



United States Department of Agriculture

Fall 2019

Sourdough News



Wildfires, natural disasters, and invasive species go beyond geographic boundaries.



Forest Service
Alaska Region

NIFC

Fall 2019

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SourDough News is written by employees of the Alaska Region.

Your suggestions, articles, and photographs are welcome.

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<https://bit.ly/2MkPS2U>

The editorial staff reserves the right to edit all articles for journalistic standards and space consideration.

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Cover page: Firefighter using a tool to cool down burning material on the Swan Lake Fire, Chugach National Forest.

SourDough News

Stories capturing the spirit of your Alaska public lands as told by Forest Service staff and partners who work and live in the Alaska Region.



Sun setting over Prince of Wales Island, Tongass National Forest.

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Employee Recognition

THIS IS
WHAT WE
DO

D. Robert Hakala Excellence in Interpretation and Conservation Education Award

Bev Levene, Park Ranger at the Mendenhall Glacier Visitor Center, has been selected as the 2019 Alaska Region's recipient of the *D. Robert Hakala Excellence in Interpretation and Conservation Education Award*. This award, named after the first Regional Interpreter in the Alaska Region, recognizes the significant achievements of employees in the fields of interpretation and conservation education. Bev has worked at the visitor center for six seasons, providing outstanding educational programming to hundreds of youth and visitors each year. Her dedication to providing quality outreach services to the public and her passion for mentoring others has distinguished her as one of the Alaska Region's Interpretive and Conservation Education champions. As the Alaska Region award winner, Bev will also compete at the national level for the Forest Service's *Gifford Pinchot Excellence in Interpretation and Conservation Education Award* in mid-November at the National Association for Interpretation National Conference in Denver, Colorado.

By Laurie Lamm, acting director, Mendenhall Glacier Visitor Center, Tongass National Forest.



Bev Levene

Tyler Gagat



Marion Glaser

Unsung Hero Award

Natural Resource Specialist Marion Glaser from the Seward Ranger District has been chosen as one of USDA's 2019 *Unsung Heroes*. Marion was recognized for demonstrating a high level of service to the public. Her calm and considerate demeanor and professional knowledge averted a life-threatening situation.

Proceeding down a trail on the Seward ranger district, Marion found a woman in extreme pain with an arrow impaled deeply in her leg just above her thigh. She took over the scene bandaging the arrow in place, then applying direct pressure and elevated the leg. She covered the woman with sleeping bags and had her lie on a camping pad to make her as comfortable as possible. Four miles from the trailhead and with emergency services 1-hour away, Marion kept pressure on the injury, provided much-needed body heat to the injured woman, and kept her occupied by talking with her, telling stories and singing until medical help arrived.

By Alicia King, public affairs & partnerships staff officer, Chugach National Forest.

Aldo Leopold Award for Overall Wilderness Stewardship

Karisa Garner, wilderness ranger on the Petersburg Ranger District, is the recipient of the national 2018 *Aldo Leopold Award for Overall Wilderness Stewardship*. Karisa is recognized for her excellence in wilderness stewardship because she has successfully grown the Wilderness program through education, field monitoring and bringing together staff, partners and citizens around a common stewardship purpose.

Karisa found new ways to solve problems and take care of the 610,030 acres in Tebenkof Bay, Kuiu, Petersburg Creek-Duncan Saltchuck and the Stikine-LeConte wilderness area.

By Kerri Mills, public affairs specialist, Alaska Region



Karisa Garner

Region 10 Participation

WILDLAND FIRE

Many Region 10 employees have inquired about how they might be able to support wildland fire management efforts within the region, in Alaska, and in the Lower 48. There are many facets of wildland fire management and program leaders are always looking for ways to increase capacity here in our region.

There is a misconception that the only part of fire management is wielding a Pulaski on the fireline while carrying a heavy pack and camping in the woods for weeks at a time. That is but one avenue for supporting fire management and Region 10 has a long history of integrating employees from all functional areas into operational crews such as Handcrews and Engine, Aircraft or Initial Attack modules.

Fire management requires a whole suite of support from programs such as logistics, finance, Geospatial Information Systems, and public information, to name a few. Most of the entry level positions do not require experience in fire management nor do they require the operational, arduous pack test/physical standard. Many utilize similar skillsets that we see in our agency's programs and are bolstered with specific training with regard to incident management.

If you or your employees are interested and available to participate as 'militia' or fire support in one or more of the mentioned functional areas, we would like to provide the entry level training and support for participation.

