

Alaska Invasive Species Working Group
Agency Report
National Park Service (NPS), Alaska Region

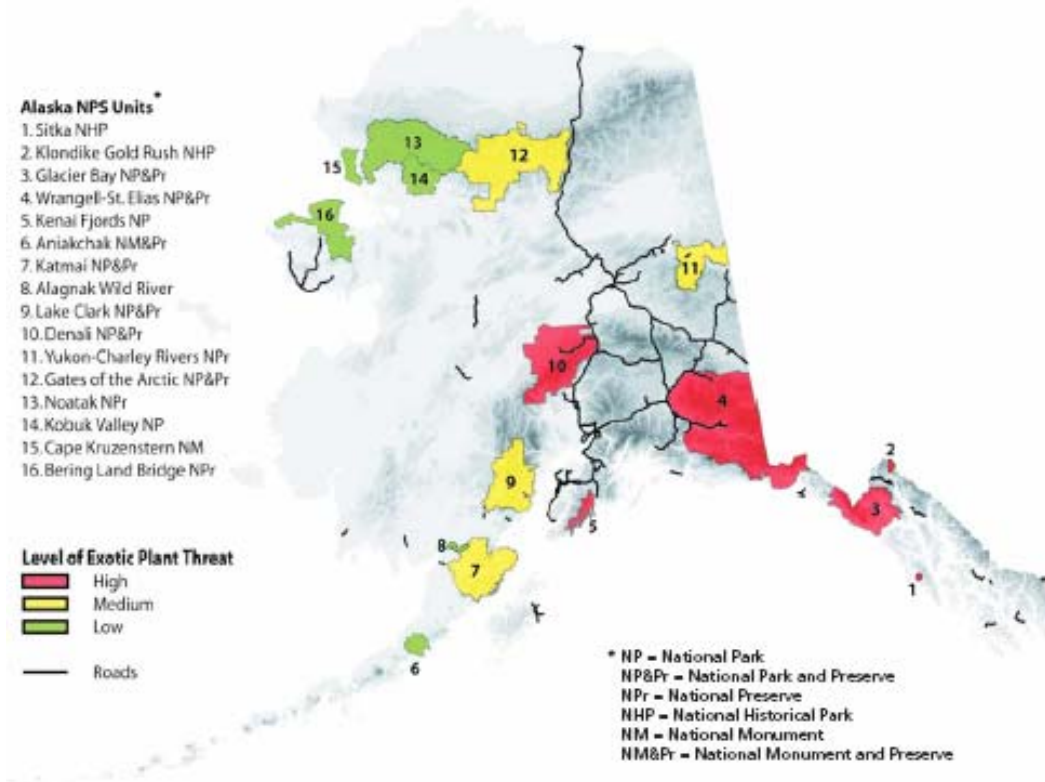
Role and Mandate

The mission statement of the NPS is "...to promote and regulate the use of the...national parks...which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

This means that our primary role with regard to invasive species in Alaska is to protect the 16 NPS units from threats to resources and values, as articulated by ANILCA, Executive Order 13112, and NPS Management Policies. We are also directed to work with partners on invasive species research, information-sharing, and education.

Scope of work

The 16 NPS units in the Alaska Region encompass about 54 million acres of land and some marine areas, spanning much of the state (see map below). While we must manage any invasive species found, our focus has been on plants thus far, because of our funding source (see next section) and due to their substantial documentation on NPS lands.



Funding, Staffing, and Organization

The main source of funding for our invasive species management activities is the national Exotic Plant Management Team program, initiated for the Alaska Region in 2003. The program's focus is invasive plant control, to help parks deal with problems beyond their management capacities. Currently, the program provides a little less than \$160,000 per year to the Alaska Region. This amount covers:

- Program Manager (Liaison) salary
- Data Manager salary
- partial payroll for 5-10 seasonal technicians each year
- travel, supplies, and printing of publications

Beyond this funding source, an additional \$125,000 was contributed toward Alaska invasive plant management in 2006 by the NPS units, the Regional Office, and internal funding sources. The equivalent of \$75,000 was contributed in the form of in-kind volunteer services. Finally, our Regional Wildlife Biologist would provide the technical expertise to address invasive animal populations as needed.

