



Alaska Peninsula/Becharof National Wildlife Refuges

Newsletter - Spring 2015

"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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Some of the Refuge staff in the King Salmon Visitor Center. USFWS/Julia Pinnix

Multiple Changes to Staff Bring in New Faces

In the past year, a number of changes have taken place in Refuge staff. Former Deputy Refuge Manager Kelly Chase moved to Anchorage to work for Chugach National Forest. She was followed by Supervisory Wildlife Biologist Ron Britton, who also went to work for Chugach NF. Wildlife Biologist Susan Savage retired on the last day of 2014, although she is continuing to volunteer until midsummer 2015.

Replacing Kelly as Deputy is Tom Cady, who arrived in January from Craig, where he was the manager of the Fisheries, Watershed, Wildlife, and Subsistence office for two ranger districts on Price of Wales Island in Tongass National Forest. Melissa Cady was selected as a Wildlife Biologist focusing primarily on birds, filling in behind Susan.

To assist with the Visitor Services program during the winter, Visitor Services Specialist Sara Wolman joined the team in December as a seasonal employee. Katie Nicolato signed on as a volunteer Education Specialist and joined her in delivering programs to 8 village schools in January and February. In March and April, Sara and Katie brought a new caribou program to 6 village schools, and conducted special educational programs in Naknek and King Salmon.

May 1 is the last day of work for Visitor Services Manager Julia Pinnix, who has accepted a position as Information and Education Specialist at the Leavenworth National Fish Hatchery in Washington State. A series of detailees will fill in behind her until a replacement can be hired. To help support the King Salmon Visitor Center during the busy summer season, volunteer Janet Sazawa will be returning for her third visit. Janet will work out of the visitor center, helping with a variety of projects.

Read more about the people and the projects in this edition of our newsletter...

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.

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Avian Wildlife Biologist Retires

After almost 18 years as the Avian Wildlife Biologist for the Refuge, Susan Savage retired in December 2014. Although she is no longer paid, she continues to volunteer, mentoring the new biologist, Melissa Cady, through a season of field research. Susan has built an impressive array of avian research programs, many of which rotate on a multi-year schedule.

Susan shares her thoughts on her career...

I have been interested in birds since my teens. My neighbor had an apple tree outside my window and in May it would be full of half a dozen or more different warblers; my mom would help identify them.

I studied biology at Albion College in my home state of Michigan where I took my first ornithology course and then went to Kent Island in the Bay of Fundy for honors thesis field research on Savannah Sparrows. I also gained my love of the sea by attending Sea Semester out of Woods Hole, Massachusetts. I completed a Master's degree at Ohio State University studying vocal behavior of the Rufous-sided (now Eastern) Towhee.

After two seasonal jobs with USFWS in Alaska, I was recruited by the National Park Service in the Washington, D.C., office to work on Integrated Pest Management. I then moved to Katmai National Park to become the first Subsistence Biologist in 1991, and then to the Alaska Peninsula/Becharof NWR in 1997.



Susan Savage shows a student how to handle a boreal chickadee. USFWS/Julia Pinnix



Susan Savage with tree swallow. USFWS/Jessica Howell

My work has involved inventory and monitoring of bald eagles, tundra swans and other waterfowl, common murrelets and other seabirds, willow ptarmigan, shorebirds (including Pacific Golden-Plover), and songbirds. I also helped complete a land cover map of the Northern Alaska Peninsula.

My greatest accomplishments were to collect data that can be analyzed for habitat modeling and to incorporate the measurement of detection into several surveys. Detection improves our ability to estimate population numbers.

The whole job has been a kick, but the most fun was running mist nets to capture landbirds, and banding tundra swans. I also enjoy putting a bird into a kid's hand and seeing their face light up. I love mentoring the many Wildlife Interns and Biotechs and seeing them grow into the profession. There were a few scary bear encounters along the way! I also have loved living in a small rural town in Alaska because of the people! I hope the Refuge biologists can continue learning more about the wildlife and gain a better understanding of how to conserve it in light of all the potential changes to the environment.

Refuge Gains Two New Employees from Tongass

We welcomed our new Deputy Refuge Manager and new avian Wildlife Biologist in February.

Deputy Tom Cady is originally from Ohio, but grew up in southern California. Moving to progressively smaller locales, he worked in Colorado, Utah, and Idaho before arriving in Petersburg, Alaska, in 2002 to work for Tongass National Forest as a Fishery Biologist. He moved up to a position as Supervisory Biological Scientist before accepting the job as our Deputy. He is excited about working for an organization with a strong conservation mission.

Melissa Cady is a wildlife biologist with a special interest in birds. She worked for the Tongass National Forest in Southeast Alaska for the last 10 years. She is glad to be able to work side-by-side with Susan Savage, who is volunteering this summer to help Melissa through part of a field season of Refuge work. Our avian program is complex, and she looks forward to learning and leading it. She has already hired a crew of three to conduct surveys beginning in April.