Here's how to get started:

- Confirm with your supervisor that you have their support for at least one, two-week assignment each season. We understand that there will be times that this is not possible, but it should be the goal for minimal commitment.
- Determine which area or areas you are interested in—and then check in with your Fire and Aviation Management (FAM) leaders on your unit to find a good fit for you as well as the local needs of the program. As you work with FAM leaders, determine the minimum training required for the position and where and when the training is available to you. There is funding available for time, travel, and tuition to support your training.
- Once training is completed you will be asked to determine when you are available to go out on an assignment as a trainee. You will initially be paired with a qualified trainer to help you through your first few assignments.
- Your local FAM leaders and dispatch office will have a process in place for establishing a profile for you in the pertinent database, issuing red cards and task books, and providing any refresher training that could be required.

For additional information and/or to get started please contact one of the following individuals:

- Bobette Rowe -Regional Fire Training Coordinator Bobette.rowe@usda.gov
- Tristan Fluharty-Tongass NF Fire Staff Officer Tristan.fluharty@usda.gov
- Erick Stahlin-Chugach NF Fire Staff Officer Erick.stahlin@usda.gov

By Bobette Rowe, fire operations specialist, Alaska Region.

Romig Cabin, August 28, 2019
Swan Lake fire, Chugach National Forest.

Adapting to Climate Change in Alaska

This summer, extreme temperatures across Alaska were 20 to 30 degrees Fahrenheit above average, breaking all-time high temperatures in many locations. Average annual temperatures are projected to rise an additional 2-4 degrees Fahrenheit by 2050—in a region that has warmed at [twice the pace of the rest of the world](#)—and increasingly variable precipitation patterns are expected to have significant consequences for most elements of the human and ecological environment.

Water, in all its forms—rain, snow, and ice—is integral to the regional economy, supporting stream systems for commercial and subsistence salmon fishing which translates to a \$1.5 billion industry, and producing clean hydroelectric power for over 60,000 people. Winter snowpack plays an important role storing water in reservoirs, lakes, and streams for people and fish, and is critical to the survival of culturally and commercially valuable [yellow-cedar trees](#). Alaskan glaciers are vulnerable to rapid increases in temperature and less precipitation falling as snow. Changing glaciers will influence local and tourism-based economies and dampen the [\\$4.5 billion tourism industry](#) in Alaska.

Since early 2018, the southern portion of Alaska has experienced moderate to extreme drought. Drought is an inevitable part of normal climatic function, but global trends project drought may become more frequent and severe in many places as the Earth becomes hotter and precipitation patterns change.

For instance, [snow droughts](#) occur when warmer winter air temperatures cause precipitation to fall as rain instead of snow or when weather patterns are unusually dry and little precipitation of any kind falls. Snow droughts, in addition to well below average summer and fall rainfall in 2018 and 2019, have led to significant impacts to hydroelectric power and drinking water in many Southeast Alaskan communities. Snow dependent outdoor recreation activities like skiing, heli-skiing, dog sled racing, and recreational mushing will impact Alaska's [\\$7.3 billion outdoor recreation economy](#) as temperatures increase and less precipitation falls as snow.

Alaskan glaciers are vulnerable to rapid increases in temperature and less precipitation falling as snow. Changing glaciers will influence local and tourism-based economies.

Glaciers fascinate people, particularly tidewater glaciers that dramatically release mountains of ice into marine waters. As tidewater glaciers retreat, views of and access to calving glaciers will decline.

In May 2019, the [Northwest Climate Hub](#) held a workshop on the Southeast Alaska drought in Juneau, Alaska. The workshop, held in collaboration with partners including the [National Drought Mitigation Center](#), NOAA, U.S. Geological Survey, local university partners and local tribes, helped participants get a better sense of drought, impacts of drought, and interconnections in Southeast Alaska to help refine drought thresholds. Recordings and presentations from the workshop can be [found on the Climate Hub website](#).

Adaptation planning in the Last Frontier will require new ways of thinking about how to manage human-built and natural environments for fish, wildlife and people.

That's why the [USDA Northwest Climate Hub](#) and [USDA Forest Service](#) are preparing and implementing strategies to enhance long-term resilience of Southeast Alaskan communities and ecosystems. Many of these strategies, from building flexible trailheads, to improving winter recreation access, to placing logs in streams to improve salmon habitat, are summarized in recent [USDA publication](#).

