2012 WILDERNESS STEWARDSHIP CHALLENGE
STIKINE RIVER AND WRANGELL

"The mighty Stikine River is the lifeline flowing through this wilderness. It is North America's fastest, free flowing navigable river... The Stikine River valley, with its thick forest and side sloughs, provides a Wilderness playground for boaters. There are opportunities for tranquil paddling as well as speedy motorboat rides. One moment you may be watching a lone moose or brown bear venturing to the edge of River and the next, meeting a group of fun-loving visitors..."

-- Wilderness.net

Background:

In 2011, Sitka Conservation Society (SCS) board member and botanist, Kitty LaBounty assisted the Wrangell Ranger District to evaluate potential control measures for invasive plants, including creative ways to partner with community groups to augment the Forest Service's efforts. The crew, consisted of LaBounty and Wrangell Ranger District (WRD) personnel Jackie DeMontigny, WRD Soil Scientist; David Rak, WRD Recreation Lands Wilderness Minerals Special Uses; and Glen Decker. The main objective of the trip was to control the spread of Reed Canary Grass (Phalaris arundinacea). Populations were targeted which had been previously identified but not yet treated in Guerin Slough. Additional sites received follow-up treatment and assesment of control efficacy. The crew also vistied and monitored several Special Use Cabins and permitted camp sites and conducted some site cleanup. Two new plots of P. arundinacea we found in Paradise Slough. In total, the crew treated 3.5 acres of invasives.

The Stikine-LeConte Wilderness in the Tongass National Forest

In addition to the field work, LaBounty gave a community presentation about Wilderness Stewardship in Wrangell attended by 12 people. LaBounty also met with the Forest Service staff and local citizens to share lessons learned and encourage volunteer stewardship activities within Wrangell District.

Since 2010, The Southeast Alaska Conservation Council (SEACC) has been working in Wrangell to realize the Forest Service's Transition Framework, moving away from industrial scale old growth logging to a more sustainable model of lower volume higher value small mills, recreation, renewable energy, restoration, and stewardship. SEACC has also played a crucial role in Wrangell in the development of outdoor recreation projects, including trails and other infrastructure, and plays a supporting role in the Southeast Alaska Trails System, or SEAtrails. Much of SEACC's work in Wrangell, ranging from small scale saw mills to developed recreation sites that has helped SEACC build trust and credibility in the community.

In 2012, SEACC queried local groups in Wrangell about their interest in stewardship projects in the Wilderness Area. The Wrangell Boy

Scout Troop #40 was recruited by SEACC organizers to assist in the 2012 project season. ACIS/Alaska Crossings partnered to provide gear for the trip and BreakAway adventures, a local jetboat operation provided discount transport.

SEACC worked with WRD to determine the best site for a pilot, volunteer stewardship effort. Twin Lakes (Figure Eight Lakes) recreation area was chosen for its high need of treatment, relative ease of access, and its ability to accommodate a large group for multiple nights. Twin Lakes, about 16 mile upriver from Wrangell, is a popular recreation destination to the communities of Wrangell and Petersburg (as many as 35 boats and approximately 90 people were observed in a single afternoon at the lakes). As such, it is subject to heavy disturbance and potential for new introductions of non-native species. A number of non-native species are present at the site, including common dandelions (Taraxacum officionale), plantain (Plantago officinale), creeping buttercup (Ranunculus repens), and reed canary grass (Phalaris arundinacea). The extent and density of the invasive populations made it unlikely that the Forest Service would have enough manpower or funding for the extensive, on-the-ground treatment and long-term maintenance required to control this species from spreading.

P. arundinacea was chosen as the primary target for control efforts because it is a high priority species for the Forest Service. Stands of Reed Canaray Grass (Phalaris arundinacea) occur along the perimeter of Twin Lakes. Once introduced, *P. arundinacea* can establish monospecific stands which displace native vegetation and changes sedimentation patterns in waterways. This effect is particularly important to mitigate in the Stikine watershed, where sloughs are used for recreation an provide important wildlife habitat.

About this report:

This report documents our activities and the data collected. It also discusses and proposes future methods of partnering on stewardship projects in Wangell Ranger District. It also discusses weed treatment and monitoring options. It is intended to be used as a tool for fostering similar Wilderness stewardship projects. It is writeen in an informal journal- or discussion- style. Part of the purpose of this report is to share lessons learned and to share information collected.

