



Community-based Wilderness Stewardship on the Tongass National Forest

2009/2010 PROGRESS REPORT

Partnering to ensure “an enduring resource of Wilderness”



Tongass National Forest
Sitka Ranger District



In celebration of the 40th anniversary of the Wilderness Act, the U.S. Forest Service issued a stewardship challenge, calling for all Wilderness Areas in the National Forest System to meet baseline management standards by 2014.

Because of the Sitka Conservation Society's historic involvement in Wilderness designation and commitment to its long-term stewardship, between April 2009 and March 2010, the Sitka Conservation Society partnered with the USFS Sitka Ranger District to help the District meet the elements of the Wilderness Stewardship Challenge. This work was funded by a grant from the National Forest Foundation, and matched by the Sitka Conservation Society. Logistical, planning, and consulting support was provided by the Sitka Ranger District. This project will be continued in 2010.

The elements of the Wilderness Stewardship Challenge to be addressed through this project are:

#2 The Wilderness was successfully treated for non-native, invasive plant species

#3 Monitoring of Wilderness Air Quality values with baseline

#4 Priority actions in Wilderness Education plan are implemented

#5 Wilderness has adequate direction, monitoring, and management for solitude

#9 The priority information needs for Wilderness area have been addressed

Non-native and sensitive plants surveys

Summary

We conducted field surveys for non-native and sensitive plants. Inventorying for non-native plants is the first step towards successfully treating for invasive species. Because it is particularly challenging to access field sites on the Tongass National Forest, the Wilderness Areas have not been completely surveyed. As an example of the access challenge, at the Sandy Bay field site our crew spent a whole day traversing a one-square mile area!

Surveys were conducted by a trained botanist and all plant identifications were verified and catalogued with the University of Alaska Fairbanks.

We surveyed 4 field sites in the West Chichagof-Yakobi Wilderness Area (all sites except Klag Bay due to the season) and 7 sites in the South Baranof Wilderness Area. There were 33 total field survey days. The following non-native plants were found at three sites (Klag Bay invasives were at a privately-owned historic mine site adjacent to Wilderness):

Phleum pratense (timothy-grass) - Lydonia Island

Taraxacum officinale (common dandelion)
- Rust Lake and Klag Bay

Digitalis purpurea (foxglove)
- Klag Bay

Ranunculus repens (creeping buttercup)
- Klag Bay

We also collected the first Alaska specimen of the moss

Grimmia leibergii

Sensitive and unique plants are described in the section Field Site Notes and Highlights. Species lists by site are tabulated in the document *Community-based Stewardship on the Tongass National Forest - 2009/2010 Data Report*.

Wilderness Stewardship Challenge: Element #2:

The Wilderness was successfully treated for non-native, invasive plant species



Plantanthera chorisana
bog-orchid



Documenting unique
flora at Rust Lake

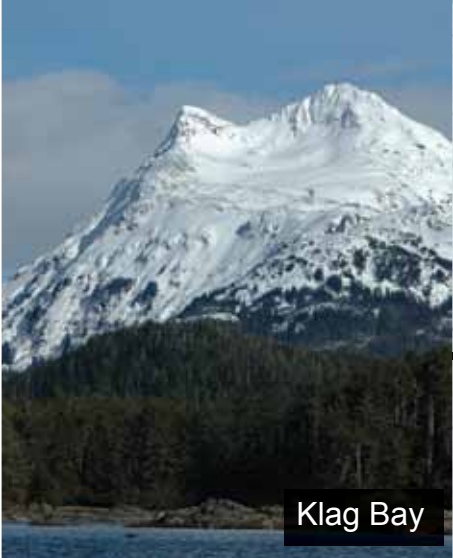


Moksoutof River

Non-native and sensitive plants surveys Field Sites



Lake Elfendahl



Klag Bay



Goulding Lakes



Lydonia Island



Rust Lake

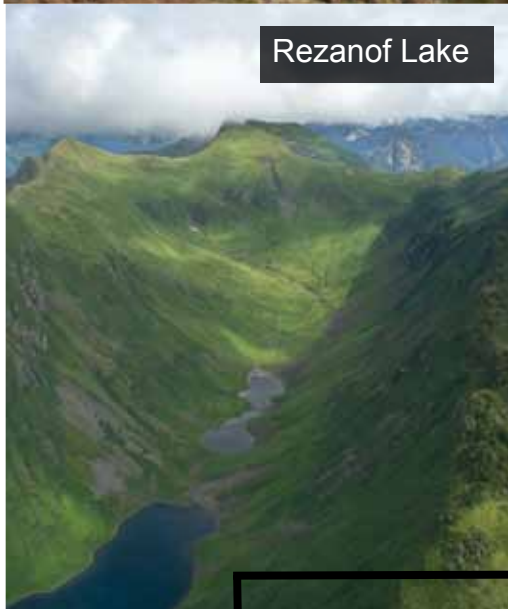
Non-native and sensitive plants surveys Field Sites



