interested Kodiak residents to build upon current local interest. Result of the meeting was the formation of Kodiak Friends group. The local group initially pursued affiliation with the Friends of Alaska National Wildlife Refuges as a local chapter, but later determined that independent

status as Friends of Kodiak National Wildlife Refuge better suited the group. [SHAW, GLASPELL, WHEELER, POLITO]

12.6.b Provide staff liaison to state-wide friends group and newly formed *Friends of Kodiak NWR* in order to attend regular planning meetings and create local interest.

Refuge staff liaison participated in all local meetings, statewide teleconference, and informal meetings with Friends members [POLITO]

Refuge staff liaison hosted inaugural Friends of Kodiak NWR annual meeting. Refuge staff liaison hosted inaugural Friends of Kodiak NWR annual meeting. [POLITO]



Friends of Kodiak NWR Board of Directors at Inaugural Annual Meeting

12.7 As staff and funding allow, conduct workshops with schools and teachers across Kodiak Island to enhance curriculum and outreach dealing with Refuge resources, issues, and opportunities.

12.7.a Facilitate teacher workshop and create Refuge-specific K-6 curriculum for bi-annual classroom environmental education efforts. Class visits to all six K-6 schools and home school organizations. [See also Goal(s) 12.8]

The Refuge hosted a Project Wild and Project Learning Tree workshop for local teachers and homeschooling parents. Several teachers from the village schools came to town to participate in this interactive workshop as well. Instructors from ADF&G and the National Park Service co-taught the workshop. The workshop focused on hands on science and outdoor education lessons to be taught in both formal and informal settings. [KNOTH]

The K-6 curriculum is still a work in progress. Many programs have been created but not for each grade level. Nearly 1,000 students have participated in these programs in the 2008 fiscal year. This includes both on site visits to the Refuge Visitor Center as well as classroom visits in both local and village schools. [KNOTH]

12.7.b Partner with the school district to participate in the after school program, “KACLAC,” (Kodiak Alaska Community Learning Activity Center).

Participating students from the local elementary schools attended once a week for a month in an after school program designed to teach them more about the Kodiak NWR and its flora and fauna. Each month during the school year a new group of ten students participates in the 2-hour program. The Kodiak Refuge is one of several partners in the community that the students rotate through. [KNOTH]

12.8 Expand opportunities for individuals, organized groups, and families to learn about the Refuge through on- and off-headquarters programs, environmental education, nature walks and interpretive programs.

12.8.a Plan and budget 2008 educational and interpretive activities in conjunction with cooperating association (AK GEO).

Created and tracked Alaska Geographic budget for 2008 to cover some of Salmon Camp’s funding needs (not covered by CCS funding), bookstore staffing, volunteer appreciation and new visitor center website. [SHAW]

12.8.b Plan and provide summer interpretation programs through Visitor Center.

Trained summer temporary visitor center staff in interpretation tools and techniques and scheduled regular public talks for visiting ferry and cruise ship passengers. [SHAW]

12.8.c Create ‘Families Understanding Nature’ educational backpacks (‘FUN Pack’) for loan to Kodiak and visiting families. [See also Goal(s) 10.3, 12.1]

Refuge staff created FUN packs which include the following: raft of educational multi-media with wildlife focus, field guides, binoculars and Kodiak Refuge-specific activity guide. [SHAW, KNOTH]

12.8.d. Conduct Families Understanding Nature (FUN) programs for children and their families to learn more about Kodiak’s flora and fauna.

FUN program sessions were held for two different age groups. The 3-5 year old program began early in 2008 and now runs continuously. During the summer months FUN programs were held for children ages 6-9. These popular programs allowed children and their care givers to learn together about Kodiak’s unique ecosystem by exploring a different topic each week. A total of 31 FUN programs were given in FY08 with a total of 575 participants. [KNOTH]

12.8.d Update and expand visitor center website with the purpose of educating Kodiak community about upcoming and ongoing events, programs and activities taking place at the new Visitor Center.

Refuge staff facilitated the creation of a new Visitor Center website template with local web designer and updated web content (event calendar, temporary exhibits, etc.) throughout FY 2008. [SHAW]

12.8.e Schedule public talks about and discussions of conservation and Kodiak ecosystems.