Tom and Melissa Cady in SE Alaska. Nat Gillespie

Visitor Services Manager Moving On

Julia Pinnix arrived in King Salmon in August 2010 as the Visitor Services Manager. She leaves May 2 to become the Information and Education Specialist for Leavenworth National Fish Hatchery in Washington State. She is glad to be staying with the US Fish and Wildlife Service, her favorite of the federal agencies for which she has worked.

In almost five years, Julia has worked to bring high-quality, hands-on, science-based environmental education programs to the schools of Bristol Bay and Lake and



Julia Pinnix at the 2014 Science and Culture Camp. USFWS/Tessa Johrendt

Peninsula boroughs. She organized special events like the Speaker Series to highlight natural and cultural resource topics. Julia managed the multi-agency King Salmon Visitor Center, brought partners together to clear brush from the historic Kanatak Trail, and recruited volunteers to assist on a wide variety of projects. She maintained a focus on regional and local connections in all her work.

Julia's connections to the community went beyond her work for the Refuge. She is proud to have been a volunteer for the Bristol Bay Borough Fire Department, and hopes to continue volunteering in her next location.

Education Program Energized by Seasonal Staff

Two young women joined the Visitor Services team this winter to help deliver the education program. Katie Nicolato is a volunteer, Sara Wolman a seasonal employee. Together, they visited multiple villages on the Alaska Peninsula to educate primary and secondary students with a variety of programs, including birds, paleontology, and mammals, specifically targeting caribou. Each program has a variety of activities, including art and music projects. They've also spearheaded this year's Bristol Bay Outdoor School, where every week 4th and 5th graders from Bristol Bay School get outside to learn about the Tools of Science. Traveling all over the Alaska Peninsula, Sara and Katie have inspired love of the outdoors and wildlife in school children.

Katie has a background in science research and education. She began working in Alaska in 2010 as the assistant director of an environmental education camp in Fairbanks. Katie also served as a volunteer for the Alaska Department of Fish & Game, developing educational databases of native plants and animal tracks for use in ADF&G curricula in public schools. With interests in Geographic Information Systems and land use, Katie was previously an ecologist and GIS specialist for the Montana Natural Heritage program, and worked with the University of Alaska Fairbanks and USGS on permafrost studies in the interior and North Slope of Alaska. During summer, Katie serves as a biological science technician doing GIS and field work for Katmai National Park's Natural Resources Management Division.

Sara started her career in the outdoors in 2011, working as an AmeriCorps Volunteer in Washington State on a backcountry trail crew for the Northwest Service Academy. This led her to Northern California to run conservation crews and educational programs for the California Conservation Corps in Ukiah. She began working in Alaska two years ago, leading a youth crew throughout the state, engaging in conservation projects and environmental education. During the summer season, Sara works as an interpretive ranger at Katmai National Park, working closely with the Refuge and the communities of Bristol Bay on various environmental education projects and outreach.

Katie and Sara are both musicians in Queen Salmon, an all-female acoustic rock band dedicated to sharing their talent with Bristol Bay residents and fostering community musical involvement. This winter, they brought their instruments to village schools, educating students about caribou through song.

Volunteer Returning for Third Year

Janet Saczawa will be returning June 1 for her third year as a Refuge volunteer. She will be working in the King Salmon Visitor Center (KSVC) with Debi Tippetts. Janet is a retired school teacher and librarian from Alabama.

Janet's first year as a Refuge volunteer was 2012, when she spent the summer reorganizing the entire educational lending library and entering the collection into an on-line searchable database. The library exists for the use of teachers, from homeschooling parents, to Refuge and Katmai National Park employees, to village teachers of the Alaska Peninsula. Debi Tippetts continues to curate the collection, which sees regular use.

In March and April of 2013, Janet joined Visitor Services Manager Julia Pinnix in an effort to bring high quality educational programs to as many village schools as possible. They visited eight schools, delivering programs on paleontology and insects that Janet wrote the curricula for. These excellent educational kits remain in use today.

Now Janet will come back for June, July, and August. She will assist Debi in the KSVC, helping to keep the building open for visitors daily. She will be reorganizing the extensive Refuge digital photo collection, a huge task. And she will be providing a summer reading program for the young people of the area, sharing wildlife-based stories and her love of literature.

We are grateful to have high quality, dedicated volunteers like Janet!



Janet Saczawa in Chignik Lagoon. USFWS/Julia Pinnix



Sarah, Jaime, Jacob, and Carrick with Jessica Howell at Puale Bay. USFWS/Jessica Howell

communities; and a plant phenology project. These projects all help add to a clearer picture of total ecosystem health and provide baseline information to measure change over time at Puale Bay.

The intertidal sampling appears to reveal a healthy, thriving intertidal ecosystem. Since the previous survey in 2010, there have been some changes. The average temperature was 1.8 degrees Celsius higher than in 2010. Algae, stationary, and some motile organisms decreased along several transects since 2010; but the size and density of blue mussels increased. Continuing the sampling and comparison in future could help reveal trends and measure disturbance, offering a small window into the health of the Pacific Ocean.

