

# Aliens of Kamayca

A newsletter on non-indigenous species in Jamaica

## ALIENS IN JAMAICA

Globally, Invasive Alien Species (IAS) are considered the second greatest threat to biodiversity second only to habitat loss and fragmentation. They are considered one of the causes of animal extinctions and is also documented to adversely affect the ecosystem services we depend upon. They not only affect biodiversity but also health, food security, tourism and trade. This has been recorded that approximately 50%-67% of terrestrial species became extinct. This has resulted of IAS resulting in Island ecosystems becoming the most vulnerable to the impacts of IAS.

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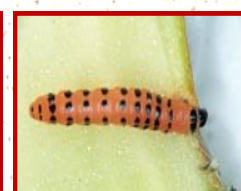
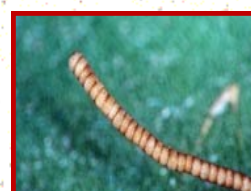
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### *Cactoblastis cactorum* (Cactus Moth)

The Cactus Moth (*Cactoblastis cactorum*) is native to South American countries such as Argentina, Paraguay, Uruguay and the southern parts of Brazil. Adult moths have brownish-grey forewings with two wavy transverse stripes. The wings are whiter towards the margin and the hind wings are pale-grey with a dark line along the margin. They live for about 9 days and female moths are usually larger than the males.



Adult Moth ©Dale Habeck



Egg stick, larvae, cocoon and pupa of the Cactus Moth  
©Susan Ellis ([Invasive.org](http://Invasive.org))

Individual eggs are cylindrical and flattened varying in colour from cream to brown to black. The eggs are mainly laid on the succulent parts of host plants and are also stacked coin-like to form a chain or small stick. The egg stick can contain about 70 to 105 eggs.

The larvae of the Cactus Moth varies in colour from greenish-grey to rich salmon and orange to red with blackish spots that form transverse bands. The mature larvae spin a silky white cocoon to pupate. This is done under debris, e.g. leaf litter, near or on the host plant and are covered with soil or plant matter making them undetectable.

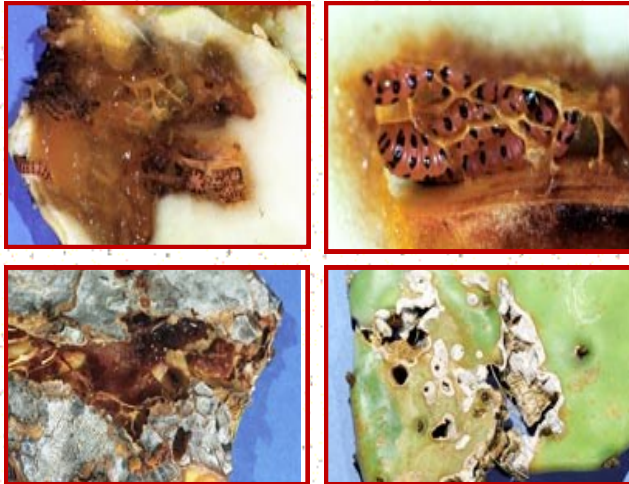
There are slightly more males than females in a population. This can be attributed to the amount or quality of available food present and its suitability. The Cactus Moth feed mainly on species of the plant family Cactaceae, i.e. Cacti (pl.), Cactus (sing). The larvae is the primary feeding stage which eats as a colony and tunnels into the Cactus leaf pad devouring the interior. Once the con-

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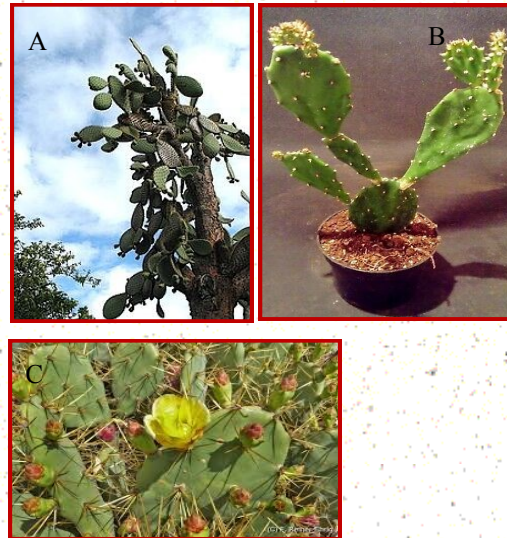
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tents of the leaf pad are eaten, the larvae either moves to an adjacent pad or as a colony, crawls over the plant surface to other pads on the Cactus.

