



# **ICRI *Ad-Hoc* Committee on Caribbean Regional Response to Lionfish Invasion**

**Nassau, The Bahamas  
26 - 28 March 2012**

# ***Ad-Hoc Committee on Caribbean Regional Response to Lionfish Invasion***

- Recognizing that the lionfish invasion in the Caribbean region is a mounting threat to the biodiversity and ecological integrity of the region's coral reef ecosystems;
- Acknowledging that identifying and implementing measures to control the lionfish invasion, while minimizing other harm to marine ecosystems, are desirable;
- Acknowledging the decision taken at the 6<sup>th</sup> Conference of Parties to the SPAW Protocol in Montego Bay, Jamaica, October 2010, to participate in the development of a Caribbean regional response to the lionfish invasion;
- Recalling the ICRI 2009 Recommendation on Invasive Alien Species;

***The ICRI General Meeting agrees on the creation of an ICRI Ad Hoc Committee to facilitate a coordinated response to the Lionfish invasion in the Caribbean region.***

# Ad Hoc Committee will implement the following:

- Develop a **regional lionfish control strategy** to identify and guide collaborative responses.
- Raise awareness among the fishery and marine protected area managers on the lionfish threat and the need to develop effective local response plans.
- Build an **active participation** between organizations and countries.
- Encourage governments and organizations working on this issue to participate actively by sharing best management practices identified in the “**Strategies and Practices for the Invasive Lionfish Control**”, and by encouraging activities to implement the regional strategy.
- Launch a **web portal** to serve as a site for ongoing regional communication, current and credible scientific information, and access to best management practices and manager-training tools.

# ***Ad-Hoc Committee on Caribbean Regional Response to Lionfish Invasion***

The Ad Hoc Committee is co-chaired by **Mexico, United States of America, France, and the Regional Activity Centre for UNEP's SPAW Protocol (SPAW-RAC).**

- The Ad-Hoc Committee is commonly referred to as the **Regional Lionfish Committee (RLC).**
- Participation is encouraged by other countries, territories and organizations within the region.

# Regional Lionfish Committee (RLC)

## Key partners:

- The Cartagena Convention and SPAW Protocol – regional cooperation, wide representation in the region, technical knowhow and legal framework for the signatory countries.
- CARICOM and CRFM – design and strategic support in implementing the strategy.
- CABI – technical support and knowhow in the region.

## Desirable linkages:

- WECAFC/FAO

The active participation of these key players will develop better methods to control this invasive species. The aim of ICRI is to promote participation and collaboration among countries to achieve this goal.

**To accomplish the commitments listed in the Terms of Reference for the Ad Hoc committee, the following actions have been implemented:**

1. To facilitate information exchange, a list of contacts was developed, including experts on marine invasive species, marine resource managers, fisheries experts, technicians, and scientists in the wider Caribbean region. We aim to include in the list of contacts all individuals that are closely involved with the lionfish issue.
- To date, the list has more than 170 contacts and is expected to total 200 contacts in the near future.

2. The Ad Hoc Committee drafted a Host Secretariat Advisory statement to call attention to the lionfish invasion and its threats to coral resources of the Caribbean region and urging implementation of local control measures and engagement in a regional response.

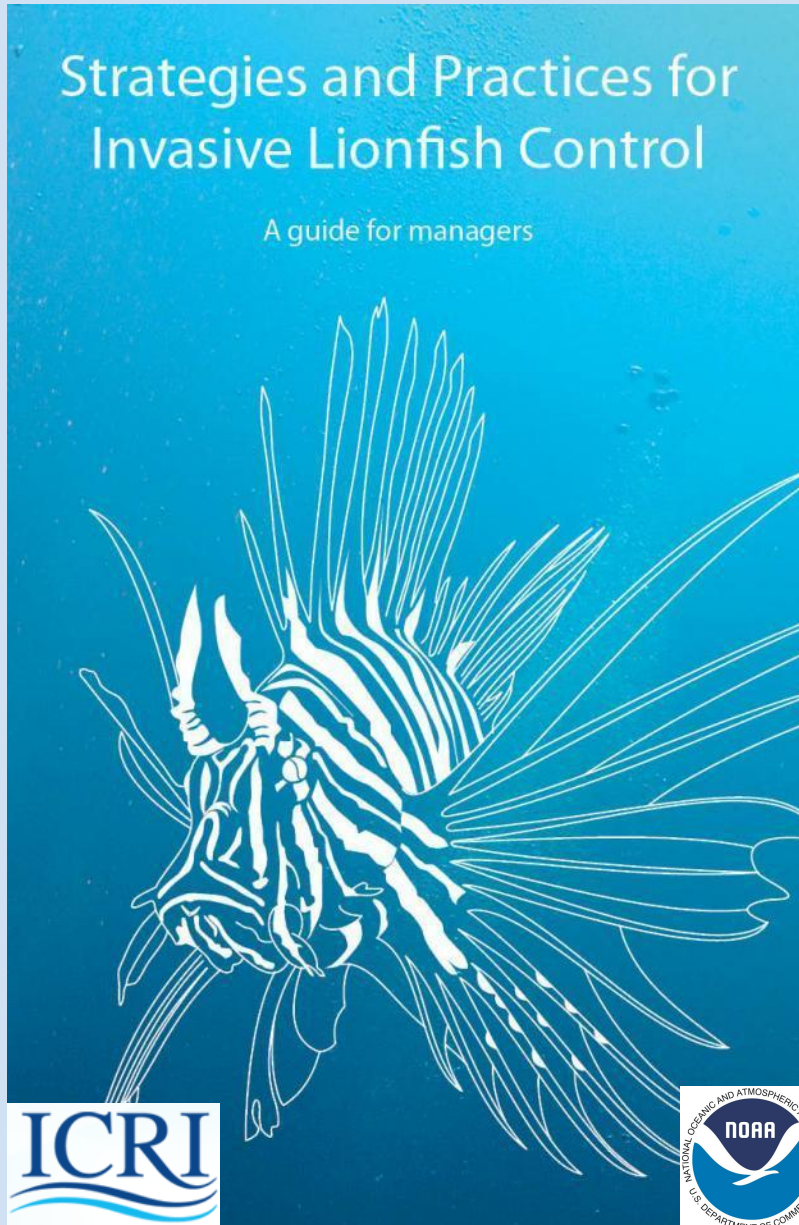
“In recognition of the severity of the lionfish invasion and its impact on coral reefs and local communities, ICRI urges that immediate action be taken to control the lionfish invasion in collaboration with relevant international and regional partners and initiatives.”

