



NOAA

NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION  
UNITED STATES DEPARTMENT OF COMMERCE



# LIONFISH IN BELIZE

February 2010

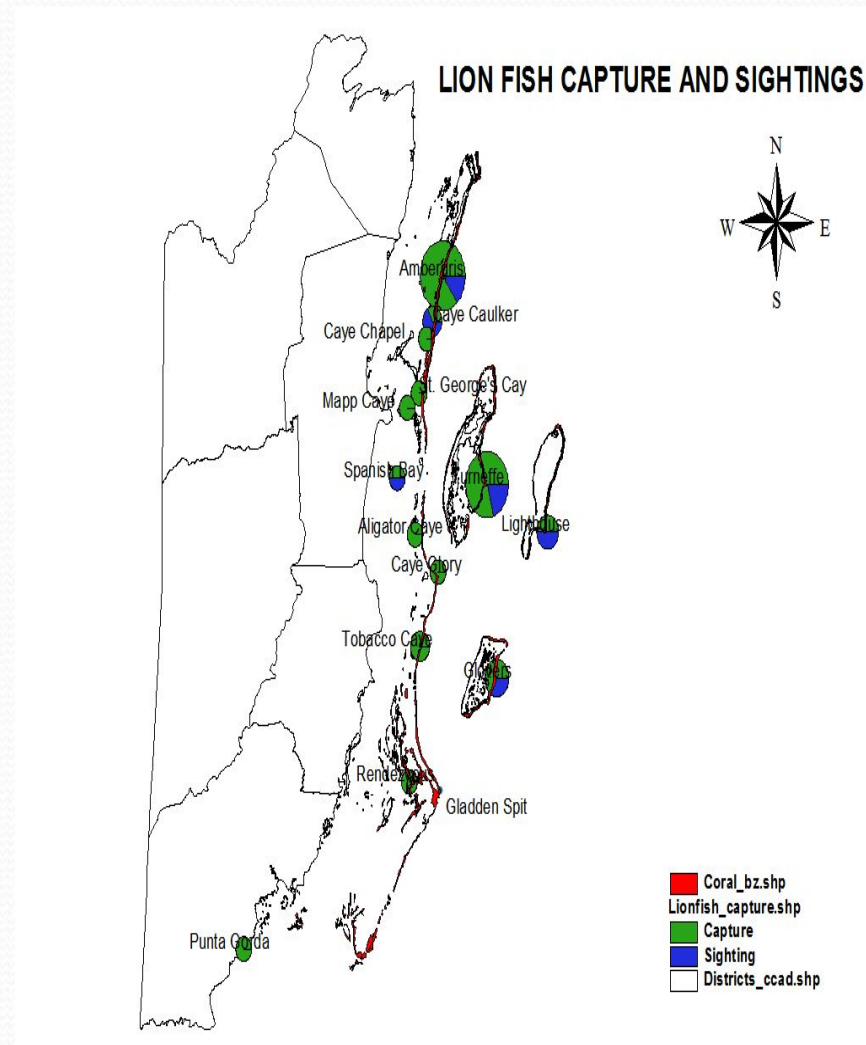
Isaias Majil

Marine Protected Areas  
Coordinator



# Background

- First sighting was in December 2008
- First capture was in Turneffe in December 2008
- Little known of their presence in Belize
- A Lion fish sub committee formed: subset of the NCRMN in early 2009
- Draft Response Plan Process initiated

