

## **Outline of the Mitigating the Threat of Invasive Alien Species in the Insular Caribbean (MTIASIC) Project Lionfish Pilot Project**

The lionfish was first reported to be found off the east coast of the United States in the mid 1990s, by the summer of 2001, it was found along the Atlantic Coast of the United States from Florida to Long Island, New York. Currently the lionfish has invaded the Caribbean and is abundant in The Bahamas. It is strongly believed that the Bahamas is the source Jamaica's invasion. The first sighting of the red Lionfish (*Pterois miles*) in Jamaica was officially documented and confirmed by members of the Ecosystems Management Branch of the National Environment & Planning Agency (NEPA) in April 2008 at a dive site called The Plains located at Franklin D. Resort in Runaway Bay St. Ann. There have been unofficial reports of sighting in eastern parishes (Portland and St. Thomas) from as early as 2 years prior (2006), however no details of location or pictures could be provided to corroborate these claims. The Lionfish has since spread around the entire island and is thought to be currently undergoing a population explosion.

Lionfish are popular in some parts of the world as food, but are far more prized in the aquarium trade. The Lionfish has been classified as an invasive species and a lack of predators suggests that it could be a potentially significant threat to Jamaica's biodiversity and the ecosystem in general.

The UNEP/GEF has funded the Mitigating the Threat of Invasive Alien Species in the Insular Caribbean (MTIASIC) Project of which Jamaica is a participant. The National Environment and Planning Agency (NEPA) is the implementing agency for this four year project.

Through the Lionfish Pilot, NEPA with its partnering organizations including the UWI Mona Centre for Marine Sciences (CMS), Jamaica Coral Reef Monitoring Network, the Fisheries Division and local NGOs will be working to increase the country's ability to manage the lionfish population within the Island. The Lionfish Pilot seeks to take a research driven approach to formulate and implement response actions to manage and control the species in Jamaica. This we propose to achieve through four (4) main components.

### **Component 1: Island-wide Distribution**

The collection of baseline data which will allow assessment of the invasion and track the densities and distribution over an 18-month period, building on earlier data collected to date by NEPA, CMS and other agencies.

## **Component 2: Prey Preferences**

The impact of the lionfish on commercial fisheries has been documented in many countries (USA, and Bahamas). This component will seek to quantitatively measure the predation pressure on the fish populations, as well as indicate any prey preferences that the lionfish may exhibit.

## **Component 3: Development of a Passive Capture Mechanism**

The development of a low cost capture method with high effectiveness and selectivity will be integral to early detection and control of the invasion of the species into new countries and new areas. It would be preferred that this method be passive, such as a trap, which can be deployed and allowed to catch lionfish with minimal input from diving or human interaction.

## **Component 4: Development of a Lionfish Management Plan**

The development of the Management Plan for Lionfish in Jamaica will be done using information from other regional countries, some of which have already developed Management Plans for this invasive species. Additionally, results from the research done during this project will also feature heavily in the plan. Stakeholder involvement in the content of the management plan will be a distinct feature.

## **Public Awareness**

In addition to the four components, there will be a public education component which seeks to improve the knowledge base of Jamaicans on invasive alien species in general. Emphasis will be placed on the impact of IAS on the economy as well as the country's natural resources. Public Awareness specific to the Lionfish will educate the nation on the impact of the species on our marine ecosystem and how humans can aid in the control of the species population through consumption.

Training also features heavily for impacted stakeholders and will include:

- Training in population monitoring, inclusive of safe methods of capture and removal and collection and submission of data using Lionfish datasheets
- Training in safe handling and preparation for consumption
- Training in Management of the Species.