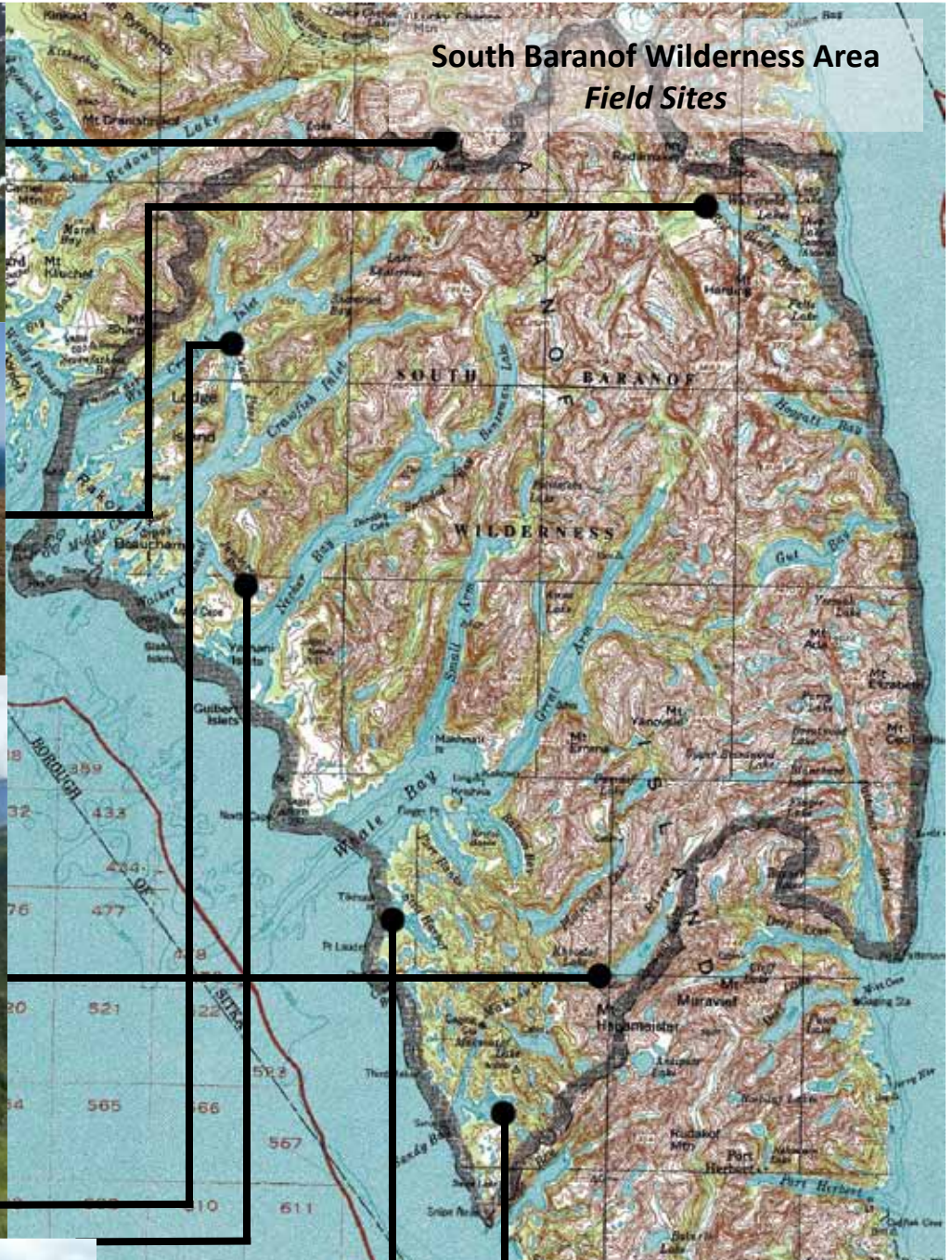
Lake Diana



Red Bluff Bay



Rezanof Lake



Cedar Pass



Jamboree Bay



Still Harbor



Maksudof Falls
(Sandy Bay)

Air Quality Monitoring

Summary

Upon consultation with the USFS on locations and protocols, two long-term air quality plots were established - one at Still Harbor in the South Baranof Wilderness Area and one at Klag Bay in the West Chichagof-Yakobi Wilderness Area. Target lichen species were collected as bio-indicators of air quality.

Wilderness Stewardship Challenge: Element #3:

*Monitoring of Wilderness air quality values
with baseline*



The Klag Bay air quality monitoring site was chosen near a historic mine



Botanist Kitty LaBounty collecting lichen samples for air quality monitoring, Still Harbor



Mt Fritz

Solitude Monitoring

Summary

Solitude monitoring was at the heart of this partnership. SCS coordinated solitude monitoring conducted by community volunteers, guides, fisherman, and outfitters that use and rely upon the Wilderness areas surrounding Sitka. This solitude data complemented the data collected by the Sitka Ranger District during Wilderness Ranger Kayak Patrols. SCS helped recruit volunteers to accompany USFS staff on these patrols. The protocols and forms used by volunteers were developed SCS and USFS staff.

This data will be used to ensure that the Wilderness areas are managed to provide "outstanding opportunities for solitude" - as described in the 1964 Wilderness Act. The data collected will serve as a baseline for solitude conditions, from which to measure the effects of future management and use of the Wilderness areas. This data will also show areas that provide high levels of solitude and inform appropriate management of these areas. Data measures included numbers of groups, boats, and planes seen, as well as qualitative descriptions of impacts to the solitude experience.

71 volunteers picked up solitude monitoring forms during the summer of 2009. 22 returned forms, representing 1041 hours of data.

An example of a completed solitude monitoring form

Wilderness Stewardship Challenge: Element #5:

The Wilderness has adequate direction, monitoring, and management for solitude



Monitoring Form	
1. Name and contact information of volunteer:	Libby Danson
2. Date:	7/4/09
3. Location:	Red Bluff Bay
4. Approximate block of time:	4 hours
5. Weather conditions:	Beautiful
6. My main activity (at anchor, hiking, hunting):	hiking
7. # of planes seen within ¼ mile of me:	2
8. # of boats seen within ¼ mile of me and type (trollers, skiffs, etc)	0
9. # of groups of other people I saw on shore & their activity:	2
10. If possible to tell, were any of these guided groups?	no
11. My perception of impacts to my solitude in this area & why: <small>Low (Medium) High</small>	Medium
12. Any other comments about this area, why you value coming here and its present opportunities for solitude:	Would have been even more amazing without our neighbors, but great! entered

Solitude Monitoring (continued)