2012 is the fourth year that the Sitka Conservation Society (SCS) and the second year Southeast Alaska Conservation Council (SEACC) have partnered with the Tongass National Forest to address the Wilderness Stewardship Challenge (WSC). Funding for SCS and SEACC's part of the work is provided by the National Forest Foundation, and SCS and SEACC, respectively.

For more information please contact Adam Andis, SCS Wilderness Project coordinator at

View of the sunset over the Stikine River from Twin Lakes Cabin.

adam@sitkawild.org or Daven Hafey, SEACC project coordinator at daven@seacc.org.

Trip overview:

June 19-June 24

Team members:

Daven Hafey, SEACC Wilderness Stewardship Coordinator

Adam Andis, SCS Wilderness Stewardship Coordinator

Kitty LaBounty, SCS Priniple Botanist

Jonathan Goff, SCS Botany Technician

Matt Dolkas, SCS Media Intern

Kimberly Powell, Wrangell School District/Boy Scout Leader

Glenn Smith, Boy Scout Leader

Alyssa Adams, Wrangell adult volunteer

Mikel Smith, Tymon Teat, Curtis Wimberly, Daniel Wright, Quinn Wright, Kellen Eagle; Boy Scouts

Partners:

Boy Scouts Troop #40, SEACC, SCS, USFS WRD, ACIS (Alaska Community Island Services/Alaska Crossings), BreakAway Adventures

Work accomplished:

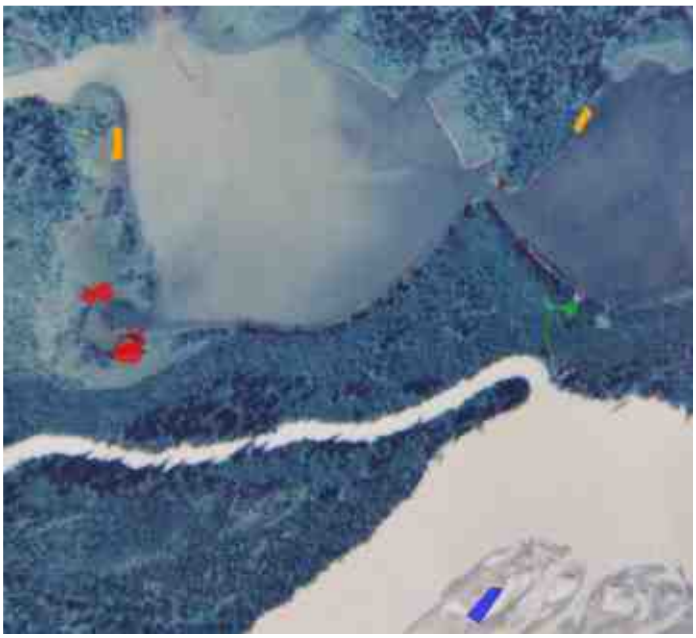
Treatment: Reed Canary Grass (Phalaris arundinacea)

Site #1 is on the western shore of the west lake. The area of Site #1 is approx. 1600 sq. ft. Site #2 was originally an old cabin site and is approximately 700 sq. ft. right along the water's edge and Site #3 (approx. 200 sq. ft.) is located in the wood near Site #2. Stands were hand-mowed to the ground in order to reduce any further nutrient transfer from the leaves to the roots. Cut grass was left on the ground at the site and covered with black plastic tarp. A combination of wooden stakes and metal staples were used to secure the plastic to the ground and wood debris was collected and distributed on top of the tarps to mitigate aesthetic disturbance. Short, green signs were also placed that indicate the area as an invasive plant treatment area.

Further treatment and monitoring:

Treatment Locations at Twin Lakes

Larger maps included at end of this report.



Treatment Locations at Twin Lakes

Orange – Tarp Treatment of *P. arundinacea*

Site # 1 - 56.69722 N / 132.277 W

Site # 2 – 56.69951 N / 132.269 W

Site # 3 – 56.6996 N / 132.279 W

Red- Hand-pulling *P. arundinacea*

Green – Sod removal and Hand-pulling *R. repens*

Blue – Hand-pulling *Sweet Clover*

Site #1

Site #2

Site #3

Black plastic needs to stay in place one year or more. Sites should be monitored to ensure the tarps stay in place and to chart the eradication progress.