Arranged and promoted public talks and slide shows presented by volunteers involved with biological research conducted in partnership with the Kodiak Refuge, including the 2008 Kittlitz's murrelet field survey and whale-tagging research project aboard the FWS M/V *Ursa Major II*. [POLITO]

Arranged and promoted a public talk and slideshow presentation by Reid Brewer, Alaska Marine Advisory Program; networked with local school district faculty to deliver this presentation directly to fisheries and natural resources classes at Kodiak High School; hosted a community roundtable discussion on climate change led by Brewer; contacted newspaper and public radio station to arrange interviews with Brewer to promote this suite of events. [POLITO]

Facilitated the partnership between Kodiak Audubon and Friends of Kodiak Refuge to sponsor a lecture series hosted at the Visitor Center. [POLITO]

GOAL 13: Conserve cultural and archaeological resources of the Refuge.

- 13.1 Identify priority areas to inventory for archaeological and other cultural sites and conduct surveys as time and personnel permit. Perform surveys at a level sufficient to evaluate, without a follow-up visit, eligibility of sites identified for inclusion on the National Register of Historic Places. While actual surveys will be conducted as funding and personnel become available, the identification of priority areas and overall planning for surveys should be completed by the end of 2007.

Allutiiq Museum archaeologists assisted the refuge in surveying a parcel selected as a Native allotment. [GETMAN]

13.1.a. Support the Alutiiq Museum's continued inventory of archaeological sites on the refuge through the Challenge Cost Share Program.

The Alutiiq Museum received a Challenge Cost Share Grant and surveyed the area around the O'Malley River and O'Malley Lake for archaeological sites. [CORBETT]

- 13.2 Formalize the existing partnership with the Alutiiq Museum by the end of 2006. This agreement should spell out participation of the Refuge, the Service's Regional Office in Anchorage, and the Museum in terms of both funding and tasks. Seek out and develop partnerships with Native corporations, universities, other government agencies, etc., to cooperatively inventory, manage, and protect cultural resources.

Funding and staff limitations did not permit this to be accomplished in FY-2008.

- 13.3 Identify and acquire archaeological, historical, and ethnographical archival resources to provide the necessary background material to support archaeological and historic site protection, public interpretation, and paleobiological information useful in wildlife and habitat management.

Funding and staff limitations did not permit this to be accomplished in FY-2008.

- 13.4 Provide Archaeological Resources Protection Act training to Refuge law-enforcement personnel. Provide basic cultural resource training to Refuge staff. Identify sites or areas at risk for vandalism and monitor with periodic law-enforcement patrols.

13.1.a. Support the Alutiiq Museum's establishment of a stewardship program for archaeological sites on the refuge through the Challenge Cost Share Program. [CORBETT]

The Alutiiq Museum's stewardship program has been established and continues with a number of refuge set net site permittees participating.

- 13.5 Strengthen and expand the Alaska Heritage Resource Stewardship program for site monitoring and evaluating site conditions on Kodiak Refuge.

In conjunction with the Chief Cove deer mortality survey, Patrick Saltonstall (Alutiiq Museum archaeologist) and Refuge staff inventoried, assessed, and documented archaeological village sites in order to determine a proper buffer boundary for Native Veterans land selections. [LEE]

GOAL 14: Conserve special and unique features of the Archipelago ecosystem within the Refuge.

Note: Most of the objectives listed under Goals 1 through 7 are also objectives related to the special and unique features of the Archipelago ecosystem.

- 14.1 With public involvement, develop a management plan for the Mount Glottof Research Natural Area that identifies conservation and monitoring measures to preserve and document featured values and identifies how management under the plan may influence public use and access.

Funding and staff limitations did not permit this to be accomplished in FY-2008.

GOAL 15: Promote close working relationships through effective coordination, interaction, and cooperation with other federal agencies, state agencies, local communities, tribes, organizations, industries, the general public, and landowners adjoining the Refuge whose programs affect, or are affected by Refuge management activities.

- 15.1 Routinely report results of biological and subsistence management, monitoring, and research to external audiences, including Kodiak Fish and Game Advisory Committee, Kodiak-Aleutian Regional Advisory Council, tribal councils, and other interested groups and individuals.

15.1.a. Report subsistence management results to Kodiak-Aleutian Regional Advisory Council in the Council's meeting handbook. [SAITO]

Biannual activity reports were submitted to, and discussed with, the Council. In coordination with OSM, we participated in evaluation and recommendation of candidates who submitted applications for membership on the Council. [SAITO, LEE]

- 15.2 Use and assist in the fish and game regulation process through interaction with ADF&G, local fish and game advisory committees, state Boards of Fisheries and Game, Federal Subsistence Board, Kodiak-Aleutians Federal Subsistence Regional Advisory Council, and the Alaska Migratory Bird Co-Management Council.