West Chichagof - Yakobi Wilderness Area

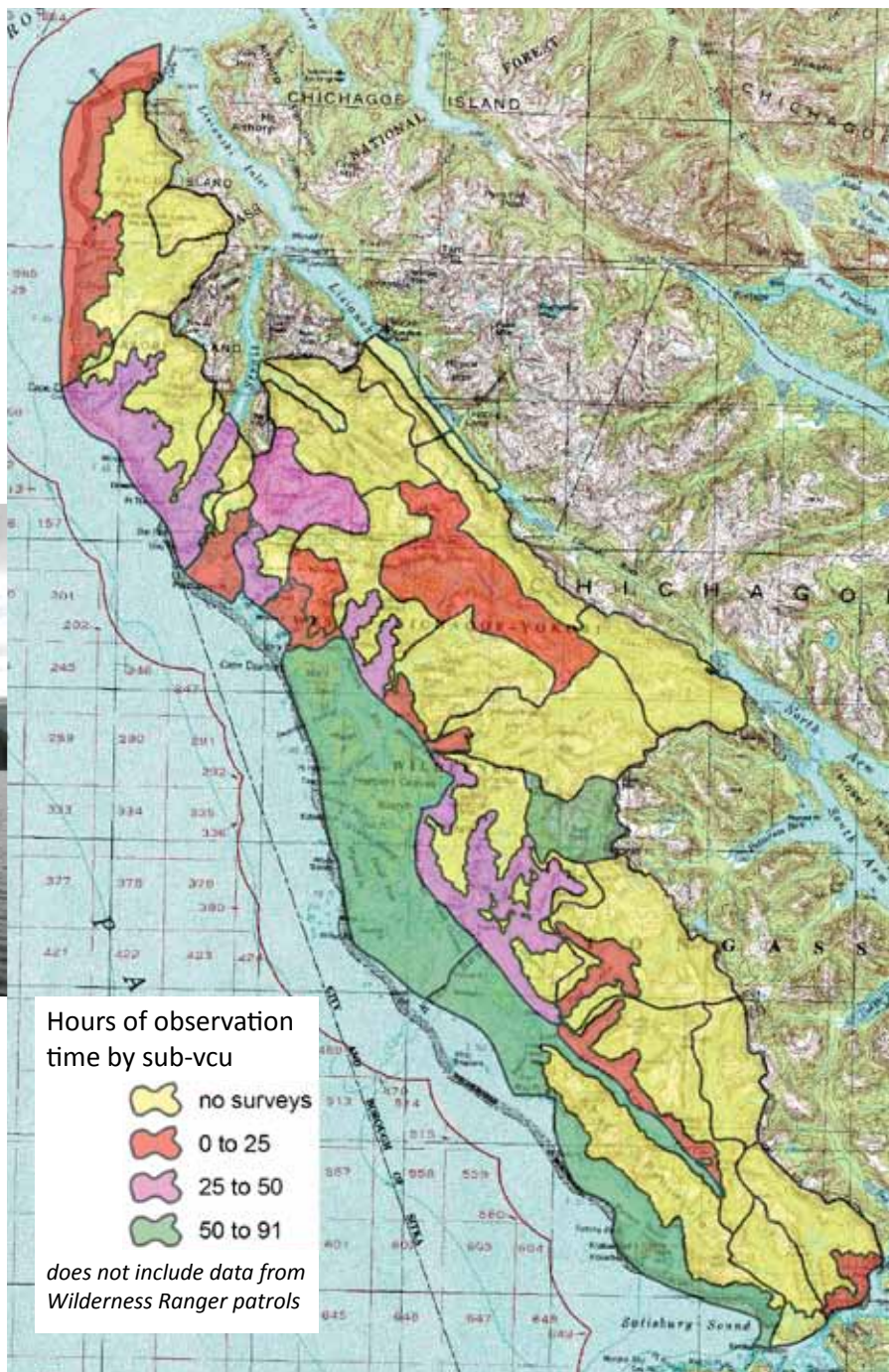
The map at right shows the hours of solitude data collected by Wilderness steward volunteers in the West Chichagof-Yakobi Wilderness area.



Floatplane at Goulding Lakes



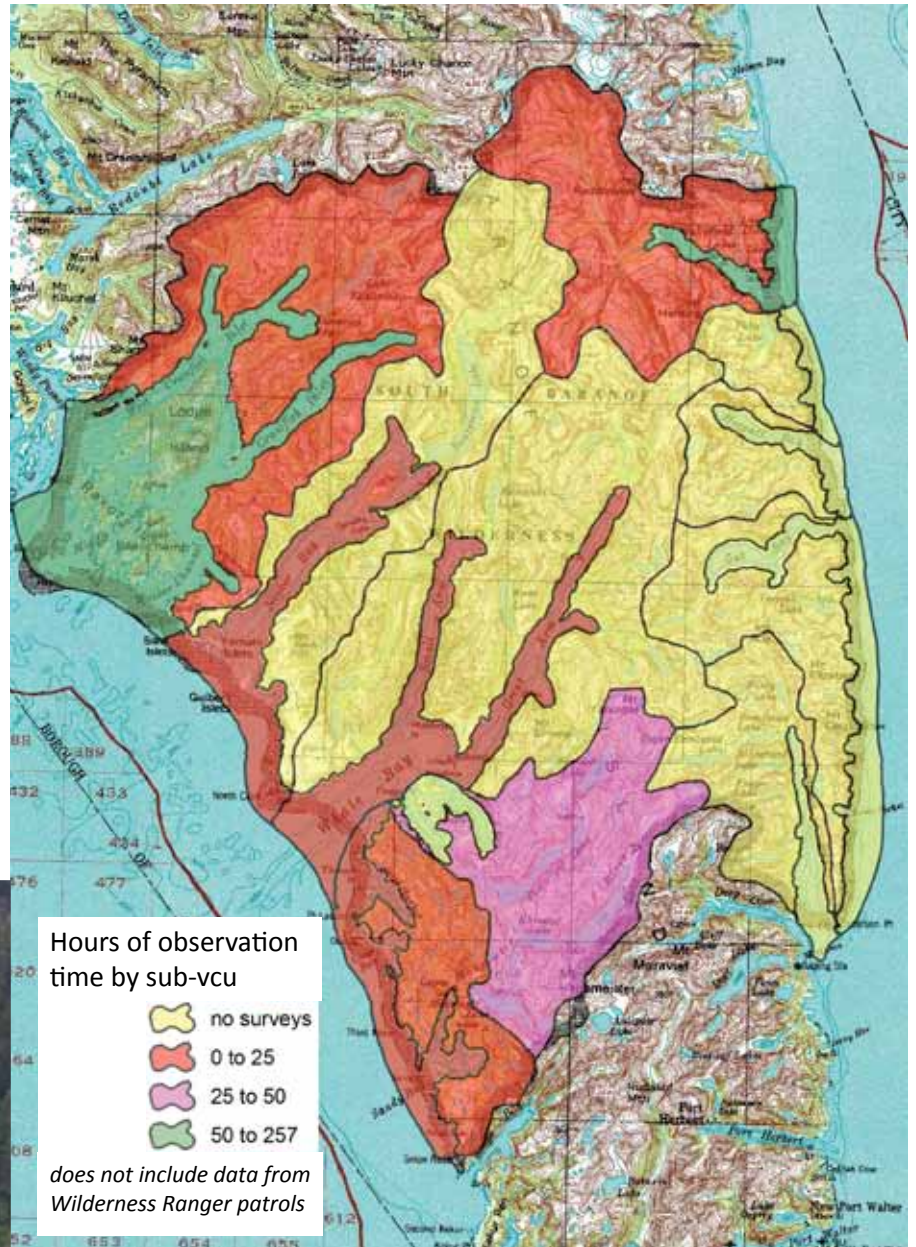
Big Chief Mountain



Collecting solitude data

South Baranof Wilderness Area

The map at right shows the hours of solitude data collected by Wilderness steward volunteers in the South Baranof Wilderness area.



Summary

Through efforts at recruiting community volunteers, guides, fisherman, and outfitters, and local businesses that rely on Wilderness, this partnership was able to provide outreach and educational opportunities of the value of Wilderness in our society.

SCS sponsored the following events to introduce the Wilderness Stewardship Challenge and to promote a Wilderness Stewardship ethic.