WHY ADAPTATION PLANNING IS KEY



\$7.3 billion industry in recreation



\$4.5 billion industry in tourism



\$1.5 billion industry in commercial and subsistence salmon fishing



60,000 customers rely on hydropower



Survival of culturally and commercially valuable yellow-cedar trees

By Aurora Cutler and Erik Johnson, Office of Sustainability and Climate.

Chugachmiut Trail
Clearing Project

Good Neighbor Authority

Partnership with Chugachmiut

The Chugach National Forest has a new avenue for completing priority restoration projects on the Forest through a recently signed Good Neighbor Agreement with the regional tribal consortium Chugachmiut. Chugachmiut, an Alaska Native 501 (c) 3 nonprofit tribal consortium was incorporated in 1974 to promote health, education and training, and technical assistance to seven native communities of the Chugach Region.

Through coordination with Region 10 State and Private Forestry, the Chugach National Forest has utilized the expanded Good Neighbor Authority to partner with Chugachmiut to perform various forest restoration activities. The agreement allows the Forest to enlist the Chugachmiut workforce and their expertise in completing restoration projects associated with forest health issues, including the evolving spruce beetle epidemic that is impacting areas of Southcentral Alaska and the Chugach National Forest.

The agreement adds capacity to the Forest to tackle restoration projects related to forest health issues while at the same time providing employment and training opportunities for the native communities served by Chugachmiut. It provides a

framework for accomplishing a wide range of projects related to forest health.

The Good Neighbor Authority initially allowed the Forest Service to enter into cooperative agreements with state agencies to perform forest, rangeland and watershed restoration services on National Forest System lands. The 2018 expansion provided the ability to enter into agreements with tribal entities and counties.

“The expansion of the Good Neighbor Authority to allow participation by regional tribal consortium Chugachmiut is particularly important in Alaska where native communities have capacity and skills to help the National Forest. The expansion of authority to tribes and counties was timely for Southcentral Alaska and provides a great way to achieve forest health treatments to reduce beetle damage due the ongoing spruce bark beetle epidemic.” -Michael Shephard, deputy director, State and Private Forestry, Region 10.

By Mona Spargo, public affairs specialist, Chugach National Forest, and Mark Cahur, Region 10 fuels coordinator.

CHUGACH CHILDREN'S FOREST

Ten Years Strong



In 2019, we celebrated the tenth year of the Chugach Children's Forest. This valuable partnership between Alaska Geographic and the Forest Service engages youth in the exploration of the Chugach National Forest and builds future stewards of public lands.

Engaging the youth in kayaking trips, land and marine debris clean up, invasive species removal, or just having fun together exploring the Forest is just the beginning of their life-changing expeditions and educational experiences. We are helping to increase their environmental sustainability leadership skills, improve their problem-solving and decision-making skills, and are engaging them in becoming future stewards of the forest.

 Experience the energy and excitement of the Chugach Children's Forest Conservation Crews as they worked their way across all districts of the Chugach National Forest this summer. (6:10)

The Chugach Children's Forest, through the support of partners and supporters, includes: multi-day Kayak trips of restoration, marine debris cleanups, campsite hardening, invasive species removal; multiday camping trips; teacher training weeks; multi-week trail maintenance and restoration work; volunteer opportunities at outreach events; career building opportunities; and more. Chugach Children's Forest youth have contributed thousands of volunteer hours toward:

- Cleaning over 500 miles of marine debris off the beaches of Prince William Sound,
- Removing almost 7,000 European black slugs out of Schamy Bay,
- More than 30 projects on the Forest,
- Developing and maintaining over 400 miles of trails, and
- Engaging over 2,000 youth, their families, and their communities in the last 10 years.

Working on the Forest helps youth develop a life-long appreciation for the environment and build a successful future. Youth are the future stewards of the Chugach Children's Forest.

By Alicia King, public affairs & partnerships staff officer, Chugach National Forest.



Above photos by Chugach Children's Forest of Blackstone Bay, Moose Pass, and Cordova conservation crews.

Hemlock Sawfly Outbreak Causing Trees to Yellow

Elizabeth Graham

Nature matters

Southeast Alaska is experiencing an outbreak of hemlock sawfly. Infested trees will have a thin inner crown and appear to be more yellow or brown compared to healthy dark green hemlock trees. Both western and mountain hemlock can be impacted however western hemlock is the preferred host. Defoliation is heaviest in areas with southern or western facing aspects.