Staff regularly attended meetings of the local fish and game advisory board and Federal Subsistence Board. Worked with ADF&G biologists, sport fishing guides, and members of the public on proposals before the Board of Fisheries to establish Biological Escapement Goals for salmon on the Ayakulik River. [LEACOCK, PYLE, SAITO, VAN HATTEN, WHEELER]

Staff reviewed proposals before the Boards of Fisheries and Game for impacts upon management of Refuge resources. [LEACOCK, PYLE, SAITO, VAN HATTEN, WHEELER]

- 15.3 Use public processes as necessary to encourage stakeholder involvement in implementation of this Conservation Plan.

15.3.a Work closely with KUBS, Kodiak Bear Trust, Koniag, and Larsen Bay.

Worked with KUBS and offered a short-course on Guiding Bear-Viewing Programs to a group of 23 students at Kodiak College. Participated in and contributed to KUBS meetings throughout the year. Consulted with the Kodiak Bear Trust to determine future prospects and potential project support. Frequently consulted with personnel of Koniag, Inc. regarding commercial operations at Camp Island and Thumb Creek. [LEACOCK, PYLE, GETMAN, GLASPELL, WHEELER]

Discussed bear-viewing guidelines and operations during site visit to Koniag-managed lower Thumb River. [LEACOCK]

- 15.4 Continue the Refuge Information Technician program to enhance information exchange with local communities on refuge issues, particularly those dealing with subsistence and bear management (such as bears killed in defense-of-life-or-property).

Several subsistence bear hunting permits were issued but none were legally harvested. To reduce potential for misunderstanding of subsistence bear regulations, hunting permits will henceforth be issued only in person by Refuge staff. [SAITO, LEE]

Education programs in village schools involved place-based projects including Big Creek, bear collaring and bear fence education, and mapping the Wildlife Refuge. Educational materials such as powerpoint presentations and activity guides were distributed to teachers in Old Harbor to foster understanding of neighboring wildlife and lands. [LEE, PYLE]

Refuge subsistence staffers traveled to and exchanged information in village communities including Larsen Bay, Port Lions, and Old Harbor (numerous trips). [SAITO, LEE]

The Refuge hosted the annual workshop of Refuge Information Technicians at the Kodiak Refuge Visitor Center in December. Speakers presented, and RITs discussed, a wide variety of topics related to the RIT program. Spokespersons from Akhiok, Port Lions and Kodiak gave talks. A potluck was held the second night at the bunkhouse. [LEE]



RIT's In Kodiak

Lee continued her participation in Region 7's Outreach Team via monthly teleconferences, attendance at bi-annual meetings, and work on team projects such as: production of an Alaskan FWS DVD with photos, music, and FWS messages; distance delivery training opportunities; development of an RIT website; and development of a wildlife handicraft pamphlet. [LEE]

In coordination with OSM, we participated in evaluation and recommendation of candidates who submitted applications for membership on the Council. [LEE]

In a partnership with Kodiak Soil and Water Conservation District, Refuge Staff and partners traveled the west side of Kodiak Island on the Ursa Major II to visit set net sites on refuge lands and private landholders adjacent to refuge in search of noxious and invasive weeds. Information was exchanged and folks were handed a pocket booklet on invasive plants of Alaska. A total of 40 sites were visited, including 2 historic canneries, with oxeye daisy, orange hawkweed, and common tansy being the main species of concern identified. Various other introduced species were documented, including sweet rocket, bachelor buttons, and Siberian pea shrub. [LEE, LEWIS]

- 15.5 Participate in interagency activities, cooperative agreements, data sharing, and sharing of equipment and personnel to accomplish mutual management goals and objectives.

Refuge partnered extensively with ADF&G, USGS, Koniag Inc., Alaska State Troopers and others to accomplish biological studies, land management activities, law enforcement, and provide visitor services.

- 15.6 When requested, partner with community members to address bear-management concerns at villages, remote cabins, and lodges.

Refuge staff provided advice on bear management and problem avoidance to several members of the public. [LEACOCK, PYLE, GETMAN]

GOAL 16: Provide for safe, efficient, cost effective administration and maintenance of refuge facilities and programs.

- 16.1 Provide for a permanent and seasonal staffing pattern necessary to meet existing and future program management needs as identified in approved management plans.