Phenology is the study of the seasonal events of an organism's life cycle: budding, fruiting, loss of leaves, etc. Observations can reveal ecosystem responses to climate change, especially at high latitudes or elevations, where changes tend to be more extreme. Data collected in 2014 serve as a baseline for future studies at the site.

The Coastal Observation and Seabird Survey Team (COASST) is a project launched in 1998 through the University of Washington. The goal is to teach citizens to collect data on bird carcasses found on beaches in the Pacific Northwest (including Alaska). Although beach surveys for dead seabirds had been conducted since 1989, in 2010 the Refuge adopted the COASST protocol. Surveys in 2014 picked up 21 dead birds, a third of which were young puffins. Puffins fledge alone and at night; in 2014, fledging coincided with high tides and strong winds, creating rough wave conditions that may have increased deaths for young birds.

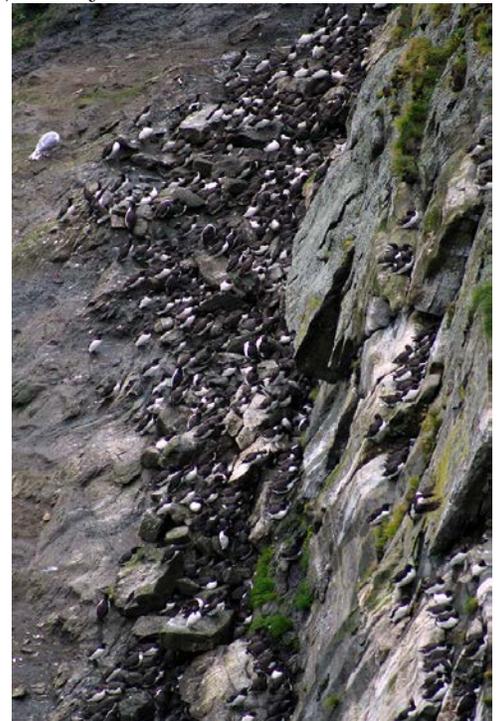
Sea star surveys were also added to the tasks the Puale Bay crew performed. Sea star wasting syndrome has been hitting parts of the Pacific Northwest coast hard. The disease has been confirmed as far north as Southeast Alaska, but the wasting flesh common to the syndrome was not observed here. Reports for all of these projects are available to the public by contacting the Refuge office.

Puale Bay Reports Summarized

Three times in every ten year period, the Refuge fields a research camp at Puale Bay. Studies there began in 1989, as a result of the 1989 Exxon Valdez oil spill. Some 250,000 seabirds died from oil exposure, 74 % of them murre. The murre colonies at and near Puale Bay were heavily impacted. Monitoring continued in 2014, with a crew that included Biological Technician Jaime Welfelt, and interns Jacob Looze, Sarah Wartman, and Carrick Rice, under the guidance of Wildlife Biologist Susan Savage.

Heavy disturbance during early egg laying, primarily by common ravens, caused a late start for most murre pairs. The mean hatch date was about a week behind the mean of 2010. However, once started, all measures of reproductive success were above management goals. In addition, the land-based population counts continue to show an increase in murre numbers.

Cormorants sometimes nest on an adjacent cliff, but were absent in 2014, as in 2003. Cormorant reproductive measures were collected in 2001, 2002 and 2010. Eight glaucous-winged gull nests were monitored and population data was collected for puffins for the first time. In addition to the murre colony monitoring, other projects included beached bird and sea star surveys; a study to document intertidal



Murre colony. USFWS/Jessica Howell



Sea stars. USFWS/Jessica Howell

Eagle Survey Shows Positive Results

On December 31, the results of a 2010 survey of bald eagles on the Alaska Peninsula were released by Stephen B. Lewis of the USFWS Migratory Bird Management office in Juneau. The report indicates that bald eagle populations on the Peninsula are stable, having recovered from lows caused by eagle bounty hunts during the 1900s.

Misunderstandings about the role bald eagles play in the ecosystem led to a bounty being offered to reduce eagle numbers. In 1959, eagles in Alaska became protected. Surveys began in 1967 in Southeast Alaska to monitor eagle recovery. The first bald eagle population study on the Alaska Peninsula took place in 1983. In 2000 the Refuge included monitoring bald eagle as part of our Wildlife Inventory Plan with the intention of surveys every five years. Surveys have been completed in 2000, 2005, and 2010. The survey area includes 50 plots along the entire Pacific coast from Cape Douglas to Unimak Island. The enabling legislation for Alaska Peninsula NWR specifically lists bald eagle conservation and habitat protection.

The 2010 survey provides an estimate of 3,401 adult bald eagles on the Pacific Coast of the Alaska Peninsula.

Landbird Surveys Completed in 2014

Two different landbird surveys were completed in 2014 by Wildlife Biologist Susan Savage and a crew that included Landbird Intern Jessica Howell, Maintenance Worker Kevin Payne, and volunteer Bob Blush. A third survey was done in cooperation with Biologist Sherri Anderson of Katmai National Park.

