



Alaska Peninsula/Becharof National Wildlife Refuges

Newsletter - Winter 2013-2014

"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."

National Wildlife Refuge System Improvement Act of 1997

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Mount Veniaminof's erupting cone, Chignik Unit, Alaska Peninsula NWR. USFWS/ Jim Wittkop

Volcanoes Active on Peninsula

The village of Perryville was dusted with ash from multiple eruptions in 2013 out of Mount Veniaminof, a National Natural Landmark and part of the Alaska Peninsula National Wildlife Refuge. Chignik Lake residents also complained of noxious gases blown from the volcano.

Mt. Veniaminof has a record of many recent eruptions, dating from 1830. It has a far deeper history, revealed by the thick layers of rock material that blanket the region.

Today, it is 8,225 feet high; but it was once much taller. 25 square miles of ice fill the massive crater, feeding glaciers that spill through gaps in the crater wall.



Mount Chiginagak from Mother Goose Lake. USFWS/ Jim Wittkop

Mount Veniaminof is not the only active volcano within the Refuge. Mount Chiginagak, visible from Pilot Point, sends up a near-constant steam plume. In 2005, an eruption melted ice at its summit, and a flood of sulfuric acid poured into Mother Goose Lake. Every living thing in the lake died; but life is returning as the water shifts slowly to normal pH levels.

Science and Culture Camp Held in King Salmon a Success

When the budget for Alaska's wildlife refuges was reduced this year, regional funding for science and culture camps was cut. Without regional funding, it looked like our annual camp wouldn't happen at all.

Every year, we organize a week-long science and culture camp. It is usually held at Bear Creek (formerly Bible Camp), a site on the north shore of Becharof Lake, within a federally designated Wilderness. This remote location has been home to the program since 1997.

Running camp in a remote site is costly. Besides purchasing supplies and food, planes must be chartered to bring in all the equipment, instructors, and students, and again to bring them out.

As a government entity, the Refuge cannot ask on its own behalf for financial assistance. This is where non-profit organizations like Friends of Alaska National Wildlife Refuges (Friends) can step in. Friends exists to promote conservation of refuges "through understanding and appreciation, assisting the USFWS, and through outreach to decision makers." On our behalf, Friends raised \$5,380.

It wasn't enough for the remote camp; but Visitor Services Manager Julia Pinnix drafted a proposal for a King Salmon-based program and met with Refuge staff and the two local school districts, Bristol Bay and Lake and Peninsula. Everyone agreed it could work.

An advantage of hosting camp in King Salmon is its much lower cost. Instead of multiple airplane flights, we needed only to rent a vehicle for local ground transportation. The proximity of Refuge staff meant we could have a long list of instructors. Katmai National Park also supported the program, helping to get students out for a day trip to Brooks Camp. Volunteer instructors Carl Ramm, Tom Prang, and Rod Cyr rounded out the program, along with guest speaker and elder Paul Boskoffsky.

Through Friends, Bristol Bay Economic Development Corporation (BBEDC) offered a generous sum. Icicle Seafoods of Seattle and Egegik also chipped in, as did Beth Pokorny. The University of Alaska, Fairbanks, provided free tuition for the students to earn two credits, thanks to Laura Zimin. Paug-vik Native Corporation gave permission for the students to walk on their lands. The Southwest Alaska Vocational Educational Center (SAVEC) discounted the rate for rental of a 14 passenger vehicle. Camp could not have happened without these generous supporters.

The King Salmon version of camp offers a very different experience from the Bear Creek version. Three students from the 2012 camp attended this year; and each pointed out new things they had the opportunity to learn. This year's camp was so successful that the Refuge now hopes to continue to offer both camps, alternating each year.



Excavation in progress. USFWS/ Julia Pinnix



Lesson in aquatics. USFWS/ Ronne Richter



Elder Paul Boskoffsky, who helped start the Christian camp that would one day become the wilderness site for the Refuge's annual science and culture camp, assisted this year as in many others. Paul's life is a model of perpetual learning. He shared his philosophy as well as his personal history as a resident of Kanatak Village, now uninhabited, on the Pacific Ocean side of Becharof Refuge.