Deputy Refuge Manager position was upgraded to a GS-485-12/13 commensurate with the responsibilities of the position. Mike Getman was hired to fill this position. [WHEELER]

Refuge Officer/Pilot Jim Traub transferred to Big Bend National Park in October, 2007 after one year of service with the refuge. Isaac Bedingfield was hired and reported to duty as our new Refuge Officer/Pilot in May and immediately began patrol duties and flew many of the biological surveys. [GETMAN]

Determined proper staffing levels to operate the new visitor center 5 days per week fall through spring and 7 days per week during the summer. Recruited and hired two seasonal park rangers and a 6-month Student Conservation Association (SCA) intern to staff visitor center through summer months and provide interpretation and environmental education activities for the public. Hired a permanent part-time custodial worker to clean the visitor center. [GLASPELL, SHAW]

Upgraded permanent EE Specialist position to GS-9 level. [GLASPELL]



Denny Zwiefelhofer Receives 30-year Pin and Certificate from Supervisor Bill Pyle

Refuge Wildlife Biologist/Ship Operator Denny Zwiefelhofer retired in August after 30 years of service to the Kodiak National Wildlife Refuge.

James Lawonn was hired as a seasonal biotechnician and worked on the Kittlitz's Murrelet project and the Upper Karluk River Brown Bear Behavior-Human Interaction study.

- 16.2 Oversee AWP and budget process including budget tracking, automated data processing, document preparation and control, time and attendance, travel administration, personnel records, and purchasing.

Managed AWP and budget entry/tracking/reconciling process. Provided manager with updates upon completion of monthly reconciliation. Budget planning meeting held in November 2007 to plan activities for 2008 field season. Expended over 99% of allocated budget. Kodiak IT network was highly dependable with only a few minor/short term outages. Travel administration, personnel records, and purchasing consistently met administrative requirements.

[CASTONGUAY]

Document preparation, time and attendance, travel administration, personnel records, and purchasing were accomplished in accordance with regulations and guidance.

[CASTONGUAY, CHILDERS]

Captured and entered travel, completed travel requests, authorizations, and travel vouchers and accomplished travel management through GOV.Trip. [CHILDERS, CASTONGUAY]

- 16.3 Work with ITRM to provide a seamless, robust, secure ITRM system useful to Kodiak users and compliant with national and regional mandates.

Refuge's computer system performed well. Worked with ITRM to process any necessary updates required by Service. No systems needed replacing. [CASTONGUAY]

Assisted with installation of the numerous tests of the new video conferencing calls from Mike Lewis while he was setting up other refuge stations. [CASTONGUAY]

- 16.4 Provide a pro-active safety program in accordance with the Station Safety Plan and other Service and OSHA policies and regulations.

Insured that all Refuge staff and volunteers received first aid, CPR, AED (defibrillator), fire extinguisher, aircraft safety, watercraft safety, bear awareness, and firearm training as appropriate. [BANYAS]

Received heavy equipment training for backhoe/loader, skid-steer loader, agricultural tractor, forklift, load securement and transport. [KING]

Installed AED units in the headquarters building and the visitor center. [BANYAS]

Held a Refuge Safety and Cleanup Week April 28 to May 2 in which all staff members participated in numerous projects and assignments. [SAFETY COMMITTEE – BANYAS, GETMAN, CHILDERS, VAN HATTEN, LEWIS]



Brian Puts Out the Fire as the Class Looks On

Purchased and installed portable energy star dehumidifiers in all rental units to reduce humidity and potential for mold and mildew. [BANYAS]

Checked, serviced, replaced, or installed additional fire extinguishers where necessary in all buildings, vehicles, and heavy equipment. [BANYAS]

Received armorer training at the Remington Arms Factory to inspect, disassemble, assemble, and modify Refuge bear defense firearms. [KING]

Replaced all emergency light fixtures in headquarters building. [BANYAS]

Installed concrete filled steel pylons around diesel and auto fuel tanks at headquarters fuel shed. [KING]

Installed dust collector and air cleaner in carpentry shop at headquarters. [KING]

Contracted and supervised the installation of hard wired, interconnected smoke and carbon monoxide detectors in all rental units. [BANYAS]

Participated in a Site Occupational Safety and Health Inspection performed by the Region 7 Health and Safety Officer. Made immediate corrections where possible. [BANYAS, WHEELER]

- 16.5 Develop and implement an aviation program to support Refuge biological, visitor services, law enforcement, and maintenance programs.

The Refuge is assigned one Husky A-1B and one DHC-2 Beaver.