- An informational meeting before the summer field season to introduce the project and recruit volunteer data collectors. 45 people attended this event and we contacted an additional 26 people in person.
- A boat cruise to the Wilderness area - an opportunity for accessing the Wilderness because these areas are difficult and expensive to access. 43 participants
- An evening public presentation celebrating Wilderness with guest speaker Wilderness historian Doug Scott. 40 participants.
- Participation in the first conference and charter membership in the Wilderness Friends Network - a national network of Wilderness stewardship groups and agencies.

Additionally, professional writers and sound recording artists participated in the Goulding Lake site visit to share stories of Wilderness solitude with the greater public.

And the Mayor of Sitka recognized Wilderness and this partnership with a City proclamation.

Wilderness Stewardship Challenge: Element #4:

*Priority actions in Wilderness education plan
are implemented*



Summary

The following data sets were collected, organized, and entered into Excel and ArcGIS databases. GIS analysis was conducted for the preparation of this report. All databases and analyses were made available to the Forest Service and project partners:

- volunteer-collected solitude data
- invasive plants data
- sensitive plant species data
- air quality lichen specimens
- bird and mammal species for selected sites

See the document *Community-based Stewardship on the Tongass National Forest - 2009/2010 Data Report* for the tabulated data.

In addition to collecting data for solitude, non-native and sensitive plants, and air quality, our presence in the field offered partnering institutions and researchers opportunities to collect more data and access more locations in Wilderness.

Many of the areas we visited are poorly studied and researchers were eager for us to collect additional baseline data specifically from Wilderness areas. In this way we were able to leverage funds and volunteer effort to accomplish multiple research objectives. Most notable of these partnership projects included:

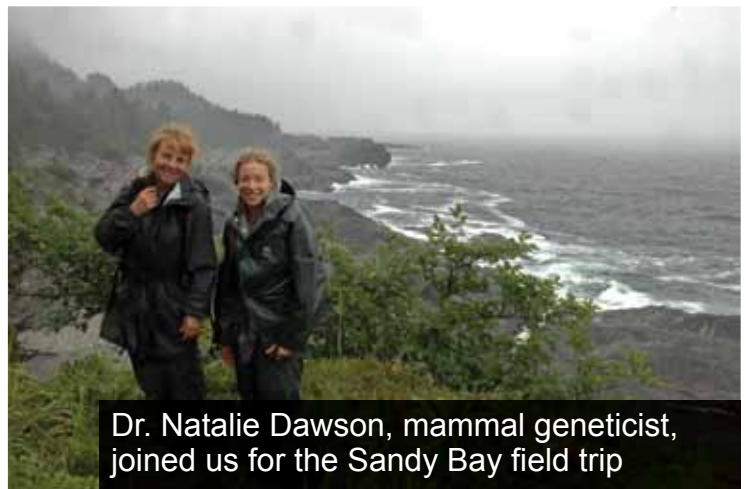
Partner Project:

Southeast Alaska boreal toads

We surveyed for adults and collected swab samples of boreal toad tadpoles to support a **University of Alaska Southeast** study investigating the local and regional landscape features that impact the boreal toads populations (*Bufo boreas*) in Southeast Alaska. Although once widespread throughout western North America, boreal toads are now declining in portions of their range, and the current status of populations in SE Alaska is not well known. The goal of this project is to contribute to toad conservation efforts by identifying the current landscape features that may pose barriers to connectivity and gene flow, and by predicting the impacts of future anthropogenic landscape modification and climate change.

Wilderness Stewardship Challenge: Element #9:

The priority information needs for Wilderness area have been addressed





Partner Project: Small mammal genetic diversity

At the Sandy Bay and Rust Lake Field sites, we partnered with the **Center for Biological Diversity** and the **University of New Mexico** to collect small mammal specimens. These efforts support ongoing research to identify unique genetic lineages of small mammals.

Research based on DNA studies of small mammals such as voles, shrews, and weasels found on Baranof, Chichagof, Prince of Wales, and Admiralty islands in many Wilderness areas, has helped give scientists a clear picture of which islands may have been covered with glaciers as late as 12,000 years ago.

Partner Project: Cedar genetics

We collected cedar samples in support of a **USFS Pacific Northwest Research Station** project studying the distribution of Alaska yellow-cedar, *Chamaecyparis nootkatensis*.

Partner Project: Winter deer mortality

We surveyed for winter-killed deer at the Klag Bay field site for the **Alaska Department of Fish and Game**. This data supports deer management efforts and allows for comparison of deer populations over the Southeast Alaskan landscape.

Partner Project: Beaver dispersal study

A teacher and student from Sitka School District joined us at Klag Bay to survey for beavers and collect DNA samples for a genetic study of dispersal rates and distances of beavers throughout Southeast Alaska.



Non-native and sensitive plants surveys

Field Site Notes and Highlights

Lake Elfendahl and Lydonia Island

August 11-18, 2009

Principal Investigators: Kitty LaBounty, Matt Goff

Our first attempt to fly to Lake Elfendahl was not successful (due to weather) and we made camp on Lydonia Island. The second day, a floatplane moved us to Lake Elfendahl where we spent 3 days.

Lydonia island is small island with a mixture of vegetation types cedar dominated young forest, scrubby mixed conifer, open muskeg and a pond with a small area of grass/sedge/herb meadow. In the small meadow we found our second invasive species of the field season, *Phleum pratense*.

There was sign of a camp site (tent stakes) on the island, but no trash.

At Lake Elfendahl we surveyed the outlet of the lake and approximately a mile down an unofficial trail to White Sulfur Hot Springs. Near the lake outlet we collected a buccal swab genetic sample from a Boreal Toad.

Near the outlet of the lake we collected some atypical species including *Ranunculus aquatilis* and *Botrychium multifidum*.

We also conducted sensitive and invasive plant surveys up the slopes of Mt. Fritz. None were found, but we did collect *Cinna latifolia*, an under documented, but probably not unusual species of grass.

Notable bird sightings included Spotted Sandpipers, Semi-palmated plovers, and Common Loons.

Goulding Lakes

September 2-4, 2009

Principal Investigators: Kitty LaBounty, Scott Harris

We spent 3 days in the Goulding Lakes area which has had few if any formal botanical surveys. We did not find any invasive plants despite the presence of a well-used Forest Service Cabin. Our path crossed

with the next visitor, his float plane dropped him off before ours picked us up.

Lisa Busch and Megan Nix joined us on this field survey. Megan is a freelance writer and editor at the Denver Post and Lisa is the producer of the Encounters Radio series. Both will be producing media materials on Wilderness and Solitude.