 [Hemlock Sawfly in Southeast Alaska](#) (06:00)

Hemlock sawflies are native to Alaska and outbreaks are often linked to environmental conditions, such as the dry conditions we're currently experiencing in Southeast Alaska. The damage can be extensive, however they rarely kill the trees. Hemlock sawfly larvae only feed on the older needles of hemlock trees, leaving the new growth untouched. Typically, outbreaks last a couple years and result in growth loss and possibly top-kill. Adverse weather, a fungal disease, predators, parasites and starvation cause hemlock sawfly outbreaks to collapse.

Hemlock sawfly populations rose to outbreak levels in 2018, with large areas of defoliation observed throughout Southeast. Defoliation was recorded on more than 48,000 acres of western hemlock located on Admiralty, Mitkof, Wrangell, Etolin, Prince of Wales, Revillagigedo, Gravina and Annette Islands, and the Cleveland Peninsula.

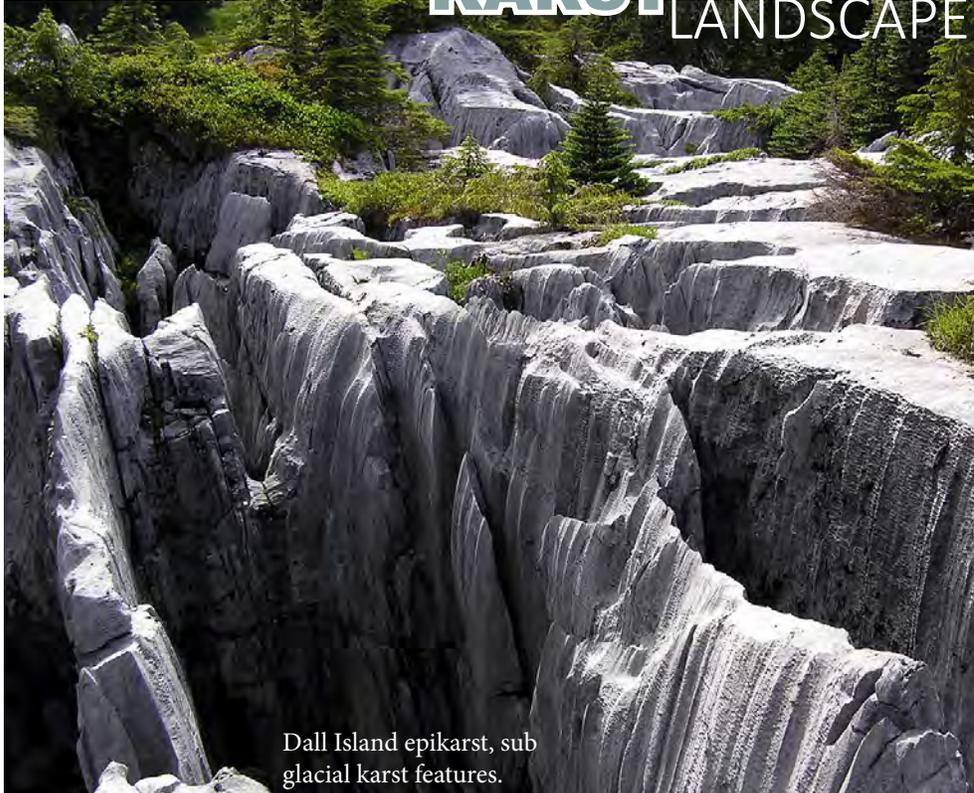
By Elizabeth Graham, forest entomologist, Forest Health Protection.



Top: Western hemlock branch with feeding damage from hemlock sawfly (arrow). **Inset:** Hemlock sawfly larvae feeding on a branch.

KARST LANDSCAPE

Jim Baichtal



Dall Island epikarst, subglacial karst features.

Karst landscape is composed of bedrock that can be dissolved by water. Similar temperate rain forest karst landforms are found in Southeast Alaska, British Columbia, and Tasmania. Karst landscapes in Southeast Alaska, like other karst areas around the world, are characterized by surface features we can easily see, such as sinkholes and disappearing streams. They are also places of subsurface wonders, such as underground streams and cave systems. Interaction of soluble bedrock - usually limestone - and acidic rain and surface water produces these unusual features.

By Jim Baichtal, forest geologist, Tongass National Forest.

