



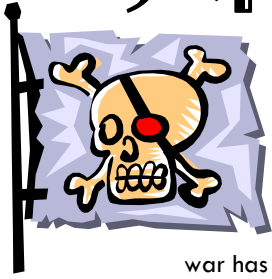
# Marine Education Poster Contest 2009

Sponsored by Blue Lagoon Island & Marine Vendors from Nassau

Dolphin Encounters - Project BEACH

www.DolphinEncounters.com

## The Pirates of the Caribbean: Invasive Species in The Bahamas



There is a silent war going on in The Bahamas, one that leaves countless animals and plant dead and others homeless. This war has been waging for decades and now new invaders are joining the fight to take over our beautiful Bahamaland, looking to steal precious land, water and resources from us.

These fearsome pirate-like invaders -- called **Invasive Species** -- quickly establish themselves as the dominant species and can destroy our native ecosystems, human health, and ultimately all native life within The Bahamas. If we are not pro-active, these environmental buccaneers could steal more than just a few acres of land or sea!



Contest Deadline:  
March 31<sup>st</sup>, 2009

### The First Culprit: The Casuarina Tree

The first of the Fearsome Four is the **Casuarina tree**. Thought by many to be native to The Bahamas, it was imported into this country in the 1920s to be used as a hedge tree. Casuarinas are extremely dangerous because they release toxins into the soil which stop any other tree species from growing next to them. As they spread, native plants and trees are lost and animals and birds that normally depend on native plants and trees for food and shelter will be in trouble!

Casuarinas are also bad for our environment. Because they have very shallow root systems, Casuarinas are the first trees to topple in hurricane force winds, causing serious damage to power lines, homes and roads. In coastal areas, the shallow roots of these trees fail to trap the sand on the beach, increasing beach erosion and habitat loss.

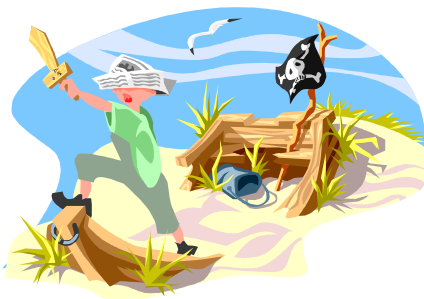
One only needs to visit Saunders Beach in New

Providence to see how the Casuarina that line it have eroded this beautiful beach. How can this land pirate be stopped? If this beach were planted with native coastal species such as Seagrape, Cocoplum and Sea Oats, the beach would be stabilized and sand would not be constantly blown into the road.



Casuarina Tree

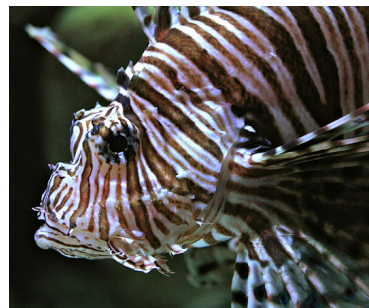
Beach erosion under a Casuarina tree



Like pirates, invasive species can strip the land and sea of their native treasures, leading to habitat destruction!

### The Second Brigand: The Poisonous Lionfish

The next sneaky brigand to invade our country is the Lionfish. This marine newcomer established itself quickly and is now so dominant that it threatens our most productive marine ecosystems. Wearing a clever disguise of elegant camouflaged fins, this animal pretends to be beautiful and



The Poisonous Lionfish!

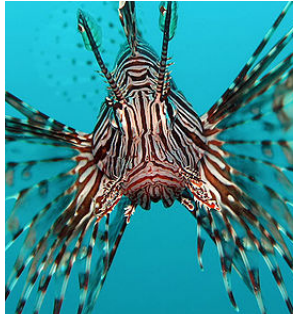
non-threatening while taking over reefs, shorelines and even blue hole environments, killing and eating any animal that can fit into its mouth. The Lionfish was first introduced to the Atlantic in 1992, a likely result of the aquarium trade, and are presently spreading quickly throughout The Bahamas. (continued...)