The Host Secretariat Advisory statement was disseminated by the ICRI Secretariat in Spanish, French, and English.

[www.icriforum.org/lionfish](http://www.icriforum.org/lionfish).



# Actions supported by the Ad Hoc Committee



In order to establish coordinated actions, with technical and scientific basis, to enable a high-level work in the Caribbean both at local, national and regional levels, a Best Practices manual called, “**Strategies and Practices for Invasive Lionfish Control**” was developed.

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# “Strategies and Practices for Invasive Lionfish Control” **Development Process**

- Concept began with the 2010 Cancun Lionfish Workshop (hosted by ICRI).
- Over 25 Caribbean countries represented.
- Over 40 workshop participants.
- Best practices conceived.



# “Strategies and Practices for Invasive Lionfish Control” **Project team**

- Writing team with wide experience is assembled.
- Institutions represented included University of the West Indies in Jamaica, NOAA, REEF, SPAW-RAC, Simon Fraser University, CONANP-Mexico, and CABI.
- Writeshop was in April 2011 in Miami, FL.
- Chapter authors were assigned and outlines developed.



# “Strategies and Practices for Invasive Lionfish Control

## Overview of Content

- Introduction
- Education and outreach
- Monitoring
- Control
- Research
- Legal considerations



# “Strategies and Practices for Invasive Lionfish Control

## Introduction

- Invasion history, present status, and future projections.
- Scale of economic and ecological impacts.
- Invasion facts.



*Photo by S. Thompson*

# “Strategies and Practices for Invasive Lionfish Control

## Education and Outreach

- Using E&O to support control plans.
- Developing communication strategies.
- Developing an E&O program.
  - Key messages
  - Vetting information
  - Sources of credible information
  - Outreach outlets
  - Pitfalls





# Lionfish: From Sea to Table



## Capturing

Lionfish have venomous spines along the top and undersides of the body (see diagram). Take precautions and use proper equipment when attempting to capture or handle these fish. Clear vinyl collecting nets with mesh bottoms or fish spears with paralyzer tips are ideal for capturing the fish. To collect a lionfish with a net, position one vinyl net behind the fish while using a second net to maneuver the fish into the first. Lionfish can also be caught occasionally by hook and line and sometimes in fish traps.

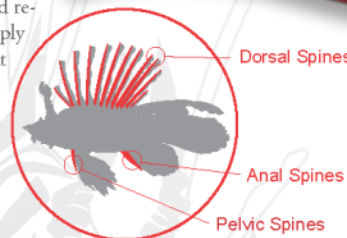
## Handling

Minimize the risk of stings by using puncture-proof gloves. Firmly grasp the dead lionfish by its head to avoid the venomous spines. Gloves will also protect your hands from irritation by non-venomous bones on the head.



## First Aid

If stung, seek medical attention promptly. Check for and remove any obvious pieces of spine left in the wound. Apply hot water to the wound (as hot as one can stand without scalding) until the pain subsides. Common symptoms of most stings include pain and swelling. In extreme cases, skin necrosis and paralysis can occur.



## Cleaning

The dorsal, anal, and pelvic spines are venomous. These spines can be removed with kitchen shears or clippers. Once the spines are removed the lionfish can be cleaned like any other fish.

## Preparation

Lionfish is a delicious, delicately flavored fish, which can be prepared many different ways. The taste and texture has been compared to highly regarded grouper, snapper or hogfish. Numerous recipes and preparation techniques are available on the web and in upcoming cookbook publications.