Activities and Accomplishments

Prevention

In terms of on-the-ground prevention practices, Denali NP&Pr has taken the greatest steps towards appropriate measures during construction projects, including washing heavy equipment before it arrives on-site, writing into contracts that new projects must not bring in new weeds, and rejecting hay bales for bank stabilization. In addition, buses that travel out the park road are washed daily. In Wrangell-St. Elias NP&Pr, it was recently written into regulation that any forage brought into the park must be certified weed-free. And in Sitka NHP, native plantings have recently been used for landscaping where non-native species had previously been planted.

Detection

Detection is an ongoing priority for all 16 NPS units in Alaska. We use Trimble GPS units to precisely map infestations and uninfested areas to provide baseline data for monitoring, ensure relocation, and promote planning. With a couple of exceptions, non-native plant surveys began five years ago. Currently, all but the most remote parks have been surveyed, with annual surveys of the areas at greatest risk of invasion (refer to map). The data from these surveys are entered into AKEPIC (the statewide exotic plant database) as well as internal GIS and Access databases, with multiple data fields that provide detail on infestation characteristics. We have been assisted with species identification by the Alaska Natural Heritage Program and have made collections for documenting new species and range expansions.

Control

To date, we have only used manual and mechanical means to control invasive plants, although we are currently in the midst of exploring other options (see planning below). In 2006, our field employees controlled 1200 infestations by hand, most of which are very small in size. For the larger infestations, we bring in volunteer crews to provide the labor needed. We control the species of highest priority and feasibility by park, such that in a park with 25 species of non-native plants, we might manage 15, while in a park with less than 10 species, we are likely to manage all of them.

Monitoring

The use of GPS units with sub-meter accuracy enables us to evaluate population changes each year, to gauge control effectiveness and rates of spread. The control effectiveness monitoring in particular is valuable to invasive plant management in Alaska because we are

determining where manual and mechanical methods work and where they fail. Our monitoring efforts also document new species in many parks each year to complement our baseline surveys, and park employees are trained in reporting as well.

Restoration

Our restoration efforts are most advanced at Denali NP&Pr, where native plant seeds are collected each summer for revegetation of disturbed lands. In Dyea, Klondike Gold Rush NHP, a degraded slough has been the focus of both exotic plant control and restoration efforts.

Education

Over the past few years, we have made over 50 presentations to internal and external audiences about invasive plants in Alaska and developed a website, kiosk display, and brochure specific to the NPS. In addition, we have cooperated with other agencies in the production of the Invasive Plants of Alaska spiral-bound book and several smaller publications. We are always working to raise awareness within the NPS.

Research

We have served on the review panel for the invasive plant ranking project coordinated by the Alaska Natural Heritage Program. A current project is underway with NASA to model the spread of white sweetclover, bird vetch, and narrowleaf hawksbeard across burned lands in Interior Alaska.

Planning

We are in the midst of developing an Invasive Plant Management Plan and Environmental Assessment for all 16 Alaska NPS units. The plan will consider the use of herbicides where other methods fail or are unlikely to control aggressive plants. The process includes public involvement, impact analysis, and strategic planning, all of which should prove valuable to other land managers in Alaska.

Collaboration

We are working with several Cooperative Weed Management Areas around the state to promote proactive management beyond park boundaries. Each summer we work on cooperative weed pulls with adjacent landowners for species of mutual concern. We also assisted in the development of the AKEPIC database as a statewide tracking mechanism for exotic plants and have contributed to interagency training sessions and the annual Committee for Noxious and Invasive Plants Management workshops.

Information Management

Over the last year, we have developed a geodatabase for the central storage and analysis of GPS-collected data from the parks. This database houses nearly 5,000 precise spatial records of inventory, control, and monitoring efforts and is serving as a nationwide model for NPS invasive plant data management as well as for Alaska.