Program Name: South Florida Water Management District Invasive Species Management
Project Name: **Invasive Exotic Plant Control in Terrestrial and Aquatic Natural Systems**
Project ID: 2502
Lead Agency: SFWMD

Strategic Plan Goal(s) Addressed: 2.B.1

Measurable Output(s): Implementation of invasive species management plans as a coordinated program, including inter-agency collaboration; reduction of total acreage for all priority invasive plant species; attainment of maintenance control for invasive exotic plants such as hydrilla, water hyacinth, water lettuce, melaleuca, Brazilian pepper, Australian pine, and Old World climbing fern.

Project Synopsis:
The SFWMD continues to coordinate with other agencies to implement the melaleuca management plan for South Florida. After several decades of management, large stands of melaleuca persist primarily on private lands. Populations have declined greatly on all public conservation lands within the Everglades Protection Area with the greatest remaining population found in the Arthur Marshall Loxahatchee National Wildlife Refuge. The decline has been achieved via aerial and ground-based herbicide applications in addition to successful establishment of several biological control agents. In all areas, patrols continue to manage new seedling plants. Maintenance control has also been achieved for melaleuca within many acquisition areas in the East Coast Everglades Buffer Area, the Florida Keys, Lake Okeechobee, and most natural areas in the Treasure Coast and Kissimmee River regions.

Old World climbing fern remains problematic on many SFWMD-managed lands. The SFWMD continues to search for and remove outlier populations of Old World climbing fern in WCA-3A and WCA-3B tree islands. Unfortunately, there is no active ground-based monitoring program in place to detect the spread of this species during the initial stage of establishment. Recent aerial mapping efforts confirm that dense stands of Old World climbing fern are common throughout the central Kissimmee River basin and the Arthur Marshall Loxahatchee National Wildlife Refuge. Continued implementation of control programs, consistent with the Old World climbing fern management plan, as well as continued progress with management-related research and biological control initiatives are necessary to reverse the expansion of this highly invasive plant.

The SFWMD continues to maintain water lettuce and water hyacinth at maintenance control levels in most natural water bodies under its jurisdiction. Other species, including hydrilla, West Indian marsh grass, torpedograss, limpograss, and Wright's nut rush remain problematic in the Kissimmee Chain of Lakes region. The SFWMD is increasing control efforts for these species in collaboration with FDEP. The SFWMD also continues to focus on regionally-problematic species such as downy rose myrtle (pinelands in northeastern region), shoebutton ardisia (eastern Everglades), and South American water grass (Lake Okeechobee).

Current Status: Regional, coordinated efforts have yielded an Everglades Protection Area with few significant melaleuca infestations. Much of the remaining dense populations are now found on private lands. The melaleuca biocontrol agents that have been established in Florida are exerting strong inhibitive pressure on the tree. SFWMD continues to focus on removal of Old World climbing fern and Brazilian pepper throughout the Water Conservation Areas and other SFWMD-managed conservation lands.

Project Schedule:
Start Date: 2007
Finish Date: TBD

Detailed Project Budget Information ($1000) / Expenditures to Date

	2007	2008	2009	2010	2011	2012	Total
Federal	135*						**135**
SFWMD**	10,862	9,038	6,723	7,161	9,182	5,201	**48,167**
Local							
Total	**10,997**	**9,038**	**6,723**	**7,161**	**9,182**	**5,201**	**48,302**

*USDA grant funds (TAME)
**SFWMD: Expenditures to date per fiscal year

Contact: LeRoy Rodgers, SFWMD

Vegetation management contractors hand clear shoebutton ardisia from a former sawgrass marsh in the southeastern Everglades.

Old World climbing fern aggressively overtakes entire tree islands in the Everglades. Once established, this invasive vine displaces plant communities, reduces wildlife habitat and alters ecosystem functions.

A branch of melaleuca exhibits herbivory and gall formation from two established biological control agents--the melaleuca weevil and melaleuca midge. Biological control of melaleuca is significantly reducing the invasive potential of melaleuca in South Florida. (photo: LeRoy Rodgers, SFWMD)