U.S. Fish & Wildlife Service

Alaska Region Invasive Species News

December 2006 - January 2007

Invasive Plants on the Run in Kodiak

Intact, properly functioning, and highly productive ecosystems prevail in the Kodiak Archipelago, including Kodiak Refuge. To maintain these qualities, and the benefits they provide, the Refuge and its partners continue to combat noxious and invasive plants.

In this, another story of partnership and collaboration on invasive species in Alaska, Kodiak Refuge, in concert with a host of partners and volunteers, has successfully completed a third year of orange hawkweed (*Hieracium aurantiacum*) control at Camp Island, Karluk Lake. This is an area known for its exceptional salmon and brown bear habitat values.

Implementation of the Integrated Pest Management plan (including targeted use of narrow spectrum, low side-effect herbicide, Transline®) has already resulted in a 55% decline in hawkweed distribution and a 98% decrease in density. In fact, since 2004 most of the hawkweed regrowth has consisted of seedlings and young plants that apparently germinated from the extensive pre-treatment seed pool. Native grasses have dramatically increased and now dominate meadows formerly infested by hawkweed.

The Refuge has also targeted invasive plants in a host of other control and education actions around Kodiak. Missions to Uganik Bay included establishment of plots to measure the response of Canada thistle to mowing as a treatment option; and invasive plant surveys were done at remote lodges, a cannery, and commercial fishing sites.

Of the six sites visited, three contained weeds of concern; and facility owners at two sites had initiated mechanical control, largely in response to previous outreach efforts by the Service and our partners.

Blythe Brown/KSWCD

Weed pull events serve to enhance awareness and collaboration.

Orange hawkweed (Hieracium aurantiacum)

Marta Mueller/UAF

The refuge also teamed up with the Woody Island Tribal Council and Kodiak Soil and Water Conservation District in a weed pull event geared to heighten the Kodiak community's awareness of threats posed by invasive plants, and to provide information resources and methods of control.

Other partners included the Alaska Association of Conservation Districts, Alaska Department of Transportation, Friends of Alaska National Wildlife Refuges, Kodiak Garden Club, KVOK Radio Station, Student Conservation Association, the University of Alaska Extension Service, and both the Boy Scouts and Girl Scouts!

Together these events resulted in 41 volunteers putting in nearly 500 hours and gathering up more than 50 bags of invasive plants for incineration.

Lessons learned and successes achieved by the Refuge and its partners were communicated via radio interviews, newspaper articles, the county fair, and in a presentation at the annual meeting of the Alaska Committee for Noxious and Invasive Plant Management (CNIPM).

For more on CNIPM, visit:
http://www.uaf.edu/ces/cnipm, and watch for more coverage in a future issue of the ARIS News!

For more information on invasive plant work on Kodiak, contact:
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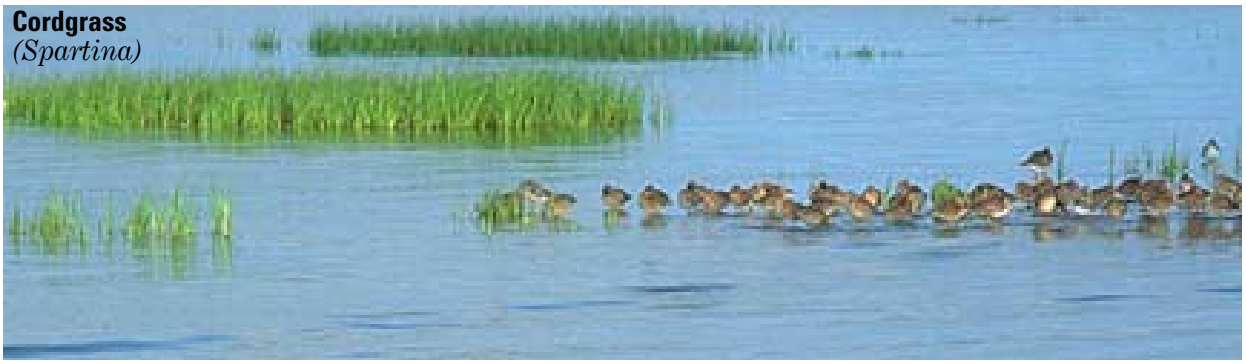
Cordgrass
(Spartina)



