



Forest Service
U.S. DEPARTMENT OF AGRICULTURE

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TONGASS

National Forest

2021 Annual Report





M. Earl Stewart,
Forest Supervisor

We're in this together

"A team of passionate professionals working together to manage the functioning ecosystems and abundant resources of the Tongass in a way that meets our responsibility to the land and duty to the public."

Above is the Vision Statement of the Tongass National Forest, which we use to guide our decisions and operations throughout the year. The key phrase from this statement is our "responsibility to the land and duty to the public." The forest's more than 300 employees strive to uphold that statement through the principles of *Customer Service*, *Active Management*, and a *Safe Work Environment*. You will see these principles in action as you continue through this report, but I'd like to expand on these principles a little before you do.

Meaningful Engagement to Meet Public Demand and Support Economic Recovery

We believe our approach to stewardship should be integrated and collaborative, with community involvement from development to implementation to meet the needs of our customers. The results of our efforts should produce ecological, social and economic benefit to our diverse constituencies whose livelihoods depend on the multiple benefits delivered from our forest resources for jobs, recreation, food security and health. This will be done by building and sustaining partnerships, improving access to federally managed lands and upgrading our recreation facilities.

Here are a few examples of how we focused on meaningful engagement in 2021:

Petersburg staff demonstrated the process of surveying and classifying streams when identifying new habitat for Petersburg Indian Association interns; a workshop for shared learning was held on Prince of Wales Island between the tribes and USDA Forest Service staff to promote cooperation for culturally important trees; Through Wrangell Upward Bound, the Forest worked with local high school students to promote STEM careers and provided field experience through a condition survey of Berg Bay Cabin; and the Ketchikan Misty Fjords Ranger District opened a limited Federal subsistence harvest for eulachon (ooligan) in the Unuk River for the first time since 2004 due to collaborative monitoring with the ADF&G, Ketchikan Indian Community and local owners.

Climate Resilient, Sustainable Forest Management

From the harvest of wild Alaska seafood to the sustainable harvest of timber and forest products; and the celebration of cultural ties; the forest supports the Southeast Alaskan way of life culturally and economically. We recognize the importance of our intact ecosystems and sustainable resources to the vitality of adjacent communities and strive to remain engaged and impactful in any way we can. This means different things to different communities, and we take pride in being ready and willing to step forward as needed.

Forest Management in 2021 included: over 4,500 acres of early seral stage, young-growth conifer stands pre-commercially thinned on Prince of Wales Island; stream restoration completed on 0.34 miles of Nahania Creek, northern Prince of Wales Island, in partnership with The Nature Conservancy; reconstruction the Falls Lake fish ladder on the eastern side of Baranof Island, an important Subsistence fishery for the Village of Kake; A 36-foot bridge replaced upstream from Pack Creek in the Kootznoowoo Wilderness Area in 2021, to help prevent people from surprising bears, eroding the stream bank, and increasing sedimentation of the creek; and despite pandemic-related logistical challenges, engineers completed 144 routine road bridge inspections and 15 fracture-critical road bridge inspections to ensure public bridges safety.

A Safe Work Environment

We must strive to be a workplace of choice, reflecting the diversity of the communities we serve. This means we must provide our employees the opportunity to grow and lead in an inclusive environment. This type of environment builds a happier, more productive workforce that leads to increased productivity and efficiency toward meeting our responsibility to the American public.

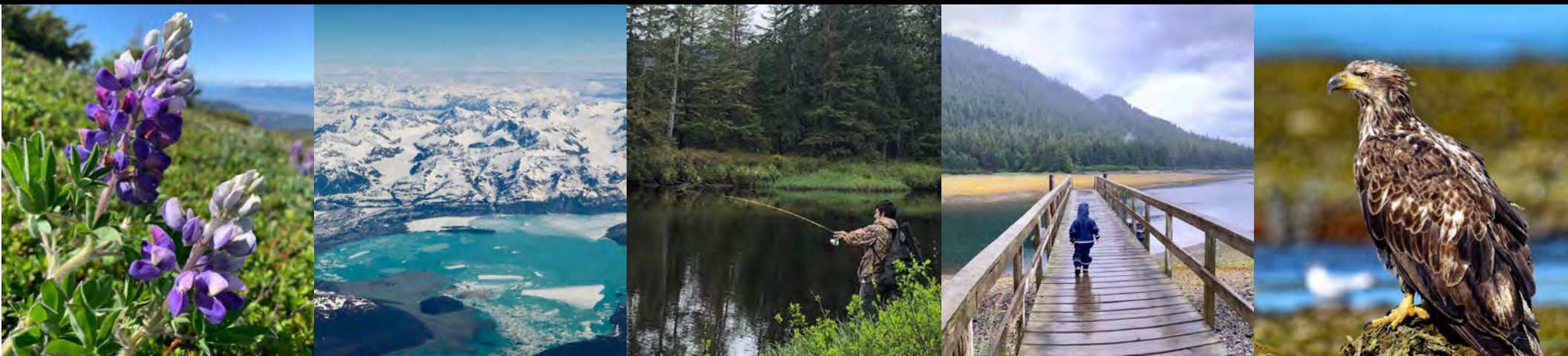
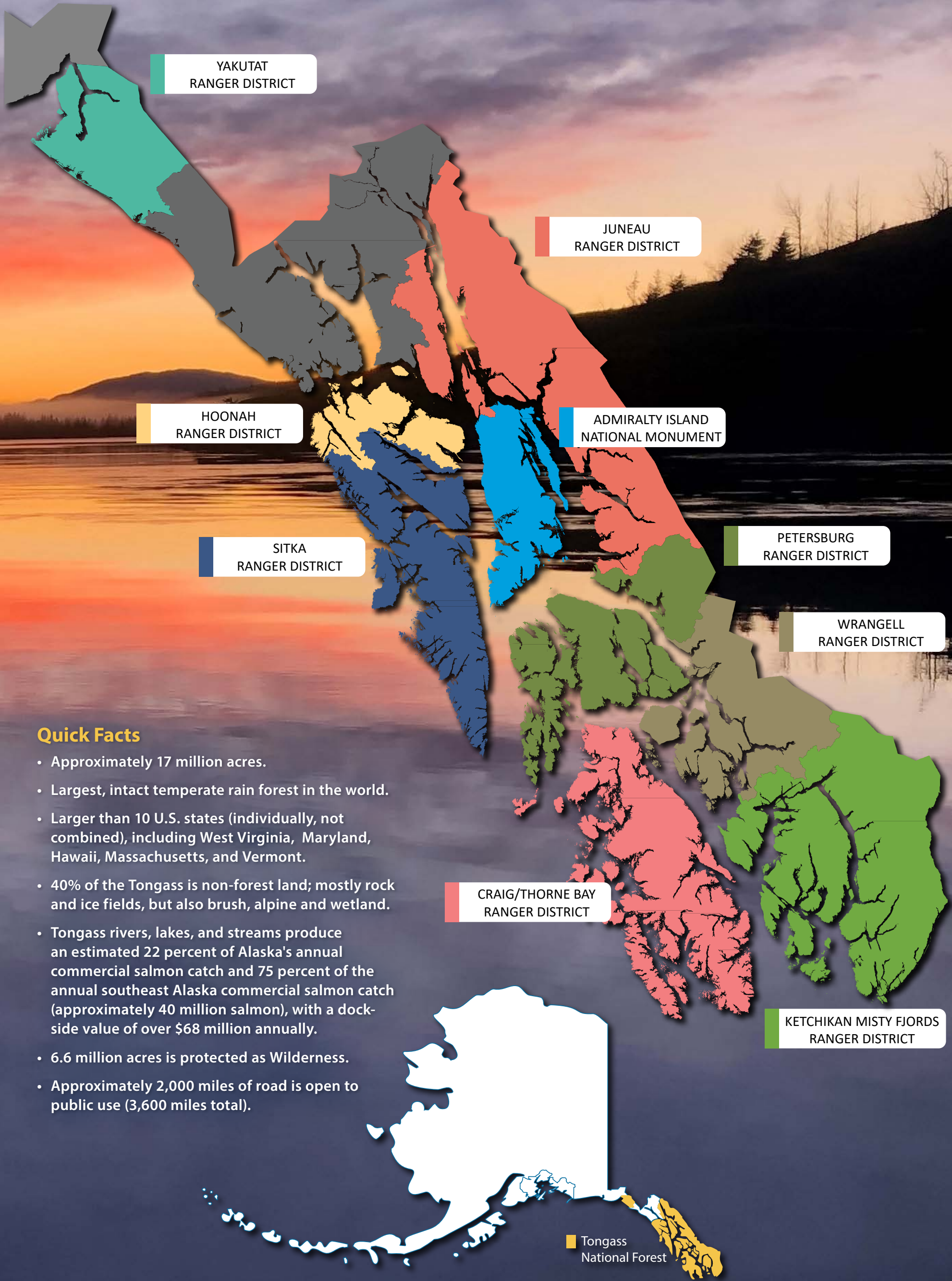
Nowhere is our commitment to providing a better work environment more apparent than our dedication to employee safety with a maximum telework stance and strong mitigation efforts throughout this pandemic. We are also implementing an Employee Well-Being program reflective of our Region's needs and helping employees get familiar with the Employee Assistance Program (EAP).

