



**THE
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Jamaica’s Wildlife: A Treasure Trove of Biodiversity

Look around you! Every plant, animal and their habitats form part of biodiversity. Biodiversity supports vital environmental services such as providing oxygen through our precious forests, providing food through agriculture, removing pollutants, protecting soil from erosion, protecting the earth from natural disasters, ensuring soil fertility, providing nurseries in wetlands for fish and other marine animals, purifying water, supporting tourism, among other things.

Jamaica is arguably one of the world’s biodiversity hot spots. Globally, Jamaica ranks fifth among Caribbean islands for the number of endemic plants, i.e. they are found nowhere else in the world. Jamaica has over 3000 plant species of which 28% are endemic and we boast one of the highest number of endemic birds and plants of any Caribbean Island. Additionally, our high number of endemic plants has led to some unique floral compositions in the forests of the Blue and John Crow Mountains and the Cockpit Country. In terms of animals, Jamaica has a high level of endemism for grapsid crabs, amphibians, reptiles, butterflies, land birds, fireflies and snails.

While all of Jamaica’s plants and animals are important, special legislative protection has been given to certain native and endemic species to ensure their continued survival. Under the Wild Life Protection Act it is illegal to possess or harm the Jamaican Iguana, American Crocodile, Jamaican Boa (yellow snake), Jamaican Hutia (coney), Giant Swallowtail Butterfly, Black-billed and Yellow-billed parrots and West Indian Manatees among other fauna.

There are closed seasons for Queen Conch (September – February) and Lobster (April - June), which allow these species time to reproduce unencumbered by human activity. Jamaica also has a permit system that governs the removal and export of its endemic plants, particularly orchids.

It will however take more than laws and penalties to protect Jamaica’s wildlife. Each of us can help to ensure the survival of our flora and fauna. Play your part by planting a native tree, disposing of solid waste in a responsible manner and reporting instances in which protected animals are being abused or captured.



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Tracking device helps scientists figure out the migratory pattern of Caribbean birds.

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Research Project develops method to control Invasive Alien Species in the World renowned Black River Lower Morass.

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Discovering the Secret Lives of Birds

by Deleen Powell

Few things are more fascinating to behold than a bird in flight.

Jamaican nature enthusiasts dedicate several hours to watching these magnificent feathered creatures who are often just as showy as they are mysterious.

While many can boast that they have intimate knowledge of the feeding and nesting habits of birds there are many who are yet to answer the age old question: where exactly do birds go when they leave our shores?

It's specific answers to this question, which scientists at the National Environment and Planning Agency have set out to uncover, with the assistance of the US based Avian Research and Conservation Institute.

The team has outfitted several White-crowned Pigeons (otherwise called the Baldpate) with tracking devices. With this

technology the team will be able to discover the birds' migration patterns.

According to Coordinator for Fauna in the Ecosystems Management Branch, Ricardo

Miller, many bird lovers in Jamaica and the United States are anticipating the results of this exciting research project.

He adds that many suspect that the birds travel as far away as Cuba; however, the team is awaiting the results to confirm or debunk this claim.

"I think it is very plausible that they do migrate, but we don't know in what quantity or what time of year. We know nothing about it. Some people swear blind that some of the Baldpates speak Spanish," said Miller.



Several Bald Pates were outfitted with tracking devices earlier this year to help scientists gain insight into their migratory patterns

DID YOU KNOW?

The **Bald Pate** is one of four birds hunted during Jamaica's **Annual Game Bird Hunting Season**. The other three species are the **Zenaida Dove**, **White-winged Dove** and the **Mourning Dove**.

WANT MORE INFO ON THESE AND OTHER ENDEMIC BIRDS?

Contact us at 1(876) 754-7540 or pubed@nepa.gov.jm

Breakthrough Saving Black River's Treasures

by Patrice Gilpin



There has been a major breakthrough in efforts to save the biological integrity of one of the island's most renowned wetlands – the Black River Lower Morass, the largest fresh water wetland in the English speaking Caribbean.

Designated as a Ramsar site in 1997, it is an internationally recognized wetland and for good reason. It provides fish and shrimp, and is home to the American Crocodile. The Morass removes nutrients from the water, recharges aquifers, and acts as a sponge when it rains. It spans 5,700 hectares, also stores carbon and so helps in the fight against climate change. Now, through a recently concluded project, *Mitigating the Threats of Invasive Alien*

Species in the Insular Caribbean (MTIASIC), the National Environment and Planning Agency has learned how to manage the spread of an invasive plant in the wetland - the Paperbark Tree. The Paperbark Tree, or *Melaleuca quinquenervia* is originally from Australia but was introduced to the island for ornamental purposes. Dr. Kurt McLaren, Senior Lecturer in the Department of Life Sciences at the University of the West Indies, Mona and lead researcher said the plant has displaced and reduced the variety of native plants in the Lower Morass.