The larvae impact the host plant by excavating and destroying the non-woody parts of the plant. The resulting damage allows for secondary infections by microbial pathogens which can cause the death of the entire plant.



Larvae and associated damage to Cactus leaf pad. ©Susan Ellis.



*Opuntia tuna* (A), *O. jamaicensis* (B) and on *O. dillenii* (C)

The smaller Cacti in the Caribbean such as *Opuntia* spp. are highly vulnerable to attacks by the Cactus Moth. Its presence in Jamaica was confirmed in 2005, where it was found on the endemics, *O. tuna* and *O. jamaicensis* and on *O. dillenii* and may be the source of the decline of *Opuntia* spp. in the island. The pathway of introduction for the Cactus Moth into Jamaica is still unknown.

Extracted from "The Consequences of Introducing the Cactus Moth to the Caribbean and Beyond" by H. Zimmermann and M. Sandi Cuen and "The Status of the Cactus Moth in the Caribbean and the likelihood of its Spread to Mexico" by Helmuth Zimmermann, Mayra Pérez Sandi y Cuen and Arturo Bello Rivera

## TRACHEMYS SCRIPTA ELEGANS (THE RED-EARED SLIDER TURTLE)



*Trachemys scripta Elegans* is the most common turtle in the pet trade and as such, can be found in various parts of the world. It is semi-aquatic and native to the southern United States of America (USA). The Slider Turtle naturally resides in calm, fresh, warm water such as ponds, lakes, streams, marshes and creeks and likes to bask in full sunlight on large flat rocks or logs. Female turtles are generally larger than the males and leave the water to bask in the sun and lay eggs.

Reproduction occurs under-water during the months of May to July. A female may lay between 2 - 30 eggs with larger females having bigger clutches. The eggs hatch 60 - 90 days after being laid.

In the wild, the Slider Turtle hibernates during winter underwater but not while in captivity, as the water temperature can be kept high enough. Generally, they come out to eat after hibernation in early March to late April. The Slider Turtle eats plant and animal material such as tadpoles, crickets, worms, fish, crayfish, snails and aquatic plants and insects.

Slider Turtle pets that survive 1 to 2 years in captivity can live for many years. One pet is known to have lived for 35 years!



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It is **strongly** recommended that pet Slider Turtles are not released into the wild as they may transport diseases and organisms to the wild population.

In addition, there is a potential public health risk from turtle-related salmonellosis. Pet turtles may also have a limited immune system to survive being in the wild. Slider Turtles are hardy and can compete with and replace native turtle species in the same habitat. Some states in the USA, e.g. Florida and Australia have banned the possession of and rearing of this species of turtle, due to its impact on native turtle populations.

Extracted from 'Red-eared Slider Turtle' ([http://en.wikipedia.org/wiki/Red-eared\\_Slider](http://en.wikipedia.org/wiki/Red-eared_Slider))

## *CASUARINA EQUISETIFOLIA* (WILLOW)



*Casuarina equisetifolia* otherwise known as Willow, Whistling Pine or Australian Pine is native to Malaysia, Southern Asia and the Oceania (islands of the Pacific between Asia and the Americas including Australia).

Its leaves are reduced to tiny scales which surround small branches and resemble pine-needles. The branches are grayish-green, jointed, thin, minutely ridged and hairy in furrows. The flowers are small and brown while the fruit, a samara (wind and water dispersed), is formed in woody cone-like clusters.

The tree grows up to 30m or more in height and can be found on sandy and shell beaches, rocky coasts and sand dunes. It is known to frequently colonize disturbed areas such as vacant lots, wetlands and cleared lands.

The Willow is fast growing and produces dense shade as well as a blanket of leaves and fruits beneath it that can prevent other plants from growing. In addition, it displaces and out-competes native dune and beach vegetation that can lead to the destruction of habitats for insects and other wildlife.

The tree is prone to topple-over during high wind events due to its thick and shallow root system. This results in beach and dune erosions as well as hindering sea turtle nesting activities.