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Thank you for taking the time to see what is happening on your forest, and I hope you enjoy the rest of the report. I would like to express my sincerest gratitude to all Tongass employees, our outstanding partners, and you (the public) for making it possible to accomplish all of this in what was a truly challenging 2021. I look forward to working with you in 2022 to accomplish even more, and to make sure our amazing temperate rainforest continues to provide the *greatest good for the greatest number in the long run*. After all, we're in this together.

Sincerely,







Michael Creek culvert removal.



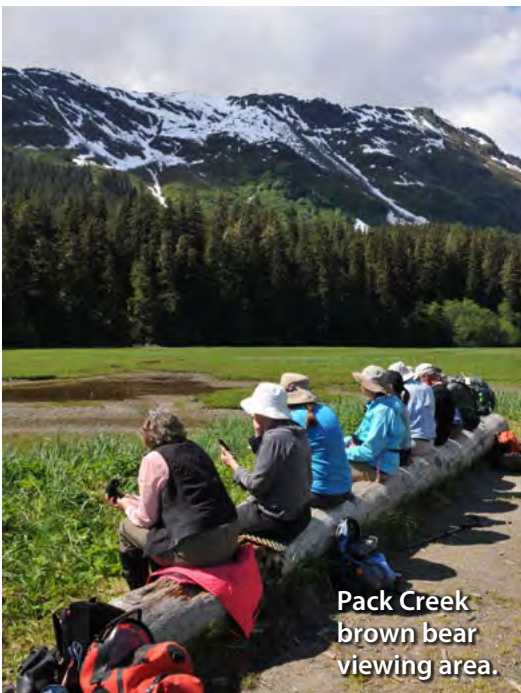
BEFORE
&
AFTER



Pack Creek
tower bridge.



Michael Creek
culvert removal.



Pack Creek
brown bear
viewing area.



Pack Creek admin tent.



Pack Creek Tower Bridge Replacement

A 36-foot bridge spanning a tributary approximately 50 feet upstream from its confluence with Pack Creek (a salmon stream) in the Kootznoowoo Wilderness Area was replaced in 2021. This bridge helps prevent people from surprising and/or displacing bears, eroding the stream bank, increasing sedimentation of the creek (salmon habitat) and wandering into the salmonberry patch and river. The project was completed in partnership with Trail Mix Inc. Bridge components were flown by helicopter and placed near the site.

Pack Creek Trail Great American Outdoor Act

Work began on a Great American Outdoors Act (GAOA) project to replace Pack Creek trail puncheon and improve the trail. The trail is a Civilian Conservation Corps (CCC) era trail that was built in 1935 along with a viewing platform.

Special Uses Spring Permit Monitoring

During May, Admiralty-Juneau Special Use Permit Administrators conducted a spring monitoring boat trip around Admiralty Island to check on permitted big game hunting guide operations. Over the three days, administrators contacted six permitted hunting guide operations, having a chance to see their field camps or boat operations in action, speaking with both guides and clients. Other inspections conducted during this time included a weather station at Point Gardner, isolated cabin sites, and one of our Forest Service public use cabins.



Admiralty-Juneau Special Use Permit Administrators (group photo) conducted a spring monitoring boat trip around Admiralty Island to check in on permitted big game hunting guide operations field camps like this tent camp.

Juneau

RANGER DISTRICT

A rainbow crosses over Mendenhall Glacier and Lake, ending near Nugget Falls.

Photo inset left: A self-guided activity shared the Tlingit words for common wildlife and plants seen at the Mendenhall Glacier Visitor Center.

Photo inset right: Ranger Julia catches a rubber Sockeye Salmon on the banks of the Mendenhall River during a virtual first grade program for Juneau School District's SeaWeek.