In early June, the annual Breeding Bird Survey was conducted along the road from Lake Camp in Katmai National Park to the beach access road in Naknek. This survey and the Alaska Landbird Monitoring Survey depend on the observers knowing all the local birds by sound. Results were typical of the past 5 years, but compared to the 22-year average, the number of individual birds counted was low. The number of species detected (41) matches the 22-year average. Data from this survey goes into a continent-wide database.

For the Alaska Landbird Monitoring Survey (ALMS), the Refuge surveys birds in 4 blocks: Dog Salmon, Lower Ugashik Lake, King Salmon River South, and Kejulik River. The blocks are visited on a rotating basis, and data is contributed to the statewide landbird monitoring effort for Alaska, compiled by the US Geological Survey, Alaska Science Center. In 2014, the Dog Salmon and Kejulik blocks were visited.

Waterfowl species diversity was high at Dog Salmon. At Kejulik, since this was only the second visit to this block, new species were detected, including marbled godwit, which is outside the area on the Alaska Peninsula where they have been found before. White-crowned sparrows were notably absent on Dog Salmon, Kejulik, and on the Kanatak Trail. This species was once regularly found in similar locations, from the mid-1980s through late the 2000s.

Vegetation samples at Dog Salmon show a reduction of dwarf shrub and an increase in dry grasses and herbs and a smaller loss of dwarf willow shrubs—generally, an overall shift towards drier vegetation.

The first owl survey along the Lake Camp Road was done by Susan in 2000. In 2012, Susan was joined by Sherri. The study continued in 2013 and 2014, taking place from February to May. Bob, Susan, and Sherri's seasonal staff participated in 2014. Although the survey area is easily reached, weather and scheduling are constant challenges. Great horned, northern saw whet, and boreal owls were all detected. Reports for all of the projects are available from the Refuge.

Weather Offers Challenges for Aerial Surveys

An important part of managing moose involves population surveys. Refuge biologists survey different units to determine the ratios of bulls, cows, calves, and trends in abundance among areas. Special emphasis is usually given to units that are important to subsistence users. This information allows managers to determine population trends, population “health,” and set appropriate hunting limits.

Techniques used to monitor moose populations in Alaska include aerial surveys such as quadrat, line-transect, stratified-random, and index surveys such as the trend-area surveys used on the Refuge. Although moose are very large animals, they can still be difficult to see in trees and brush. All reliable moose survey methods rely on good snow cover that allows observers to consistently see moose and accurately count the number and composition of moose within survey areas.



*Dom Watts looking for moose. USFWS/
Jim Wittkop*

The extreme climate, challenging weather, and poor survey conditions (like inadequate snow cover and high winds) in southwest Alaska frequently limit moose composition and trend-area surveys. Many areas can only be infrequently surveyed. Extremely poor snow conditions during the winters of 2013–2014 and 2014–2015 (snow was absent for the majority of the survey season) resulted in no moose composition or trend-area surveys being conducted during these two winters. The Refuge plans to conduct both moose composition and trend-area surveys during the coming years when good snow cover is present. The Refuge is also investigating some potential new survey techniques that might rely less on snow cover and allow for more consistent surveys in southwest Alaska.



Jessica Howell at Dog Salmon, where drier conditions are prevailing. USFWS/Kevin Payne



Bull moose spotted during a survey. USFWS/Dom Watts

Wind Power has a History at the Refuge

The tall turbines on the office compound and behind federal housing near Paul's Creek are not the first attempts to harness wind power for the Refuge. A wind turbine was installed in 1982, and at its peak provided up to 25% of the monthly electricity needed for the office. Then and now, the goal is to reduce costs through the use of alternative energy sources.

Generating electricity from wind was a developing science in the 1970s, when Enertech Corporation was manufacturing 1.5-40 kilowatt (kW) turbines. "By 1978, Enertech was putting out 100 wind turbines per month," reports Peter Asmus in his book *Reaping the Wind*. The 4 kW generator installed on Refuge land in 1982 seemed like a great idea.

But in the Refuge's 1984 Annual Narrative Report, it was noted that performance had been poor. "Between January and August the generator operated for about two weeks," the manager wrote. "Enertech has sent us a new generator (5 kW) for freight cost only. When considering the track record of the old unit, we wonder how much the 'free' generator is going to cost us before it is producing electricity."

1985 was the first time the wind generator operated all year, although high winds tripped a safety feature that shut down the turbine ten times, losing 26 days of generation. Still, the machine provided 16% of the Refuge's annual electricity needs—proof of concept that wind power could work. But problems increased with the trip brakes, shutting down the generator for 86 days in 1987. Then Enertech went bankrupt; but its former owner continued to market small turbines through another company, based in Vermont. The Refuge special-ordered parts from Vermont in a bid to keep the machine running.

The turbine was shut down for good in 1989, when the braking system was no longer able to stop the blades from turning. A maintenance worker climbed the tower to tie down the blades and keep the tower from disintegrating.

Today's towers are a vertical axis design. One of the side effects of wind power generation is the deaths of thousands of birds. Unable to see or avoid the rapidly rotating blades, birds of all sizes are killed regularly: one study estimates between 140,000 and 328,000 birds per year. The new turbines installed for the Refuge are safer for birds than standard horizontal models.

