

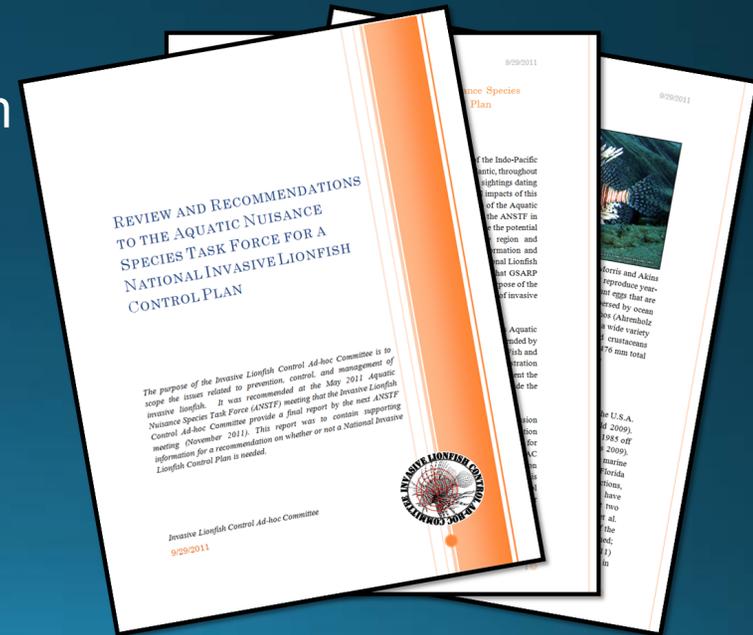


Invasive Lionfish Control Ad-Hoc Committee

National Invasive Lionfish Prevention and Management Plan

Timeline

- Spring 2011: GSARP recommended that the ANSTF establish an Invasive Lionfish Control Working Group to scope the issues related to prevention, control, and management of invasive lionfish (*Pterois volitans*, *Pterois miles*).
- The ANSTF accepted the recommendation and formed the Invasive Lionfish Control Ad-hoc Committee (ILCAC).
- Fall 2011: The ILCAC provided the ANSTF with their report “Review and Recommendations to the ANSTF for a National Invasive Lionfish Control Plan”



ILCAC Membership



- Lad Akins, Reef Environmental Education Foundation (REEF)
- Julie A. Anderson, Louisiana State University/Louisiana Sea Grant (LSU)
- James Ballard (Editor/Coordinator), Gulf States Marine Fisheries Commission (GSMFC)
- Margaret M. (Peg) Brady, National Oceanic and Atmospheric Administration (NOAA)
- Susan Pasko, National Oceanic and Atmospheric Administration (NOAA)
- Kevin Cute, Rhode Island Coastal Resources Management Council (CRMC)
- Chris Furqueron, National Park Service (NPS)
- Leslie Hartman, Texas Parks and Wildlife Department (TPWD)
- Jeffrey Herod, United States Fish and Wildlife Service (USFWS)
- Charles Jacoby, St. Johns River Water Management District (SJRWMD)
- Travis Leeuwen, University of British Columbia (UBC)
- Cliff McCreedy, National Park Service (NPS)
- Marshall Meyers, Pet Industry Joint Advisory Council (PIJAC)
- James Morris, National Oceanic and Atmospheric Administration (NOAA)
- Adrianna Muir, United States Department of State (USDOS)
- Judy Pederson, Massachusetts Institute of Technology Sea Grant (MIT)
- Scott Sanders, United States Fish and Wildlife Service (USFWS)
- Pam Schofield, United States Geological Survey (USGS)
- Kristen Sommers, Florida Fish and Wildlife Conservation Commission (FL FWC)
- Cynthia Tait, United States Forest Service (USFS)
- Catherine (Anna) Toline, National Park Service (NPS)
- John Wullschleger, National Park Service (NPS)