A Refuge Aviation Management Plan was drafted in FY 2008 and will be finalized during FY 2009. [VAN HATTEN, GETMAN]

The aviation program goal for FY2008 was to complete as many flights as possible using refuge aircraft and pilots. This was challenging from October through May with one pilot and became much easier when Refuge Officer/Pilot Bedingfield arrived and immediately provided pilot services. Refuge pilots provided aircraft support for many programs and projects (i.e., bald eagle surveys, intensive aerial bear surveys, bear stream surveys, bear behavior studies, mountain goat surveys, various bird projects on Karluk and Frazer Lakes, coastal bird surveys, VIP orientation trips, maintenance work at cabins, and law enforcement patrols). Refuge pilots safely logged 378 flight hours on refuge projects and activities. There was a significant reduction in the number of air charter flights used and these were mainly in situations where refuge planes or pilots were unavailable or another type of aircraft was more appropriate for the job. [VAN HATTEN, BEDINGFIELD]



Refuge Officers Work Closely with the Alaska Wildlife Troopers to Enforce Hunting, Fishing, and Commercial Regulations and Activities

- 16.6 Conduct refuge LE program in cooperation with community, state and federal authorities with emphasis on prevention and education.

Refuge patrols (see 10.3) were coordinated and conducted in cooperation with Alaska Wildlife Troopers (AWT). AWT is an essential partner in the investigation and citing of state violations that occur on the refuge. Several other cases were turned over that were more appropriate for them to handle that resulted in 13 citations issued. [GETMAN, BEDINGFIELD]

The refuge was also asked to provide a program to US Coast Guard (USCGS) helicopter and airplane pilots on the Memorandum of Agreement between the Fish and Wildlife Service, Alaska Department of Fish and Game, and USCG that outlines responsibilities of each party to minimize aircraft impacts on wildlife. [GETMAN]

Numerous phone inquiries to the refuge office were received and responded to concerning hunting, fishing, subsistence, and refuge regulations. [GETMAN, BEDINGFIELD]



A Refuge Tour Was Provided to the House Appropriations Committee During their Visit to Alaska. Present in this Photo are Refuge Manager Gary Wheeler, Pamela Haze (now the Deputy Assistant Secretary – Budget and Business Management), Delia Scott, Mike Stephens, Debbie Weatherly, David LesStrang, and Deputy Manager Mike Getman.

- 16.7 Maintain and replace equipment and facilities and effectively use and update real and personal property records, SAMMS, and MMS databases.

Performed routine maintenance on all roads and parking lots, replaced two deteriorated corrugated metal culverts with new HDPE units. [KING, BANYAS]

Volunteers and staff constructed new 16'X18' storage shed/garage at Triplex #1.
[LEASURE, SMITH, TRAUB, SAITO, KING, BANYAS]

Removed old carpet and padding from headquarters Bunkhouse, purchased new carpet, pad, and vinyl, contracted and supervised flooring replacement, replaced refrigerator, range, dishwasher, and living room furniture. [MEYERS, CHILDERS, CASTONGUAY, TRAUB, KING, BANYAS]



