

**Program Name:** South Florida Water Management District Invasive Species Management  
**Project Name:** **Invasive Species Research and Information Exchange**  
**Project ID:** 2823  
**Lead Agency:** SFWMD

**Strategy and Biennial Report Objective Addressed:** 2-B.4  
**Invasive Species Strategic Action Framework Goal:** 4

**Measurable Output(s):** Development of new management approaches for invasive plants through applied research and information exchange between cooperators; development of management plans for priority invasive species.

**Project Synopsis:** The SFWMD continues to conduct and fund research programs in herbicide development and management techniques for priority invasive species. Recent developments in herbicide evaluations and management best management practices are improving control efficacy for numerous species, including hydrilla, shoebutton ardisia, cattail, and Brazilian pepper. New research evaluating the efficacy of new herbicides for the control of invasive grasses and floating aquatic plants are currently underway. Research focused on effective methods for long term control of Old World climbing fern has been initiated through a multi-year contract with the University of Florida (UF).

There is still a large gap in acquiring sufficient funding to implement the multi-species control program with multi-agency integration. However, some success has been achieved through collaboration with Cooperative Invasive Species Management Areas (CISMA). As mandated in the Everglades Forever Act, the SFWMD continues to coordinate invasive species management with other agencies throughout the Everglades Protection Area. In 2008, the SFWMD, FWC, USACE, FWS, and NPS entered into an MOU that formalized ongoing coordination through the formation of the Everglades Cooperative Invasive Species Management Area (CISMA) The Everglades CISMA has achieved many successes in improving implementation of regional control strategies, including early detection and rapid response activities. For example, collaborative efforts to reduce localized populations of the sacred ibis and Asian black mangrove are ongoing with success in containing and possibly eradicating these species. Recent rapid response efforts for other newly established species, such as the black and white Argentine tegu, have had less success in containing populations, further underscoring the need for more effective prevention measures at the state and federal level.

**Current Status:** Development and refinement of control tools for invasive species has recently focused on herbicides for cattail, crested floating heart, hydrilla, roundleaf tooth cup, torpedograss, and limpograss. The District continues to fund biological control research institutions for melaleuca and Old World climbing fern. The SFWMD expends \$300,000 annually toward development of biological control agents for these two invasive species through agreements with the U.S. Department of Agriculture Agricultural Research Service (USDA-ARS).

In FY16 the SFWMD, in partnership with the FWC and FWS, entered into a five year contract with UF to conduct research on Old World climbing fern control. The primary objectives include evaluating currently used and new herbicides for control efficacy and degree of non-target damage; determining how hydroperiod, soils and treatment sequences influence the rate of Old World climbing fern recruitment and regrowth; and conducting spore biology studies to investigate the rate of viability and germination in soils with residual herbicide activity.

**Project Schedule:**

Start Date: 2007  
Finish Date: TBD



**Annual ECISMA work days focus on hand-pulling isolated Asian black mangrove seedlings that persist in the coastal mangrove swamp. (photo by Tony Pernas, NPS)**

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

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
SFWMD*	110	160	156	206	307	257	257	207	158	162	<b>1,773</b>

\*SFWMD: Expenditures to date per fiscal year. The 2014 figure does not include funding to USDA/ARS for biological control research (\$300,000) and CERP Biological Control Implementations (\$661,536) which are identified on other project sheets.

**Contact:** LeRoy Rodgers, SFWMD

*Project 2823: Invasive Species Research and Information Exchange Page 2 of 2*