Documented uses of the Willow tree include dyes; remedy for diarrhea, dysentery and a gargle for sore throat; beams, boat building, electric poles, fences, oars, furniture, landscaping, gates, timber, erosion control, fuel, coastal reclamation and windbreaks to name a few.

Extracted from Florida Department of Environmental Protection 'Weed Alert - Australian Pine' Fact Sheet and The Global Invasive Species Database ([www.issg.org](http://www.issg.org))

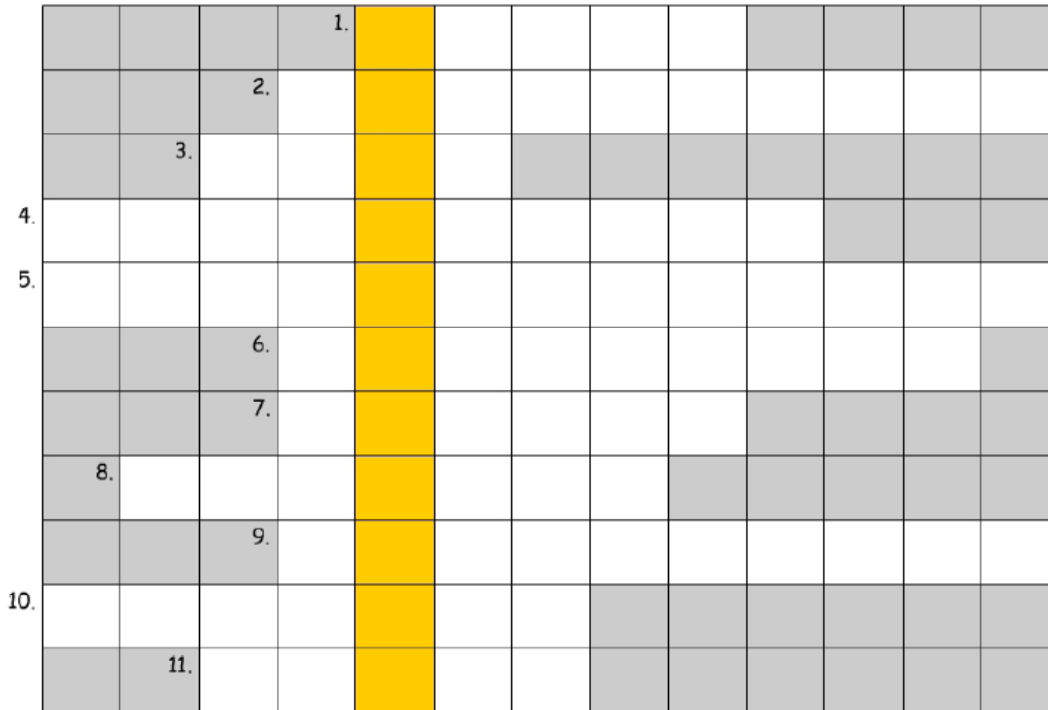
Editor: Samantha Grant-Robinson

# Children's Corner

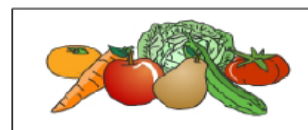
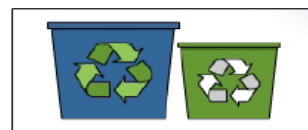
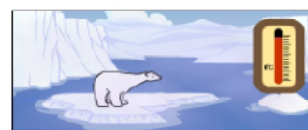
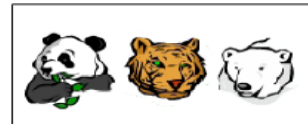
## CROSSWORD

### Can you complete the environment crossword?

Read the clues and unjumble the words!



1. We live on planet **hErat**.
2. The panda, tiger and polar bear are **dangerneed** species.
3. We must **asev** these animals from extinction.
4. Farmers use **icidepests** to kill insects.
5. Cutting down trees in forests is called **stationforede**.
6. Factory smoke, chemical waste, cars and rubbish cause **llopution**.
7. Wind turbines and solar panels are alternative forms of **genery**.
8. Global **ingmraw** is making the world hotter.
9. Please put plastic, metal and paper in **eringcycl** bins.
10. Foods produced naturally are called **cinagro** foods.
11. We cannot live without fresh, clean, drinking **artwe**.



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 [samantha.grant@nepa.gov.jm](mailto:samantha.grant@nepa.gov.jm).