Juneau Icefield Research Program Camps Inspection Trip

The Juneau Icefield Research Program (JIRP) has been studying and monitoring the Juneau Icefield since 1948. Juneau Special Use Permit Administrators, the Regional Archaeologist, and the Juneau District Ranger, conducted a one-day helicopter inspection trip to JIRP camps on the Juneau Icefield. Staff visited Camp 18 and were greeted by 3 JIRP employees who gave a tour of the historic camp during the last day of their season on the Icefield. FS staff completed two additional landings and inspections of Camp 10 and Camp 17. The helicopter pilot was able to fly over three additional camps, Camp 19, Camp 9, and Camp 17a before returning to the airport. The Heritage Program is making substantial moves towards getting JIRP on the National Register of Historic Places. This inspection allowed new staff to see how the icefield camps operate and also allowed the Regional Archaeologist to see the historic program facilities.



Juneau Special Use Permit staff visits the Juneau Icefield.



Treadwell Ditch Trail

The Treadwell Ditch Trail is a 14.2-mile trail that connects Eaglecrest Ski Area to the community of Douglas. Staff and partners installed five bridges along the trail in 2021, operating under contract with the Juneau Community Foundation. Bridge lengths ranged from 15 feet to 46 feet. The longest bridge has three beams and was designed to support 200 pounds of snow per square foot. Funding for work to improve the trail in 2021 came from the Pittman-Robertson Fund through a cooperative agreement between the Forest Service, Juneau Community Foundation, Alaska Department of Fish and Game, and Trail Mix, Inc.



Bridge replacement on Treadwell Ditch Trail.



Bridge replacement on Treadwell Ditch Trail.

Bear-resistant Food Lockers

In a partnership with the National Forest Foundation and with investment from the Alaska Forest Fund and the Tongass National Forest Wildlife and Recreation programs, 67 bear-resistant food lockers were purchased to secure attractants and reduce human-bear conflicts at the Mendenhall Lake Campground. The effort was supported by Alaska Department of Fish & Game biologists who have had to address human/bear conflicts in the campground and adjacent neighborhood. The National Forest Foundation worked with TrailMix, Inc., a local trail building organization, to complete the installation. The food lockers have been certified by the Interagency Grizzly Bear Committee, which involves a 50-minute test by captive grizzly bears. Except for the RV loop where the campground hosts can provide a portable food locker upon request, all campsites in the Mendenhall and Auke Village Campgrounds now contain a food locker. Visitors to the campground are encouraged to use the food lockers to store food, garbage, and toiletries, empty them when done, and learn how to secure attractants in camp and at home.



The collaborative Hoonah Native Forest Partnership restored .3 mi of Spasski Creek. Photo courtesy of Hoonah Indian Association.



Hoonah

RANGER DISTRICT



Constructing a large wood structure along Spasski Creek on Huna Totem Lands using heavy equipment from a local contractor.



Hoonah TRAYLS crew members take core samples from trees to determine their age. Photo courtesy of the Sustainable Southeast Partnership.

TRAYLS (Training Rural Alaskan Youth Leaders and Students)

The crew in Hoonah this summer was small but busy. Hosted by the Hoonah Indian Association Environmental Program, crew members worked on projects including water sampling to monitor for paralytic shellfish poisoning; shellfish biomass surveys; taking core samples from trees to determine their age and other characteristics; working with the Forest Service in a project to determine the value of wood products that are used for culture and heritage; and harvesting, preparing, and preserving traditional foods.

The crew’s biggest pandemic-related challenge this summer was the forced cancellation of the annual Traditional Foods Fair, which is typically the culmination of the Hoonah TRAYLS crew’s summer season. As in prior years, the crew put up hundreds of jars of traditional foods like beach asparagus, salmon, deer, blueberry and fireweed jams, and spruce-tip syrup. Normally, those foods would be shared with the community at the festival, and the student workers would give a presentation about their work. Instead, the crew pivoted to deliver food to Elders at their homes.

Hoonah Native Forest Partnership – Spasski Stream Restoration

The Hoonah Native Forest Partnership (HNFP) successfully restored .3 mi of Priority Watershed, Spasski Creek, in July 2021. The restoration occurred on Huna Totem Lands using heavy equipment construction from a local contractor and workforce utilizing hand tools. Project objectives to promote ecological restoration include improved floodplain connectivity, diverse habitats and increased structural complexity leading to channel resilience.

Large wood used for the restoration was collected from surrounding watersheds and thinned from the riparian area. Individual logs were used for grade control features in combination with complex log structures constructed using trees and root fans at 12 different sites. Riparian area trees were thinned to promote wildlife habitats and restore riparian function.

This work was a collaborative effort including the HNFP, the Natural Resources Conservation Service, Hoonah Indian Association, Huna Totem Corporation, Sealaska Corporation, The Nature Conservancy, Alaska Department of Fish and Game, the City of Hoonah, and the USFS.

Sitka Conservation Society Partnership - North Tongass Wilderness Stewardship and Monitoring

Although 2021 presented very difficult challenges like 2020, the Sitka Conservation Society stepped up to help the Forest Service with their Wilderness Stewardship activities. Together with volunteers and partners, they were able to do important work and help raise Wilderness Stewardship Performance element scores. The work was done in extremely remote Wilderness areas, including the outer coast of Yakobi Island in the West Chichagof-Yakobi Wilderness and the Pleasant-Lemesurier-Inian Islands Wilderness in Icy Strait. Travel to these areas required extensive logistics and coordination with residents, commercial fishermen, boat operators, owners of in-holdings, and many others.

Hoonah Kids and Family Fishing Derby at Cannery Beach

On May 15, the City of Hoonah and the United States Forest Service, Hoonah Ranger District hosted the Annual Hoonah Kids and Family Fishing Derby. This event was free of charge to anyone, and over 50 kids attended the Fishing Derby contest, which was open to kids of all ages, with a packaged lunch provided to all family and community members during the derby.



Over 50 children attended Annual Hoonah Kids and Family Fishing Derby at Cannery Beach.

Ketchikan Misty Fjords

RANGER DISTRICT

Juvenile Sharp-shinned
Hawk near Carroll Inlet.

Unuk River Eulachon

In 2021, the district opened a limited Federal subsistence harvest for eulachon (ooligan) in the Unuk River for the first time since 2004. A conservative harvest of one five-gallon bucket per household was allowed, with harvest limited to cast net or dip net methods only. On-site surveys by Forest Service and Ketchikan Indian Community personnel, along with reports from local cabin owners and aerial surveys by the Alaska Department of Fish and Game (ADF&G), indicated a moderate eulachon return in March 2021, and previous monitoring efforts indicate consistent fish returns since 2011. The State of Alaska fishery remained closed in 2021. A full report can be found at: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd925186.pdf

Great American Outdoors Act

Cabin maintenance at Phocena Bay, Fish Creek, Heckman Lake, and Southeast Heckman was completed using funding provided by the Great American Outdoors Act. Work included new roofs, skylight replacement, new stairs, and painting. Eight additional cabins have work planned next year.