The new turbines are also designed to produce heat rather than electricity. Refuge buildings use more energy to produce heat than for anything else; so the goal was to cut fuel costs by substituting wind energy, storing heat in specially designed furnaces.

These systems are experimental, and the designers dropped out of the project partway through. Another company stepped in to try and fulfill the contract. The first installation, which took place at Izembek NWR headquarters in Cold Bay, blew apart in strong winds. Redesign and re-installation required additional time and increased costs. Good intentions could not overcome high freight and travel costs and time lost to troubleshooting.

As the contract approached its due date, with penalties for failure to deliver, efforts to fulfill obligations were redoubled. All four turbines are now functioning as intended, although the amount of power produced has been lower than hoped.

This doesn't mean wind power can't work on the Peninsula. The village of Perryville has successfully managed an array of small wind turbines, as has Ugashik village, although not without challenges. Finding a system that works well in local conditions, and training local residents to repair the machines, is key. With Alaska's rural villages paying the highest electricity costs in the nation, the search for alternative sources of energy is far from over.



Wind turbine on Refuge compound.
USFWS/Julia Pinnix



Refuge wind turbine in 1986.
USFWS

5th Annual Speaker Series Expands to Dillingham

Now in its 5th year, the Refuge's Speaker Series has gained new partners: Togiak National Wildlife Refuge in Dillingham, and Alaska Sea Grant Marine Advisory Program. The Series was started in 2011 to bring high quality speakers on natural and cultural resource topics to King Salmon and Naknek during winter and spring months. The program was also intended to promote community connections with the Refuge.

When the program is scheduled for an evening in King Salmon, a potluck is included. The very first speaker, Sharon Sharbaugh, expressed delight at how much she learned from the attending community members; and attendees also had the opportunity to have longer conversations with the speakers than would have been possible in a traditional



Rod Cyr in Bear Trail Lodge. Photo from Tom Prang

lecture situation. This format has been kept throughout the years. The first year, Visitor Services Manager Julia Pinnix brought one of the speakers to Bristol Bay School. This proved popular; so all speakers after that were asked to deliver a program at the school. Beginning in the 3rd year, speakers were also asked to do an on-line webinar for all the schools of the Lake and Peninsula Borough. This likewise proved worthwhile. This year, speakers not only do an evening potluck presentation, a school presentation in Naknek, and a webinar; now they go to Dillingham, too, and do a program there! Gabe Dunham at Alaska SeaGrant asked to partner with the Refuge; and then Togiak NWR was brought on board as a natural fit. Each partner brings something to the table.



Susan Savage teaching bird observation in Chignik Lagoon. USFWS/Julia Pinnix

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The first speakers to go to Dillingham were Debbie Corbett and Rod Cyr. Julia suggested pairing a local person with an

out-of-town presenter to bring a different kind of connection to the audience. Rod is a long-time resident of King Salmon, and a skilled maker of traditional artifacts. Debbie retired in 2013 as the Regional Archaeologist for the USFWS, and continues to be very active in fieldwork and consulting. They thoroughly enjoyed getting to know one another and sharing their knowledge with each other and the public during a week of presentations.

The second speaker this year was Troy Hamon, Chief of Resources at Katmai National Park. His background as a fish biologist led him to deliver programs on salmon, a topic of critical interest in the region. His dry wit and broad knowledge make him a delightful speaker.

April's speaker will be Susan Savage. Susan retired from the Refuge as a Wildlife Biologist. She will share her experiences researching and conserving birds over nearly 18 years on the Alaska Peninsula.



Debbie Corbett in Perryville. USFWS/Julia Pinnix



Troy Hamon netting sticklebacks. USFWS/Chuck Iliff

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 the King Salmon USFWS office: 246-3339.



Calendar Contest Draws Winners from Alaska Peninsula

This year's winners in the 2015 Alaska Migratory Bird Calendar contest were selected by Refuge staff and volunteers. The theme was "Alaska's Birds: Colorful and Camouflaged." Some of the local winners went on to become state winners, too, and will appear in next year's calendar. Congratulations to all the winners, and to every participant!

Contest Winners

(State winners and entries that will appear in the 2015 calendar are shown in yellow)

Grade	Student	Art	Lit.	School
K-2	Brianna Billadeau	X		Chignik Lagoon
	Chariessa Askoak	X		Newhalen
	Kash Anderson	X		Bristol Bay School, Naknek
	Tyler Smith		X	Port Alsworth
	Tatianna Anderson		X	Chignik Lagoon
	Ray Chmiel		X	Port Alsworth
3-5	Ella Wardell	X		Port Alsworth
	Zoe Smith	X		Port Alsworth
	Owen Young	X	X	Port Alsworth
	Johnny Ralston		X	Bristol Bay School, Naknek
	Zaya Trefon		X	Port Alsworth
6-8	Caleb Alsworth	X		Port Alsworth
	Sydney Erickson	X		Port Alsworth
	Cierra Johnson	X	X	Bristol Bay Christian Learning Center
	Lucy Young		X	Port Alsworth
	Kaia Beebe		X	Port Alsworth
	9-12	Abby Dobkins	X	
Lei'Lani Kiana		X		Bristol Bay Christian Learning Center
Jacy Johnson		X	X	Egegik
Emily Engelkes			X	Egegik
Ryla Fowler			X	Port Alsworth
All	Sydney Erickson	X		Manager's Choice
All	Lucy Young		X	Manager's Choice