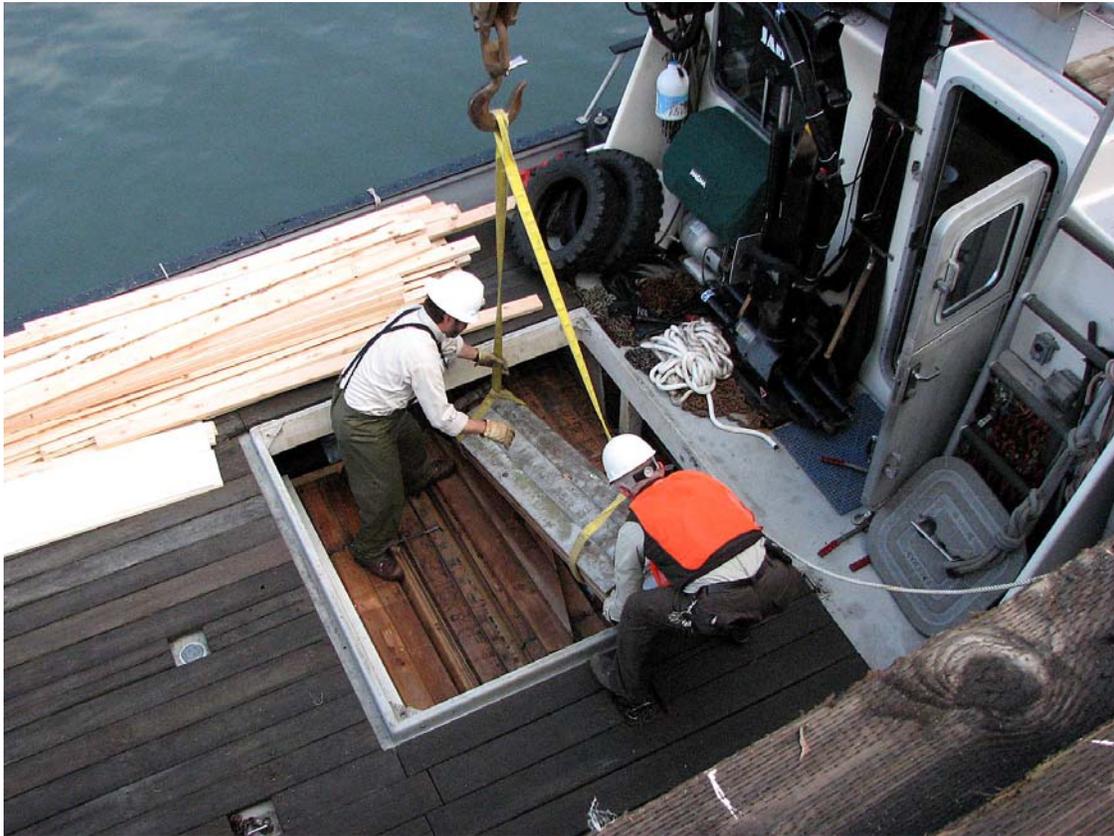
Upgraded Interior of Bunkhouse

Volunteers and staff repaired meat cache damaged by bears at South Frazer cabin, installed new larger Nordic heating stove, and performed other routine maintenance.
[LEASURE, VAN HATTEN, BANYAS]

Volunteers and staff replaced stove at North Frazer cabin with new Nordic heating stove and performed other routine maintenance. [LEASURE, KING, VAN HATTEN, BANYAS]

Volunteers and staff demolished and burned old Uganik Lake cabin and replaced it with a new 13'X20' cabin by recycling a 1965 cedar tongue and groove Panabode formerly used as a storage shed in Kodiak town. Shed was disassembled, numbered, lettered, banded up, transported to Northeast Arm of Uganik Bay via the KNWR vessel Ursa Major, offloaded

to Sheep Island via the Ursa skiff, air lifted by helicopter to Uganik Lake cabin site, and reassembled with a new foundation, floor, deck, roof, and walkways. [LEASURE, LAMBERT, KING, LEWIS, GETMAN, VAN HATTEN, BANYAS]



Jeff and Mike with Replacement Uganik Lake Cabin in the Hold of the Ursa Major II

Volunteers and staff refurbished interior of Little River Lake cabin with paneling, paint, an egress window in the bunkroom, and a Nordic heating stove. [MEYERS, CEGLOWSKI, VAN HATTEN, BANYAS]

Fire extinguishers, smoke detectors, and carbon monoxide detectors were checked, serviced, or replaced in all public use cabins. [KING, BANYAS]

Performed routine maintenance on all vehicles and heavy equipment. [KING, BANYAS]

Replaced 1984 Dodge flatbed truck with 2008 Ford F550 tilt flatbed truck. [BANYAS]

Purchased lawnmower, power washer, snow blower, ladders, and storage shed for new visitor center. [KING, BANYAS]

Contracted and supervised removal and replacement of hangar well pump. [BANYAS]

Remodeled master bath and installed new clothes washing machine in Buskin River #2 rental. [KING, BANYAS]

Contracted installation of new heavy duty bumper and suspension system on 2006 Chevy plow truck. [KING]

Plowed another record amount of snowfall, spread gravel and salt on roadways, parking lots, and walkways. [KING, BANYAS, SAITO, LEWIS]



Plowing Snow at the Hangar

Received training at Region 7 Wage Grade Workshop in Soldotna. [LEWIS, KING, BANYAS]

Furnished visitor center seasonal worker rental apartment. [CASTONGUAY, GLASPELL, GETMAN, KING, BANYAS]

Purchased DR brush chipper then volunteers and staff cleared and chipped brush along headquarters roadways and parking lots to improve visibility and ease snow removal. [LEASURE, MEYERS, CEGLOWSKI, KING, BANYAS]



Chipping Brush

Volunteers performed numerous routine maintenance jobs at the Camp Island Administrative Site. [MEYERS, CEGLOWSKI]

Replaced 1996 Dodge rack truck with new 2008 Chevy AWD van for environmental education. [BANYAS]

Volunteers and staff replaced badly weathered siding and extended roof overhangs on Camp Island Bunkhouse. [MEYERS, CEGLOWSKI, VAN HATTEN, BANYAS]

Installed aircraft wash station at the Lilly Lake fuel shed. [KING]

