

Kodiak Refuge 2017 Community Report

The Kodiak National Wildlife Refuge would like to thank the Kodiak communities for their involvement and support in 2017. This report highlights public engagement, partnerships, and biological monitoring of public lands and resources.

In the Community



Traveling Visitor Center

A May visit to Old Harbor included tours of the Refuge research vessel, Ursa Major II, visits to the school and a tour of the village, and awards to 6 students for their submission of migratory bird artwork to a statewide calendar contest.



Migratory Bird Outreach

Outreach and Law Enforcement staff coordinated with the Sun'aq Tribe of Kodiak to provide information to the public about migratory bird subsistence harvest and the 2017 change in regulations that opened subsistence harvest of Emperor Geese for the first time in 30 years.

Bear Safety Education

Refuge staff partnered with the Kodiak Brown Bear Trust, Kodiak Island Borough School District, Alaska Department of Fish and Game, and the US Coast Guard to support a variety of bear safety education through PSAs, trainings, and outreach.

Kodiak Community Bear Sculpture Unveiling



On August 19, a community celebration at the Refuge Visitor Center welcomed a new bronze bear sculpture. A symbol for residents, the Kodiak brown bear represents a rich history of human connection to wildlife. For the past two years, a team led by the Kodiak Brown Bear Trust has worked to bring this symbol to downtown Kodiak as permanent public art and Island icon. This successful project reflects the spirit of collaboration for conservation and management of bears and their habitat, and continues the legacy of a much-loved bear statue that honored Charles Madsen, early bear guide and champion of the Emerald Isle.



Education

Salmon Camp

In total, the Refuge held seven sessions of this popular week-long science day camp on the Kodiak road system, and visited Akhiok, Uzinkie, Karluk, Larsen Bay, Old Harbor and Port Lions for multi-day open camps. A big thank you to the Kodiak Island Borough School District for use of schools in Karluk and Akhiok this summer for locations for Salmon Camp! This partnership allows us to provide free camps in our Kodiak island communities. Salmon Camp also receives support from Alaska Geographic and the Prince William Sound Regional Citizens' Advisory Council. Local organizations like the Kodiak Regional Aquaculture Association, Sun'aq Tribe of Kodiak, and Alaska Department of Fish and Game are valuable education partners.



100 people attended a free Salmon Camp "pop-up" session during a summer lunch program at the High School. Teenagers from the Refuge Youth Conservation Corps and the Refuge Youth Leadership volunteer program led eight sessions, including lessons on the Exxon Valdez oil spill and oil spill clean up, owl adaptations and owl pellet dissection, bear scat and bear safety, and a recycling relay. Special thanks to Lori Siebe with KIBSD, Prince William Sound Regional Citizens' Advisory Council, and Threshold Recycling.

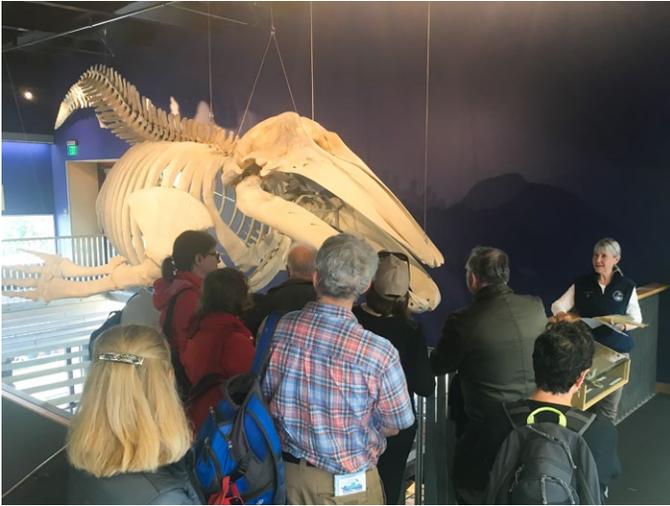
Youth Conservation Corps Summer Employment

Kodiak Refuge Youth Conservation Corps employed 4 local teens for the summer, exposing them to different career paths and engaging them across Refuge programs. They assisted with cabin and site maintenance, and also partnered with Kodiak State Parks to improve trails on Shuyak Island. They also led public outreach in town, through a nature photography lesson for a USCG youth outdoor program on the Termination Point trail and a nature journal art walk show with the Kodiak Arts Council.



Visitor Center Education Programs: Families Understanding Nature: 55 programs with 1628 participants, Happy Trails: 11 programs with 172 participants, Wildlife Investigation Learning & Discovery: 11 programs with 221 participants; 11 special programs with 434 participants. **School Program Visits:** 24 visits with 410 students served.

Visitor Center, Public Use, Permits, & Volunteers



More than 23,000 people enjoyed the Visitor Center.

