



Invasive Species Program

National Wildlife Refuge System

Fiscal Years 2005 and 2006 Update

Invasive Species Management in the National Wildlife Refuge System

Confronting invasive species presents a major challenge in the management of the National Wildlife Refuge System (NWRS). It received 2 to 1 more votes as most important action item at the 2001 Conservation In Action Summit in the area of wildlife and habitat challenges. Invasive species were also identified in 2004 as the single most important threat in the Refuge System's Threats and Conflicts database. According to 2006 Refuge Annual Performance Planning (RAPP) data, two million acres of refuge lands are infested with invasive plants. There are 4,471 invasive animal populations recorded on refuge lands as well. While we are doing our best to control these populations, only about 14 percent of infested acres have been treated thus far.

Invasives Spending in the Refuge System

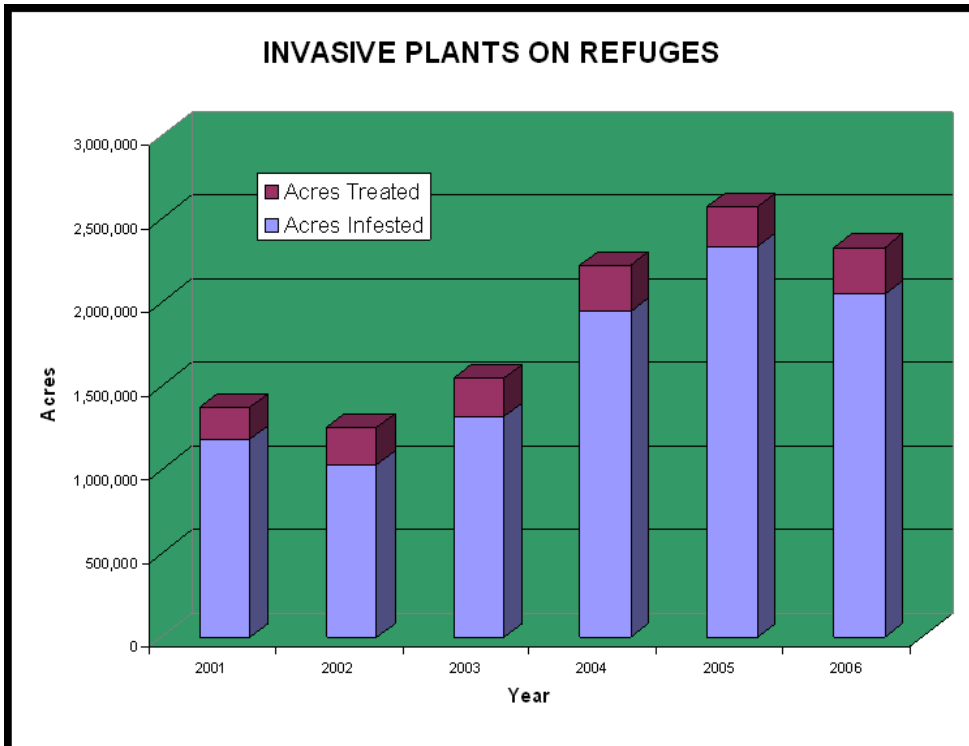
Within the NWRS we estimate that expenditures for invasive species projects in FY 2006 totalled \$9.7 million. While this is a significant amount of funding, we also believe that invasive species projects exceeding \$300 million exist on refuges. The control of invasives remains a priority for the NWRS and we are seeking additional funds where ever possible.

Invasive Species Strike Team Update

The Invasive Species Strike Teams are mobile response units designed to rapidly respond to the detection of new infestations and eradicate them. They currently service refuges in five key geographic regions: the lower Colorado River (R2); the upper Missouri/Yellowstone/upper Columbia River basins (R6); the Florida Everglades (R4); North

Dakota (R6); and Hawaii and the Pacific Islands (R1). In FY 2006, the teams treated and mapped a total of 38,016 acres.

Region	Acres Treated/ Mapped	FY06 Allocation
1	not available	\$490,181
2	836	\$520,913
4	4,919	\$409,378
6 (ND)	27,711	\$490,181
6 (MOYOCO)	4,550	\$409,378



Numbers of Acres Treated and Infested on NWR's, 2001 – 2006.
Data sources: RMIS and RAPP



Region 4 Invasive Species Strike Team members Bill Thomas and Jason Hanley with mobile EDRR "attack" trailer. Trailer graphics help assist with public awareness and education.