We traversed the western and eastern shoreline forest and muskeg of Otter and upper Goulding Lakes. The vegetation was a mosaic of forest in the alluvial areas and bog or fen in the less disturbed area. There were abundant fungi fruiting, including a rare form of *Laetiporus conifericola* (pink). No sensitive or invasive species were found.

On the hike up the slopes of Big Chief Mountain we collected *Silene uralensis spp uralensis*, a species with only 6 documented locations in Southeast Alaska (ARCTOS database).

Notable bird sightings included a pair of south-bound swans (earliest noted within the broader Sitka area) and a peregrine falcon.

Cedar samples were collected for the Forest Sciences study on the genetics and biogeography of Alaska Yellow Cedar.

Rust Lake

June 27-29, 2009

Principal Investigators: Kitty LaBounty, Jonathan Goff

We were initially planning on traveling and camping with Forest Service personnel inspecting the lake valve at the abandoned Rust Lake hydrologic project. A last minute change in personnel prevented this and two of us spent 3 days camped near Rust Lake area while the Forest Service people camped at Sisters Lake. When weather precluded a Rust Lake pick up, we hiked the former dam maintenance trail to Sisters Lake for a pickup

We conducted solitude monitoring and surveyed for invasive and sensitive plant species in the Rust Creek valley and between Rust Lake and Sisters Lake. On a gravel bar upstream from Rust lake, we located

Non-native and sensitive plants surveys

Field Site Notes and Highlights (continued)

a small population of common dandelion, *Taraxacum officinale*. We relocated healthy populations of *Papaver radicum* on several gravel bars on Rust Lake creek.

The Rust lake area has large outcrops of limestone which support interesting plant species, also in the area are extensive fens. The fens had signs of extensive vole colonies including runs and food caches. Limestone associated plants (*Polystichum lonchitis*, *Thalictrum alpinum*, *Geum rossii*) were found as well as *Llyodia serotina*, a plant collected few times on islands in Southeastern Alaska.

Rust lake is periodically used by parties of campers, the only signs of which were abandoned tarps, plastic sheeting and treated lumber which appeared to be stashed for future use.

Notable bird sightings included nesting Mew gulls on Rust lake and Common Loons.

Klag Bay

March 20-21, 2010

Principal Investigators: Kitty LaBounty, Scott Harris

The highlights of this trip included installing an Air Quality Plot. Because of the time of year, we didn't conduct extensive plant surveys, but did find three non-native species (*Taraxacum officinale*, *Digitalis purpurea*, and *Ranunculus repens*) at the historic mine site - a private land inholding. We conducted a deer mortality transect for the Alaska Dept. of Fish and Game and worked with a Sitka High School project on beavers.

Lake Diana

July 29-30, 2009

Principal Investigators: Mary Emerick, Kitty LaBounty

The Wilderness Ranger and I spent an overnight trip at Lake Diana to monitor a hunting camp and to conduct solitude, invasive, and sensitive plant surveys.

We did extensive clean up of a camp site near the

eastern shore of the lake, including trash collection, line removal and consolidating multiple fire rings into one site.

We hiked up from the eastern shore to the snow line on the ridge overlooking the Salmon Lake valley. No invasive or sensitive plants were seen. The most notable feature of the vegetation was the presence of several native Mountain Ash trees.

Notable bird sightings included American Pipits and Red-Tailed Hawks.

Red Bluff Bay

June 5-10, 2009

Principal Investigators: Kitty LaBounty, Matt Goff

We spent 5 days at Red Bluff bay conducting invasive and sensitive plant surveys and solitude monitoring. Red Bluff was the most heavily used area that we visited in either Wilderness during the 2009 field season. There were 10 private boats anchored in the bay and 2 parties seen on shore.

We did not find any invasive species, but documented several populations of *Polystichum kruckebergii*, a species of fern included on the Region 10 Sensitive plant list, on the bluffs. Additionally we found two species included on the Alaska Natural Heritage Vascular Plant tracking list, *Mimulus lewisii* (S2) and *Asplenium trichomanes* (S1) on the bluffs near the abandoned cannery site. Interesting vegetation types encountered included the strikingly sparse vegetation found on the ultramafic bluffs and stands of *Populus balsamifera* in the floodplain.

Cedar samples were collected for the Forest Sciences study on the genetics and biogeography of Alaska Yellow Cedar.

Notable bird sightings included a pair of Red-throated loons, groups of Marbled murrelets, a juvenile Trumpeter Swan and a Western Screech Owl. The most unusual animal sighting was grasshoppers (not typical of insular southeast Alaska) on the bluffs. A sow and cubs were seen in the estuary meadow.

Non-native and sensitive plants surveys

Field Site Notes and Highlights (continued)

Rezanof Lake

August 4-8, 2009

Principal Investigators: Kitty LaBounty, Matt Goff

We traveled with Forest Service personnel investigating the decommissioned cabins in Maksoutoff and Rezanof lakes. We conducted solitude monitoring, and invasive and sensitive plant surveys on both Rezanof and Khostof lakes, including the main creek valley at the head of Rezanof Lake and up the northwestern slope of Mt. Hagemeister. We did not locate any invasive plant species in the area.

The most unique vegetation type encountered on this trip was the grass-dominated meadows on the eastern shore. The grasslands may be maintained by episodic flooding and/or browse of invading shrubs and trees.

Also at the upper lake shore were less frequently encountered species such as *Symphotrichum subspicatum*. An infrequently encountered orchid (on Baranof Island), *Goodyera oblongifolia*, was found in the peninsula between Khostof and Rezanof Lakes.

We relocated populations of *Mimulus lewisii* (on the Alaska Natural Heritage Vascular Tracking List) on the eastern shore of Rezanof Lake. We found one adult boreal toad in the sloughs of Rezanof Creek.

We documented a rare lichen (for Baranof Island), *Tsuga mertensiana* on Mt. Hagemeister, and *Nephroma arcticum*.

Of historical note, we located the USGS markers related to hydrological a project of the late 1960's.

We documented a range extension of a bryophyte, *Pseudolesurea patens*, previously known only from the Yakutat area in Southeastern Alaska.

Notable bird sightings included a Great Blue Heron nest, Red Tail hawk, Lesser sandpiper, and Red throated loons.

Sandy Bay, Still Harbor, Jamboree Bay, and Cedar Pass

July 18-22, 2009

Principal Investigators: Scott Harris, Kitty LaBounty, Natalie Dawson

We spent five days from Cedar Pass to the southern arm of Sandy Bay conducting invasive and sensitive plant surveys, mammal trapping, and solitude monitoring. This portion of the coast of Baranof Island is well traveled by commercial fishing boats and some recreation vessels.