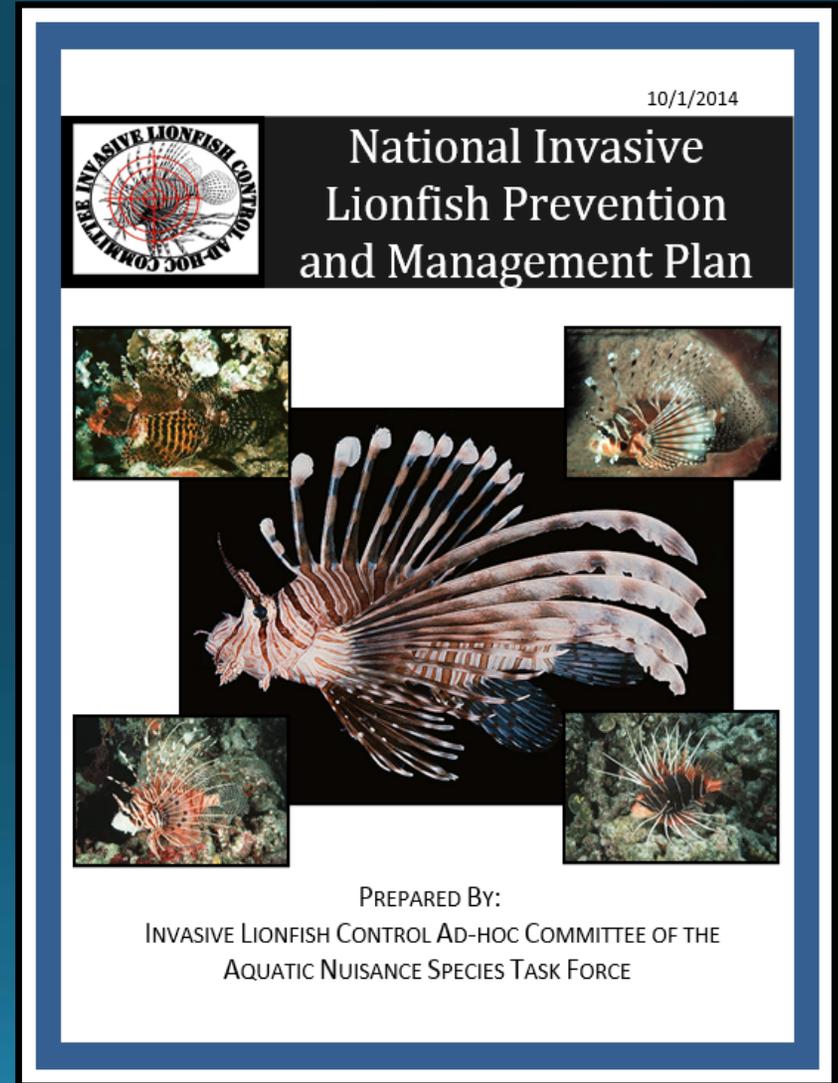
Timeline

- January 2012: Held first webinar with the newly expanded ILCAC to go over the straw-man draft of the National Invasive Lionfish Prevention and Management Plan (NILPMP).
- January 2012 – October 2013: The ILCAC drafted the Plan (numerous webinars and 27 drafts of the NILPMP).
- November 2013 – April 2014: The ILCAC conducted several reviews of the Plan before providing the final draft to the ANSTF in May 2014.



Outline

- 1.0 Vision, Goals, and Objectives
- 2.0 Background and Overview
- 3.0 Impacts and Regulations
- 4.0 Invasive Lionfish Prevention and Management
- 5.0 Education and Outreach: Current/Future Actions
- 6.0 Leadership, Communication, and Coordination
- 7.0 Points of Contact for AIS Issues in the Affected Region
- 8.0 Proposed Invasive Lionfish Prevention and Management Funding Needs



Goal 1: Prevent the Spread of Invasive Lionfish

Objective 1.A) 100% prevention of new populations in high priority sites.

Objective 1.B) Determine the risk of invasiveness for lionfish species in trade.

Objective 1.C) Examine importation and pet trade practices and regulations.

Objective 1.D) Increase awareness through education and outreach activities.

