Volume 1, Issue 3 June 2008

Aliens of Xamayca

a newsletter on non-indigenous species in Jamaica

INSIDE THIS ISSUE:

The Law and Alien Species	1
Breadfruit - A Familiar Alien	1-2
Mock Orange and Wild Ginger Control in the Blue and John Crow Mountain National Park	2
Invasive Alert New Species: Lionfish	3
Children's Corner	4

The Law and Alien Species

The Animals (Diseases and Importation) Act

The Veterinary Services Division of the Ministry of Agriculture (MOA) is empowered under the Animals (Diseases and Importation) Act of 1948. The Division has the responsibility of overseeing the welfare, health and status of animals throughout Jamaica. It is also involved in the certification of the health of animals, the import/export inspection of live animals, meats and meat products and offers artificial insemination services for cattle, pigs and goats.

Under the Act, the importation of birds, reptiles or insects is prohibited without a licence granted by the Director of Veterinary Services Division. Persons who import these animals into the island without a licence are guilty of an offence and the animals may be seized and on conviction forfeited.

For the purposes of preventing the introduction or spread of any disease into the island, regulations have been drafted to prohibit, restrict, control or regulate the importation of animals, poultry, carcasses, fodder, litter or dung. The regulations make provisions for animals, poultry, carcasses, fodder, litter or dung in terms of:

- the port of landing;
- movement; and
- examination, destruction, cleansing, disposal, seizure and detention.

A licence may be granted by the Director for the importation of any bird, reptile or insect into the island for the purposes of an exhibition, performance or circus. Persons interested in making such an application should submit it to the Director of the Veterinary Services Division.

Quarantine depots, may also be established under the Act for the purposes of holding all animals, birds, reptiles or insects for which a licence has been granted for importation into the island.

For further information on the Veterinary Services Division, visit the Ministry of Agriculture's website at **www.moa.gov.jm**.

Contributor: Shakira Azan, NEPA

Breadfruit - A Familiar Alien

The first attempt to introduce the Breadfruit (*Artocarpus altilis*) in Jamaica was done at a time when many slaves were dying from starvation. Their fields were destroyed by five hurricanes between the years 1780 and 1786 as well as long periods of drought.

The planters of the West Indies had heard of a wonderful tree growing in the Pacific Islands which could produce "bread" all year round. Curious to find this strange plant, several attempts were made which proved futile. A final attempt was made by sending an English sea captain, William Bligh.

At first, this was not an easy task; however, the Captain persisted. In 1973, he successfully brought the first breadfruit plants to Jamaica and St. Vincent.

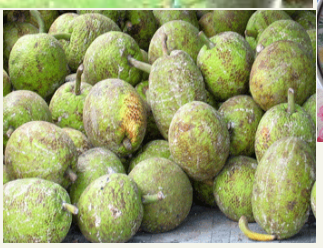
Cont'd Pg 2

Breadfruit-a familiar alien contd.

Upon reaching Jamaica, Captain Bligh stopped at Port Royal where he was greeted by many slaves. He then sailed to Port Morant, St. Thomas with his precious cargo where some of the trees were unloaded and the first ones planted at the Bath Botanical Garden. Several plants were soon distributed to the other parishes.

Although the Breadfruit immediately flourished on the rich Jamaican soil, growing as tall as 21 metres, it was many years later before it was eaten. Today, Breadfruit is prepared in many different ways. It can be roasted, boiled or even fried. Despite the varying ways in which it can be eaten, Breadfruit is and will always be one of the favourite starches of Jamaicans.

Extracted from "A Fi Wi Heritage-Find it, Read it, Learn it", a publication produced by the Jamaica Information Service (JIS)



Photos © www.tastyisland.worldpress.com; www.eatjamaican.com; www.trinigourmet.com

Mock orange and wild ginger control in the Blue and John Crow Mountain National Park

Habitat degradation and destruction have been identified as one of the main contributing factors to the threatened status of species in the Blue and John Crow Mountains National Park. Two of the most threatening invasive alien species are Wild Ginger (*Hedychium* spp.) and Mock Orange (*Pittosporum undulatum).*

Mount Horeb

Mount Horeb, has been identified as a priority site for rehabilitation. This area contains areas of upper montane rainforest over shale and is still in relatively good condition. However, there are areas where the under-storey is heavily overgrown with Wild Ginger.

To date, 1.42 hectares (3.5 acres) of Wild Ginger have been removed from the area through the employment of manual labour from the community workforce and the help of volunteers from different groups and organizations. Initial funding was received from the Luis Kennedy Foundation (March 2006 – April 2007) and has continued with current funding from the United States Agency for International Development (USAID) Protected Areas and Rural Enterprise (PARE).

Blue Mountain Peak Trail

There is a strong linear correlation between the dominance of Mock Orange and the density and diversity of native seedlings. This strongly suggests that Mock Orange is causing or at least contributing to a decline in the native seedling layer.