Natalie Dawson, research biologist with the Center for Biological Diversity, joined us on this trip. She was trapping small mammals to identify any unique genetic lineages.

On shore in Sandy and Jamboree Bay and in Cedar Pass we surveyed ten lakes and large ponds for Boreal Toads. Tadpoles were found in two lakes, genetic samples were collected from one of the lakes.

We surveyed for both invasive and sensitive plant species on all shore excursions. None were found, but did find a species of grass rarely collected in Southeastern Alaska, *Melica subulata* in a riparian area near the trail to the Lake Maksoutof waterfall.

We also monitored the unofficial trail to the Maksoutof waterfall for unauthorized maintenance. There was some sign of continued maintenance of the trail for both sightseeing and access to Steelhead fishing in the creek.

We collected Alaska yellow cedar samples from both Sandy and Jamboree Bays for the Forest Sciences Lab cedar genetics and biogeography project.

Along the trip we picked up marine debris including an abandoned stash of longline gear in Cedar Pass.

We set up a new Lichen Air quality monitoring plot in Still Harbor. The samples were submitted to OSU lab for analysis.

Notable bird sightings included 2 pairs of Red-throated Loons and nesting Yellowlegs in the Sandy Bay forelands.

Southeast Alaska: A Baseline for Future Change

The vision of the Wilderness Stewardship Challenge Partnership

by Megan Nix

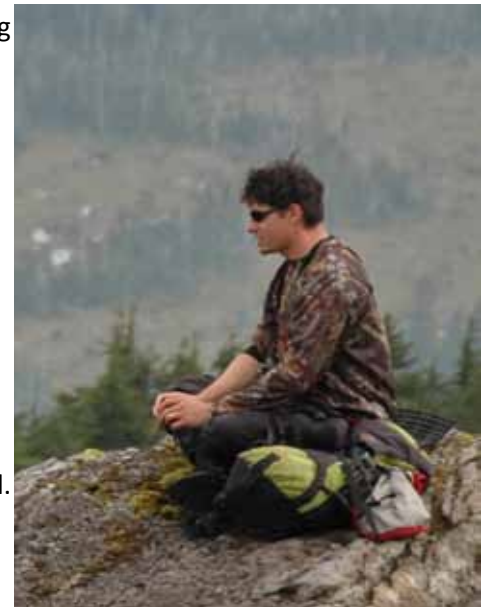
In 1949, Aldo Leopold, a staunch proponent of Wilderness preservation, wrote that a science of land health was “yet to be born.” But a current-day partnership between the Sitka Conservation Society and the U.S. Forest Service gives birth to a community-based approach to land health never attempted in Alaska’s vast Southeast region. The Wilderness Stewardship project in Southeast Alaska is part of the larger 10-Year Wilderness Stewardship Challenge—a national program designed by the Wilderness Advisory Group and endorsed by the Chief of the Forest Service. The goal is to bring each and every Wilderness area under Forest Service management to a minimum stewardship level by the 50th Anniversary of the Wilderness Act in 2014.

“Together with the Wilderness Ranger and Conservation Society staff, a joint project was developed where each organization would use its strengths to begin to meet the Wilderness Stewardship Goals,” Andrew Thoms, the director of SCS explains. “For its part, the Forest Service would help identify needs and opportunities, coordinate field work and data use, and assist with logistical needs. The Conservation Society would pursue its strengths of recruiting volunteers, telling the story of the Wilderness and the Stewardship project, and building the community connection with the Forest Service’s activities.”

So what does this stewardship program actually look like? Under the guidance of both SCS and the local Forest Service, teams of specialists and community volunteers have been heading out to West Chichagof and South Baranoff islands by float plane and kayak to collect hands-on solitude and biological data in areas that have been left largely untrammled by industry or recreational use. From the number of planes seen to invasive plant life to plastic product pollution to trees that have been cut for fires, the teams record any changes that seem to have changed wild, nearly healthy, habitats. Others are setting up

air quality monitoring devices and “groundtruthing”—recording how many boats they see on a given day or how many pieces of trash they find near Wilderness cabins. The idea is to get a collection of data in Wilderness areas where records have never been compiled.

“The data we’re collecting is critical,” says SCS’s Conservation Solutions Coordinator Scott Harris. “Not only for future management of Wilderness areas, but for solitude and other environmental variables such as invasive species. Baseline data means it’s the first data of this kind ever systematically collected. It will be used in the future to measure the scale of changes—either anthropogenic or natural—in the social and environmental conditions of Wilderness.”



SCS Executive Director Andrew Thoms

“Most of the community and core activists viewed the Forest Service as the entity that would do anything it could to encourage, promote, and expand logging. By taking a step outside of this perception, Sitka Conservation Society staff were able to find that many Forest Service staff were as committed to protecting the natural environment as they were.”

- Andrew Thoms

In other words, if you don’t know where you came from, how can you know where you’re going?

“When our society doesn’t have ‘baseline data’, we become susceptible to what resource managers call ‘creeping normalcy,’” Harris explains. “That means that each generation tends to believe the environmental and social conditions that

exist when they first experience a place are ‘normal’ or ‘baseline.’ You can imagine that this results in the slow degradation of resources.”

The goal is not only to use Wilderness as a yardstick to measure future change, but to restore the wild to the conditions spelled out in the 1964 Wilderness

Act: a preservation proposal ensuring that designated areas would be set aside, unimpaired, for future use and enjoyment by all Americans.

Historically, land in Southeast Alaska has been threatened not only by logging and degradation, but by longstanding disagreements between the Forest Service and local conservationists. The current partnership project between SCS and the Forest Service marks a groundbreaking peace agreement between two power-holding groups with a history of disconnection.

“Most of the community and core activists viewed the Forest Service as the entity that would do anything it could to encourage, promote, and expand logging,” Thoms explains of the days prior to the Wilderness Stewardship Project. “They felt that any recreation, fisheries, or Wilderness Stewardship investment was just meant as a distraction from the main stage of continued logging. By taking a step outside of this perception, Sitka Conservation Society staff were able to find that many Forest Service staff were as committed to protecting the natural environment as they were.”

Now, Forest Service rangers and conservationists in Southeast Alaska have come to realize their common influences like Aldo Leopold who stressed that in order for

us to measure current-day change, we must keep a pulse on what “healthy” really is, or used to be, in the wild. “A science of land healthy needs, first of all, a base datum of normality,” Leopold wrote, “a picture of how healthy land maintains itself as an organism.” That base datum can be found in Southeast Alaska.