Buttercups (Ranunculus repens)

Because of the limited resources in the ranger district, less priority species like buttercup and dandelions often go untreated so it is critical, and in this case fortunate, to have partners in stewardship that can address lower priority, but important problem areas.

We chose to attempt treatment on a large patch of creeping buttercup at the boat landing on the south shore of the eastern lake because of the extent of the weed patch and it's proximity to the cabin, which yielded easier access. We also wanted to pick a project that would be manageable to conduct initial treatment in the timeframe of our trip and still be able to manage in the long term. Treatment of the buttercups also offered diversity to the day's tasks (and retained

*Creeping Buttercups (*Ranunculus repens*)*

Boat landing at Twin Lakes after removing invasive buttercups.

Boy Scouts and adult volunteers begin removal of invasive buttercups. Native plant were marked, plugs were removed, the plot was cleared of invasives, and native plants werereplanted after the sod had been cleared.

the Scouts' attentions). In addition, this smaller-scale project gave the crew a reasonable goal for completion, unlike the reed canary grass treatment, which will take much more work and time.

Our initial approach was to remove individual buttercup plants by hand-pulling, but because of the density of buttercup and low occurrence of native species within the plot, we shifted our approach to cutting sod out of the patch. The few native plants within the patch were salvaged and replanted. Chocolate lily (Fritillaria camschatcensis) bulbs were saved and replanted. After solarizing the sod on black tarps, we separated the weeds from the dirt by hand. That process proved extremely time intensive; more time intensive than our trip allotted. In order to complete the project, we decided (with WRD staff consultation) to remove the sod and pile it in one location on the edge of the site. With this method, the bare soil will be easier for the Scouts to maintain and piling the sod in one location will consolidate the buttercups, making them easier to control and hopefully eradicate over time.

The first boat landing was cleared to bare soil starting from the west and southern edge, including the trail to the cabin. Clearing was not completed to the eastern edge and sod was left on the slope down to the lake to prevent erosion and for aesthetics. Native plants were replanted on the western edge.

Recommendations for future control measures at the site include:

Three visits during the growing season to hand-pull buttercups out of the cleared area, the trail to the cabin, and from the sod pile are recommended. Further control should focus on sod removal, beginning at the eastern edge down to the lake and along the trail to the outhouse.

Heavy visor use was observed during a hot weekend day. Few visitors were seen ashore. Those that did come ashore came to use the outhouse. A hardened path (from native river gravel or wood puncheon) extending from the boat landing to the outhouse would consolidate the impact from foot traffic and allow native ve-

Top: Plugs of native plants replanted in bare ground; middle: Heracleum maximum *and* Geum macrophyllum*, two species which were replanted; bottom:* Fritillaria camschatcensis *bulbs salvaged from the site and replanted.*

getation to regrow in the bare area. Without the impact of human foot traffic, native vegetation will more readily tolerate brushing as per the management decision for the area. Low-growing herbaceous species such as yarrow (Achillea millefolium), chocolate lily (Fritillaria camschatcensis), kneeling angelica (Angelica genuflexa), and big-leaved avens (Geum macrophyllum) were observed on site and could be encouraged to grow in the treated area to maintain the open feel of the area while still reducing the bare ground available for weed colonization.

Another major vector for invasive plants is the disturbed/impacted area around the Twin Lakes cabin. Common dandelions (Taraxacum officinale), plantain (Plantago officinale), and creeping buttercup (Ranunculus repens) were present in the clearing in front of the cabin. Managing these populations may be necessary to control the invasive plants at the landing area on the lake. The area in front of the cabin is somewhat lower and somewhat slower draining and may require hardening the surface with native river gravel or drift log puncheon to maintain the area for tenting and picnicking purposes.

Recommendations for future stewardship:

The Boy Scouts troop expressed interest in continued stewardship of the area. A Memorandum of Agreement could be pursued with Boy Scouts of America to allow Troop #40 to make three trips a summer to continue the invasive plant management at Twin Lakes. Training once a year by Forest Service Wilderness or Recreation Staff would be ideal.

Entering into a formal stewardship agreement with Troop #40 would be best. Signage at the cabin, such as “This cabin adopted by tTroop #40,” would likely increase public support and community buy-in.