Beaver Falls Hydroelectric Relicensing

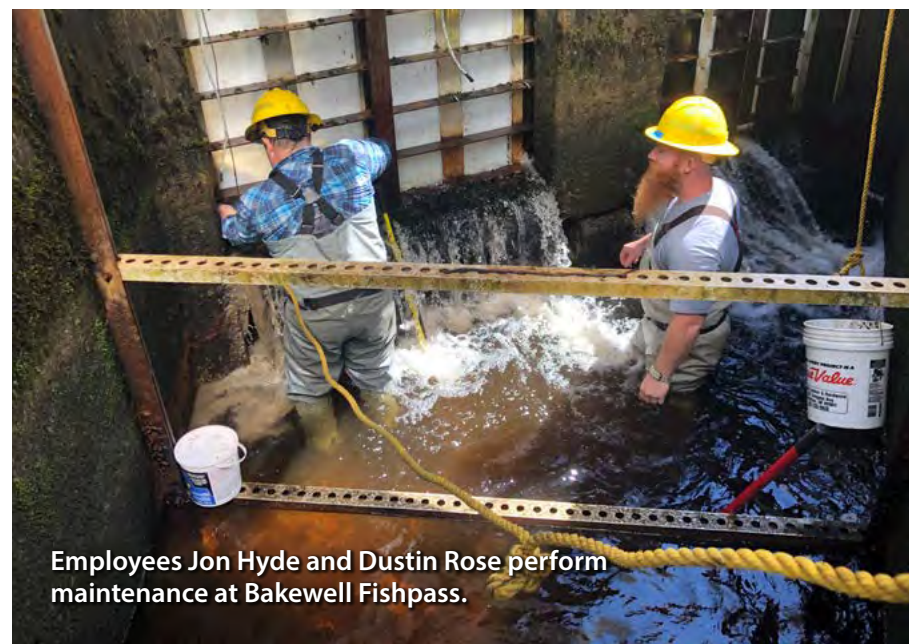
Ketchikan Public Utilities (KPU) has submitted a Notice of Intent Pre-Application Document to the Federal Energy Regulatory Commission (FERC) to relicense the existing Beaver Falls Hydroelectric facilities, located at Silvis Lakes. The current license expires October 31, 2024. The district has participated in early reviews of a Study Plan and will continue to engage with KPU and their contractor throughout the multi-year process.

Ketchikan to Shelter Cove Road

The State of Alaska Department of Transportation and Public Facilities has connected the Ketchikan and Shelter Cove Road systems. Work continues on bridge repairs and other final items before the road can be opened to public use.

Fish and Wildlife Surveys

Several wildlife surveys were completed in the Shoal Cove and Shelter Cove areas this year. A sharp-shinned hawk nest was located, a juvenile red-tailed hawk was seen but a nest could not be located, and a few recently active black bear dens were discovered. Eight sites were sampled on Revilla Island as part of a Forest-wide effort to monitor amphibians and associated diseases. Results of those samples are being processed by a Forest Service genetics lab in Missoula, Montana. A passive bat survey using acoustic monitoring equipment was completed. Annual maintenance was completed at both the Bakewell and Margaret fishpasses, including removing blockages, clearing brush, and doing minor repairs. Annual salmon surveys continued in partnership with Alaska Department of Fish and Game along Fish Creek in Hyder.



Employees Jon Hyde and Dustin Rose perform
maintenance at Bakewell Fishpass.

Margaret Creek Restoration

The Ketchikan Misty Fjords Ranger District is implementing the Margaret Creek Watershed Restoration and Enhancement Project. A Decision Notice for the project was signed in 2019. Large wood placement using heavy machinery began in 2021 and is expected to be completed by 2023. Several restoration sites along upper Margaret Creek (above the lake) were completed this year by placing large wood in the creek bed. The contractor was also able to stage wood at various other sites along the creek in preparation for continued work in 2022. Personnel placed cameras near some of the sites to monitor the sites over the winter and learn how the wood moves during high-flow events.

Margaret Creek restoration site.

Petersburg

RANGER DISTRICT

Ravens Roost Cabin

The new Ravens Roost Cabin is one-story with a loft, covered deck, outhouse, and propane stove with a 500-gallon tank that will be filled regularly to ensure heat year-round.

Located just outside the city of Petersburg, Raven's Roost Cabin is a welcome destination at the end of the recently reconstructed Raven Trail. The new cabin sits about a mile closer to the trailhead than its predecessor, which makes it more accessible for hikers and less expensive to maintain. It is one of two cabins on the district that doesn't require a boat or plane to access.

During the summer of 2021, the Petersburg Ranger District aquatics crew partnered with Keex' Kwaan Community Forest Partnership and Alaska Youth Stewards on Sealaska land to complete a Tier III habitat survey on Jenny Creek near Kake.

District technician, Eric Johnson, helps PIA interns identify fish.

Wolf Gang Sawmill on Mitkof Island.

Petersburg Indian Association Interns

For the last four years, the Petersburg Ranger District has provided mentorship and outdoor field experience to Petersburg Indian Association interns on various natural resource projects. In 2021, district staff demonstrated the Forest Service process of surveying and classifying streams when identifying new habitat. Fisheries management practices, including minnow trapping, and fish observation and identification gave students an intimate look at each species-specific coloration and markings. While the target species, Western Brook Lamprey, was not observed during this effort, the students exited the field excited and enriched with fisheries knowledge.

Petersburg Ranger District helps local entrepreneur succeed

The PRD, through three small timber sale projects, offered commercial firewood and individual tree sales to support small local operators and meet community needs. Purchasers of these sales are providing timber products to local communities.

Mitchell Creek Fish Pass Log Roll

Following the winter high flows of 2020-21, three logs, including one with a large rootwad, were perched on the recently rebuilt Mitchell Creek Fish Pass on the Petersburg Ranger District. Concerned the logs would damage the fish pass and inhibit fish passage, the District's recreation and aquatics personnel, along with four Student Conservation Association interns, teamed up to free the logs.

Heavy-duty synthetic lines apply opposing forces to move the logs.

A hydrologist whittles down the rootwad with a chainsaw.

Crew members help guide the logs back into the stream channel.

Logs at the top of the repaired fish pass are carried downstream.