*Our Colorful and Camouflaged Friends
(by Tatianna Anderson of Chignik Lagoon)*

Some ducks wear brown or white
Their coats help them stay out of sight
When they nest in the grass
You may not see them as you pass
Our camouflaged friends are safe

Some puffins are orange and yellow
They like to mumble a "Hello"
In the summer, they nest on cliffs up high
In the winter, they drift where there is only ocean and sky
Our colorful friends are lovely



It can be hard to choose from all the excellent entries. USFWS/Julia Pinnix

Soaring Through the Air (by Zaya Trefon of Port Alsworth)

Snowy owl soaring through the air.
Winter white and summer brown.
Swooping down to get small lemmings.
Camouflaged over in the snow.
Where did it go? I don't know.
Come back to where I can see your
Pretty, white, fluffy coat of feathers.



A handsome pair of goldeneye ducks, by Lei'Lani Kiana, grade 10.

Many Staff Contribute to Contest

The annual Alaska Migratory Bird Calendar Contest pulls in many of the Refuge staff. Sara Wolman and Katie Nicolato took education programs tailored to this year's theme to six



Debi Tibbetts overseeing judging.
USFWS/Liz Julian

village schools and encouraged students to submit creative entries. Debi Tibbetts organizes the judging and mailing of certificates and prizes, and Julia Pinnix orders prizes tied to the theme. Five judges, including Julia, Tom and Melissa Cady, and volunteers Bob Blush and Tom Prang, chose winners from among many excellent entries.



Judges viewing literature entries. USFWS/Liz Julian

The contest has proven to be popular enough that more refuges are participating this year. The 2016 calendar has been adjusted to include these new areas.

Outdoor School in Naknek Grows in its Second Year

Outdoor School for 4th and 5th graders in Bristol Bay School began March 6 in Naknek. Twenty-one students participated in the program, taking place on Fridays in March and April.

The program began last year as a partnership between the school and the Refuge. Goals of the program were to encourage healthy activity outdoors, to learn about what science is by trying it out, to help students connect to the natural world, and to use environmental education techniques to reach students who struggle in a traditional school format.

This year's teacher Dustin Mayner is excited to have his 4th and 5th graders participate in Outdoor School. Visitor Services Specialist Sara Wolman and volunteer Education Specialist Katie Nicolato are delivering the program. The theme is "Tools of Science." Students make their own anemometers and thermometers; learn to identify plants and birds using field guides, dichotomous keys, and binoculars; practice field skills like first aid and radio communication; learn to read maps and use compasses and GPS units to navigate; operate trail cameras; create ecology plots; use microscopes and water sampling equipment; and operate an underwater roving camera.



A student checks an anemometer to measure wind speed. USFWS/Katie Nicolato



Sara and Katie, our Science Gals. USFWS/Julia Pinnix

A Hands on the Land mini-grant, provided by the National Environmental Education Foundation, rents a vehicle from the Southwest Alaska Vocational and Education Center (SAVEC). SAVEC has contributed by offering an educational discount. In combination with a school-owned van, this allows the students a chance to range more widely, visiting beach, tundra, riverine, and other habitats.

LaRece Egli volunteered to attend all the sessions to make video and audio recordings. She is working with Katie and Sara to put together a film to present at a community celebration of Outdoor School on April 30. Alaska Geographic provided funds to support this outreach effort.



Science and Culture Camp a Hit in King Salmon

Twelve high school students earned two college credits for their work in this year's Alaska Peninsula and Becharof National Wildlife Refuge Science and Culture Camp, held in King Salmon. Twenty-one instructors and guest speakers enriched the program, covering topics from the use of technology in subsistence, to the biology of salmon.

Funding challenges last year forced creativity, and the first King Salmon-based version of camp was held. This year, it was the schools that faced budget cuts, and they requested the King Salmon location to reduce their transportation costs. Visitor Services Manager Julia Pinnix reached into the local community for expertise and assistance, as well as tapping Refuge staff as instructors.

Wildlife Refuge Specialist Liz Julian led a popular session on wildlife tracking with radiotelemetry. Refuge Manager Susan Alexander attended many sessions, providing background support; and also led presentations on Wilderness and careers. Visiting from the USFWS Regional Office, Tessa Johrendt taught photography, and managed the many photos taken during camp. Wildlife Biologist Susan Savage carved out time to provide an excellent session on bird biology, assisted by Maintenance Worker Kevin Payne and volunteer Bob Blush.

