

Program Name: Operations of National Park Service
Project Name: **Lionfish assessment and control in South Florida National Parks**
Project ID: 2812
Lead Agency: National Park Service

Strategy and Biennial Report Objective Addressed: 2-B.4

Invasive Species Strategic Action Framework Goal: 4

Measurable Output(s): Reduced abundance and occurrence of lionfish at selected reef sites;

Project Synopsis:

Lionfish now occur throughout much of South Florida's marine and estuarine waters. Within Biscayne National Park, Dry Tortugas National Park, and Everglades National Park, efforts have been under way to systematically remove lionfish from selected sites, assess the lionfish populations and trends in conjunction with the control efforts, and better understand the habitat preferences of this species in order to better utilize staff and resources on lionfish control. It is not currently feasible to completely control lionfish throughout these properties, but removal and density reduction can be achieved at specific sites. Within Everglades and Dry Tortugas, spears are prohibited fishing gear, but their use by the public is allowed within Biscayne National Park in accordance with State law, and recreational/commercial harvest may be a significant contributor to control efforts.

NPS personnel and interns select random sites within the Parks, and search these sites to assess the occurrence of lionfish across broad areas and their habitat associations. Teams of divers use spears and hand nets to remove lionfish. Accompanying data, including person-hours, numbers of lionfish observed, numbers of lionfish removed, and abiotic and biotic habitat information are also collected during each dive. Sites are revisited over time, with "hotspots" (sites tending to attract larger densities of lionfish) receiving increased attention. This approach provides information on lionfish distribution and density, as well as habitat associations, rates of re-occupancy of the selected sites, and the extent of effort needed to control lionfish at acceptable levels.

Current Status:

In 2014 and 2015, Biscayne and Dry Tortugas National Parks had grant-supported programs established to conduct the systematic lionfish removals. The continuation of these programs in future years is contingent upon receipt of additional grant funding. In Everglades National Park, there is no dedicated program for lionfish removal, but personnel from other parks assist with an annual systematic lionfish survey at sites in Florida Bay. Biscayne National Park personnel also conduct removals of lionfish from the bordering Florida Keys National Marine Sanctuary (FKNMS) as part of an agreement with the Sanctuary, since the FKNMS does not have staff available to remove the high numbers of large individuals known to occur in the FKNMS waters just east of the park's boundary.

Project Schedule:

Start Date: 2011 Finish Date: Ongoing

Detailed Project Budget Information

	2014	2015	2016	2017	2018	Balance to Complete	Total
Federal	\$155,000	\$168,000	\$111,000	\$111,000	38,000		
Total	\$155,000	\$168,000	\$111,000	\$111,000	38,000		583,000

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Pictures:



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