Objective 1.E) Identify management areas that should remain free from lionfish that include careful consideration of the site selection, purpose, and management operations.

Objective 1.F) Develop monitoring strategies to evaluate and improve prevention objectives.

Goal 2: Coordinated Early Detection and Rapid Response

Objective 2.A) Develop and implement EDRR programs.

Objective 2.B) Develop tools to improve EDRR for lionfish.

Objective 2.C) Develop monitoring strategies to evaluate and improve each EDRR objective.

Goal 3: Control and Management of Invasive Lionfish

- Objective 3.A) Develop tools for localized control and management.
- Objective 3.B) Reduce lionfish population densities at high priority sites.
- Objective 3.C) Research and improve fisheries management tools for the control of invasive lionfish.
- Objective 3.D) Develop and implement ecologically relevant indices to determine reef health.
- Objective 3.E) Develop species specific tools for large-scale invasive lionfish eradication.
- Objective 3.F) Identify and address current regulatory hurdles and tools.
- Objective 3.G) Incorporate climate change scenarios into lionfish predictive models.
- Objective 3.H) Build new and expand existing partnerships between federal and state agencies, tribes, private sector, and other stakeholders.
- Objective 3.I) Develop monitoring strategies to evaluate and improve each control and management objective.

Goal 4: Assess Impacts of the Lionfish Invasion

- Objective 4.A) Develop a better understanding of the impacts of the lionfish invasion on native species and habitats.
- Objective 4.B) Assess impacts to human health, safety, quality of life, and communities.
- Objective 4.C) Protect commercially and recreationally important fishery stocks from harm related to the lionfish invasion.
- Objective 4.D) Protect species of concern from both direct and indirect effects of invasive lionfish.

Funding Needs

Tasks	Objectives Addressed	Anticipated Outcomes of the Task	Estimated Yearly Cost
Lionfish Research	1.A, 1.B, 3.A, 3.B, 3.C, 3.D, 3.E, 3.F, 3.G, 4.A, 4.B, 4.C, 4.D	<ul style="list-style-type: none"> • Improved control procedures and tools. • Better understanding of impacts to native species and habitats. • Better ways to manage the invasion to minimize potential impacts. • Better description of the invasive lionfish population. • More complete understanding of the economic impacts of the lionfish invasion. 	\$10,000,000
Identify High Priority Sites and the Vectors of Introduction Threatening Them.	1.A, 1.E, 3.B	<ul style="list-style-type: none"> • Provide a more focused approach to addressing the lionfish invasion. • Protect ecologically and economically important areas and native species from the impacts of invasive lionfish. 	\$1,000,000
Develop and Implement a Standardized Monitoring Program	1.A, 1.F, 2.A, 3.D, 4.C, 4.D	<ul style="list-style-type: none"> • Help prevent new populations of invasive lionfish from becoming established. • Protect ecologically and economically important areas and native species from the impacts of invasive lionfish. 	\$5,000,000
Establish a Rapid Response Fund	1.A, 2.A	<ul style="list-style-type: none"> • Decrease response time to new sightings. • Provide timely funding to address new occurrences before a population can establish. 	\$5,000,000
Outreach	1.A, 1.D, 2.A, 2.B, 3.H, 4.C	<ul style="list-style-type: none"> • Increase awareness about the lionfish invasion. • Decrease response time to new sightings. • Help prevent new introductions. • Fully fund existing efforts (e.g. USGS NAS database and USFWS ANS Hotline) 	\$1,000,000