Volunteers were a vital part of the program. Rod Cyr constructed atlatls and darts for the students to use; and taught the students about the history of commercial fishing in the region, as well as bird identification. Teresa Capo shared her knowledge of her Alutiiq culture and the uses of plants. Kate Conley guided the group through making soap from bear fat, an exciting lesson in practical chemistry. Elder Paul Boskoffsky gave the opening inspirational talk, and later led the group through a tour of the AGS Cannery. LaRece Egli led a discussion of how technology can be used in subsistence activities, and the value of local natural products. Ann Shankle demonstrated off-the-grid living and stimulated conversations about cost of living and decision-making. Courtenay Gomez talked about subsistence and public involvement, accompanied by two additional guests.

Two volunteers in particular donated many hours of their time to Camp. Chuck Pliff taught sessions in weather and volcanoes, and assisted the students with photography. Carl Ramm accompanied the group on all their outings as a bear safety monitor, and provided lessons in drawing, wildlife observation, navigation, and other topics.

Katmai National Park employees also participated, providing Chief of Resource Management and Science Troy Hamon for lessons in fish biology, focusing especially on salmon. Seasonal park rangers Sara Wolman and Katie Nicolato gave presentations on the eruption that formed the Valley of 10,000 Smokes, and wildlife identification from tracks. Student Conservation Association interns Tori Anderson and AJ Lindsey are Exotic Plant Management Team members at Katmai, and assisted on multiple days, providing instruction and support in plant ecology, invasive plants, and the use of GPS units.

Thanks to Laura Zimin's efforts, the University of Alaska, Fairbanks, provided free tuition for the students to earn their college credit. Paug-vik Corporation, Ltd., waived their fee for the land-use permit that allowed students to explore and hike around Naknek and King Salmon. Southwest Alaska Vocational Education Center provided a 14-passenger bus at a reduced rate for use during Camp. Lake and Peninsula School District brought Andrew Johnson, a secondary teacher, from Egegik to act as chaperone—an invaluable role.



Identifying plants uses multiple senses. USFWS/Tessa Johrendt



Students check an anemometer to measure wind speed. USFWS/Tessa Johrendt



Liz Julian helps a student use a radio tracking device. USFWS/Julia Pinnix

Topics covered during Camp include: wilderness, botany, plant ecology, ethnobotany, invasive plants, fungi, bears, birds, weather, geology, GPS/navigation, wildlife studies, archaeology, chemistry, subsistence, fish biology, commercial fishing, drawing and keeping a field journal, volcanoes, photography, and careers.



Rod Cyr instructs students in the use of atlatls. USFWS/Tessa Johrendt

Invasive Species Found Near Refuge

In 2014, Wildlife Biologist Susan Savage took a closer look at a photograph taken by Robert Dreeszen and spotted an invasive plant: orange hawkweed. Invasive species can cause a great deal of damage once introduced. Biologist Dan Pepin is working on a plan to eradicate this infestation before it spreads into the Refuge.

An introduced species is one that has been brought from one place to another where it was not found before. Introduced species are not necessarily invasive. Invasives are species that compete aggressively and successfully with native species, and displace them. Orange hawkweed, once introduced, quickly takes over, forming dense patches that exclude native plants. It is critical to catch invasive plants early, before they've had a chance to spread far.

There are a variety of methods for fighting invasive plant infestations. Some methods work better than others. Digging up hawkweed doesn't work well because it spreads through fragments of its rhizomes (roots). Mowing or grazing doesn't work well either, because it stimulates the plant to grow more vigorously. Introducing a natural predator can work for some plants, but hawkweed has none that are effective and can be safely released here. The final option is herbicide use.

Kodiak NWR has been struggling to eliminate hawkweed, and has found that specific herbicides are effective. In order to use herbicides, Dan has to complete an Environmental Assessment (EA), which includes an opportunity for public comment. A plan will be submitted in the USFWS Pesticide Use Proposal System (PUPS). After approval, Dan will then begin to work on eliminating the hawkweed. The site will be monitored, and further action taken as necessary.



Red fox with orange hawkweed in background. Robert Dreeszen

Hawkweed and other invasives can be spread by contaminated seed. For example, a person scattering grass seed to stabilize a bank, or seeding a flower bed with a mixed packet, may accidentally be spreading weed seeds, too.

Dan plans to help develop more awareness about invasives in the region and survey likely sites for non-native species. The University of Alaska Anchorage Alaska natural Heritage Program maintains a database called the Alaska Exotic Plants Information Clearinghouse (AKEPIC), supporting a cooperative effort to identify and respond quickly to problem species and infestations in Alaska and neighboring Canadian Territories. This kind of effort works best when everyone, from village residents to federal biologists, is involved. Learn more at this website: <http://aknhp.uaa.alaska.edu/botany/akepic/>



Bev Cason introduces a peregrine falcon to a classroom at Bristol Bay School. USFWS/Julia Pinnix

Refuge Week Celebration Traditionally Features Birds

For years, live bird demonstrations have been part of local Refuge Week celebrations in October; and 2014 was no exception. Volunteer Bev Cason brought two falcons from the Bird Treatment and Learning Center (Bird TLC) from Anchorage, and shared her knowledge with the community.