## The Fishy Brigand: Lionfish Continued...

The Lionfish's venomous dorsal and pelvic spines are fatal to potential predators and hazardous to divers, snorkelers, fishermen and beachgoers. Evidence found in their stomach contents has revealed that Lionfish are feeding on small fish and crustaceans, including baby lobster, crabs and snapper.



**With no natural predators, lionfish are spreading rapidly in the Bahamas.**

By consuming many of the young animals of the local food chain before they have a chance to mature

AND by competing with the Nassau Grouper, the Lionfish packs a double punch on destroying the delicate balance within our reef community.

Without any natural predators or any system of control, the lionfish are now so numerous on reefs and wrecks surrounding The Bahamas that there is a serious danger of them becoming the most dominant fish in The Bahamas!

## The Bush Thief... The White Inkberry

The next thief is called the Scaevola plant, also known as the **Hawaiian Seagrape or White Inkberry**. With its lush green leaves and quick growth rate, this invader is a very popular landscaping plant.



**Dense bushes of inkberry force out native plants that protect our beaches.**

As it rapidly spreads, the Hawaiian Seagrape creates thickets along our coastlines, out-competing and killing our native plants such as Sea Oats,

Sea Lavender, Blue Inkberry, Mangroves and numerous other plants in our country.

Without these native plants to stabilize the beach and prevent erosion, there is no telling the effect it may have on our native Bahamian wildlife such as birds, crabs, lizards or our fish nurseries. If not removed, the Hawaiian Seagrape may take over our mangroves and wetlands.

## The Berry Bandit... The Brazilian Pepper

Criminal number four is the **Brazilian Pepper**, which is a medium-sized evergreen shrub-like tree native to Brazil and Paraguay. This tree grows rapidly, reaching heights of 15 to 30 feet!

Typically, Brazilian pepper form dense forests that keep out all other plant life by producing a dense closed network of trees. These forests are considered to be a poor habitat for native wildlife species and may negatively impact bird populations.

As a relative to poisonwood, poison oak, and poison ivy, this shrub-like tree

produces dense clusters of small berries, reported to produce a narcotic or toxic effect on native birds and wildlife during certain parts of the year.

Because of its relationship to poison ivy, many who come in contact with its sap develop allergic skin reactions.



**Brazilian pepper forests make poor homes for native wildlife.**

*What can you do to stop these sneaky species?*



**Prevention** is the best cause of action! By becoming aware of what the species look like and how they spread, we can make better choices in the types of plants to grow and spread in our yards.

The government of The Bahamas has asked all Bahamians to **plant and register native trees** on their property as a part of the goal of planting one million trees locally before the end of 2009. Growing fruits and vegetables in our gardens and asking our local nurseries for only native plants is a great start.

Another step is to **eradicate** any and all invasives whenever possible. When we **uproot and destroy** these thieves we can limit their how fast they continue to spread and hopefully save some native organisms.

When it comes to the lionfish, this animal can and should be **netted or speared** whenever seen in the water. Once the dorsal and pelvic spines are removed they are quite edible and yummy! By encouraging Bahamians to learn how to prepare this fish, we can start to decrease their numbers in our oceans.

The Bahamas is a beautiful country and if invasive species spread and destroy our environments, soon everything that is unique and special about The Bahamas may be lost. These invasives are destructive to native ecosystems, human health, and ultimately all life within The Bahamas and must be found, removed and destroyed by all reasonable means.

That is your job...tell your family and friends and spread the word: let's save our native plants and animals and let's save our country!

For more information on invasive species, check out these websites:

[www.BNT.bs](http://www.BNT.bs)  
[www.Breef.org](http://www.Breef.org)  
[www.nature.org/wherewework/  
caribbean/bahamas/](http://www.nature.org/wherewework/caribbean/bahamas/)