Learn more about the Caves and Karst program at <https://www.fs.fed.us/science-technology/geology/groundwater/caveskarst>

PNW Research Station scientists open up new horizons in eDNA research and applications

Research innovation is driven by technological advances. In the field of ecology, environmental DNA (eDNA) has become a cutting-edge frontier that is spurring a new wave of research designed to inform land management agencies about the presence and absence of key species. What is eDNA? Stream inhabitants leave traces of their DNA in the water, packaged in skin cells, excrement, spores, pollen, and other biological material. When concentrated on a filter, the DNA from this material can be extracted for analysis. In essence, the biodiversity of an aquatic ecosystem is encompassed in the transient traces of environmental DNA left behind by its inhabitants.

The potential to replace standard survey methods (such as electrofishing) with less labor intensive and less invasive eDNA surveys is attractive to managers who must address the challenges imposed by aquatic species conservation and aquatic invasive species detection and eradication. Single-species eDNA detection methods are being adopted by national forests across the United States as part of their routine monitoring for native and invasive species. However, the recent growth in genomics instrumentation has made it possible to examine water samples for tens, and potentially hundreds, of species simultaneously.

Given these technological advances, researchers from the Pacific Northwest Research Station asked this simple question: “Can a large number of species be surveyed from a single sample using an eDNA/genomics approach, and are the data comparable to traditional survey methods?” The answer to both of these questions is “yes”, and these findings were recently published in the journal *Environmental DNA* (<https://onlinelibrary.wiley.com/doi/full/10.1002/edn3.26>).

With a platform capable of assessing so many targets at once, the door to multiple collaborations was opened wide. This project not only fostered collaborations within the research station, but also with co-authors at Oregon State University who helped support different applications of the method. This project also attracted funding from partners at the Bureau of Land Management, National Council on Air and Stream Improvement, and Weyerhaeuser Company. “Because of these partnerships, we were able to go further and develop a more comprehensive assay to sample streams,” said Brooke Penaluna, research fisheries biologist.

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“Watermarks” by Pacific Northwest Research Station researcher Laura Hauck. The biodiversity of an aquatic ecosystem is encompassed in the transient traces of environmental DNA left behind by the inhabitants. They are like hidden watermarks.

The approach has broad appeal to land managers owing to the flexibility in its targeting strategy. Not only can this method detect macroscopic organisms (e.g., vertebrates, macroinvertebrates), it can also detect microscopic organisms such as plant pathogens like the sudden oak death pathogen (*Phytophthora ramorum*) and its relatives, or animal diseases like the amphibian chytrid fungus (*Batrachochytrium dendrobatidis*), which is killing amphibians on a global scale.

By the Pacific Northwest Research Station —headquartered in Portland, Ore.—which generates and communicates scientific knowledge that helps people make informed choices about natural resources and the environment. The station has 11 laboratories and centers located in Alaska, Washington, and Oregon. Learn more online at <https://www.fs.usda.gov/pnw/>.

 Learn more about glacial floods at www.weather.gov/aprfc/gdlMain

JÖKULHLAUPS

Juneau has had jökulhlaups (or glacial outburst floods) in the last few years from a lake in Suicide Basin in Juneau. They occur when the lake, fed by glacial meltwater, breaches its dam and drains catastrophically, typically under the glacier. It's a pretty unique phenomenon and its cool that we get to witness it here in Alaska's capital city. A group of friends and I recently hiked up to Suicide Basin to see the glacier dammed lake.

It had previously been overflowing, but when we arrived the water level was decreasing indicating the jökulhlaup had just begun. The outburst of water will cause lake and river water levels below the glacier to rise for a short period. With the everchanging Mendenhall glacier, it is hard to predict the amount of water to be released with each Jökulhlaup.

Overall we hiked 14 miles on the trail and glacier.

By Adam DiPietro, civil engineer, Tongass National Forest.



A stranded iceberg and person for scale at the edge of the glacier dammed lake at Suicide Basin.

 **Snow and ice safety**
Hidden from sight, deep crevasses on glaciers, large hidden cavities under snowfields, and weakened ice caves can collapse at any time upon an unsuspecting hiker. Exercise caution around all snow and ice activities.

Timber Cruising

Timber cruising is the process of statistically estimating the quantity, quality, condition, and characteristics of trees within a forest stand for the purpose of offering the wood for sale or other disposal. The stand can be sampled/measured by various means, such as variable plot, fixed plot, or 100 percent tree measure.

Typically, the majority of cruising on any ranger district is performed to estimate volume and species that will be used to develop a timber sale appraisal. The cruise information will identify the volume, maximum and average log size, number of logs, and quality of timber, all of which is required to produce a timber sale appraisal.