Photo credit: USFWS/Orville Lind

New Topics Emerge in New Version of Camp

Hosting our annual science and culture camp in King Salmon this year turned out to be a great choice. Born of a combination of necessity and determination, this “urban” camp offered a very different blend of opportunities from the traditional version.

In the past, camp has been held in Becharof Wilderness, a remote setting that powerfully influences the experience. Wildlife frequently passes right through the cluster of small cabins housing participants; and the sweeping vistas across Alaska’s second largest lake are awesome. King Salmon may not have majestic Mount Peulik standing sentinel, but the variety of habitats accessible along the 30 mile road system make up for this.

Students explored the fringe of the boreal forest, tundra, salt and fresh water ecosystems, and the myriad plants and wildlife that call these habitats home. They learned to navigate with GPS, to use specialized tools for sampling and observation, and explored the past as well as the present.

Lake and Peninsula School District sent seven students and two teachers to participate. Bristol Bay School supplied an additional five students, who commuted daily to camp. There were five very full days of instruction, sometimes starting at 7 a.m., sometimes ending at 9 p.m.

High on the list of best experiences for the students was a day trip to Brooks Camp. Katmai National Park provided a boat; and in tandem with our *Refuge Runner*, ferried twelve students and four adults across Naknek Lake on a perfectly calm morning. The group visited the barabara exhibit, a reconstruction of traditional housing found in the region. They also visited the viewing platforms and learned about bears and bear behavior—with living examples present!

Another highlight was a mock archaeological dig. Two pits at our headquarters were seeded with layers of artifacts and other items representing different time periods from the region. The students learned the techniques of archaeology as they systematically excavated the pits and analyzed their findings.

An evening learning about traditional stone tools and ancient technology was memorable for many.

Mist-netting for birds kept attention riveted on one early morning. Although by the second week of September bird numbers and variety have dropped dramatically, a few small birds were captured, examined, and released, demonstrating bird biology in action.

Students learned the basics of biological illustration, as well as techniques for recording their observations in the form of drawings. They practiced on both plants and birds.

Despite hordes of swarming insects, the students enthusiastically honed their skills one evening with atlatls. These simple spear-throwers were used worldwide by all our ancestors; and were still in use in the early 1900s in this region. Students used handcrafted atlatls and darts and aimed for targets and for distance.

Getting to talk with Refuge staff about their work was mentioned as a favorite activity. So were traditional games like enaguk, a version of darts with wooden fish as targets.



