



Photo by Jason Arnold



# Lionfish in Florida

Florida Fish and Wildlife Conservation Commission  
Kristen Penney Sommers, Section Leader  
Wildlife Impact Management

# Today's Presentation

- Brief Florida Background
- Current and Future Efforts in Florida
- Next Steps
- Gaps?



Photo by Bob Cox



# Lionfish in Florida

- Exotic invasive species
- First reported near Dania Beach in 1985
- Additional reports from Florida and Bermuda in the 1990's
- Population spread rapidly after 2000
- Currently distributed throughout the U.S. Southeast coast, Bermuda, Bahamas, Caribbean, South America, and the Gulf of Mexico
- Concerns of this species span
  - Impacts to native species and habitats
  - Impacts to the economy
  - Social impacts



Map by USGS



# Outlook

- Complete eradication of lionfish is unlikely
  - Population is widespread throughout the Atlantic, Gulf of Mexico, and Caribbean
  - Lionfish found in deep water are difficult to harvest
  - Deepwater lionfish repopulate shallow reefs
- Localized removal efforts can significantly reduce densities
- Harvest by divers is currently the primary means of lionfish removal
- Other means of removal include bycatch in other fisheries



Photo by Bob Cox



# Recent FWC Efforts

## Planning

- FWC Lionfish Team – staff from across the agency

*In Progress: 2014-15 Florida Lionfish Control and Action Plan*

## Stakeholder Engagement

Goal: Encourage statewide public involvement and support in long-term lionfish control

- FWC Lionfish Summit 2013
- Cooperating with other Gulf Coast states, REEF, Sea Grant, and other organizations

*In Progress: Long-term stakeholder engagement*



# Recent FWC Efforts

## Regulatory Changes

**Goal: Reduce regulatory barriers to enhance removal efforts**

- Waived fishing license requirements for harvest by specific gears
- Removed the bag limit for recreational and commercial fishermen
- Removal of Collier County spearfishing ban
- Allowed rebreathers when harvesting lionfish
- Created a permit for tournaments/events allowing spearing in prohibited areas
- Prohibited importation of all species of *Pterois*
- Prohibited breeding of lionfish or aquaculture of larvae



# Recent FWC Efforts

## Control Efforts

Goal: Encourage public involvement in a long-term control Initiative.

- Supporting and sponsoring localized removal efforts and derbies
- Developed Lionfish Workshops
- Reef Rangers
  - Similar to “Adopt-A-Highway” program
  - Divers pledge to conduct lionfish removals at local reefs of their choice
  - Develop a map of reef sites
  - Participants recognized for their efforts
  - [ReefRangers.com](http://ReefRangers.com)



# Recent FWC Efforts

## Outreach/Education

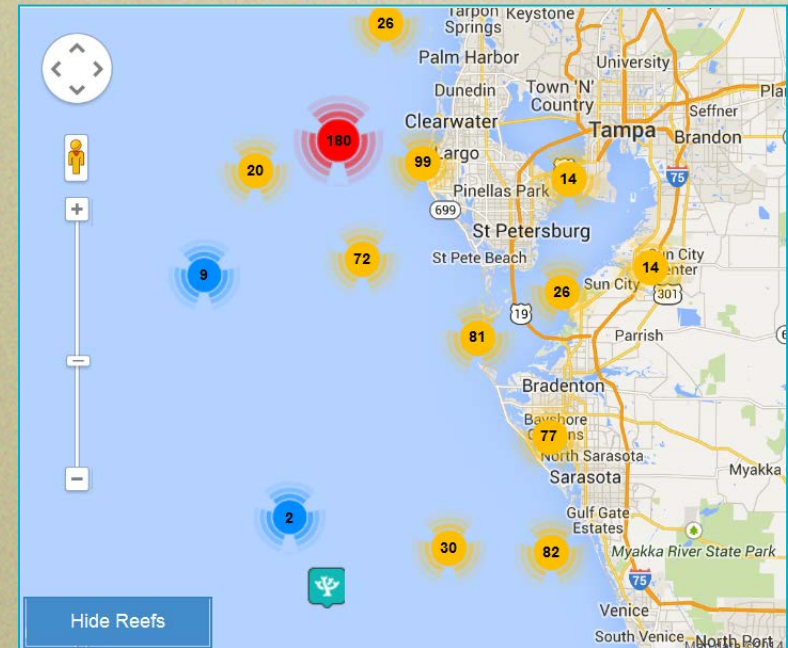
Goal: Educated public aware of the threats of nonnative species,

- Appropriated Lionfish Awareness FY 14/15 \$259,852
- Development of online and print publications
- Workshops and presentations
- Social Media Presence (Facebook, Twitter)
- Communication research (Cornell University)
- Commission declared first Saturday after Mother's Day as "Lionfish Removal and Awareness Day"
- Human dimensions study to evaluate public perception and knowledge of Lionfish (University of Florida)



# Educating the Public - Report Florida Lionfish App

- Unveiled May 28 during live Twitter chat
- Downloaded by over 2,500 people
- Data submitted by over 500 people
- First 250 users received T-shirts
- Several updates implemented since release including:
  - Interactive map
  - Ability to post on social media
  - Additional data fields
  - Data sharing with USGS



# Lionfish Removal and Awareness Day 2015

- Statewide lionfish removal – **May 16-17**
- Hosted by FWC and partners
- Events around the state
- Pensacola, Florida
- Held in conjunction with a local derby
- Showcase of:
  - Family-friendly activities
  - Celebrity chef lionfish tastings
  - Sign-ups for Reef Rangers program
  - Raffle Prizes



# FWC Research

- Recreational lobster harvest surveys to gather information on lionfish encounters
  - Proportion of respondents observing lionfish increased from 2010-2011 then stabilized
  - Number of lobster fishermen that kill/remove lionfish increased from 2010-2013
- Recent research on mercury content of lionfish
- Study recolonization rates and species abundance and diversity after removal
- Tagging and acoustic tracking/video monitoring to observe behavior and movement
- Fishery independent trawl and camera surveys in the Gulf of Mexico
  - Identified presence in deepwater habitats



# Long-term Management For Lionfish

- Responsiveness and proactive outreach
- Social science inquiry and data
- Population management and control
- Community co-management



# Next Steps

*Continue to implement an integrated approach for the control of lionfish by:*

- Identifying additional outreach and education opportunities
- Continuing to coordinate and support control efforts
- Identifying innovative gear research and development
- Develop and implement an FWC Lionfish Control and Action Plan



Photo by Carol Cox



# Gaps

- Appropriate Federal-State Nexus
- Port support
- Help identifying the next invasive species
- Effective control tools
- ?



# Thank you!