# “Strategies and Practices for Invasive Lionfish Control Monitoring

- Why monitor?
- What to monitor?
- Fisheries independent monitoring
- Fisheries dependent monitoring
- Monitoring for ecological impacts
- Biological monitoring
- Socio-economic monitoring

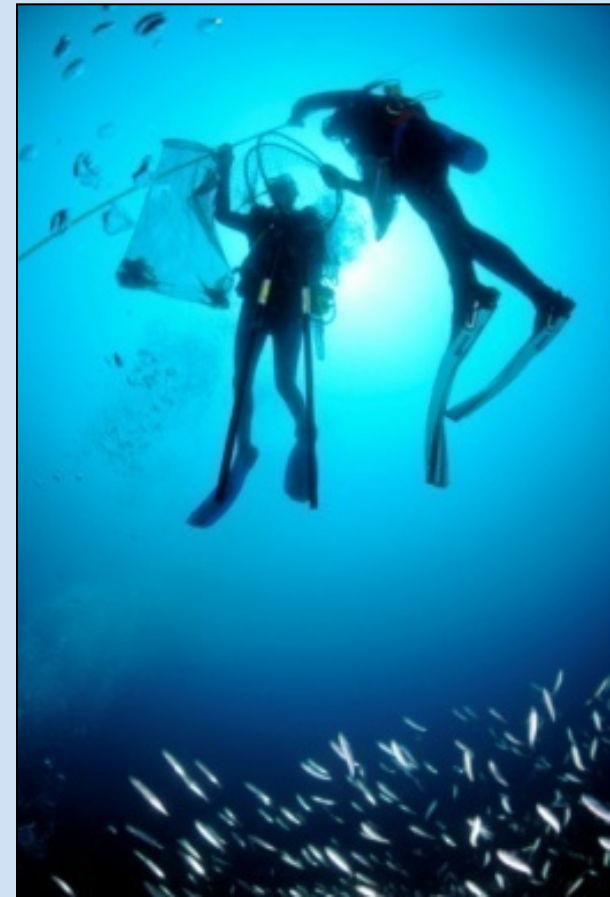




# “Strategies and Practices for Invasive Lionfish Control

## Control

- Control plan development
  - Reporting and documentation
  - Collection and handling
  - Collection strategies
    - ✓ Removal tools
    - ✓ Safety
    - ✓ Removal frequency
    - ✓ Training
    - ✓ Removal incentives



# “Strategies and Practices for Invasive Lionfish Control Research

- Findings to date
  - Invasion status
  - Biology and ecology
  - Ecological impacts
  - Socio-economic impacts
- Research priorities
- Research resources



# “Strategies and Practices for Invasive Lionfish Control

## Legal considerations

- Review of existing legislation, policies, and plans
  - Puerto Rico, The Bahamas, Cayman Islands, Mexico, French West Indies
- Considerations
  - Removal from no-fishing areas
  - Harvesting lionfish for the aquarium trade
  - Lionfish as a fishery resource
  - National and regional coordination



# “Strategies and Practices for Invasive Lionfish Control” **Supporters**

- International Coral Reef Initiative
- NOAA International Affairs
- SPAW Regional Activity Center,
- United States Department of State
- National Commission of Natural Protected-Areas Mexico.
- Reef Environmental and Education Foundation





# PRESENT STATUS

Formal presentation of this Manual was done at the 64th Annual Meeting of the Gulf and Caribbean Fisheries Institute (GCFI), November 2011.

- A side event was held at the 4th ITMEMS to promote the Manual.
- The Manual will be published through GFCI, and should be available for distribution in May 2012.
- The Spanish and French versions of the Manual should be available soon.



# First regional lionfish collecting and handling workshop

- Participation of 12 countries of the Wider Caribbean.
- The workshop content is based on the manual of best practices.
- There will be two more workshops in 2012, the Bahamas and Florida.



# Next steps

- ❑ Enhance participation in the Regional Lionfish Committee.
- ❑ Distribute Manual using the Lionfish list of contacts, ICRI, GCFI, CRFM Listserves and various websites.
- ❑ Develop a Lionfish **Web Portal**.
  - Provide multi-media training tools.
  - Clearinghouse for information.
  - Updates on new findings.
- ❑ Regional coordination.
- ❑ Develop regional response strategy for lionfish control
  - Distribute invitation letters asking governments to appoint participants to a drafting committee.
  - Convene a workshop to discuss a draft strategy.
  - The goal is to have this strategy in late 2012.



Based on the projects and actions proposed by ICRI, we reiterate the importance of identifying opportunities for active coordination with CARICOM-CRFM.

We believe that the committed participation of this group of Caribbean leaders will contribute to the successful control the lionfish, allowing the Caribbean economy, based mainly on tourism and fisheries, to remain a healthy economy.

Thank you for your  
attention.

**Beverly Wade**  
On behalf of  
**ICRI *Ad-Hoc* Committee**