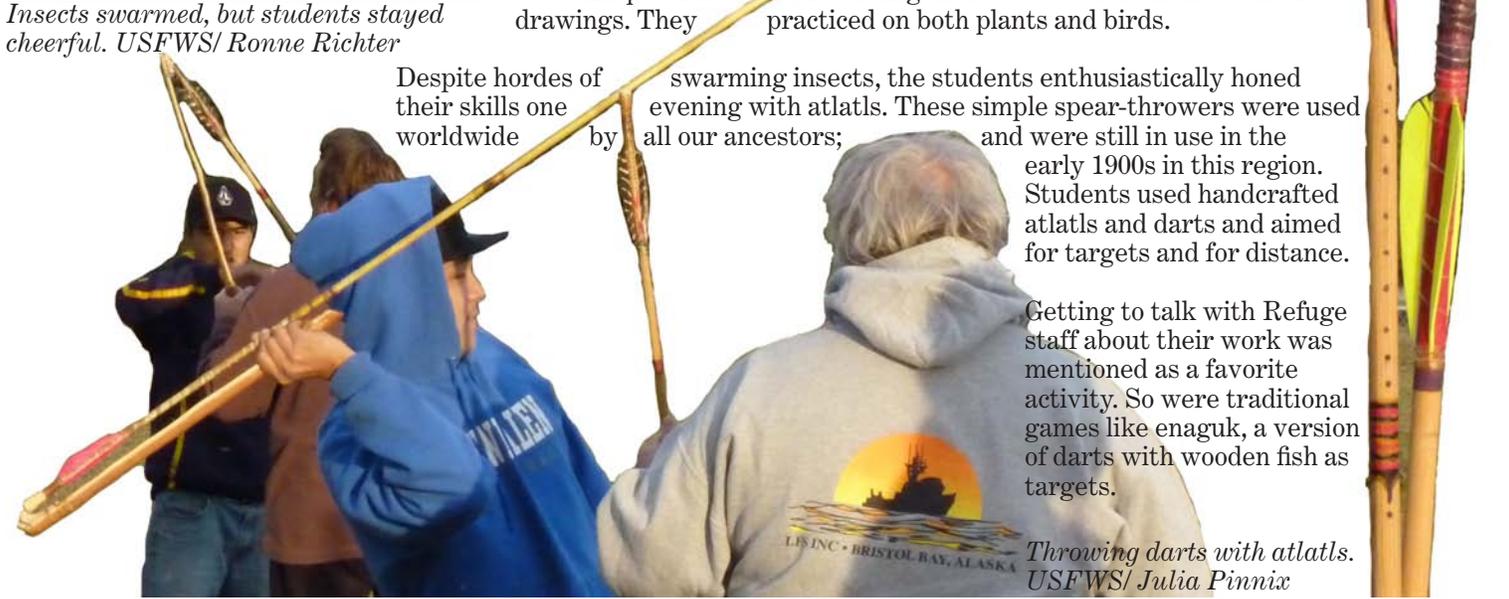
Gabby holds a fox sparrow after banding. USFWS/ Julia Pinnix



Bear-watching at Brooks Camp. USFWS/ Nate Ward



Insects swarmed, but students stayed cheerful. USFWS/ Ronne Richter



Throwing darts with atlatls. USFWS/ Julia Pinnix



Joni Johnson at work. USFWS/ Kevin Payne

Summer Field Experience the Right Path for Volunteer

Jonelle Johnson, a senior at the University of Minnesota, Minneapolis, joined the staff as a volunteer this summer. She provided over 800 hours of service from April through August in our biological program.

Joni came to the Refuge so she could gain practical experience in the field of wildlife biology. She experienced serious field conditions in early May, camping in snow and freezing temperatures for ptarmigan surveys. Joni learned to dry her boots before evening so they wouldn't be frozen at sunrise! During the spring, she helped complete 14 ptarmigan surveys and two Alaska Landbird Monitoring Surveys by June. She learned most of the local birds by sight and sound. She also tended a wildlife camera and flew 45 hours of low level tundra swan surveys in August.

Joni spent many hours helping with field logistics, entering data into the computer, reviewing photos, and assisting with Geographic Information System (GIS) analysis of various data sets. She learned that she does want to pursue her interest in birds for a career in wildlife studies. Joni is now enrolled in a GIS certification program, in addition to completing her BS degree in Wildlife Management.

Pilot Owl Study Established

During the winter of 2013, staff from the Refuge collaborated with Katmai National Park and Preserve to conduct road-based surveys of boreal forest owls. The route surveyed runs from Lake Camp to King Salmon. This is the second year of surveys, intended to establish a baseline inventory for owls in the King Salmon vicinity, including winter presence and timing of arrival in spring.

This year's main objective was to test a new survey protocol, which included a five minute silent listening period followed by playback of the calls of two species: northern saw-whet owl and boreal owl. Refuge Wildlife Biologist Susan Savage and Park Biologist Sherri Anderson also modified the route slightly to include only 10 stops and began surveys 60 minutes after sunset. They completed four surveys from February to May, with the first being a listening-only survey.

Over the course of all the surveys, they made two detections of boreal owl (in February and May), one of northern saw-whet owl (in May), and 11 detections of great-horned owl (over multiple surveys).

They plan to repeat surveys in winter 2014 using the same protocol. The final results will be presented in a progress report available from Susan or Sherri.