A critical piece of baseline data collection is the solitude monitoring component of the project. Volunteers and specialists, hunters and hikers, guides and outfitters have been given SCS-issued “solitude journals”—small waterproof packets in which wilderness users can record quantitative and qualitative data about their experiences of aloneness

and quiet in remote places.

Someone staying at Goulding Lake, for example, in West Chichigof, would monitor how many planes they saw on a given day, how many other humans they came across while recreating, and how their overall solitude was impacted over the course of the trip by

others. The idea, again, is to record the state of areas set aside by the Wilderness Act. “A wilderness area,” according to the Act, “generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable, and has outstanding opportunities for solitude or a primitive and unconfined type of recreation.”



SCS Project Coordinator Scott Harris

“The data we’re collecting is critical. Not only for future management of Wilderness areas, but for solitude and other environmental variables such as invasive species. It will be used in the future to measure the scale of changes—either anthropogenic or natural—in the social and environmental conditions of Wilderness.”
- Scott Harris

In Aldo Leopold’s words, Wilderness should be the “laboratory” for the study of land-health. In today’s world, it should also be a barometer for how accessible solitude still is in an otherwise fast and loud world. Perhaps the most worthy laboratory for studying such future trends as climate change and the effects of industrial growth on the wild is where a partnership is already proving prodigious: in the remote Wilderness areas of Southeast Alaska.

Megan Nix is a free-lance journalist and contributing editor to the Denver Post. She joined our field crew on the Goulding Lake survey



Rising to the 10-year Challenge: The vision of Forest Service Wilderness Ranger Mary Emerick

by Megan Nix

Ask anyone who's visited Southeast Alaska, and they'll relay images unseen in other wilderness areas: carpets of fog that tuck into temperate rainforests, bouncy muskegs sleeping in the valleys of jagged, coastal mountain ranges. Ask Mary Emerick, a Forest Service employee largely involved with the stewardship effort in the Southeast, and she'll mention the misty islands, the particular "schizophrenic" feel between the extremes of peace and ruggedness in the Southeast, the sound of a bear walking close by in a stream. But she's also a voice for the changes that are besetting the wilderness, despite its designation as a place that cannot be permanently inhabited.

"The perception is that wilderness areas are really wild with no problems," says Emerick, a key player in the 10-Year Wilderness Stewardship Challenge project which has spurred a partnership between the Forest Service and the Sitka Conservation Society (SCS) in Southeast Alaska. "Up here, we have true wilderness areas—there are few invasive species, there aren't any water quality problems. But the last places to find true solitude are really changing, and they're changing without us fully realizing it."

"You used to go out and see no one," she adds. "Now, that's not the case. Because of visitors, it's starting to change. Sure, you can bushwhack up an awful slope and achieve solitude. But the challenge is to eliminate conflict between user groups from educational trips to guided trips to research expeditions. We need to manage excursions into the wild in a respectful manner."

As part of the 10-Year Wilderness Stewardship Challenge, Emerick's work involves partnering with members of the Conservation Society to complete a project of widescale Wilderness management. The recent and ongoing relationship between SCS and the Forest Service is helping to ensure that the two designated wilderness areas in the Southeast—South Baranof and West Chichagof islands—meet the minimum requirements of the challenge. As of 2010, they do.

Emerick and SCS share an experiential approach to conservation: share the wild with visitors, but also share with visitors how they can be good stewards of ecosystems that have remained fairly untouched. Emerick brainstorms ways to use volunteers to collect data, and sets up trips to places where the vision of the project can be realized.

Not only does Emerick plan excursions by kayak, float plane, and foot to complete hands-on field work, she also coordinates other specialists who can measure air quality, find rare plant and animal life, and do what's necessary to uphold the standard

of the 10-Year Wilderness Stewardship Challenge in the Southeast. The goal is for each wilderness area in the U.S. to fulfill at least six out of 10 of the benchmarks

designed by the Wilderness Advisory Group and enforced by each Forest Service Chief. "Only 30-percent of the wilderness areas in the nation have done that," Emerick notes. "So it's not easy to achieve."

"We are starting to be able to map places where people can still find solitude and where they can't," Emerick explains. "But there are boats and other activities already going on in much of the once-remote southeast. Collecting first-hand data is important because guesses aren't as good as the snapshots of a place, of knowing how remote it truly is. If an outfitting program is trying to take kids out, we can direct them to somewhere without human signs. When a project is proposed for a recreation cabin, we'll know from this project where we should put it."



USFS Wilderness Ranger Mary Emerick

"The more time you spend in the wilderness, the more you lose the veneer of civilization and realize what's important"

Of course, collecting data in the Southeast is no easy feat. If it's too foggy, you can't fly. Storms send the ocean into spells. Fuel is expensive. Emerick relies heavily on local involvement. Not only because it's important to invest the local population who depends upon the resources of the area—fish, deer, bear, clean water—but because many locals know the land better than any outside source. "Observations from the community really make this part of the project happen," Emerick admits. "SCS has teamed us up with fishermen, guides, and other locals in the know, and our work together has pushed this project to the next level."

On the other hand, it's equally important for non-Alaskans, to realize what we might lose, as a country, as a human race, really, if some of these one-of-a-kind areas are wiped out by unmanaged, irresponsible use. "We need to preserve a place that presents a person with challenge and risk. It's important not to blur the line between wilderness and civilization. In the wilderness, you learn what challenge really is, and you rise to the occasion and the place through self-reliance."

Other reasons Emerick believes the wilderness is worth the enormous effort of bushwhacking, kayaking, and picking through the plants of a place that is, at times, treacherously wild? Quiet without background noise. The night sky without pollution. "The experience of the world the way it used to be—a place that is vast and demands humility and respect."

Not to mention, as the climate and the world change at the hands of human expansion, the wilderness is the one remaining "control" in a worldwide, scientific experiment. "The wild,"

Emerick believes, "is a laboratory in time where life is unaltered. It's not just a recreational space—although recreation here is important as well."

How, then, can we share the wilderness with each other while also rising to what the Wilderness Act of 1964 calls for, which is to leave the wilderness "unimpaired for future use and enjoyment?" To be a steward does not mean to leave a place alone. To be a steward means to embrace the rarity of a night on a wild beach, where the only sound is your breath, and the only light is the moon.

But to step away from the beauty of the wild, that beauty will only continue to exist if we correctly manage it by accruing important data about it. What plants have already invaded? What pollutants need to be removed? What environment bears the closest resemblance to its initial footprint, prior to human variables?