Two seasonal park rangers and one Student Conservation Association intern provided interpretation and education programs throughout the summer, 7 days a week. Winter staffing included one intern and volunteer assistance, with family education programs offered throughout the year.

Staff and volunteers greeted **17 cruise ships** and served ferry passengers year-round.

We partner with Alaska Geographic, a non-profit bookstore, and employ a local bookstore manager part-time.



Nearly 300 people visited Refuge **Public Use Cabins**.

The Refuge completed a 2-year social science study in cooperation with Utah State University to assess the quality of current **bear viewing access and opportunity**. The study included interviews with a cross-section of community stakeholders and a survey of visitors. 93% of survey respondents reported that their trip met or exceeded their expectations and positive changes in attitude and knowledge of bears, bear habitat, and bear conservation. Results from this study will help the Refuge update a Visitor Use Management Plan. A summary report is online: https://www.fws.gov/refuge/Kodiak/what_we_do/science/social_science.html



Guides with Special Use Permits for wildlife viewing, sport fish guiding, big game guiding, and air taxi served more than 2,300 clients.

In July, Refuge staff visited 21 of 25 **permitted set net sites** within Refuge boundaries, using the opportunity to engage with commercial fishermen and discuss concerns.



In August, the Refuge completed required permits to **allow Kodiak Electric Association to construct a 1.2 mile tunnel** from Upper Hidden Basin Creek to Terror Lake to supplement waters for hydroelectric power, increasing capacity by 33 gigawatts from current 161 gigawatts of generation.

45 people donated 5332 hours as volunteers to Refuge operations and programs, valued at \$148,229 and the equivalent of 2.5 FTE positions.

More than half of our volunteers were youth.



Science: Monitoring & Research

Wildlife & Habitat Surveys

- **Seabird colonies:** In 2017, a total of 121,000 seabirds were surveyed at 150 of 180 (80%) of the colony sites in the vicinity of Kodiak Island. Surveys occur every 7-8 years. Biologists observed that 2017 was a poor summer for nesting gulls and terns; almost no young chicks recorded during either June or August surveys.
- Research vessel and staff also supported National Park Service **seabird colony** surveys along the Katmai coastline.
- In collaboration with ADF&G, we annually survey **brown bear** in late May to monitor trends in population size in different regions of Kodiak Island. In 2017, we conducted aerial surveys for a 122 square-mile area between Sturgeon River, Akalura Lake, and west Frazer Lake, and estimated a density of 190 independent bears (adults & subadults)/1000 km² for an actual total of 60 independent bears in the area.
- The Refuge annually surveys **brown bear population composition and habitat use** along selected streams of southwest Kodiak Island using weekly aerial flights from July-August. We completed 18 surveys this summer and counted more bears/survey in 2017 (66 bears/survey) than in the recent past of 43 bears/survey (2008 - 2015), but less than the long-term number of 85 bears/survey (1985-2005). Family groups made up 41% of the sightings in 2017. The long-term average is 25%.
- We continued to monitor bear use along three streams in the Karluk Lake basin using automated timelapse cameras.
- We counted adult **sockeye salmon** returning to Akalura Lake for a third consecutive year. Monitoring was initiated on July 6 and will conclude September 30.
- The Refuge and ADF&G collaborate on **mountain goat** monitoring and research. In 2017, annual monitoring of herd composition and distribution was conducted between late July and mid-August using aerial surveys.
- The Refuge implemented annual monitoring of the **berry availability to brown bear** following conclusion of applied research of methods in 2015-2016. Preliminary results of 2017 indicate a low supply of elderberry, salmonberry, and blueberry due to overwinter top-kill of stems in low to mid elevations of Kodiak Island.

Research

- In cooperation with ADF&G and other researchers, Refuge biologists monitored nesting Aleutian tern and Arctic tern throughout the archipelago in hopes of determining reasons for population declines throughout coastal Alaska. Research to continue in 2018.
- The technical paper "Phenological Synchronization Disrupts Trophic Interactions between Kodiak Brown Bears and Salmon" was published in the Proceedings of the National Academy of Sciences in August. This paper, based on Service-sponsored cooperative research, describes response of bears to variation in availability of salmon and berries between 2013-2015 in the Karluk Lake region.

Science: Public Engagement

Engaging citizens with scientific research, monitoring, and management

- 8th year of Monitoring Avian Productivity and Survivorship: citizen science partnership with Audubon Society and Kodiak College. Banded 173 new songbirds on the Buskin River site and recaptured 24 birds banded during previous years. Data used by Institute for Bird Populations to track large-scale trends. 20 local volunteers participated.
- Berry monitoring "Field Day" with stakeholders and partners to demonstrate methods.
- Staff presented to local organizations: KUBS, Kodiak Rural Advisory Committee

Kodiak National Wildlife Refuge was established August 19, 1941 and is managed by the U.S. Fish and Wildlife Service.

The mission of the National Wildlife Refuge System is:

To administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.