Purchased storage lockers for installation in headquarters Bunkhouse. [BANYAS]

Replaced old 400gallon aviation fuel tank at Lilly Lake with new self contained 500 gallon tank mounted on a concrete pad. [MEYERS, VAN HATTEN, KING, BANYAS]

Purchased 30" backhoe bucket and used it to clear ditches along headquarters roadway to improve drainage. [KING, BANYAS]

Replaced 1985 8'X16' utility/heavy equipment trailer with 2008 8'X20' utility/heavy equipment trailer. [BANYAS]



Paul Inspecting New Fuel Tank for Lily Lake

Captured in SAMMS all costs of maintenance, repairs, and supplies for all Kodiak NWR facilities which include, headquarters, shop, hanger, quarters, triplex, and Lily Lake facility. Captured costs of repairs, materials and supplies for all public use cabins and other field operation bases. This includes all utilities such as electricity, heating fuel, propane, water, sewer, trash removal and road maintenance. The labor costs for all employees and volunteers are also accounted for in SAMMS. Also included are repairs, supplies, materials, utilities and labor costs for the boats, outboards and URSA Major II. This is logged and entered on a monthly basis and at the end of the FY all cost have been captured, completed and closed. [CHILDERS]

Updated all real and personal property records; replacement of any vehicles and any excessed property has been documented and sent to the Property Specialist in the Anchorage office by the end of the FY. [CHILDERS]

The semi-annual vehicle report which includes; property number, license number, odometers reading, fuel usage, fuel cost, direct and indirect cost for each individual vehicle was accomplished on time and has been sent to the Property Specialist in the Anchorage office. [CHILDERS]

Completed the Annual Energy and Water Conservation Report for FY08 for each organizational code. Kodiak NWR has (4) which includes; cost and units of electricity, cost and gallons of heating fuel, cost and units of propane, cost and gallons of aviation fuel, unleaded fuel, diesel, and jet fuel used. [CHILDERS]

16.8 Complete annual RAPP report with accuracy, consistency, and timeliness.

Annual RAPP report was completed accurately and on time. [GLASPELL, STAFF]

16.9 Manage the Refuge special use permit (SUP) program to ensure that refuge uses are appropriate, compatible, and have minimal impact upon refuge resources.

Completed the process of updating all permit special conditions to reflect changes found in the final Refuge CCP and Compatibility Determinations. [MONZON, GLASPELL]

Issued and managed a total of 126 Special Use Permits for the following activities: air transport (7), big game guiding (25), sport fish guiding (31), small game guiding (9), wildlife viewing (20), other (34). [MONZON]

Issued permits for use of public cabins to a total of 251 parties (up from 207 in FY07) representing 1447 use days. [MONZON]

16.10 Maintain file system in accordance with Service standards.

File system was maintained in accordance with Service standards. [MONZON, CHILDERS, CASTONGUAY]

16.11 Manage the Refuge's digital and slide images to facilitate their effective use in Refuge programs and by the Public.

Refuge's digital images are being stored on a common network drive so they can be shared among the staff.

16.12 Utilize the Refuge vessel Ursa Major II and other watercraft in support of Refuge programs and activities.

The Ursa Major II spent 81 days out of port this year, and traveled over 2000 miles. The Ursa spent 7 days in the shipyard this fall undergoing annual maintenance.

Agencies and offices onboard the Ursa Major II included:

- USGS (twice)
- NPS
- NOAA(with tech)
- Brazilian (whale tagger)
- Marine Mammals Management
- AMNWR
- WA State Wildlife Biologist
- Kodiak Borough
- KNWR staff
- Kodiak refuge volunteers (VC)

Performed VIP UM2 tours, pier side and 2 for lodges near shore of Afognak Island

First part of the calendar year I swept through the RO and discussed the use of the UM2 with USGS and others. Meetings were fruitful in that different groups showed more than interest and booked time on our research vessel in 2008. [LEWIS]

Completed annual winter seabird surveys. [ZWIEFELHOFER, LEWIS, SAITO]

Arranged for a contract with National Park Service to utilize the Ursa Major II and associated skiffs to have USGS staff conduct seabird and marine mammal surveys of the Katmai coast. After departing Kodiak the trip rescheduled by the primary senior biologist on board due to weather concerns. The trip is rescheduled for early in 2009. [LEWIS]

In May the Ursa Major II hauled 18 drums of avgas, four 100-lbs propane bottles, and 3 drums of Jet A fuel to Larsen Bay where they were ferried to Camp Island by our Beaver. In mid-summer another 18 barrels of avgas were hauled to Larsen Bay. [LEWIS, ZWIEFELHOFER, SAITO, GETMAN, VAN HATTEN]