A statistical design is prepared in advance to sample the stand so the resulting volume estimate (along with tree diameter, heights, defect, etc.) falls within a given degree of tolerance or confidence for the purpose of timber appraisal valuation. This valuation establishes the fair market advertised price for the timber to be offered for sale. The final bid price is typically based on competition between two or more purchasers.

Timber cruising is done using a variety of instruments such as a relaskop, clinometer, diameter tape, and tape measure. Laser technology is starting to replace many of the mechanical devices used to measure trees. Compass and GPS are used to locate sample plots and for mapping purposes. Sample data is recorded in the field using paper data input forms, portable data recorders (PDRs) or tablets. This data is then entered into a computer and various software applications calculate volume estimates and other sample statistics for the stand.

By George Panek, Regional Silviculturist, and Dave Zimmerman, Regional Forest Products Group Leader.



Foresters Brock Martin (Left) and Adam Tlachac stand next to a large Spruce tree on Prince of Wales Island during a timber cruise to collect data.



Meet the Ranger

Perry Edwards, Sitka District Ranger

Perry Edwards became the District Ranger for Sitka in June 2014. He started with the Forest Service in 1989, when, as a college student, he volunteered to do fisheries restoration work on Prince of Wales Island in Southeast Alaska. Perry has worked in Idaho, Oregon, and northern California. Previous positions in Sitka with the Forest Service include being a Fisheries and Wildlife Biologist and a member of the District Ecosystems staff leading watershed, fisheries, wildlife, timber, silviculture, subsistence, and botany and invasive species activities. Perry earned a Bachelor of Science Degree in Wildlife Management from Ohio State University in 1990.

When not at work, Perry is often involved in community activities in Sitka. He has been on the board of Sitka's community radio station - Raven Radio, since 2008. Some of his other favorite activities include hiking, fishing, hunting, whale watching and photography. Perry also dresses like Gifford Pinchot in traditional Forest Service attire for Independence Day and Alaska Day parades every year.

By Perry Edwards, District Ranger, Tongass National Forest.



Tlingit Potato Harvest

Carolyn Rice



Community volunteers harvesting potatoes.

In early October, a total of 27 people volunteered on a sunny fall day in Sitka to learn about and assist with the harvest of Maria's "Tlingit" potatoes – one of the area's most interesting, well-adapted and regionally historic foods.

In addition to nearly a dozen students from Pacific High School, the group of participants also included special guests Betsy Kunibe, a potato researcher and anthropologist from Juneau, who spoke briefly about the potatoes' origin and history, and David Kanosh, a local Tlingit story teller who shared an interesting tale about the vegetable.

"This year, we shared Maria's "Tlingit" seed potatoes with Supanika Ordonez and Timothy James Ackerman and their children," said Michelle Putz, project coordinator and lead gardener for the Sitka Ranger district.

"Timothy's grandmother was Maria Ackerman Miller, whom the potatoes were named after," continued Putz, "It's exciting that our potato project has allowed this historic and delicious food to end up back in the hands —and the dirt—of the ancestors who brought it forward to scientists. Because of Forest Service and Sitka Tribe efforts to cultivate and share this potato and information about it, this unassuming potato has gone full circle."

Supanika and her children were thrilled to be involved in growing Maria's potatoes. They recently bought a house in Juneau and were hoping to grow some of Maria's potatoes. According to Supanika, last year, they had gotten some [seed potatoes] from Maria's daughter in Bellingham, but they had been cross-bred with a purple potato variety. They had hoped that some of the harvest would be Tlingit potatoes, but the crop was all purple. "This spring, the Forest Service gave us some of Maria's seed potatoes from the Forest Service/Sitka Tribe potato garden," said Supanika. "As they started to pop out of the ground, our three year old would say 'Great-grandma's potatoes,' every time we walked by them. The boys had fun harvesting this week."

This year's harvest produced 131 pounds of potatoes.

Seed potatoes will be lovingly dried and stored for next year's planting. A small portion of the harvest was shared with volunteers to taste and to plant. The remaining potatoes will be used by the Sitka Tribe of Alaska through their Social Services Department and shared during events sponsored by their Resource Protection Department.

By Michele Putz, NEPA Planner, Tongass National Forest.

APPLETON CREEK FISHPASS

Wild

Joe Serio



Over time, spawning coho from the downstream population in Appleton Creek will naturally seed the upper reaches producing a wild, healthy and sustainable salmon run in the area for years to come. Managers estimate that Appleton Creek will produce up to 1,000 spawning adult coho annually.