Great horned owl. USFWS/ Julia Pinnix

Terns a Concern

Since the 1970s, Aleutian tern colonies around the state have declined or vanished. Since Aleutian terns sometimes change their nesting locations, surveys are needed to help reveal the bigger picture. Alaska Maritime National Wildlife Refuge staff asked Wildlife Biologist Susan Savage and Volunteer Richard Russell to survey the Aleutian tern colony near the Kvichak beach. Several surveys were conducted in June and July.

Aleutian terns may be a common sight in Naknek in summer, but they are a rare bird. Globally, the population is estimated at less than 20,000. They breed only in Alaska and eastern Siberia. Little is known about where they might winter. Unlike Arctic terns, who aggressively defend their nest sites by dive-bombing trespassers, Aleutian terns will hover above the colony when disturbed.



An Aleutian tern brings food to its chick. USFWS/ Rod Cyr



Kevin Payne on survey. USFWS/ Joni Johnson

Landbird Monitoring Continues

Refuge staff completed four landbird focused surveys in summer 2013: a roadside survey of breeding birds, two Alaska Landbird Monitoring Survey (ALMS) blocks, and an off-road point-count.

Wildlife Biologist Susan Savage and Volunteer Bob Blush completed the 21st annual King Salmon Breeding Birds Survey on June 8. Starting from Lake Camp and ending at Kvichak Bay, the survey includes 50 stops for three minutes each, done early in the morning. A network of road-based surveys across Canada and the U.S. focuses on detecting population trends primarily in songbirds. This year's survey, including number of birds and number of species, was close to the 21 year average. Examine the data for yourself at: <https://www.pwrc.usgs.gov/BBS/results/>

Maintenance Worker Kevin Payne and Wildlife Intern Joni Johnson completed two ALMS blocks during June. They visited a plot at Lower Ugashik Lake, then flew to the mouth of Mother Goose Lake, where they floated the King Salmon River to the second plot. This is the second year these blocks have been surveyed. The Lower Ugashik plot is especially difficult, as several of the points require climbing steep, alder-choked slopes after crossing wetlands. The 23-25 points at each location require 3-4 days of survey effort.

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Some of the more unusual species encountered included rock ptarmigan, alder flycatcher, and marbled godwit. Forest-dependent species such as northern goshawk, downy woodpecker, tree swallow, and pine grosbeak were found in the cottonwood forest along the King Salmon River.

Susan and Bob also traveled to Ruth Lake in late June to establish an Off-Road Point-Count along the Kanatak Trail. The goal was to add some higher elevation areas to our other landbird sampling areas. They established 13 point counts along the trail and did detect species normally found in barren habitats or at higher elevations, including semi-palmated plover, American pipit, and snow bunting; but were disappointed not to find gray-crowned rosy-finch or rock ptarmigan.

Ptarmigan Density Estimated

The ALMS and Kanatak data contributes to a statewide database managed by Alaska Science Center (US Geological Service). Contact Susan Savage at 246-1205 if you're interested in reading the reports from our Refuge.

Land managers, hunters, climate scientists, and predators all have an interest in willow ptarmigan populations. Wildlife Biologist Susan Savage, Maintenance Worker Kevin Payne, Wildlife Intern Joni Johnson, and Volunteer Bob Blush conducted surveys for the third spring in a row. This year, we focused our area of interest from the Naknek River to the Upper Ugashik Lake area.

During the month of May, we conducted 18 line transect surveys in nine general locations. Survey areas were: Jenson Strip, north of Blue Mountain, Becharof Outlet, Shosky Creek, King Salmon River near Egegik, Eight Mile Site (Alaska Peninsula Highway), Ralph's Road-Naknek, Bear Creek Camp (Bible Camp), and Gertrude Creek. We also attempted to boat up Big Creek, but extremely low water blocked access to our selected survey sites.

The survey procedure requires walking a straight line for about 4 km, starting shortly after sunrise, recording the distance, bearing, and observer's waypoint for every ptarmigan observed. Other information is also collected, including several descriptors of behavior, habitat, detection criteria, and molt. Other species of birds and mammals were also tallied.