Control work has been carried out through the Rufford Small Grants for Nature Conservation along the Blue Mountain Peak Trail. Plots of 20m x 25m were established and a control treatment, using "Round-up", was conducted in a total of 5 hectares (12.36 acres). The treatment produced 80% mortality within a year and any trees showing signs of springing back were given a booster treatment a few weeks later. There is continued treatment of new areas along the Mountain Peak Trail with funding through USAID PARE and the Forest Conservation Fund.

Over 270 native forest tree seedlings have been replanted in the area with a 95% survival rate to fill the open spaces created by the destroyed Mock Orange trees.

Contributor: Marlon Beale, JCDT
Photos © JCDT

Injection of treatment in tree

Replanting of native species

Wild Ginger removed and native species regenerating

Invasive alert-new species found: lionfish

The term Lionfish refers to any of several species of venomous marine fish in the genera *Pterois*, *Parapterois*, *Brachypterois*, *Ebosia*, or *Dendrochirus*, of the family Scorpaenidae.

The Lionfish, also known as the Turkey Fish, Dragon Fish or Scorpion Fish are native to the reefs and rocky crevices of the Indo-Pacific, although they have found their way to warm ocean habitats worldwide. They are noted for their extremely long and separated spines, a generally striped appearance, with colours of red, brown, orange, yellow, black, maroon or white.

Lionfish can grow to approximately 0.4 metres (15 inches) in length but on average, is closer to 0.3 metres (1 foot). Some species become sexually mature when they are 18 - 19cm in total length. Other species settle out of the water column after 25 - 40 days at a length of approximately 10 - 12mm. The average life span in the wild is up to 15 years.

The Lionfish produces a pelagic (living or on oceanic waters) egg mass following courtship and mating. The larvae is planktonic which allows for a wide geographical distribution.

The venom of the Lionfish, its means of defence, is delivered via an array of up to 18 needle-like dorsal fins. It relies on camouflage and lightning-fast reflexes to capture prey, mainly fish, crab and shrimp. A lionfish will often spread its feathery pectoral fins and herd small fish into a confined space where it can more easily swallow them.

A sting from a lionfish is extremely painful to humans and can cause nausea and breathing difficulties, but is rarely fatal. Immediate treatment involves the application of heat to the wound until the pain subsides. The venom contains heat labile proteins, which are denatured by heat, thereby preventing the venom from spreading in the bloodstream and decreasing the severity of their effects. An anti-venom is available in some countries.

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. While there is no evidence on the effects of the Lionfish, its feeding habits and lack of predators suggests that it could be a potentially significant threat to biodiversity and the ecosystem in general. It also poses a threat to humans in general but more specifically, to divers, swimmers and tourists who are unaware that it is venomous.

In 2008, reports have been received on sightings of the Lionfish in Jamaica, St. Thomas, Portland, St. Ann and Westmoreland. The presence of the Lionfish was recently confirmed in St. Ann. A specimen was collected and is housed at the Institute of Jamaica.

Persons who see the Lionfish in Jamaica's coastal waters are asked to make a report to the National Environment and Planning Agency (NEPA) @ 754-7540 or toll free @ 1-888-991-5005 or by email to pubed@nepa.gov.jm.

Extracted from www.nationalgeographic.com; www.reefkeeping.com; wikipedia.org, www.invasivespeciesinfo.org, Global Invasive Species Database (www.issg.org) and Florida Museum of Natural History (www.flmnf.ufl.edu/fish/Gallery/Descript/Red Lionfish/RLionfish.html

Photos © http://www.nationalgeographic.com; Photo © http://Wikipedia.org; Photo © Chris Smallridge; Frank Marini; H. Uchimaya; Jeff Rosenfeld

Volitans Lionfish (***Pterois volitans***)

Antennata Lion (***Pterois attenata***)

Dwarf Lionfish (***Dendrochrius barberi***)

Devil Lionfish (***Pterois mombasae***)

Dwarf Fuzzy Lionfish (***Dendrochrius brachypterus***)

Radiated Lion (***Pterois radiata***)

Japanese Lionfish (***Neosebastes entaxis***)