Kake Kids Fishing Derby

On June 26, district staff hosted the annual Kake Kid's Fishing Derby in the small, tribal village of Kake. Approximately 100 children, aged eight-months to 18 years, fished both fresh and saltwater for a chance to win the grand prize. This community event incorporated students and young adults from the local Youth Conservation Corps and Keex Kwann Community Forest who helped entertain the kids, their parents and grandparents alike. Along with the ever-favorite T-shirt fish printing and popular casting contest, residents were shown the beautiful art of tie dye printing. A free BBQ was hosted by the Forest Service and Kake Tribal, with food graciously provided by local donations. A mazing prizes from generous Kake and Petersburg business were contributed to the children for their fishing prowess and general participation.



Improved boardwalk and aggregate trail section of the Canoe Point Trail.



Nahania Creek rootwad placement.



Early seral stage, young-growth conifer stand.



Alaska Youth Stewards crew work on the Balls Lake Trail.

Recreation Improvement Projects

We partnered with the National Forest Foundation, Spruce Root (nonprofit Community Development Financial Institution), and Sealaska Corporation (Alaska Native Corporation) in the Alaska Youth Stewards youth development program. Through this program, four local youth and a crew leader spent the summer gaining valuable workforce experience via hands-on learning in a variety of disciplines. The crew split its time between work for the Forest Service (22.5 days), Sealaska (18.5 days), and the Klawock Cooperative Association (10.5 days). On Forest Service projects the crew cleared about 4.5 miles of trail, fixed waterbars, applied non-slip material and constructed and replaced boardwalk on Harris River Interpretive Trail, One Duck Trail, Sunnahae Trail, Red Bay Cabin Trail, Trocadero Trail, Salt Chuck Interpretive Trail, Control Lake Cabin Trail, and Hatchery Creek Trail. They removed brush and collected trash at Staney and Horseshoe Hole primitive camp sites and scraped moss and cleared brush at the Big Lake Fish Pass and Hatchery Creek viewing decks.

We partnered with National Forest Foundation to improve the Canoe Point Trail from its start along the shoreline of Trocadero Bay to its terminus at Canoe Point Falls (approximately 0.3 miles). The Canoe Point Trail was established by the public and adopted by the Forest Service sometime between the late 1970s and early 1980s. It consisted of a worn footpath thinly covered by beach gravels, forest debris, and short sections of wooden boardwalk over low-lying, marshy areas. The improvement activities included the placement of geotextile material and aggregates along with maintenance and repair of boardwalk and step-runs. Wooden steps were installed in areas with excessive slopes and exposed roots to reduce trail wear and erosion concerns. The improvement activities did not diminish the integrity of the site or its eligibility status to the National Register of Historic Places.

Nahania Creek Instream Restoration 192 repeated in watershed

In 2021, stream restoration work was completed on 0.34 miles of Nahania Creek, northern Prince of Wales Island, to supplement existing wood, restore hydrologic function, and improve salmon habitat by adding large wood to the channel and the floodplain. The project was implemented in partnership with The Nature Conservancy and contributed to the local workforce by utilizing a local contractor with heavy equipment and chainsaws to extract trees, transport them and place them instream.

Nahania Creek was selected as a restoration opportunity based on past harvest on the floodplain of both banks, decaying instream wood, and little potential for natural large wood recruitment. Around 100 rootwad trees were strategically placed as single pieces and as constructed log jam structures to restore and maintain high quality habitat. The addition of large wood will also provide channel resilience, roughen the floodplain, promote stream bed aggradation, and bolster existing legacy wood logjams until young growth riparian trees become available for natural recruitment. The rootwad trees were sourced from nearby (within 5 miles) roadside stands and riparian areas. Through associated riparian thinning about 3 acres of wildlife habitat and 8.7 acres of riparian area were improved.

Pre-Commercial Thinning

Over 4,500 acres of early seral stage, young-growth conifer stands have been pre-commercially thinned for Fiscal Year 2021. The Thorne Bay and Craig Ranger Districts had four active contracts with one of these contracts through a partner, The Nature Conservancy. These contractors completed more acres in a single year than has been treated since the mid-1990s. Timber Stand Improvement treatments were designed to meet sustainable multiple use management goals including wildlife habitat enhancement.

Cultural Partnerships

The Organized Village of Kasaan, Hydaburg Cooperative Association, and Forest Service staff held a workshop on Prince of Wales Island that was designed to create a shared learning environment through hands-on, classroom, and field-based activities between the tribes and the U.S. Forest Service. It is recognized that the tribal members depend on cedar trees being present for art, carving, and weaving for generations to come. This workshop initiated our collective intent to collaboratively manage and provide access to cultural resources for future generations. Continuing the success of and maintaining trust in these longstanding relationships remains paramount throughout all that we do. These partnerships seek to further integrate and enhance our ability to understand the resource needs and manage them in a culturally sensitive way.



Anthony Christian demonstrates how to strip cedar tree bark for weaving.



Forest Service employees learn how to weave utilizing cedar bark.

Sitka

RANGER DISTRICT

The Harbor Mountain Trail Crew prepares the trail and setting stepping stones.

Great American Outdoors Act (GAOA) Maintenance

The Great American Outdoors Act (GAOA) allowed the Sitka Ranger District to address several deferred maintenance needs in 2021. Three projects were completed and several more are in the works for 2022 and 2023.

- **The popular Harbor Mountain/Gavan Hill Trail** leads hikers to breathtaking ocean views, alpine meadows, and mossy muskegs, as well as subsistence hunting and berry-picking areas. Step-and-run boardwalk planks along the trail, in place to protect wet soils and encourage hikers to stay within the trail corridor, were deteriorated causing safety concerns. Staff worked with the Student Conservation Association and volunteers from Outer Coast College to remove 750 feet of boardwalk and replace it with durable gravel and stone steps or locally sourced Alaska Yellow Cedar boards. The improvements will provide a low-maintenance hiking surface for many years.
- **The Shelikof Trail** provides access to the popular Shelikof Cabin and Shelikof Beach, along the western shore of Kruzof Island. Several sections of the trail had become unmanageably muddy in recent years. Forest Service employees and a Student Conservation Association crew improved over 500 feet of trail by raising the trail bed and capping it with gravel. The improvements will protect the route from further erosion and make the hike more enjoyable for visitors.
- **The Kruzof Island Cinder Cone Trail** is a popular Off-highway Vehicle (OHV) trail on an old logging road over volcanic ash. The route, which was blocked by a 2020 landslide in addition to being heavily eroded, was given new life through a contract funded by the GAOA. Accomplishments of the project include brush clearing and the reshaping of 2 miles of OHV trail, installation of 29 water bars and 95 Carsonite safety posts, and the widening of 1 potential Class 2 stream crossing for fish passage and hydrologic connectivity, and 1 Class 3 crossing for hydrologic connectivity and safety. Users can once again enjoy full use of the Kruzof Island OHV trail system.

