



# JAMAICA AT THE REGIONAL LIONFISH STRATEGY WORKSHOP

## JAMAICA'S NATIONAL STRATEGY FOR MITIGATING THE INVASIVE LIONFISH

AUGUST 2010

### CAMILO TRENCH

CHIEF SCIENTIFIC OFFICER

DISCOVERY BAY MARINE LABORATORY



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# DBML – Marine Invasive Species Lab – Research Agenda

Aims to Answer the following questions:

- **Where in Jamaica is the lionfish found, and what are the densities? Where are the hot-spots?**
- **What species are they displacing or impacting?**
- **Are they impacting fishing (fish gear)?**



# DBML – Marine Invasive Species Lab – Research Agenda

Aims to Answer the following questions:

- **How can we reduce the numbers significantly?**
- **What are the economic impacts of the invasion?**
- **What is the larval distribution pattern?**
- **Is the venom dangerous and lethal to humans in Jamaica?**



# Invasion Status

First sighting reported approximately 4 years ago (2006);

***Confirmed on East (St. Thomas) coast closest to Haiti/Cuba***

Current data is sporadic and un-coordinated (Found at all dive sites, fishing sites on all coasts)

Anecdotal reports that lionfish are abundant and island-wide:

- Found in shallow and deeper reefs, rocky substrate, sea-grass washouts
- Reported that they have been found in fish pots as deep as 400 feet (120 metres) and caught on longlines at 1000ft (300 metres)

Collection of geo-referenced quantitative data currently in progress...



# Jamaica Lionfish Database

Discovery Bay Marine Lab  
Centre for Marine Sciences  
University of the West Indies



Date:



Depth (meters):

Collector:

Habitat Type:

Site:

Habitat Notes:

Dominant Species  
Health (Coral)  
Healthy  
Degraded

Latitude (DD):

Longitude (DD):

Species:



Other Notes:

Length (mm):

Weight (grams):

Sex:



Gut Contents:

Species

Number

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# Strategies/Plan

Jamaica is taking a research driven approach to formulate and implement response actions, led by the Marine Invasive Species Lab at DBML

- The environmental & economical impacts
  - Impacts on local fisheries and ecosystems (Prey preferences)
  - Lionfish densities and hotspots
  - Larval ecology and distribution
  - Effect on coral reef recruitment
- Population genetics
- Controlling the invasion
  - Develop passive capture method
- Lionfish as a food source
  - ✓ Potency of the venom
  - ✓ Public opinion of consumption
  - ✓ Safe handling and disposal





# Strategies/Plan

- DBML is collaborating with NEPA, the Jamaica Coral Reef Monitoring Network, The Fisheries Division, Dive resorts, US Peace Corps and Local NGO's to train stakeholders and the public on how to spear, handle, collect scientific data, prepare and cook lionfish

- Training Module (2-day) has been designed and first round will be done in September.

- Lionfish Tournaments being standardized by the National Lionfish Sub-Committee to ensure Safety, encourage awareness, Measure success, gather useful data, Acquire continued funding.





# Successes

- Funding secured from GEF and other agencies through the Regional CABI- IAS Project. This is for a 4-year lionfish project.
- Establishment of Marine IAS Lab at DBML to house the Lionfish Programme
- Personnel (Graduate Students, Research Assistants, Interns) are currently being engaged and work has begun in some instances.
- A National Lionfish Sub-Committee created with all the relevant agencies involved.



# Successes

- Media Attention has been great. Featured heavily on Prime Time Television News Casts and other sources, such as radio and print media.
- Private Sector (esp. hoteliers) and local fishing and community groups are also on-board (*Sponsor tournaments and hold forums*)



Prime Minister and Minister of Agriculture and Fisheries have been featured on television endorsing eating lionfish to control numbers.



# Challenges

- We are late in the response (slow to get funding)
- Coordination of Activities require consistent and prolonged attention, we have been making serious strides with this through the National Coordinator (CABI-IAS Project) and the National Lionfish Sub-Committee.
- Data deficiency (cannot accurately show extent of the invasion to date).



# Funding

- CABI/GEF/UNEP/Gov't of Jamaica Caribbean IAS Project forms the bulk of the funding for the lionfish programme (431,000 USD)
- The UWI has funded the salary for the Principal Investigator as well as some of the operational expenses of the Marine IAS Lab
- Other Government Agencies have contributed support to the programme.



# Needs

- More Regional Collaborations on management of the invasion, scientific collaborations
  - (eg. Dr. Buddo and Dr. Morris will be working closely together on the various scientific elements)
  - Jamaica and Bahamas will be working together under the CABI-IAS Project



# Needs

- Sustained source of funding to be identified
  - Lionfish tournaments are unsustainable
  - Project funds expire in 4 years
- Regional Lionfish Strategy needed with local adaptations



# Conclusion

- Jamaica is positioned to do some good work on this invasion – reasonable capacity built
- Agencies and other stakeholders on-board
- Public awareness has been going well
- We are late, so any work will be work to play “catch-up”
- We need regional support and guidance



# Contact Information

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