

# First ciguatoxic risk assessment in lionfish (*Pterois volitans*) in the Guadeloupean archipelago and commercial prefiguration in the FWI.

10-11 July 2013, Karaibes Hotel, Guadeloupe, FWI

## Notes on Antigua and Barbuda

### Background:

It is estimated that Antigua and Barbuda has a total land area of 442.6 km<sup>2</sup> (Antigua 280 km<sup>2</sup> and Barbuda 161 km<sup>2</sup>), a coastline of 153 km, and a shelf area of 3,568 km<sup>2</sup> (shelves include South Bank, Redonda shelf, and Havers Shoal).

The fisheries is small scale and artisanal in nature. In 2001, there were 371 fishing boats in Antigua and Barbuda (42 in Barbuda), and 730 active fishers (104 Barbuda). The Antiguan vessels range in size from 3.4 to 23.5 m while Barbudan vessels range between 3.0 and 9.4 m.

Fishers use traps (51% of vessels) to catch both finfish and lobster. Other gears include hand lines (16% of vessels), trolling (10%), gill nets (13% of vessels), SCUBA-diving (6%) and free-dive (3%). In Barbuda almost all the lobster (*Panulirus argus*) caught is exported live to Guadeloupe and other French territories in the region. Other exploited fisheries are coral reef and shallow shelf fish, coastal pelagic species, deepslope fish and large pelagic which are caught primarily by recreational and sports fishermen. The total fish production in 2008 was 3,521 MT; this includes mainly crustaceans (272 MT of lobster), demersal species, queen conch, tuna and sharks.

### Lionfish:

First official lionfish sighting recorded in 2011, April 28, and the fish is now well established in Antiguan waters. A public awareness and education campaign has been promoted by the Fisheries Division, prior to the first official sighting and is on-going. Current sightings record fish sizes suitable for marketing and consumption. Fishers are encouraged to remove and destroy the fish, and some fishes have already included lionfish in their diet. Currently there is no commercialization of the species.

Lionfish hunt was organised by Antigua Conservation Society, Fisheries Division, Antigua Yatch Club, and local fishers on 2 June 2013. More than 70 fish were removed, with at least 7 boats participating. This is envisioned to be an on-going initiative with a minimum of three hunts annually.

Ciguatera poses a health risk in Antigua and Barbuda and receives significant attention from the Fisheries Division, with a ciguatera monitoring program started in 2005 with assistance from Cuba.

There are initiatives to further research activities in this area, with proposals submitted to the ACPFish II and other funding mechanisms.

### **Marketing and Trade:**

Lionfish is not currently traded in Antigua and Barbuda, and this is set to be developed as the fish become larger and more abundant. Local markets would have to be developed and external markets could be explored if they exist.

Factors affecting current markets include legislation, national laboratory, seafood testing (including ciguatera), landing sites and HACCP facilities.

### **Other Related Issues:**

The Caribbean Network of Fisherfolk Organisations (CNFO) is also engaged in information and education on lionfish in the Caribbean, and has looked at initiatives to encourage capture and marketing in collaboration with The Nature Conservancy (TNC). Also exposes its members to current research initiatives shared at the Gulf and Caribbean Fisheries Institute (GCFI).

The CNFO is involved in a Marine Managed Areas Network project which will have some implications for lionfish research and control in the Eastern Caribbean.

The Bahamas and the USA has some niche markets, but these have size and HACCP implications.