

## Suckermouth Catfish

A tropical fish belonging to the armoured catfish family, it erodes riverbanks, has no known predator in local rivers and competes with domestic species for food and space.

### Effects:

- Erosion of river banks thus changing the physical environment
- Has no known predator in local rivers and streams and is difficult to eliminate due to its armoured scales
- Competes with domestic species for food and space

## The Black River Lower Morass Pilot Project:

- The Black River Lower Morass represents an important Pilot Project site for the intervention of the Mitigating the Threat of Invasive Alien Species in the Insular Caribbean (MTIASIC) Project in Jamaica.
- The MTIASIC Project has targeted 2 Invasive Alien Species (IAS) now posing a danger to the preservation of this sensitive area.
- The MTIASIC Project continues to identify and track the spread of these fresh water plant and animal IAS and to devise ways of controlling their spread by traps and other eco-friendly methods.
- Public awareness activities undertaken by the Project through mass media advertising and promotion, outreach activities and the distribution of relevant informational materials will help the public to identify these species, the damage they represent, and help in their control.

## How I can help control the spread of Invasive Alien Species (IAS)?

- Pay attention to media advisories, attend meetings and read materials on the presence of IAS in your area
- Know what an IAS looks like
- Learn about the damage they do and how they affect you and the local economy
- Refrain from helping to spread these IAS by taking them from one area to the next
- Tell your neighbour and community members about the IAS in your area



### Vision

Jamaica's natural resources are being used in a sustainable way and there is broad understanding of environment, planning and development issues, with extensive participation amongst citizens and a high level of compliance with relevant legislation.

### Mission

To promote sustainable development by ensuring protection of the environment and orderly development in Jamaica through highly motivated staff performing at the highest standard.

For information on the MTIASIC Project in Jamaica and Invasive Alien Species, contact:

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# Invasive Alien Species

## in the Black River Lower Morass, St. Elizabeth



Water Hyacinth



Red-claw Crayfish



Wild Ginger

## Biodiversity within the Black River Lower Morass – Its importance as a Ramsar site

The Black River Lower Morass in St. Elizabeth, Jamaica is home to the largest recognized freshwater wetland in the English-speaking Caribbean. It represents an area of sensitive forest diversity, hosting a variety of plant and animal species, many of which are indigenous.

This area also consists of important forests which are critical to the preservation of this wetland. Several freshwater species such as local shrimp and fish provide a livelihood for citizens through trade thus contributing to the social and economic life of the parish.

This RAMSAR site, and the resources it provides is being threatened by several Invasive Alien Species (IAS)

## What are Invasive Alien Species and how did they get here?

Invasive Alien Species (IAS) are plants, animals, or microorganisms which are introduced deliberately or unintentionally into areas where they do not occur naturally, and whose introduction and/or spread threatens biological diversity.

### How they enter the Island

Humans are primarily responsible for the introduction of these species, intentionally or unintentionally.

### Intentional Introductions

- Smuggling
- Species used for biological control
- Trade for agriculture, horticulture and pet trades.

### Unintentional Introductions

- Transportation of species within a country during natural activities such as flooding, hurricanes and sea currents
- Events and transportation between countries via trains, airplanes, ships, and packaging materials.

Invasive Alien Species (IAS) is a major threat to the vulnerable marine, freshwater and terrestrial biodiversity of Caribbean Islands and to the people depending on this biodiversity for their livelihoods.



Common IAS in the Black River Lower Morass - Plant life

### The Paperbark Tree (*Melaleuca quinquenervia*)

Commonly known as the Paperbark Tree it is an aggressive and highly invasive plant.

This invasive is native to Australia and its infestation results in the degradation of the eco-system. It actively competes with other plant species for water which affects the eco-balance of the wetlands.

The plant reproduces by storing millions of seed pods which it sheds at the slightest threat thus ensuring its survival – at the expense of local species.

#### Effects:

- Reduces native species diversity and results in the degradation of the ecosystem.

Project activities include identifying the number of Paper Bark trees and testing of effective methods to control their spread.

### Wild Ginger (*Alpinia allughas*)

A native of South East Asia, the Wild Ginger has been steadily spreading throughout the region and surrounding areas, replacing and disturbing the eco-balance which characterizes the Black River Lower Morass.

Its spread has been enhanced by its use as a decorative plant and for landscaping by individuals who are unaware of its ability to spread rapidly.

#### Effects:

- Forms large thickets which spread quickly and smothers other plants.
- It out competes native species and is taking over large areas of the Black River Morass.

The MTIASIC Project is presently investigating effective methods of controlling and destroying the Wild Ginger where it threatens other species. The Project's Public awareness programme informs persons of the dangers of transporting and planting the Wild Ginger.



### Water Hyacinth (*Eichhornia crassipes*)

Is a tropical/sub-tropical water plant found in rivers, streams and lakes. It grows faster than any tested plant and can double its population in as little as 6 days.

#### Effects:

- Clogs waterways – streams and rivers, hampers mechanical and non-mechanical means of water transport
- Lessens the diffusion of sunlight and reduces oxygen supply in the water thus affecting plant and animal life growth
- Blocks fish and other animals from access to food plants, shelter and nesting areas
- Displaces/pushes away and crushes native plant life thus changing water eco-system



### Freshwater animal species

### RED-CLAW CRAYFISH (*Cherax quadricarinatus*)

The Red-claw Crayfish is a species of freshwater cray fish native to Australia. This invasive is much larger than native crayfish species. It has spread to countries such as Jamaica through global trade and travel.

#### Effects:

- Attacks and kills local shrimp and has no known predator
- Competes for food and space with other species
- Physically changes the eco-system by affecting the structure of river banks
- Reduces the stock of local shrimp which is considered a delicacy