The main limiting factor for future stewardship efforts by the Boy Scouts or any other community group is the cost of travel up the river to the site. Break Away may continue discount transportation for future trips. The cabin reservation fee during the summer (April 20-September 28) is $35 per night and would accrue to $140 during a typical 4 night trip. Options to make stewardship trips feasible for community partners include pursuing a Cost-share Agreement or Challenge Cost-share with the Wrangell Ranger district for travel and waiving the cabin fees.

A second option would be for SCS or SEACC to explore granting options for stewardship and to provide assistance to community groups in applying for such grant sources.

Because this is such a popular area, public input in any management plan is ideal. Outreach through the Chautauqua Lectures, local media stories, or public meetings will like increase public support and could garner new partnerships or funding sources. For the 2012 project, SEACC and SCS have distributed press releases to local media outlets. SEACC and SCS also intend to produce a video of the project for online distribution and hope to publish an article about the trip in national publications. (Note: The video can be seen at sitkawild.org/stikine_stewardship/)

In order for a partnership with USFS Ranger

Top: Labounty teaches a lesson on identifying native and invasive plants.
Bottom: Boy Scouts take a break during a long day of work.

Districts and community members to be successful, it is also important to have support from all District staff. Creating a stewardship plan and discussing it with recreation staff, wilderness staff, and district ranger to agree on the plan will provide a smoother partnership.

Data:

Encounter Monitoring:

In an effort to chart base-line opportunities for solitude and meet Element #5 of the WSC ("The Wilderness has adequate direction, monitoring, and management for solitude"), we recorded encounters while in the Wilderness area.

By far, the most noticeable impact to Wilderness character and opportunities for solitude was the jetboat traffic on Twin Lakes. Over thirty-five vessels (including one jetski) were observed on a sunny weekend day. Jetboats operating on the main channel of the river were heard every day; however, their impact on solitude was usually minimal.

Encounter data compiled from A. Andis and D. Hafey observations.

2012 Encounter Monitoring	**Name of Wilderness Area:** Stikine-LeConte WA
Observer Name: D. Hafey and A. Andis	**Phone and email:**

Please start a new sheet each day.

Date: (mm-dd-yyyy) Listed by day			**Air/Watercraft Encounters** *Record vessel ID if possible*					**Encounters Ashore**					**Effect on Solitude**
Observation Duration: Listed by day			**Type**	**Closest Approach**			**Duration**	**Type**	**Closest Approach**			**Duration**	
Time encounter starts: *(in military time, ex: 13:00)*	**Location:** *Detailed description of the area, GPS coordinates if possible in XX° XX.XXX format (Ex: N 57°43.1554 W 136°10.1899)*	**Activity:** *Ex: camping, hunting, fishing, hiking, sailing, at anchor*	P : plane J : jet H : helicopter K : kayak B : boat C : cruise ship U : unknown Other: please describe	Less than 1 mile	1-3 miles	Greater than 3 miles or unknown	Total time vessel/craft audible or visible (in minutes)	# of people observed ashore	Less than 1 mile	1-3 miles	Greater than 3 miles or unknown	Total time people onshore audible or visible (in minutes)	Low Medium or High
Date: 6/19/2012 **Duration:** 5 hours													
1200	TLC	Camping	P			X	10						Low
1300	Landing	Weeding	S		X		30						Medium
1300	Landing	Weeding	P	X			5						High
Date: 6/20/2012 **Duration:** 5 hours													
1000	TLC	Camping	S			U	10						
1330	Landing	Weeding	S	X			30						High
1400	Landing	Weeding	P			U	5						Low
1430	Landing	Weeding	J			X	5						Low
Date: 6/21/2012 **Duration:** 11 hours													
1030	TLC	Camping	J			X	5						Low
1230	Landing	Weeding	S		X		10						Medium
1235	Landing	Weeding	P	X			10						Low
1800	The Desert	Cookout	S	X			5						Low
1805	The Desert	Cookout	S	X			5						Low
1830	The Desert	Cookout	S	X			5						Low
1840	The Desert	Cookout	S	X			5						Low
1840	The Desert	Cookout	J			X	3						Low