—The whole project was an immense team effort and long work days. From dismantling and moving the old aluminum Alaskan Steepass off site, to building forms and pouring concrete to make the new one.

Joe Serio

Sustainable



Forest Service biologists and Student Conservation Association interns, worked together for almost four weeks to complete this project. Approximately 40,000 pounds of concrete and rebar was helicoptered to the river site one mile upstream from saltwater. The crew used explosives to remove bed rock and create deeper and wider jump pools in the fishpass.

—Here the Sitka team observes the fishpass in full operation for the first time after project completion. At the end of the project we removed all the coffer dams, which were used to reroute the flowing water during construction, and allowed the stream to flow in to the fishpass naturally.

By Joe Serio, fisheries biologist, Tongass National Forest.

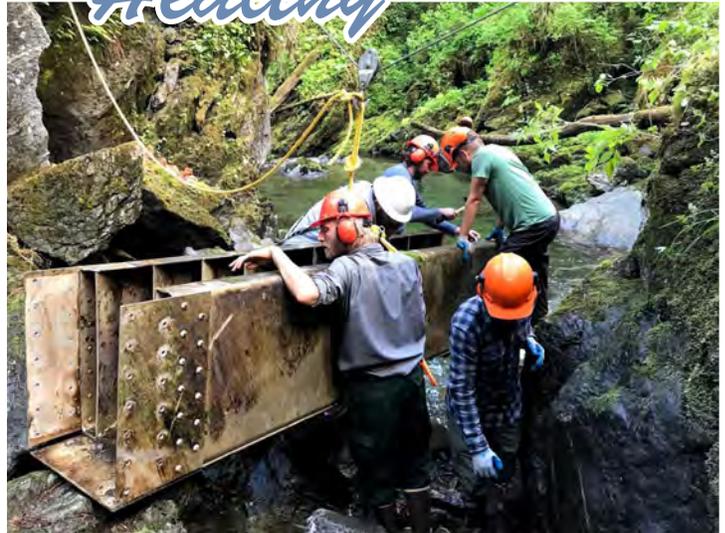
Joe Serio



The Sitka Ranger District completed reconstruction of the upper Appleton Creek fishpass and the removal of a partial rock barrier in July 2019. Prior to this reconstruction, coho salmon have been observed below but not above the old fishpass. This was due to consistent plugging of woody material.

Healthy

Joe Serio



Making the most of near fungus-less Fungus Events

The record breaking hot and dry summer of 2019 impacted a lot of activities on the Chugach, from fire and smoke affected areas near Cooper Landing to salmon stacked up behind dry creeks with nowhere to run. The rains returned about a month late, giving some hope to mushroom hunters who had up until then only found a few dried up *Russulas* in the crunchy moss. In late August the question on everyone's mind was will the mushrooms finally appear?

The Cordova Fungus Festival kicked off its 13th annual event over Labor Day weekend, which is also a popular time for Silver salmon fishing in the area. A couple inches of rain had fallen the previous weekend, providing some relief to both fungus pluckers and salmon slayers. Around 100 participants registered for this year's festival, which featured guided forays for mushrooms, a mossy mushroom display at the new Cordova Center, a mushroom recipe swap, bear bread (conks) painting, cooking demos, craft workshops including dyeing with mushrooms, a writing class, talks, the harvest feast and more (www.cordovafungusfestival.com).

Hunting mushrooms for the display yielded far more fungi than originally anticipated given the drought, which provided a glimpse of the tremendous amount of fungal species diversity in the area. The display was boosted with perennial polypores and many species of lichen. Foray participants were delighted to find an abundance of species, some even found choice edibles on their walks. All participants were encouraged to post fungal observations to the iNaturalist application under the Cordova Fungus Festival project, which now hosts 37 observations representing 30 species observed from the weekend (<https://www.inaturalist.org/projects/cordova-fungus-festival>).

With the Girdwood Fungus Fair event the following weekend, the two events have been coordinating for the past 10 years by sharing invited presenters. This year, Chef Chad Hyatt from the Bay Area in California made his Alaskan debut at both events. He recently published the cookbook "The Mushroom Hunter's Kitchen: Reimagining comfort food with a chef forager" and has been on the road giving cooking demos at mushroom events across the western states from Arizona all the way to Alaska. Hyatt specializes in using edible mushrooms used more frequently in other cultures, such as Russia and Catalonia, in novel but easy to recreate ways. For example, he salts species in the genera *Russula* and *Lactarius* to then create an outrageous

chickpea-free hummus. He also shared a yellow foot chanterelle egg nog ice cream with hazelnuts that was divine.