Falls Lake fish ladder reconstruction on Baranof Island

In August, the USDA Forest Service and the Sitka Ranger District reconstructed the Falls Lake fish ladder on the eastern side of Baranof Island, just south of Red Bluff Bay. The sockeye salmon return is closely monitored because it is an important Subsistence fishery for the Village of Kake. Staff removed old rock gabion fencing, installed in 1983 to anchor down the fish ladder because they were no longer structurally sound. The fencing was replaced with stout concrete buttress supports which will allow sockeye salmon to reach their spawning grounds during low water level conditions.



Cinder cone trail, ready to ride with restored surface, drainage and water bars.



National Forest Foundation Alaska Cabins Project - Kanga Bay

Kanga Bay cabin received much needed upgrades as part of the three-year National Forest Foundation Alaska Cabins Project. NFF provided funds to Sitka Conservation Society, who managed the work with local contractors and volunteers. The cabin porch and woodshed were completely rebuilt, cabin exterior stained, exterior doors and woodstove replaced, bear resistant food storage locker and picnic table installed. Two other SRD cabins (Fred's Creek, Allan Point) were included in the project and received upgrades in 2019.



Old boardwalk section of Anan trail.



New section of gravel trail at Anan Wildlife Observatory.

New Trail to Anan

Visitors to Anan Wildlife Observatory now access the viewing platform via a new trail. In 2021, all the boardwalk trail, from the Anan Trailhead to the end of the lagoon where the existing gravel trail starts, was replaced with gravel. The work was completed by contract and funded through the Recreation Enhancement Act, which uses the funds paid for Anan permits and outfitter and guide fees to support maintenance and construction projects. Next year, work will start on a new viewing platform at the observatory.



New bridge constructed over Brown Bear Cove on the trail to the Anan Wildlife Observatory.



A fallen tree on the Berg Bay Trail taken by Upward Bound students.

Community Outreach

The Wrangell Ranger District continued public outreach programs while adjusting to Covid-19 precautions. The Stikine River Birding Festival in April typically took place over one weekend, but this year's events were spread out over the course of three weeks and had an emphasis on virtual speakers, outdoor programs, and do it yourself activities. The Wrangell Cooperative Association's Indian General Assistance Program also asked the District for assistance with organizing an outdoor spring field trip for homeschooled students. They wanted to model it after the SeaDay school field trip the district has organized in the past.

During the summer, district employees discussed natural resource careers with a summer culture camp organized by Sealaska, organized the annual Pats Lake Fishing Day, partnered with Wrangell Parks and Recreation for youth outdoor exploration programs and assisted with events during the Alaska BearFest.

Wrangell Ranger District employees also harvested the 2021 Together Tree, a 14-foot lodgepole (Pinus contorta) for Governor's house in Juneau. The Wrangell Ranger District coordinated and photographed the blessing ceremony and Coast Guard send-off. The entire Wrangell staff was involved with making it all happen.



Children look for aquatic insects at a station during SeaDay field trip for homeschoolers.

A Different View of Recreation Sites

A new partnership started with the Wrangell Upward Bound, a college preparation program encouraging students to take an interest in science, technology, engineering, and mathematics (STEM) related careers and study. They approached the Forest Service about incorporating STEM and using drones to inventory public lands. The students completed a condition survey of Berg Bay Cabin as their first project. In addition to taking photos and notes of the cabin's condition, they took drone footage of the trail and made their own YouTube video.

The program is run by the Teaching Through Technology Alliance and the University of Alaska-Fairbanks along with participating students from Wrangell High School. Future collaborations could involve virtual reality trail footage, aerial mapping, and more condition surveys.

Yakutat

RANGER DISTRICT

Recreation technician Glenn Israelson leading a summer Explorers field trip along the Tawah Creek trail.



Student Conservation Association volunteers display a portion of the marine debris they collected near the Italio River.

Marine Debris Removal

In partnership with the Student Conservation Association, Yakutat Ranger District biologists conducted a marine debris survey and clean-up at a remote coastal site near the Italio River. The goals of the project were to intensively remove marine debris, primarily plastics, from an area; and to ground truth and field test logistics in support of other larger scale multi-partner efforts proposed for remote beaches around Yakutat. Marine debris accumulates in large quantities along Yakutat area beaches. Benefits of the removal include decreased potential fish and wildlife entanglement (debris collected included two derelict high seas gillnets); the removal of source material for microplastic contamination on the landscape; and restoring a high value fish, watershed, and recreation area to natural conditions.

The project area was focused on an approximately 100-acre area centered around three small fish streams and an area of sand dunes that, earlier in the season, supports breeding seabirds. Methods consisted of walking transects with an approximately 2.5 meter spacing between collectors from the shrub line to the high watermark or beyond. All identifiable plastic was collected, including small items like bottle caps. In two days, the crew of seven removed over 800 pounds of plastic and other debris from the environment, including 310 pounds of rope and net and 158 plastic water bottles. All the marine debris was packed to an airstrip and transported back to Yakutat for proper disposal.

District staff also collected marine debris near the more accessible Cannon Beach earlier in the season.



Family Fishing Day



Yakutat Elementary School students and teachers collect trash for Earth Day.

Community outreach

The district successfully conducted multiple COVID-mitigated outreach programs to the local community over the course of the spring and summer. To celebrate Earth Day in April, activities focused on learning about Leave No Trace and cleaning up trash around town with local elementary school students. In May, district staff participated in several field trips through the Yakutat School District's "Sea Week" program. Outdoor based Sea Week activities included hikes, bird watching, and tide pool exploration. Also in May, district staff and Student Conservation Association (SCA) volunteers celebrated the end of the school year with students through a picnic and trash clean-up day at Cannon Beach.

Over the summer, staff and SCA volunteers supported the Yakutat School District's "Summer Explorers" program, contributing their expertise during field trips to Harlequin Lake and Tawah Creek where students learned about trees. Additional summer activities included the annual Family Fishing Day, based out of the Yakutat small boat harbor, and the Yakutat Tern Festival.



SCA volunteers remove rotten boardwalk on the Situk Lake Trail in preparation for new cedar walkways.



An SCA volunteer cuts an abutment for a new walkway.