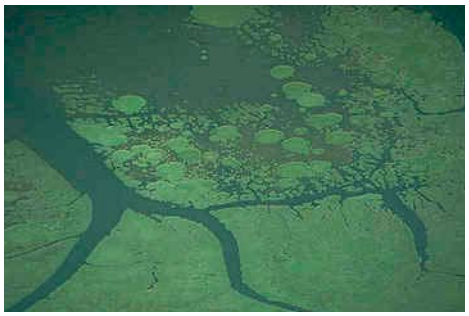
Willapa Bay NWR/USFWS

Spartina alterniflora *and some of the shorebirds whose 'smorgasbord' it threatens to overgrow.*

Can you imagine Kachemak Bay or the Copper River Delta without their shorebirds? Alaska's wide open mudflats support a massive number and diversity of invertebrates (crabs, worms, and such) – all easy prey for migrating shorebirds. But a cordgrass invasion could close this smorgasbord right down!

Four non-native cordgrasses (*Spartina spp.)* have invaded the West Coast and are fundamentally changing coastal ecosystems – transforming mudflats into meadows, raising coastal elevations by trapping sediment, overgrowing shellfish beds, altering coastal drainage, and eliminating feeding grounds for shorebirds (at low tide) and fish (at high tide).

No cordgrass is yet known to have made it to Alaska, but three species have already crept as far north as British Columbia; and in a recent study, drift cards (used to simulate cordgrass seeds and predict their range of possible spread) were recovered from locations in SE Alaska and as far north as Middleton Island and Kodiak.



USFWS

Spartina alterniflora *growing like a cancer, eating up the mudflats of Willapa Bay, Washington.*

Invasive cordgrass is thought to have been introduced to the West Coast in a number of ways including its incidental use as packing material for oysters or as cushioning for ship cargo, and intentionally when planted for marsh restoration projects and as cattle forage. If found early, *Spartina* can be stopped, but if allowed to grow for long, control can become a very expensive undertaking.

For more information, visit
http://www.clr.pdx.edu/projects/ans_research/spartina/index.html
(Oregon Center of Lakes and Reservoirs)

http://www.wapms.org/plants/spartina.html
(Western Aquatic Plant Management Society)

Himalayan Balsam
(Impatiens glandulifera)

King County DNR

Ornamental jewelweed, poor man's orchid, policeman's helmet, bee's bum – by any name, this species ranks out in the Top 5 of invasive plants in Alaska. It is currently known to occur in Anchorage and Haines.

Introduced and sold as an ornamental, this species has escaped cultivation and shown a penchant for moist soils habitats like stream sides, beaches, moist forests, and roadsides.

This vigorous invader can reduce biological diversity by outcompeting native plants for space, light and resources; attracting pollinators away from native species with its high sugar nectar content and extended flowering period; and in autumn, by dying back and leaving the riverbank bare and prone to erosion.

Impatiens glandulifera is an annual with a hollow fleshy purplish stem and can grow to more than five feet tall. Its leaf edges have 20 or more "teeth" along each side, and the flowers range from white to shades of pink and purple.

When the seed capsules are mature they pop open when touched, spreading seeds as far as 20 feet. The seeds can then travel along waterways, and even germinate under water.

Because the plant has shallow roots, it can be easily pulled. However, seeds can remain viable for 18 months, so follow up control is needed.

For more information, visit:
http://dnr.metrokc.gov/wlr/LANDS/weeds/pdf/policemans-helmet-control.pdf
(King County Dept. of Nat. Resources)

http://akweeds.uaa.alaska.edu/
(Alaska Natural Heritage Program)
DNR)

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