





### Cancun Lionfish Strategy Workshop Florida Keys update

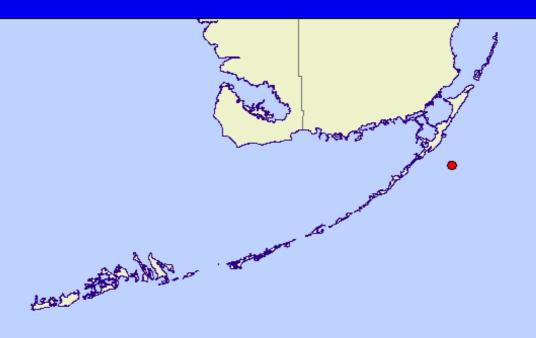


Lad Akins
Director of Operations, REEF



# Current status of FL Keys Lionfish

First report – Jan 2009



January 2009





# Strategies/Plan

### Early detection/rapid response plan

- Phase 1 initial invasion
  - Outreach/awareness
  - **Permitting on the water professionals**
  - **Training for permitted groups**
  - Centralized reporting
- Phase 2 full invasion
  - Increased outreach
  - **Encouraging widespread removals**
  - **Developing incentives (events, markets)**
  - Identifying funding
- Strong partnerships







October 22, 2009

Reef Environmental Education Foundation (REEF) P.O. Box 246 Key Largo, FL 33037

The National Oceanic and Atmospheric Administration, Office of National Marine Sanctuarie The National Counts and Antosopheric Administration, Office of National Marine Sanctuaries (CNNS) has approved the issance of permit number (SNMS-2009-300 to conduct activities within Florida Keys National Marine Sanctuary (sanctuary) to assist with sanctuary management. Activities are to be conducted in accordance with the permit applications submitted to the sanctuary on September 28, 2009, and the terms and conditions of permit number FXNMS-2009-300 (moleosof).

This permit is not valid until signed and returned to the ONMS. Retain one signed copy and carry it with you while conducting the permitted activities. Additional copies must be signed and returned, by either mail or email, to the following individuals within 30 days of issuance and

Florida Keys National Marine Sanctuary

NOAA Office of National Marine Sanctuarie 1305 East-West Highway (N/ORM6) SSMC4, 11<sup>th</sup> Floor

Your permit contains specific terms, conditions and reporting requirements. You are responsible for understanding all of these requirements. Review them closely and fally comply with them while undertaking permitted activities. Of note are the following:

- This permit authorizes you to capture and remove invasive Indo-Pacific red lionfish only from within the Sanctuary Preservation Areas (SPAs). No other organisms or materials, living or dead, may be removed from any SPA.
- You may use hand nets or slurp guns to remove invasive lionfish from within the SPAs. No
- No collections of any other kind (tropical fish, invertebrates, living or dead substrate, or any
- No concentration of any contextual (upper link, inverticented, invitig or deal substrate, or any other item) are authorized by this permit, from any location. You must report all lionfish captures from within the SPAs within 48 hours to REEF or MEERA using the enclosed form.







### **Successes**

- Early detection/rapid response plan
- Outreach/awareness
- Permitting for MPA removals
- Partnerships
- Centralized reporting
- Utilizing specimens
- Derbies



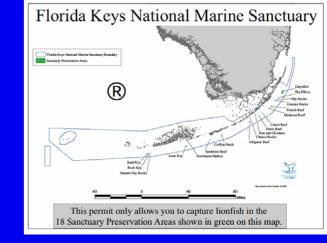






# <u>Challenges</u>

- Rapid invasion
- Extensive area and habitats
- Training
- Removal incentives
- MPA removals
- Allowable gear/regulations
- Applied research
- Funding









# **Funding**

#### FKNMS

 No dedicated funding, some staff time for outreach, permitting

#### Partners

- REEF 2 staff, one-time govt funding, leveraged community support
- MOTE part time staff
- USGS part time staff, PhD researcher
- Local Community volunteer removals!
- Future market development, grants, ??



### **Needs**

- Research
  - Direct impacts (\$)
  - Effectiveness of removals

#### Removals

- Training
- Efforts outside dived areas (organized teams)
- New techniques
- Regulatory changes

### Incentives

- Market development demand and supply
- Events

### • Funding!



### **FKNMS Lionfish Response**

### **Upcoming Programs and Events**

- Lionfish derbies
  - Key Largo Sept 10-11
  - Marathon Oct
  - Key West Nov



- Additional Collecting/Handling Workshops
- Lionfish Cookbook









