

8. Invasive Species: Prevention and Control

Goal: Reduce the potential for introduction, establishment, and spread of invasive species and reduce existing infestations.

Objective: Monitor populations of high priority invasive species in cooperation with other agencies. Monitor implementation and effectiveness of specific actions related to control and prevention of invasive species infestations.

Background: For policy pertaining to invasive plant management, see FSM 2900 (Invasive Species Management Policy), 2070 (Native Plant Material Policy) and FSM 2150 (Pesticide Use Management and Coordination Policy). The primary forest-wide plan is contained in the 2005 Tongass National Forest Invasive Plant Management Plan. Tiered to this plan are individual district and wilderness area invasive plant plans.

Invasive Species Question: *How effective were our management activities, including those done through partnerships, in preventing or controlling targeted invasive species?*

Monitoring Results

Prevention

Prevention measures for invasive plants implemented in FY2014 were based on project and site-specific circumstances including overall risk of spread, degree of invasiveness of the non-native plants in the project area, and the likelihood of successfully preventing further spread. Invasive plant prevention measures were implemented on one ranger district in FY2014 as part of projects and other activities.

Ketchikan-Misty Fiords Ranger District:

- Weeds were monitored and removed in the Hyder area, including nearby quarries associated with mineral materials special-use permits.
- Monitoring invasive plant infestations at Quartz Hill was implemented during road inspections.
- A previously documented infestation of oxeye daisy was not relocated.

Treatment and Control

A total of 60.6 acres of invasive plant treatments were completed in FY2014 (Table 1), compared to 67.1 acres in FY2013, 122.8 acres in FY2012, 144.7 acres in FY2011, and 222.5 acres in FY2010.

The Petersburg and Wrangell Ranger Districts recently completed the first district-level invasive plant treatment environmental assessment (EA) on the Forest. This analysis covered all treatment options (manual, chemical, and mechanical) for high priority invasive species and sites within both ranger districts, including wilderness areas. Under this district weed EA, 2.6 acres of infestations were treated using herbicide.

Invasive Species Table 1. Invasive plant treatments completed on the Tongass National Forest in FY2014

Ranger District	Area Treated (acres)	
	Manual	Herbicide
Admiralty National Monument	2.9	0.0
Craig Ranger District	1.4	0.0
Hoonah Ranger District	12.5	0.0
Juneau Ranger District	0.7	0.0
Ketchikan-Misty Fjords Ranger District	1.6	0.0
Petersburg Ranger District	3.6	0.0
Sitka Ranger District	7.1	0.5
Thorne Bay Ranger District	28.6	0.0
Wrangell Ranger District	1.7	2.6
Yakutat Ranger District	0.5	0.5
Total	60.6	3.6

Education and Partnerships

Partnerships and educational activities are helpful in prevention and control efforts for invasive plants, both on National Forest System lands and lands outside agency jurisdiction. Invasive plant education/partnership activities were conducted on five ranger districts in 2014.

Admiralty National Monument:

- Forest Service staff partnered with groups from Wilderness Volunteers and the Southeast Alaska Conservation Council (SEACC) to control infestations of brittlestem hempenettle (*Galeopsis tetrahit*) at Gambier Bay, and black bindweed (*Polygonum convolvulus*) on Swan Island (Photo 1).

Hoonah Ranger District:

- Near the community of Hoonah, Forest Service staff worked with the Hoonah Indian Association to control weed infestations.
- Within the community, the Forest Service, Hoonah Indian Association, and Huna Totem Corporation are in their eighth year of working cooperatively to control field sowthistle (*Sonchus arvensis*).

Petersburg Ranger District:

- Forest Service staff completed a Participating Agreement with Southeast Soil and Water Conservation District (SSWCD) to conduct a community demonstration project for treatment of Bohemian knotweed on NFS lands near the community of Kake. The purpose of the agreement is to provide hands-on experience and learning for community members on different treatment methods of this invasive plant.

Sitka Ranger District:

- Forest Service staff completed a Participating Agreement with SSWCD to update the invasive species inventory for the community of Sitka and write a management plan, which will be completed in 2015.

Wrangell Ranger District:

- Forest Service staff developed a Stikine River Invader Watch pamphlet and identification cards to encourage public reporting of nine invasive plant species of interest. Over 30 sets of identification cards were distributed.
- The district also provided an invasive plant identification/information table at one of the monthly Community Markets, with approximately 50 people contacted.

Yakutat Ranger District:

- The district hosted an invasive species workshop in August 2014 in the community of Yakutat. It was attended by representatives of the city, Alaska Department of Transportation, National Park Service, Forest Service, SSWCD, and the Yakutat tribe. The meeting focused on forming a Cooperative Weed Management Area (CWMA) to help stop the introduction and spread of invasive species in Yakutat. The Yakutat tribe now plans to have a Student Conservation Association volunteer work on the formation of a CWMA, with help from the SSWCD and the Forest Service. Another result of the meeting was to organize a weed pull, targeting a small population of fall dandelion (*Leontodon autumnalis*), which has just taken a foothold in the community.

Action Plan

Prevention, treatment, and control efforts, and education and partnership opportunities will continue to be implemented in FY2015. Successful control of invasive plant infestations often requires continued periodic treatments over several years, along with monitoring to assess the effectiveness of treatments. Continued efforts to develop formal partnership agreements in the form of a Memorandum of Agreement (MOA) are also needed to develop Cooperative Weed Management Areas for communities throughout the Tongass. Currently, the Tongass has one formal MOA with the City of Juneau as a Cooperative Weed Management Area. This work is ongoing. The Wrangell Ranger District is also in discussion with the Southeast Alaska Watershed Coalition to develop a partnership for invasive plant treatment on the district.



Invasive Species Photo 1. Black bindweed (Polygonum convolvulus), an invasive plant found on the Tongass National Forest.