Back in the office, we use Geographic Information Systems (GIS) software to turn our data into ptarmigan locations on a map. Then we use the software to measure the bird's distance from the transect line. We then use commonly applied software to obtain a density estimate. We can't sample randomly because of logistical and budgetary limits, so our estimate only applies to the areas sampled.

This year the estimate was 27 male ptarmigan/km² (about one ptarmigan per 9 acres). Although not directly comparable because our sample area was different and our sample size was smaller, in 2012 our estimate was 15 male ptarmigan/square kilometer (about one ptarmigan per 16 acres).

We plan to repeat the survey. Lessons learned in 2013 will be applied to try to increase the sample of transects. The final results will be presented in a progress report (available from Susan Savage).



Ptarmigan. USFWS/ Bob Dreeszen



Avoiding Eagle Bycatch in Trapping

Trapping is a popular winter activity in the region. Every year, our Refuge is called to help injured bald eagles that have been caught in traps. Eagles, like other migratory birds, are a protected species. We all have a responsibility to prevent eagles from being harmed by trapping or other activities.

Bald eagles are protected under the Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act of 1940 (amended in 1962). These laws protect eagles from being killed or disturbed, and even prevent the collection of feathers. Bald eagles have recovered from endangered species status in the Lower 48; Alaska's larger populations were depressed due to a bounty that ran from 1917 to 1952. The ban on DDT (an insecticide harmful to birds), habitat protections, and increased awareness by the public helped eagles recover.

One way of protecting eagles is to learn trapping methods that avoid bycatch. On Refuge lands where federal trapping regulations apply, all traps and snares must be placed a minimum distance of 30 feet from bait exposed to sight. Although it is not illegal to set traps or snares closer to bait on state or private land, it could be very costly if an eagle is killed. A trapper could face fines of up to \$100,000 and one year in prison for killing an eagle if her or she did not take measures to avoid bycatch. By simply placing traps and snares 30 feet or greater from bait exposed to sight, the trapper can rest easy knowing they will be catching their target species without the risk of accidentally trapping eagles.

The "Alaska Trappers Manual," published by the Alaska Trappers Association (ATA), also recommends keeping traps and bait well separated. An animal caught too close to a bait source will frighten others away, according to the "Alaska Wolf Trapping Manual," also published by the ATA. Setting traps and snares farther from a bait source keeps the bait working longer. These manuals as well as a DVD on wolf trapping can be purchased on-line or checked out from the King Salmon Visitor Center library: 246 4250.

Injured eagles can sometimes be rehabilitated. If you find one, call our office for help: 246-3339. Eagles can seriously injure people with their sharp and powerful beaks and talons. Handling them can be dangerous.

Live birds are sent to the Bird Treatment and Learning Center (Bird TLC) in Anchorage for examination by a veterinarian. If the bird can be rehabilitated, it will be cared for until it heals. Birds that are released often make their way back to the home territories. In 2011, 3 of the 4 eagles we sent to Bird TLC had to be euthanized. In 2012, we sent in one live eagle that was rehabilitated. Two birds were sent in 2013, and one is still being rehabilitated. Visit www.birdtlc.net to learn more.

If you find a dead eagle, you can bring it to our office or call us to pick it up. These are sent to the National Eagle Repository in Colorado. Many Native Americans use eagles and eagle parts in religious ceremonies, and can obtain what they need from the Repository.



Bald eagle images by Bob Dreeszen

Popular Site Vulnerable

Bear Creek Camp, known to many locals as Bible Camp, is a popular spot for pilots, hunters, anglers, students, and other visitors to Becharof National Wildlife Refuge. It can be accessed from the water, and small planes can land from two directions on the nearby gravel flats. A cluster of cabins provide shelter. But vandals have taken a toll.

The cabins were originally built in 1967 by a group of local residents founding a Christian camp. When the Refuge was established in 1980, the site became part of the Refuge. The camp continued to operate under a special use permit. In 1997, after the founders decided to discontinue camp, the Refuge began holding an annual science and culture camp on site.

For the protection of visitors, we leave emergency equipment in one of the cabins. Sadly, some of this equipment was stolen this winter. It is not the first time. Gear left in the cabins is not forgotten: it is there for use when weather or other problems trap visitors there. When it is stolen, it endangers everyone.