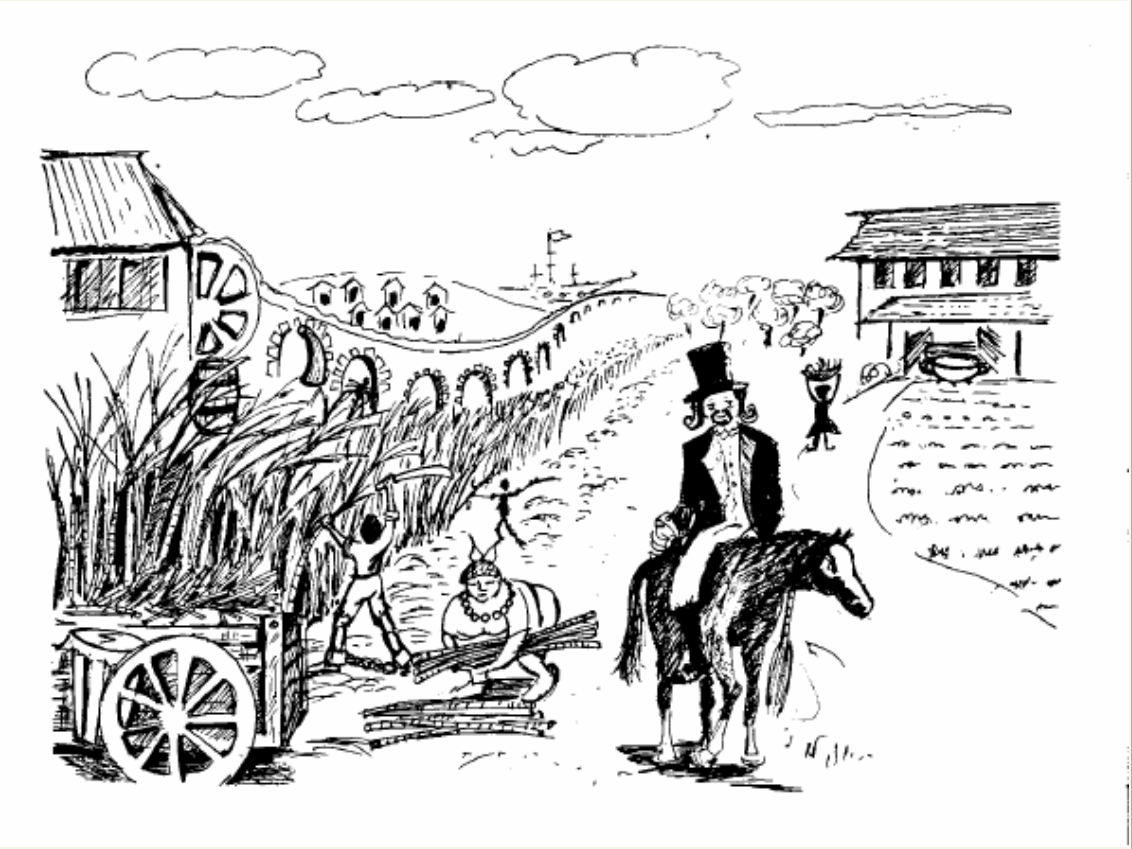
Ambon Lionfish (***Pteroichthys amboinensis***)

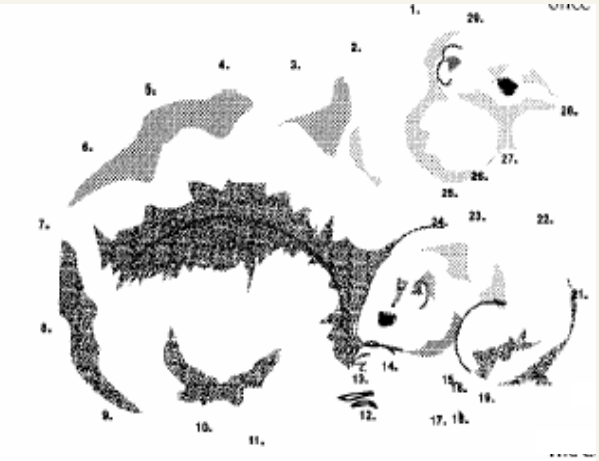
CHILDRENS' CORNER

The activities in this issue of the Children's Corner were adapted from "A Fi Wi Heritage-Find it, Read it, Learn it" and "Freedom Story 1494-1962", publications by the Jamaica Information Service (JIS)

The opposite picture is of a slave plantation. There are 10 items hidden in this picture. Try to find the items listed below:

- The Abeng
- Drum
- Hoghead (Barrel)
- Cat-O-Nine (Whip)
- Ship
- Wig
- Anancy
- Dutch Pot
- Bead Necklace
- Shackles





The Coney, otherwise known as the Jamaican Hutia, is the only existing ground-dwelling endemic Jamaican mammal. A mammal is an animal which carries its babies inside its body until birth. The Coney resembles a brown rat and was once plentiful in Jamaica serving as a favourite food for the Arawak Indians (Tainos).

Conies can be found in the eastern part of the island, in the parishes of Portland and St. Thomas, as well as Red Hills in St. Andrew and the Hellshire Hills in St. Catherine. It lives underground in areas of broken rocks and comes out at nights to feed on plants, shoots, fruits and bark. As a result, only a few Jamaicans have ever seen a Coney in the wild. They are also highly sociable creatures and live in family groups and love to be close to each other.

The Coney is now an endangered species, which means that there are only a few animals alive in the wild and are threatened by the mongoose. In addition, some of the places where the Coney once lived have been cleared for cultivation and the building of our towns and cities.

Persons who see or have seen the Coney are asked to make a report to the National Environment and Planning Agency (NEPA) @ 754-7540 or toll free @ 1-888-991-5005 or by email to pubed@nepa.gov.jm.

The Aliens of Xamayca is a quarterly newsletter that features non-native species in Jamaica.
Persons interested in writing articles for the newsletter may submit them to the editor at sazan@nepa.gov.jm.