Bev showed a peregrine falcon and a merlin. Both birds are found in the region, although neither is common. Peregrines are often present at seabird nesting sites on the Pacific Coast, where they drop from the sky (called stooping) at up to 240 miles per hour (mph) to knock their prey down! Even flying on the level, they can reach speeds of up to 68 mph. Although they typically feed on birds like seabirds, ducks, and songbirds, even hummingbirds and sandhill cranes have been taken by peregrines. Some have been seen catching small fish, while small mammals, bats, and insects have also been noted.



Peregrine. USFWS/Julia Pinnix

Merlins are smaller than peregrines. They fly swift and low, pursuing small to medium-sized birds, usually taking them in the air. Although they are little, they are aggressive, and other birds of prey as well as ravens avoid them. They are so terrifying to their prey that some birds have been seen to die of heart attacks when unable to escape a merlin!



Merlin. USFWS/Julia Pinnix

Bev visited Bristol Bay School in Naknek to show the falcons in an assembly. Then she visited individual classroom so students could get closer looks. She also displayed the birds at the King Salmon Visitor Center, where cupcakes and other refreshments were served. These annual visits from Bird TLC are always popular.



Support local education and special events by buying books and toys at the King Salmon Visitor Center, located next to the PenAir terminal!

Volunteers Honored

Three volunteers were honored in the past year for their service to the Refuge. Bob Blush, Tom Prang, and Katie Nicolato have each served us well.



Bob Blush, USFWS/
Susan Savage

Since the 1990s, Bob Blush has volunteered for the Alaska Peninsula and Becharof National Wildlife Refuge. He has worked on maintenance and carpentry projects, helped set up and take down field camps, and assisted with bird banding and research all over the Refuge. He was honored at a staff potluck in August 2014 and at a farewell party in April 2015 for his approximately 2,600 hours of service.

With some 800 hours of service delivered over 5 years, Tom Prang has been involved in a variety of ways. After working as an archaeologist on the Kanatak Trail project in 2011, he

continued to serve in that capacity as a volunteer on several projects. He is well known for his service as an educator; and also helped on maintenance and biology projects. He was honored at a farewell party on April 26.



Tom Prang in the field. USFWS/Julia Pinnix

Katie Nicolato arrived in January to help deliver educational programs in the villages. After assisting with the Alaska Migratory Bird Calendar Contest, she put together the annual educational kit for the Refuge and helped run

the Outdoor School program at Bristol Bay School in Naknek. Katie worked 14 weeks at 40 hours per week. She received a cash award for her service with funds provided by Alaska Geographic.



Katie Nicolato. USFWS/Sara Wolman

Volunteers provide all sorts of assistance here, gaining valuable job training, unforgettable experiences, and the satisfaction of doing something useful. Thank you, volunteers!



Jim Wittkop displays his award beside one of the Refuge aircraft. USFWS

Refuge Pilot Named Officer of the Year for 2013

Refuge Law Enforcement Officer/Airplane Pilot Jim Wittkop is the Alaska Federal Wildlife Officer of the Year for 2013. The award is typically presented during the spring law enforcement in-service, but Jim was with his wife this year for the birth of their son. There is rarely a time when Jim is not busy, and summer is especially packed; so it was not until October that Refuge Law Enforcement Chief Jim Hjelmgren was able to present the award.

The nomination letter describes Jim in this manner: "Whether working on his own, or in collaboration with others, Officer Wittkop's work is marked by a combination of diligence and effectiveness. He has a thorough and detailed understanding of the different groups of refuge users and when, where, and how to perform his patrols in the most effective manner. He knows the terrain and patterns of public use on the refuges intimately.

Perhaps most important, in dealing with refuge users he strikes an ideal balance between being personable and courteous, while still maintaining a demeanor and approach which leaves no doubt that he is serious about enforcement. He always keeps the goal of compliance in mind and exercises sound judgment in balancing education and effective enforcement...

He is responsible, flexible, easy to work with, and conscientious. He has formed solid relationships with partners including the Alaska Wildlife Troopers and the Office of Law Enforcement, as well as with users of the refuge. He holds high standards for himself and lives up to them on a daily basis."

We are proud to see our co-worker honored, as he well deserves.

Administrative Support Assistant Recognized

Izembek National Wildlife Refuge was without an administrative assistant from November 2013 to May 2014. In addition to her normal workload, Alaska Peninsula/Becharof NWR's Paige Livingston took on the extra duty of providing administrative support to Izembek. She was given an award for her assistance.

Izembek's staff provided this summary of what Paige did for them:

During her detail, she worked closely with the Project Leader fine-tuning the budget tracking and insuring remaining balances were up-to-date and accurate; assisted with contracting questions, time and attendance, and purchase/travel questions; addressed IT needs and issues; and greeted and worked with the visiting public in addition to many other tasks. Paige's skills, work quality, and products were professional and representative of the highest level of administrative support work. Paige was a self-starter, team player, and required virtually no supervision."

Once Izembek hired Administrative Assistant Susan Gage, Susan spent time on details here at our Refuge while Paige helped her learn her new duties.