"I believe," Emerick offers, "that there's a way and a place to have all things. You don't need to start a fire in the alpine. You can have a low-impact fire out

where high-tide will wash it away. You can make the least impact and still enjoy it. Don't jump in the water with soap. Use small pieces of wood, don't use plastic. But don't be miserable, either. Enjoy

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the time and place."

Perhaps most importantly, the wilderness is a place to reengage with where we came from, before cities and radios, before the static of traffic that so often fills the background of our lives. As Emerick puts it, "The more time you spend in the wilderness, the more you lose the veneer of civilization and realize what's important."



Recording Southeast Alaska: One plant at a time

The vision of our principal botanist, Kitty LaBounty

by Megan Nix

Kitty LaBounty's red hair bounces under her hood while rain slicks the copper bush of the Tongass temperate rainforest in Southeast Alaska. LaBounty stoops to pick up a mushroom and pushes on its dome to test its texture. Five steps later, she exclaims that she's found *Silene uralensis*. And ten steps later, something else: *Botrychium multifidum*. She pulls out the PDA strung around her neck and enters the location and the name of the plant she's just seen, and if it's a particularly rare one, she delicately pulls it from the ground and puts it in an accordion-like plant press. The tiny leaves will repose in this bed until they make their way to a museum in Fairbanks for confirmation of their identity. From there, they'll be entered into a database containing all the species ever recorded in the Southeast Alaskan wilderness.

LaBounty is a chief participant in a data collection project happening in Southeast Alaska in the designated wilderness areas of West Chichagof-Yakobi and South Baranof islands. As a member of the Sitka Conservation Society Board, a former Forest Service botanist, a molecular ecology teacher at the University of Alaska, and an avid outdoorswoman, LaBounty fits the job description perfectly: fly into some of the most rugged areas of the country and keep track of anything and everything you see.

"SCS asked me to participate in the Wilderness Stewardship Project because they knew I was familiar with the level of intensity of the fieldwork out here," LaBounty says. "Sometimes you just get trapped out there after eight hours of walking and say, oh great, there's a cliff. But it's primo for monitoring the odds and ends that have been eradicated in other less remote areas because people just can't get here."

The ongoing project is part of the 10-Year Wilderness Stewardship Challenge—a program that started in 2005 with the mission of bringing every wilderness area in the nation up to a set of strict conservation standards. SCS and the Forest Service are tag-teaming the vast swath of temperate rainforest in Southeast Alaska, and LaBounty's work is no small feat. She usually travels with one other person or in small groups. "20 teams could spread

out and we still wouldn't cover everything," LaBounty admits. "But it's fascinating what we get to see—blue heron nests, sandpipers, marbled murrelets. There's magic in every place I've been out here."

This work is crucial to conservation efforts worldwide because the islands that make up Southeast Alaska represent a sort of control in a huge experiment of man-made variables. With climate change, pollution, and widespread industrial development and debris, the wilderness in the Southeast is one of the only remaining yardsticks for measuring human impact on virgin land.



Botanist Kitty LaBounty

The wilderness in the Southeast is one of the only remaining yardsticks for measuring human impact on virgin land

"I'm looking for invasive species and rare species in the wilderness," LaBounty explains. "We need to know what's in public lands. They belong to all of us. What's healthy and what's not. We won't know about future generations if we don't know about the places now. In some ways, these areas don't need us. But in the end, we do have impact, and we need to know just how much that is."

LaBounty chooses where her team will go to erect air quality plots, meander, and track species. They usually fly in by float plane or they kayak in when the weather's too rough. Despite all the work LaBounty has done stopping, stooping, and recording square foot by square foot of nearly untouched areas, she still believes more people are needed to go to more places and, maybe more importantly, to return to them.

Easier said than done in Southeast Alaska.

“The distances are stupendous, sometimes there’s still snow, and we can’t get everywhere we want to in order to collect data. We need to have more sampling done by more people with different skills. We could use a geologist because we have little info about the soil in these remote areas. We need more people spending time in areas that are actively managed.”

LaBounty changes her mind when asked where her favorite places are to work: Red Bluff Bay, where the orange-red cliffs and grasshoppers belie the foggy green forests of the typical Southeast. Rust Lake on Chichigof, a “fascinatingly scary place where rock dissolves in water in sharp, really freaking sharp jagged edges.” She recalls the grassland at the head of Rezanof Lake freckled with yellow daisies. Deer hopped across the horizon. Cottonwoods gathered in the saddle of a river valley.

“The Tongass can look a bit uniform from the air, but amidst the forest, there’s variety everywhere on the ground. This work has been meaningful because it has renewed for me an appreciation of the wildly diverse habitat of Southeast Alaska.”

LaBounty usually looks for human activity to target her surveys for invasive species—near trails, cabins, abandoned settlements. But she has also found invasive species where she least expected them. For example, a dam site would have been a prime location for weeds, but she found a field of dandelions on the opposite side of Rust Lake from the dam site. The goal, eventually, is to remove invasive species by as simple a procedure as hand-pulling them, but much work lies ahead.

“The displacement of native plants harms the remaining plant life in that area, and for ground animals, the landscape becomes not as palatable,” LaBounty explains regarding the effects of invasive plants. “Successful plants do what they need to do

well in a given area. The strangers don’t.”

“In the Tongass, we don’t have a lot of flashy, rare species because we haven’t been deglaciated for that long and because the fragmented geography has kept development to a minimum. We still need the baseline data because we need to know what’s here. We need to get a better handle on the distribution of organisms in the wilderness because we need to have that data to see how it will change.”

Without the crucial data LaBounty captures, people who visit wilderness areas for the first time will believe that what their experience is akin to the

first person who ever set foot on the same land. Without knowing how the land has already changed, we live inside the myth that “normal” is what we see now, and the “natural”

wilderness is unchanged. The wilderness has already changed. Seeds blow off boots. Soils dislodge from boot soles. Tracking where and how change has happened will show us how to prevent future invasive species and future loss.

If the biological history of the Tongass is being written, it’s being done by people like Kitty LaBounty and other members of the SCS-Forest Service partnership. But the book needs more pages.

“We still need information about past human involvement in the wilderness, and a good way to do that would be to pull together all the information different organizations have for a place like Red Bluff into one composite document,” LaBounty suggests. “What local

knowledge can native tribes contribute to the project? What plants are there, what mammals? What stream resources, mining data, Forest Service reports do we have? If we continue to collect this information, we’ll eventually be able to say: here’s a good start.”

Judging by their current progress, they already can.

“The displacement of native plants harms the remaining plant life in that area, and for ground animals, the landscape becomes not as palatable”



violet



Public Law 88-577

September 3, 1964

The Wilderness Act

In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States and its possessions, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of

an enduring resource of wilderness.

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.