View of Mt. Peulik from Bear Creek Camp. USFWS/ Julia Pinnix

Refuge Week Celebrated Late

National Wildlife Refuge Week is typically celebrated in October—but this year, the government shutdown canceled all plans. We like to bring in live bird demonstrators for Refuge Week, and luckily were able to reschedule the presenter to come in November instead.

Sharon Larson, a volunteer for the Bird Treatment and Learning Center in Anchorage, accompanied a short-eared owl (“Flame”) and a northern hawk owl (“Ulu”) to King Salmon. On November 8, Visitor Services Manager Julia Pinnix took all three to Bristol Bay School in Naknek for a morning assembly. Sharon introduced the birds to 125 students and teachers.

The next day, Sharon showed Flame and Ulu to 42 visitors in the King Salmon Visitor Center. Cake, snacks, and beverages were served in celebration of National Wildlife Refuges.

Injured birds that cannot be rehabilitated and released can sometimes become education birds like Flame and Ulu. Bird TLC can only keep the number of birds allowed on their USFWS permit. If they have additional birds that cannot be released, they try to place them in other facilities.

Also on display were two pieces of artwork by Refuge staff. Each year, we try to add to the interpretive exhibits in the office; and this year asked two employees to use their artistic skills to illustrate the work we do.

Refuge Ranger Orville Lind painted an image of the *Research Vessel Arlluk* off Alaska Peninsula NWR’s Castle Cape. (The *Arlluk* sank in Kodiak harbor in January.) Wildlife Refuge Specialist Liz Julian drew a collared moose and her calf in



Orville Lind’s painting of the R/V Arlluk near Castle Cape. USFWS/ Julia Pinnix



Liz Julian’s pencil portrayal of Refuge research. USFWS/ Julia Pinnix



Sharon Larson displays Ulu, a northern hawk owl. USFWS/ Julia Pinnix

Becharof NWR, with our Aviat Husky plane circling overhead. Both pieces are now on permanent display in the office interpretive exhibit.

Alaska Geographic funds support special events like these. Peninsula Airways also helped make our celebration a success by waiving fees for the transport of the owls. Thanks to our partners for their support!



Rare Birds Sighted During Christmas Bird Count

Twenty people participated in this year's Christmas Bird Count on Dec. 21st, despite the first rain on record in 28 years of King Salmon/Naknek counts. There were a number of records set.

Boreal chickadees were found in their greatest ever observed numbers, as were mew gulls. American dippers were added to the count week list for the first time. Only two other winter records for dippers exist for our area.

Another rare winter bird for this region was spotted at a feeder: a white-crowned sparrow. This species is a common summer breeder here, but seldom spends the winter. The last one seen during the Christmas count was in 1986. This individual has been here for several months.

1,602 birds of 18 species were observed on count day, better than the average.

Wildlife Biologist Susan Savage writes a summary each year of the Christmas Bird Count. For a copy, contact her at 246-1205; or Susan_Savage@fws.gov. Volunteers are welcome to join in another bird count for International Migratory Bird Day on May 10, 2014. Susan will post notices as that date approaches. Join us in tracking the incoming spring migrants in May!



American dipper. USFWS

For more information, or to order a free printed or electronic copy, contact Visitor Services Manager Julia Pinnix. Julia_Pinnix@fws.gov. (907) 246-1211. P.O. Box 277, King Salmon, AK, 99613.

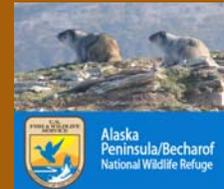
Please Report Bird Bands

There is *no penalty* for shooting marked birds. Returned bands help biologists get information.

Report your bands here:

1-800-327-BAND
www.reportband.gov

You can also call Susan Savage at the King Salmon USFWS office: 246-3339.



Check out our Facebook page!
<https://www.facebook.com/pages/Alaska-Peninsula-and-Becharof-National-Wildlife-Refuges/108651625965423?ref=ts&fref=ts>

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