Encounter Data continued

Date: 6/22/2012 **Duration:** 14 hours												
0600	TLC	Camping	K	X			235	1	X		45	High
0620	TLC	Camping	s			U	5					Low
0650	Landing	Weeding	S			U	5					Low
0745	TLC	Camping	S			U	5					Low
0830	TLC	Camping	S			U	5					Low
0930	TLC	Camping	S		X		3					Low
0935	TLC	Camping	S			U	5					Low
1030	Landing	Weeding	S		X		5					Low
1045	Landing	Weeding	S		X		10					Low
1050	Landing	Weeding	J			X	5					Low
1330	Landing	Weeding	S	X			30					Low
1800	TLC	Camping	S	X			45					High
1840	TLC	Camping	S	X			10					High
1915	TLC	Camping	S	X			5					Low
1930	TLC	Camping	j			X	5					Low
Date: 6/23/2012 **Duration:** 11 hours												
0720	Landing	Weeding	S			U	5					Low
0900	Landing	Weeding	J			X	5					Low
0950	Landing	Weeding	S			U	5					High
1005	Landing	Weeding	S			U	5					Low
1020	Landing	Weeding	S	X			~180	4	X		5	High
1045	Landing	Weeding	S	X			~180	2	X		5	High
1045	Landing	Weeding	S	X			~180	4	X		5	High
1125	Landing	Weeding	S	X			~180	2	X		20	High
NOTES: Between 1330-1700 a total of 35 boats and 1 jetski were observed entering Twin Lakes. We were unable to keep track of the duration each boat stayed and the exact number of people aboard or onshore.												
Date: 6/24/2012 **Duration:** 3 hours												
1030	Landing	Weeding	S		X		10					Low
1040	Landing	Weeding	S		X		5					Low
1145	TLC	Camping	S		X		5					Low

June 23, 2012 - A busy Saturday at the Twin Lakes boat landing during hot and sunny weather.

Species List

Species list for the Twin Lakes area compiled by K. LaBounty. This list is not meant to be comprehensive. Full data sets of species occurence with geo-reference information available by contacting adam@sitkawild.org.

Trees:

Malus fusca
Picea sitchensis
Populus trichocarpa

Shrubs:

Alnus viridis
Cornus sericea
Oplopanax horridus
Rubus parviflorus
Rubus spectabilis
Salix alaxensis
Salix interior (Sandbar)
Salix sitchensis
Sambucus racemosa
Viburnum edule

Herbs:

Achillea millefolium
Angelica genuflexa
Athyrium filix-femina
Bromus sitchensis (probable)
Calamagrostis canadensis
Caltha palustris
Carex aquatilis var. dives
Carex canescens
Carex lenticularis
Castilleja miniata
Chamerion latifolium
Comarum palustris
Equisetum arvense
Equisetum fluviatile
Eriophorum angustifolium
Eriophorum scheuchzeri
Fritillaria camschatcensis
Geum macrophyllum
Heracleum maximum

Taking a break in the grass.

Left: Platanthera dilatata.
Right: Lysimachia thyrsiflora, *a plant with a very limited distribution in the Tongass found in the vicinity of Twin Lakes.*

A waterfall cascades into Twin Lakes.

Species List continued

Hordeum bracyantherum (probable)
Lysimachia thyrsiflora
Melilotis alba (sandbar island adjacent to cabin)
Phalaris arundinaceae
Plantago major
Platanthera dilatata
Platanthera saccata
Polemonium pulcherrimum (Andrew's Island)
Polystichum braunii
Pyrola asarifolia
Ranunculus repens
Rubus arcticus
Rumex obtusifolius
Symphyotrichum subspicatum
Taraxacum officinale
Tellima grandiflora
Trientalis europaea
Urtica dioica

Birds:

American Bald eagle
American Robin
Canada geese
Common merganser
Common raven
Common snipe
Common yellowthroat
Dark-eyed junco
Hermit thrush
Kingfisher
Lincoln's sparrow
MacGillivray's Warbler (probable)
Mallards
Northwestern Crow
Orange-crowned warbler
Pine Siskin
Rufous hummingbird
Savannah sparrow
Song Sparrow
Steller's Jay
Swainson's thrush

Mammals

Black bear (scat, probable)
Brown bear (tracks, Andrew's Island)
Beaver
Deer Mouse
Little Brown Bats (anabat)
Moose
Microtus (uncertain)
Wolf (scat, probable)