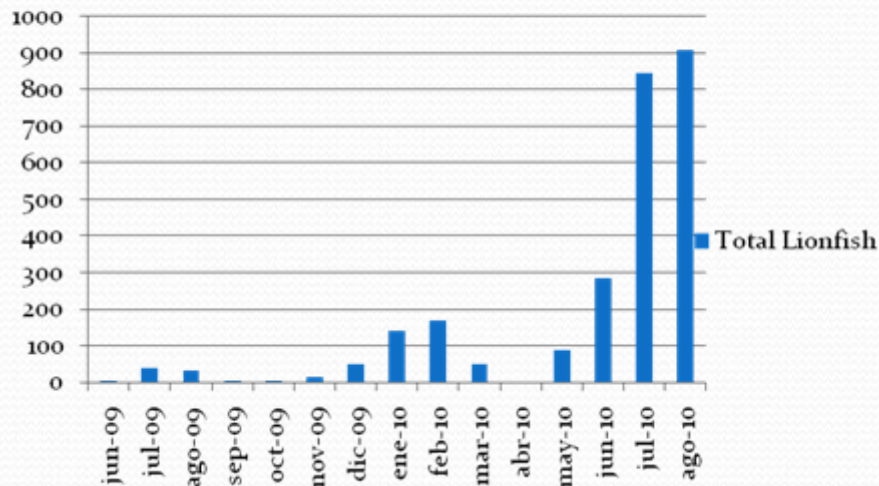


# Present data

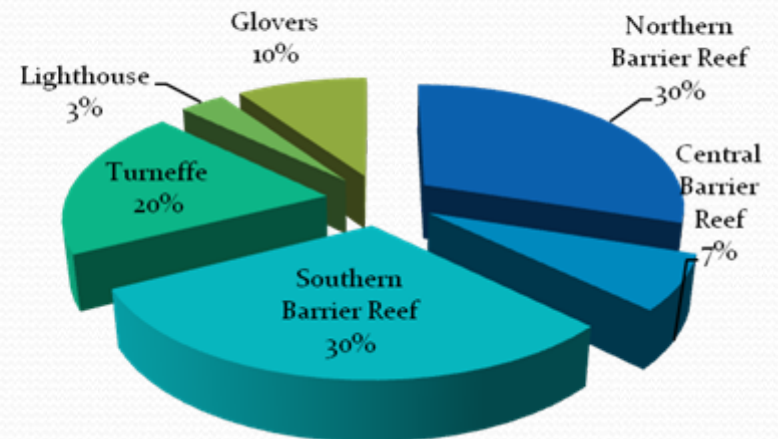
**Total Lionfish Submitted 2009-2010**

	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Total
Total Lionfish	3	41	33	5	1	15	49	141	168	51	0	89	285	846	908	2635

**Total Lionfish**



**Título del gráfico**





# Plan

- A bounty of \$50 BZ offered sponsored by the private sector
- Not much response
- Reserves Network staff were on the lookout
- Fishers informed of impacts taken on exchange to Bahamas
- June, July, August 2009 great numbers started coming in
- August 2009; bounty stopped after we received over 70 specimens
- Draft report on findings

# BELIZE NATIONAL LIONFISH RESPONSE PLAN

## **Background**

Distribution

Habitat

Life history and population biology

Physical tolerances

Community ecology

Invasion information

## **Management Goals**

National assessment of lionfish population to determine magnitude of problem

Consultations with stakeholders

Implementation of management strategy

- Promote as fish for consumption

- Cull to keep numbers low

- Catch and kill – method employed by divemasters and fishermen

## **Scientific Studies**

General data collection - date, observer, occupation, location, site, size, depth, color, habitat, reef zone, bottom habitat)

- Prey identification - Gut content analysis

- Sexual maturity - Presence of gonads and

- Age - Otolith analysis

- Genetic classification - Tissue samples



# cont

## **Public awareness**

Outreach Workshops – fishermen, tour guides & general public

Capture & Handling Techniques

Preparing for consumption

- Fishing tournaments

  - Monthly Program

  - One time events

- Public Service Announcements

Video of safe capture, handling, cleaning lionfish in Belize

Print media

Talk show events

Monitoring Activities

- Neighboring Countries Legislation & Management Plan

## **Fisheries Legislation**

Review current legislation

Amendments to existing fisheries regulations may include:

Permits to allow stakeholders to use specialized lionfish spears.


Permits for aquarium use

Permits for export

# Success to date



- Partnership with an NGO; ECOMAR
- COMPACT Project 12 months , US \$ 50,000
- Awareness through media outlets
- Flexibility on Fisheries Administrator to use mini spears, scuba diving








**BELIZE  
Lionfish  
Project**

ECOMAR, in Partnership with The Belize Fisheries Department & COMPACT, Launch  
Monthly Lionfish Tournaments!

## Monthly Lionfish Tournament Information

Monthly Lionfish Tournaments will be held from May through November and prizes will be awarded to the top five in each of the following categories: Fisherman, Tour Guide, and Boat.

Equipment prizes will be awarded to those who bring in the most lionfish during each month. The table below lists sample prizes that will be available for each category.

To enter your catch in the Monthly Lionfish Tournaments, captured lionfish must be dropped off at one of the Collection Points located throughout Belize and are outlined in the table below. Each entry must include person's name, location of capture, and date of capture. The Collection Point facility will issue you a receipt for the number of fish delivered. If you would like to keep

the lionfish after submitting it to the Collection Point, the tail fin will be cut off for use in DNA analysis.

Grand Prize winners, those who have turned in the most lionfish from May to Nov, will be announced on Dec 15, 2010. Please contact the nearest Collection Point for more details, the Lionfish Project Coordinator, or visit our website for updates and complete rules.