The 12th annual Girdwood Fungus Fair the following weekend welcomed a packed crowd, with all forays and workshops reaching maximum capacity weeks in advance. Girdwood received even less rain than Cordova, and had what appeared at first to be a pretty sad display with few species. Thanks to members of the Turnagain Arm Mycological Society, a packed display came together just in time for the Saturday crowds. Participants were again encouraged to share their finds on

iNaturalist, with the Girdwood Fungus Fair project page now hosting 84 observations of 47 species from 14 observers (<https://www.inaturalist.org/projects/2019-girdwood-fungus-fair>). Talks by Steve Trudell (author of *Mushrooms of the Pacific Northwest*) and Kitty LaBounty (UAS Professor of Biology) covered a range of fungal topics including their roles in the ecosystem and how to identify them.

Despite the lack of rain resulting in a major decrease in species diversity this year and a near lack of edible mushroom species, participation in both of these events was equal to the best years.

The silver lining in not having those distracting (but tasty) boletes around was that participants were able to focus on lesser observed and, in some cases, rare species that would normally be overlooked. With fewer species out, it was easier to focus on learning the few common species without being overwhelmed. To quote the Fungus Master Steve Trudell, "How are you going to know if you have a good mushroom year without having a bad one to compare it to?"

The Cordova Fungus Festival is organized by Cordova District Wildlife Biologist Melissa Gabrielson, Glacier District Ecologist Kate Mohatt, the Cordova Chamber of Commerce, Copper River Marketing Association, and the Copper River Watershed Project.

The Girdwood Fungus Fair is organized by Glacier District Ecologists Betty Charnon and Kate Mohatt, Glacier District special uses team lead Teresa Paquet, Melissa Gabrielson, members of the Turnagain Arm Mycological Society, and Girdwood Parks and Recreation department.

By Kate Mohatt, Prince William Sound Zone ecologist, Chugach National Forest.



Erin Cooper

OUR FORESTS ARE ALASKA



Gordon Chew

Showcasing the close ties the people, communities, and cultures of Southeast and Southcentral Alaska have to your forests.

Gordon Chew, Tenakee Logging Company

What Tenakee Logging Company does: Gordon and Sterling Chew, the father-son owners of Tenakee Logging Company (TLC), were awarded their first timber sale in 2008 and began leasing two acres of the Tongass National Forest for log storage and mill operations. Believing strongly in local production and supporting the local economy with a sustainable approach to forestry, they provide lumber to help rebuild the infrastructure of Tenakee Springs. Pilings, timbers, siding, firewood and framing lumber are the mainstay of TLC. The small company has employed as many as seven people while rebuilding and constructing many buildings, additions, roads and decks in the small city.

Link to your forests: TLC obtains small timber sales from the Tongass to provide lumber for clients in Juneau and Sitka. This includes providing quality timber products for shipwrights, helping to keep Southeast Alaska's fishing fleets afloat, as well as supporting local artists and luthiers. With the Tongass transitioning to young growth harvests, TLC is bidding on its first young growth sale in the spring of 2018. The sale will also support Sterling's new business venture: Second Growth Homes.

Did You Know? The Tenakee Logging Company restored the historic (1899) Snyder Mercantile and rebuilt the St. Francis Chapel.

Do you know a person or business who should be featured?

Contact Paul Robbins Jr. at paul.robbs@usda.gov for Southeast Alaska, and Alicia King at alicia.king@usda.gov for Southcentral Alaska.

Discover more ties to the Tongass National Forest here <https://www.fs.usda.gov/detail/tongass/about-forest/?cid=fseprd546844>

By Paul Robbins, Jr., public affairs & partnerships staff officer, Tongass National Forest.

Employee Photo Spotlight

An inquisitive American Mink (*Neovison vison*) takes a closer look.

Erin Lenhart
Tongass National Forest
Hoonah Ranger District



A photograph of a sunset over a mountain range. The sun is a bright, glowing orb in the center of the sky, casting a long, shimmering reflection on a body of water in the foreground. The mountains are silhouetted against the orange and yellow sky. In the foreground, there are dark silhouettes of evergreen trees.

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Sunset over Andrews Slough in the Stikine-LeConte
Wilderness, Tongass National Forest.