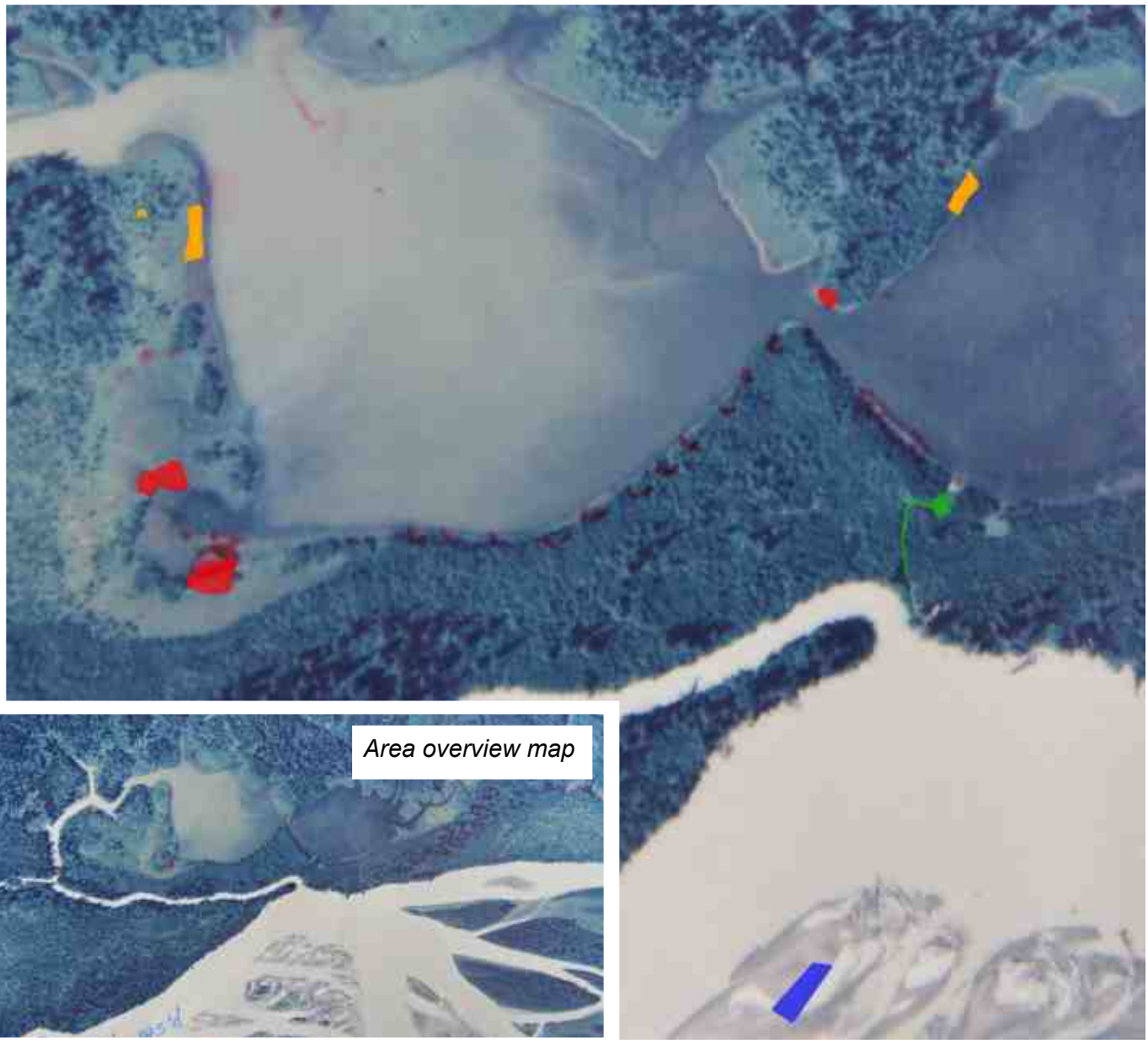
Amphibians

Long-toed Salamander
Western Toad

A Long-toed Salamander found on the shore of Twin Lakes.

The Scouts helped to find and identify amphibian species.

Treatment area maps



Area overview map

For more information contact:

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Daven Hafey, SEACC Wilderness Stewardship Coordinator
daven@seacc.org

Visit:

www.sitkawild.org/wilderness

www.seacc.org/strong-communities/Wilderness-Stewardship