Launched the Camp Island main skiff set the running line and serviced all outboards for this years new field season on Karluk Lake, installing new hardware on the main engine and two new batteries as well. [LEWIS]

Conducted two training sessions for volunteers and refuge staff of 10. One training would take place in the USCG pool mainly on PFD's, the other in the shop and Womens Bay utilizing a 10' inflatable raft with 15 hp outboard, 18' Lund with 30 hp outboard, and one of the Ursa Major II skiffs with 90 hp outboard. Everything was geared toward vessels at Camp Island. [LEWIS]



The Ursa Major II is a Major Resource for Getting Fuel to Camp Island

Continued reading field projects as I put a skiff/OB motor with running line and gear together for Refuge Manager and two volunteers to be used at Olga Bay. [LEWIS]

Utilized the Ursa Major II and skiff to conduct seabird surveys around Afognak Island. Three weeks were set aside for completion but due to extremely good weather and moving the UM2 in evenings the surveys were finished in 14 days, covering Afognak and Shuyak Islands coast, colony counts, and offshore murrelet surveys. [LEWIS,SAITO]

The UM2 carried the replacement Uganik Lake cabin to NE Arm Uganik and staged it on the beach for helicopter transport to the lake for construction. [LEWIS, KING]

The Ursa Major II and skiff was used to assist NOAA in tagging humpback whales. During the cruise, 13 new humpbacks whales were identified and all 5 satellite tags, were put on whales and the charter was a success. [LEWIS, ZWIEFELHOFER]

The Ursa Major II departed with two USGS employees, one Marine Mammals employee, one Kodiak City/Borough employee, and Tonya Lee. Three different jobs were to be conducted with the main purpose being to assess weeds on refuge set-net sites. Other jobs done while out would yield important sea-otter foraging data and tag sightings, and Brad Benter with Marine Mammals Management met with Natives in a local village regarding the mammal tagging program. All of this was accomplished in one week with Uyak Bay the final destination. [LEWIS, LEE]

In September, the UM2 was lifted from the water for the annual dry docking, hull sanding and painting and replacement of the zincs as well as other out of the water work needed. [LEWIS]

- 16.13 Continue to acquire private lands inside the refuge boundary in accordance with the Land Conservation Plan as opportunities arise from willing sellers.

A 9.5-acre parcel located on the eastern shore of Amook Bay was purchased in March 2008 from the Kodiak Island Borough.

- 16.14 Assist the Regional Office realty division when land actions or program action activities occur.

The refuge was actively involved with the Native Veterans Allotment program again. Seven applicants that had applied for parcels off the refuge, were determined eligible for the program, but had received an inconsistent determination from the State of Alaska then became eligible for alternate sites on Federal lands anywhere within the Koniag ANCSA region that included the refuge. All seven applicants were interested in selecting and receiving refuge lands. Rather than have the applicants select parcels on their own, the refuge NVA team identified refuge areas without high value wildlife habitat values (heads of bays, high bear use areas, anadromous streams) and contained land characteristics desired by applicants (located on salt water, protected anchorage, freshwater source, flat area suitable for cabin site, not too steep terrain). Maps of these areas were prepared and provided to BLM who did an excellent job of encouraging the applicants to select from these lands. The process went smoothly and all applicants received

consistent determinations and were granted their parcels. Seven parcels totaling 383.5 acres were divested in this process. [GETMAN, WHEELER]

The following is a list of Right Of Way permits on refuge and other administrated lands:

<u>ROW Permit #</u>	<u>Type</u>	<u>Permittee</u>	<u>Expiration</u>
R-5-KD	Highway	DOT	none
M-97-KD	Bridge/Near Island	DOT	4/1/2033
R-277-KD	Driveway Easement	Louis Iani	2012
M-326-KD	Olga Lake Weir Site	Fish & Game	2045
M-327-KD	Weir Sites	Dog Salmon, various	2045
M-332-KD	Meteorological Tower	KEA	1/24/2009

The refuge was also approached this year by Kodiak-Kenai Cable Company concerning the requirements to obtain a permit for construction of a microwave tower system that would provide cell phone and internet service to all the villages on Kodiak Island. Several of these towers would be located on refuge lands. A pre-application meeting was conducted in Anchorage and video conferenced to include Kodiak staff. The Right-of-way application and NEPA processes were discussed. The Service is now awaiting a decision by the company on whether they plan to proceed with their plans or not.