SAMPLE MONTHLY PRIZES		
FISHERMEN & TOUR GUIDES	BOAT	
Bicycle	Mask & Snorkel	Anchor
Binoculars	Rain coats	Bottom Paint
Cell Phone	Reef Coral ID	Chain
Ice Box	Reef Creature ID	Fender
Dive Watch	Reef Fish ID	Gas
Dry Bag	Quest Slate	Ice
Fins	Sunglasses	Life Jacket
Flash Light	Wetsuit	Rope

LOCATION	COLLECTION POINT
Sarteneja	Sarteneja Fishermen Association
San Pedro	Hoi Chan Marine Reserve
Caye Caulker	Caye Caulker Marine Reserve
	Belize Fisheries Department
Belize City	ECOMAR
	Sea Sports Belize
	C & G Tours
Dangriga	Stann Creek Tour Guide Association
Glovers	Glover's Reef Marine Reserve
Hopkins	Hamanasi
Placencia	Placencia Fishermen Cooperative
	SEA
Punta Gorda	Belize Fisheries Department
	Rio Grande Fishermen Coop
	TIDE

**"My meat tastes nice,  
but DON'T touch my fins!"**

Please remember that Lionfish have 13 venomous spines on their dorsal (top) fin and 5 venomous spines on the ventral and anal (bottom) fins. If these spines puncture your skin you will experience severe pain, therefore all are urged to safely capture and

handle lionfish. They are reported to taste good, but care must be taken when filleting. At the 12 Lionfish Outreach Workshops that will be held in coastal communities throughout Belize we will present more details on the invasive lionfish and provide

opportunities to learn how to safely handle, clean and cook lionfish. Please look for more details coming soon on when the Lionfish Outreach Training Workshop will be coming to your community.

**BELIZE LIONFISH PROJECT CONTACT PERSONS**

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The Belize Lionfish Project receives funding from COMPACT - The Community Management of Protected Areas Conservation Programme. For more information on the COMPACT Programme in Belize, please contact Mr. Leonel Requena, Local Coordinator at 7 Constitution Drive, United Nations House, Belmopan or via Tel: 822-2462 Fax: 822-2264 or via email at [leonel.requena@undp.org](mailto:leonel.requena@undp.org)

**Let's MANAGE Lionfish, before they become Unmanageable!**

Please also look for project updates on our website at [www.ecomarbelize.org](http://www.ecomarbelize.org).



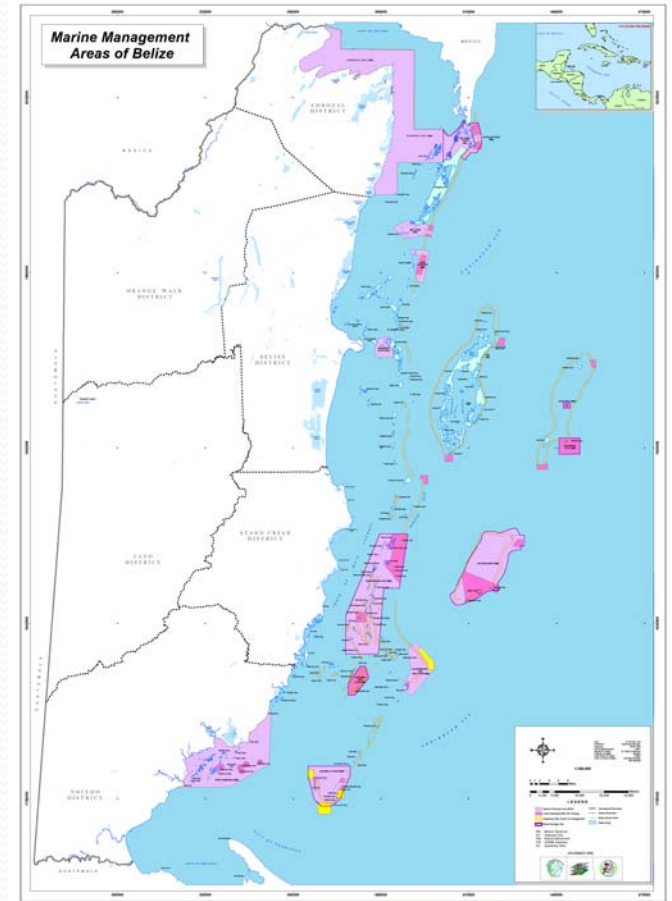
# Challenges

- Extraction from no take areas
- Extraction from deep waters
- Non protected areas has no management presence
- Fishers killings not reported gap in data
- Slow season on tourism and fishing creates limited presence at sea
- More awareness and trainings needed on handling and use of the fish
- Financial needs for plan implementation in 2010



# Resources

- Marine Protected Areas Network across the Belizean waters ( NCRMN)
- Tourism sector support
- Public awareness materials developed
- Strong NGO support
- Fishermen Cooperatives support
- High Priority on the Fisheries Department plan
- Media support



# Way Forward

- ECOMAR funded by Community Protected Areas Management (COMPACT) 2010
- Over 80 samples sent to USGS for DNA analysis awaiting results
- Finalising Consultation process for the elaboration of the response plan
- At this time ECOMAR has over 1000 samples in storage
- Foreign Universities assistance in DNA analysis
- Implementation of Plan September 2010



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- Thank you