Situk Lake Trail Renovations

During the month of June, 150 feet of boardwalk on the Situk Lake Trail was improved. The renovations to the trail to Situk Lake were conducted by district employees Russel Wicka, Glenn Israelson, and Samantha Lobdell, assisted by five Student Conservation Association (SCA) recreation volunteers.

The project involved replacing the 20-year-old splitlog boardwalk with rot resistant yellow cedar (standard design). Crew members cut up lumber and then took turns hauling it down the trail in wheelbarrows to construct the new walkways. This is an ongoing project over the course of multiple seasons, and the much-appreciated work of crews results in vastly improved access to Situk Lake.



Cannon Beach

Italio River

Marine Debris Collection

Italio River

Cannon Beach

Engineering & Fleet



Aquatic organism passage structures replace barriers to allow the natural passage of aquatic species.



Logjam AOP



Logjam AOP

The Engineering and Fleet Programs administered a total of 74 contract actions for repair, maintenance and construction of roads, bridges, facilities, recreation sites, and the fleet on the Tongass.

Construction was completed on the Joint Chiefs Logjam AOP and Wrangell Woodchip Road projects. The Polk AOP project was constructed under a cooperative agreement with the Hydaburg Cooperative Association. Engineering also awarded contracts for Great American Outdoors Act (GAOA) projects on the Hoonah and POW Ranger Districts, scheduled for construction in the summer of 2022.

Aquatic organism passage structures replace structures that act as barriers to aquatic species with structures that allow the natural passage of aquatic species.

For our administrative facilities, much needed repairs were accomplished at the Sitka, Craig, Juneau, Hoonah, and Ketchikan Misty Fjords Ranger District compounds. Work included repair of pest damage, siding replacement, new roofing, and exterior paint, which greatly improves the appearance and extends the lifespan of these facilities. The Misty Barge is now in drydock in Wrangell for hull paint and repairs and will be ready for service next summer when it will return to El Capitan. The Wrangell bunkhouse and warehouse fuel-oil heating systems are getting a well-deserved retirement, thanks to new heat pump systems that will both save on heating costs and reduce carbon dioxide emissions.

The Tongass Docks and Marine Infrastructure Inspections project completed contract inspection of Forest Service-owned docks and marine infrastructure across the Tongass and the findings are being used to establish the scope of work for maintenance and repairs, a major GAOA project which will occur 2022-24. In support of the Recreation Program, the contract was awarded for Phase I of the Anan Wildlife Observatory deck which will commence construction in spring 2022. Also, the historic MV Chugach ranger boat now rests safely on a cradle constructed in Wrangell in preparation for public display.

Fleet Management administered procurement, disposal, maintenance, safety, and operator qualifications for the Tongass fleet of about 165 motor vehicles, over 50 boats, two barges and numerous ATVs and UTVs.



Inspectors rappel to inspect bridges.

The Tongass has 538 vehicular bridges that require recurring inspection. Despite pandemic-related logistical challenges, we completed 144 routine road bridge inspections and 15 fracture-critical road bridge inspections to assure that public bridges are safe for posted loads.

The Roads Program staff successfully responded to two very intense precipitation events that occurred in November and December of 2020, causing significant widespread damage to many roads across the Forest. The Federal Highway Administration determined that damage from the December storm (affecting northern areas of the Forest) was eligible for reimbursement under the Emergency Relief for Federally Owned Roads (ERFO) program. Engineers subsequently spent much of the summer assessing ERFO damage sites and reopening damaged roads by administering contracts for landslide removal, culvert replacement, road reconstruction, and bridge repair.



BEFORE & AFTER

Shaheen Creek Bridge



Sitka black-tailed deer fawn with sibling and mother on the Tongass National Forest.



Wood frog near Yakutat, Alaska.

Tongass Wildlife: A Critical Resource

Tongass wildlife serve as an important food source to 79% of Southeast Alaskan households, bring in over \$363 million in spending and 2,463 jobs to the region every year, and are valued by 95% of Southeast Alaskans as important to their quality of life. Further, the Tongass supports the highest densities of bears and nesting bald eagles in North America, world-renowned wildlife viewing, and special rainforest and glacially created habitats for a number of endemic species that are only found here. The Tongass Wildlife Program aims to ensure the continued vibrant health of this critical resource by collaborating with partners to implement priority stewardship, information, and outreach activities each year. Here are our 2021 accomplishment highlights.

Information: Collaboration to Monitor & Inform Management

Deer: Publication of a new, 94% accurate, LiDAR-based winter habitat model for deer with The Nature Conservancy, Alaska Department of Fish and Game (ADF&G), and University of Idaho partners.

Young Growth: Completion of a comprehensive young-growth management strategy for Tongass wildlife with partner input.

Bats: Forest-wide monitoring of ecologically important bats with ADF&G, using the nationally recognized NABat protocol.

Landbirds: Implementation of 8 Breeding Birds Survey routes, 3 Alaska Landbird Monitoring Survey blocks, and 2 Christmas Bird Count routes to inform Forest, regional, and national bird population trends and conservation.

Amphibians: Completion of surveys for the first forest-wide assessment of distribution and status of amphibians and their diseases, amid increasing disease and climate change stressors.

Pollinators: First ever forest-wide pollinator surveys in cooperation with the Alaska Center for Conservation Science.

Outreach: Promote Awareness and Support

Tongass staff implemented 85 educational activities in 2021, 91% related to animal and habitat subjects. These events involved 67 partners and reached 90,000 people in person plus 935,000 people via print, broadcast, and social media. Key 2021 wildlife events included the Yakutat Tern Festival, Alaska Hummingbird Festival in Ketchikan, and the Stikine River Birding Festival in Wrangell.



Brown bear sow and cub at Pack Creek.



Brady Skidmore (USFS) and Havaleh Rohloff (Yakutat Tlingit Tribe) sample environmental DNA to detect amphibians and their diseases.

Stewardship: Leveraging Partnerships For Restoration

Young-Growth Restoration: New partnerships with The Nature Conservancy and Hoonah Indian Association will restore at least 136 acres of stem excluded young-growth forest on Thorne Bay and Hoonah ranger districts, with options to add more acreage as more funding becomes available. Tongass staff also restored 108 acres of riparian young-growth forest.