Pterois antennata



Pterois miles



Pterois mombasae



Pterois radiata



Pterois russelii



Pterois sphex



Pterois volitans



Dendrochirus barberi



Dendrochirus biocellatus



Dendrochirus brachypterus



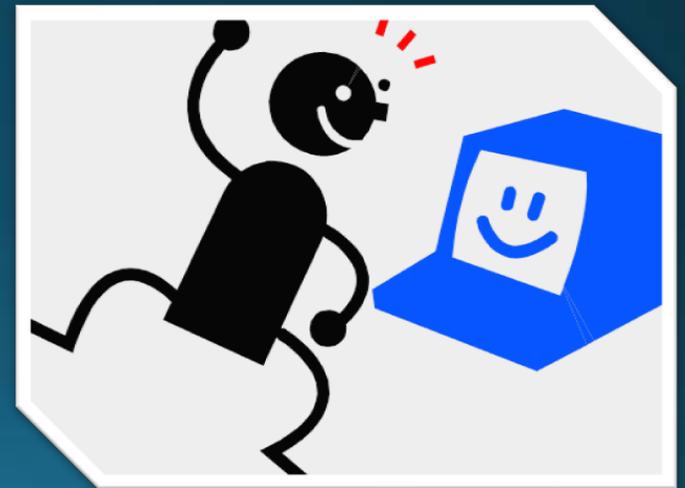
Dendrochirus zebra



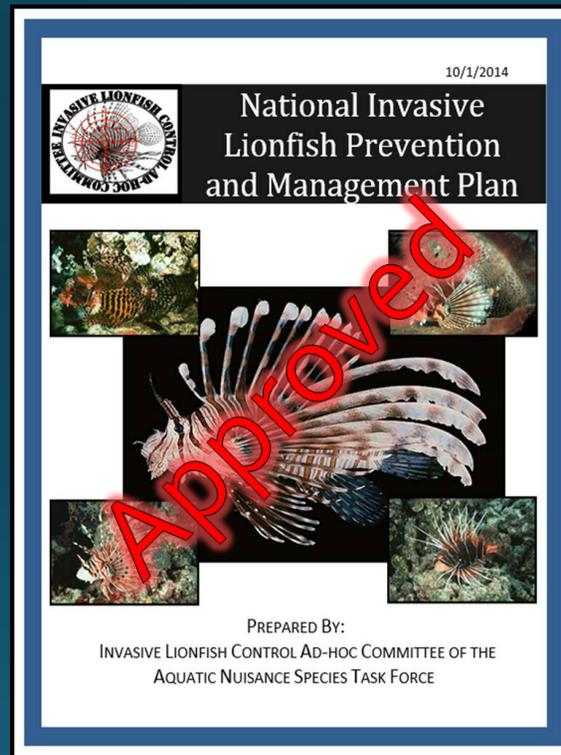
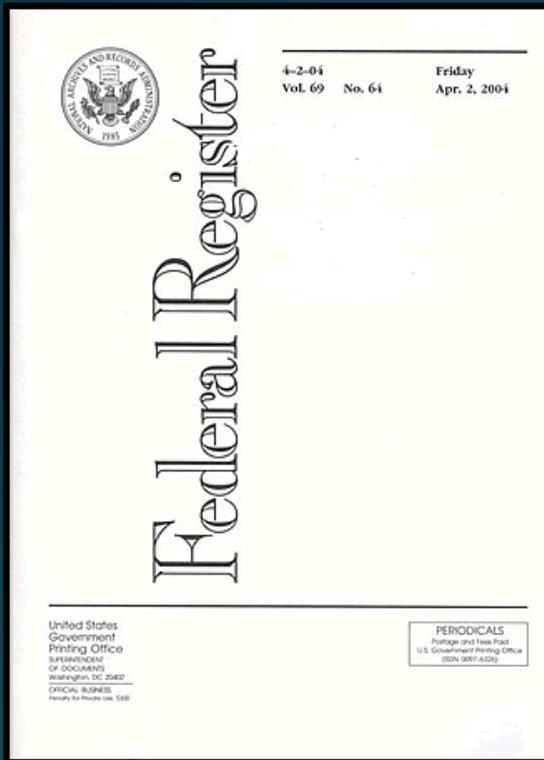
Parapterois heterura

Recent Activities

- May 2014 – September 2014: Plan was reviewed by ANSTF members and NISC policy liaisons.
- All comments have been addressed.
- Missing sections under chapter 6.0 have been incorporated or removed.
- At the beginning of October 2014, a final review was conducted and the plan was submitted to the ANSTF for approval.



What's Next



Questions?

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