Working with Volunteers

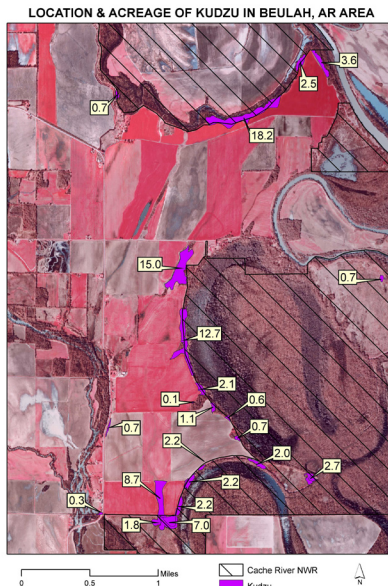
The volunteer and invasives program is funded by a special Congressional appropriation received on an annual basis. Our partners include the National Wildlife Refuge Association (NWRA), The Nature Conservancy, and USGS's National Institute of Invasive Species Science.

Competitive Grants with Volunteers
Funding is awarded to invasive species projects that directly involve Friends groups and volunteers. Through this program, a wide variety of volunteers, including college and university students, Boy Scouts and Girl Scouts, high school biology classes, Master Naturalists, garden clubs, Student Conservation Association, Americorp, and interested

citizens, have become engaged in managing invasive species on refuges. Over the past couple of years, funding awarded to refuges through these grants has enabled 1748 volunteers to contribute over 39,000 hours to the treatment, inventory and restoration of over 144,000 acres of refuge land.

Mapping and Monitoring Invasive Plants

To date, 24,862 acres of refuge lands, in addition to a couple hundred water bodies, have been inventoried and mapped by 198 volunteers trained to use handheld computers and GPS devices. These dedicated volunteers have logged 8,000 hours providing valuable baseline data on the extent of invasive plant



Map created with data collected by trained volunteers showing the location and acreage of kudzu in the Beulah area, of Cache River NWR, Arkansas.

infestations on refuges. This in turn has assisted refuge managers in planning and prioritizing management actions and funding. Refuges participating in the program for the second and third year have engaged an additional 887 volunteers in invasive plant management actions, such as control and restoration measures.

Online Training Modules for Volunteers and Staff - Soon to be Available

In collaboration with the Center for Invasive Plant Management a series of online training modules is being developed to encourage participation by

volunteers and refuge staff in invasive plant management. Volunteers will be given the opportunity to learn about the fundamentals of invasive plants, how they can assist with invasive plant management, and how they can get involved on a refuge. For refuge staff, topics include management planning, assessing and monitoring plant invasions, and ecologically based management incorporating Integrated Pest Management (IPM) techniques. The modules will also contain outreach tools, such as PowerPoint presentations that can be customized and used to educate local, groups and organizations. A spring 2008 launch is planned.



New NCTC Course on Invasive Species!

In October 2006 the first course dedicated to field techniques for invasive plant management was held at the National Conservation Training Center (NCTC). The course teaches practical, hands-on field techniques to refuge employees who are actively involved in invasive plant management, especially biologists, maintenance staff and biotechs. The course will be offered again the week of August 27-31, 2007, and in the spring of 2008.



Students, Bill Miller and George Pelt from Loxahatchee NWR, practice calibrating a 3-gallon backpack sprayer during field exercise at NCTC invasive plant course.

Updates from Around the Refuge System

Refuge-Specific Tools

Alaska has developed an Invasive Plant Treatment Guide for Alaskan refuges that offers guidance about species identification, evaluating different treatment methods, and the

regulatory, policy, and land management requirements associated with treatment methods. Contact: Karen Murphy (907)786-3501.

Innovative Partnerships

In March 2007 Minnesota Valley NWR submitted a proposal to the National Council of the Boy Scouts of America to create a merit badge for invasive species. If accepted, the merit badge would help motivate young scouts across the country to learn more about controlling invasive species both on and off refuges. Contact: Chris Trosen (952)858-0729.



Inter-Agency Collaboration

Last fall the Refuge System provided \$50 thousand dollars to the USDA's division of Wildlife Services for support of the effort to control the Gambian Pouch Rat on Grassy Key in the Florida Keys. Although the pouch rat does not yet occur on a NWR, by eradicating it now, the NWRs will save potentially millions of dollars in future control costs. Contact: Michael Lusk (703)358-2110.

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