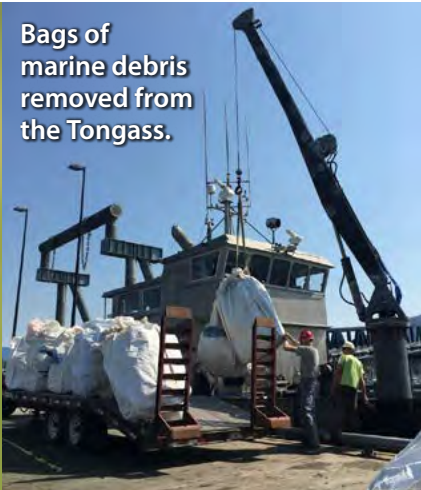
Marine Debris Cleanups: Marine debris was removed from 499 acres on the Yakutat Ranger District, preventing impacts to wildlife from entanglement, ingestion, and toxins.

Bird-Friendly Window Treatments: Bird-friendly, transparent window treatments were installed at 4 remote cabins on the Juneau Ranger District to reduce bird strikes and improve 30 acres of habitat.

Outhouse Vent Caps: Outhouse vent caps prevent cavity-dwelling wildlife from getting trapped in vertical ventilation pipes. Prince of Wales wildlife staff capped 9 vents across 8 locations, improving 345 acres of habitat.



Rufous Hummingbird



Bags of marine debris removed from the Tongass.



Window treatments to reduce bird strikes on a recreation cabin.



Outhouse vent caps prevent wildlife from getting trapped in ventilation pipes.

Mendenhall Glacier
Visitor Center



Visitor Centers

Mendenhall Glacier
Visitor Center Staff



Mendenhall Glacier Visitor Center

2021 was a year defined by flexibility for the Mendenhall Glacier Visitor Center. In a normal year, winter weekdays at the visitor center are filled with the stomping of tiny feet and sounds of laughter and chanting about glaciers echoing through the building.

The Mendenhall Glacier Visitor Center offers field trip programs for grades PreK-8 every year to talk about glaciers, geology, wildlife, ecosystems, and everything in between. In its fifth year, the education program at the visitor center had its busiest season yet, even with a pandemic and virtual learning as the new normal. Rangers found themselves in multiple places at once, making their way into the homes and classrooms of students virtually, first in Juneau, and then throughout Southeast Alaska and through the lower 48 states. Between January and March, rangers reached 786 students in 43 different classrooms.

Winter Friday evenings were saved for a broader audience, connecting with the community through a nearly 60-year tradition of the Fireside Lecture Series. Rangers were able to connect local experts with the public virtually, offering the lectures and Q&A live on Facebook. Topics ranged from avalanche history to ocean acidification, to Buffalo soldiers, among others. Fireside Lectures offered between January and March had broader reach to upwards of 16,500 people on Facebook, connecting with exponentially more people than ever before.

In April, shifting in a different direction, operations pivoted to onboarding and training seasonal rangers, here for the summer to provide world-class service to visitors from across the globe. Staff continued to stretch and pivot as they prepared for the public to start traveling again and for the visitor center to reopen for the first time in a year and a quarter.

Doors opened again in June, as cruise ship visitation started to ramp up for the season. Rangers connected with visitors, talking about the incredible ecosystem and history surrounding the Mendenhall Glacier. While unable to have some of the normal onsite offerings due to the pandemic, rangers turned towards self-guided opportunities, thinking up activities like plant scavenger hunts and Tlingit language learning that visitors could do on their own to gain a deeper connection to the site. In September, the site celebrated the 50th birthday of Woodsy Owl, sharing his conservation education messaging with visitors across a 10-day celebration full of self-guided activities like a selfie station, recycled craft decorations, and storybook trail. Between May and October, Rangers connected with more than 23,000 visitors while out on the trails.

As things move slowly back towards normal, some things established during the pandemic are here to stay. Virtual offerings are likely to be part of the new normal, folded into regular operations to continue connections beyond in-person experiences. Just as one may log on to social media to check in on school friends from years past, so to can you check in on your friendly backyard glacier, even when it is hundreds of miles from home.

Southeast Alaska
Discovery Center Team
and Woodsy Owl with
Tongass School of Arts
and Sciences Classes.



Southeast Alaska Discovery Center

The Southeast Alaska Discovery Center (SEADC) celebrated Woodsy Owls 50th birthday and Smokey Bear's 77th birthday. Celebrations included live appearances from these two famous icons and creation of unique scavenger hunts that promoted their messages of wildfire prevention, climate change, and caring for the land.

The team also focused on promoting conservation education using the Jr. Ranger program, Agents of Discovery, and a series of interpretive programs and classes to promote learning about the natural environment. A combination of outdoor activities at Ward Lake, including GPS based Agents of Discovery missions, and online Microsoft Teams classrooms, reached just under 1,230 students and parents from local schools and homeschool families.

In collaboration with Ketchikan Misty Fjord District fish biologists, the Southeast Alaska Discovery Center provided support to classrooms around the nation by live streaming the center's salmon life cycle tank. Many schools were unable to commit to keeping their traditional "Salmon in the Classroom" tanks during this disrupted school year. These live presentations allowed over 38,440 users to view the developing salmon from egg to fry, eight hours a day.

The SEADC is an interagency information and visitors center, housing five permanent exhibits including the Alaska Public Lands Map, Rainforest model, Native Traditions, Ecosystems of Southeast Alaska, Resources, and a summer art exhibition by a local artist. In addition, a 200-seat theater shows multiple films intended to broaden visitor knowledge of the natural world, native peoples, traditions, and history of Southeast Alaska. In 2021, the Center welcomed about 8,000 visitors.

The adaptation of virtual platforms allowed the team to serve the public through live streaming twenty-three Friday Night Insights programs on Facebook Live, reaching an audience of about 14,170. These virtual tools also supported the Alaska Hummingbird Festival. The festival traditionally takes place over the entire month of April each year, educating and promoting public understanding of the spring migratory birds of Southeast Alaska. Virtual tools were used to provide and promote a variety of interpretative programs, outdoor birding activities, classes for primary grade students, art-to-go kits, and more.

The Southeast Alaska Discovery Center has over 800 light bulbs in the 21,000 square foot facility. A project to reduce the energy used in lighting the center began in 2021. A green grant allowed the center to purchase energy efficient LED bulbs. The future is brighter with the knowledge that we are saving energy and time by changing light bulbs less frequently. In addition to being more energy efficient, it is safer. The older style lights created shadows that made it hard to see during security checks and day to day activities. The improved lighting provides a safer environment as visitors negotiate the ramps and steps through the exhibits.

Southeast Alaska
Discovery Center Team
VetsWork Intern Mason
Boomgarden uses a
Genie Lift to install
LED Light Bulbs in the
Resources Exhibit.



Baird Glacier colors pop on a rainy day.
Petersburg Ranger District, Tongass National Forest.
USDA Forest Service Photos by Jenna Wilson-Ashby.



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