Black River's Treasures permanent display at the South Coast Safari

"It is hard to contain because it disperses millions of seeds once it "senses" that there is an attempt to kill it. The plant also utilizes a large quantity of water to grow and so it could dry out the Morass if left to flourish," said Dr. McLaren.

Through careful research though, he said, progress has been made on how to prevent its spread. "We've found success in using 2 herbicides - Roundup and Arsenal. Both have been very effective in killing the tree without it realizing. Therefore, we can eliminate it before it gets out of control," he said.

Nelsa English-Johnson, NEPA's National Coordinator for the MTIASIC project said that a public education strategy was also implemented to complement the scientific breakthrough.

"By working closely with six communities in and around Black River, we executed a road show, held an expo and a sports competition all reinforcing the unique plants and animals found in wetlands," she said.

The Agency, has also erected a permanent exhibition at the South Coast Safari Limited, appropriately titled 'Black River's Treasures.'

DID YOU KNOW?

Ramsar sites are wetlands of international importance, recognised globally due to the **Ramsar Convention**, which is an international treaty for the conservation and wise use of wetlands.

Protecting Jamaica's Wildlife

by Ava Tomlinson and Kay-Ann Miller

The National Environment and Planning Agency (NEPA) administrates several legislation and policies which seek to protect Jamaica's natural resources including wildlife. The legislative Instruments include the Wild Life Protection Act (1945) WLPA, the Natural Resources Conservation Authority Act, (1991) and the Endangered Species (Protection, Conservation and Regulation of Trade) Act, (2000) and their subsidiary legislations (Regulations and Ministerial Orders). Policies such as the Orchid Policy and the Draft Dolphin Conservation Policy are also instruments used to safeguard the island's wildlife.

During the period November 2013 – September 2014, NEPA brought more than 12 cases to court including some which are ongoing in various courts across the island. The most recent of these prosecutions under the Wild Life Protection Act were done on hunters in the parishes of Portland, Clarendon and St. Elizabeth during the 2014 Game Bird Hunting Season. One hunter was charged for hunting without a licence, another for being in possession of and hunting a protected bird, (the Ring-tailed Pigeon) and two hunters in St. Elizabeth for hunting in a game reserve.

Distinct, from the legislation mentioned above, tangible approaches known as protected areas including their related

legislation have been implemented for the protection and conservation of our wildlife. These protected areas include marine and national parks, fish sanctuaries and game and forest reserves. In these conservation areas, special attention is paid to the wildlife within them to ensure their survival.

Under the Wild Life Protection Act (WLPA), anyone found hunting or with a whole or part of any protected animal whether dead or alive can be fined up to \$100,000 and/or face one year imprisonment. Under the Endangered Species Act, anyone caught attempting to illegally export, import or re-export the animal can be fined up to \$2 million and/or two years imprisonment.

The Agency also facilitates the training of members of the Jamaica Constabulary Force (JCF) officers in the various Acts that protect endangered and protected species. Game Wardens are trained as well under the Game Warden programme using the WLPA.

Other activities carried out by the Agency to preserve and conserve our local species are the monitoring and conducting of nesting surveys on sea turtles and the monitoring of coral reefs. The Agency is also looking to increase the fine for breaches of the WLPA

and taking legal action against offending countries.

Our wildlife is very important, conservation and protection with various mechanisms; laws, policies, conservation areas and other activities ensure their continued existence.



The Jamaican Iguana

SCENES FROM ICCD 2014



First things First

Environmental Officer in the Ecosystems Management Branch, Monique Curtis (left) shows volunteers how to use a data card to record the amount and type of garbage collected.



These young ladies show that collecting the garbage is only half the work as they carry their heavily laden bags to the weighing station.



Turning the Tide on Trash

During ICCD 2014, volunteers collected 357 bags of solid waste from the Hellshire Bay shoreline.

FAST FACTS

50%

Half of the 768 volunteers at this year's Beach Cleanup at Hellshire Bay, St. Catherine were under the age of 18.

26%

Of the 4,500 pounds of garbage collected a little over a quarter (1,166 pounds) was plastic bottles.

INTERESTED IN ORGANIZING A CLEANUP?

A beach cleanup is a fun and easy activity for a school, church group or service club to organize.

For tips on planning your own cleanup email pubed@nepa.gov.jm

SOS: Saving our Species from Marine Litter

by Deleen Powell

Worldwide marine litter is a growing cause for concern due to its negative impact on the environment. Every year thousands of marine birds and sea turtles get tangled in or ingest garbage carelessly discarded in the sea.

Countries have united to devise solutions to tackle the trash found in our seas. From legislation to public education, governments have realized that it will take a multifaceted strategy to address this issue.

In Jamaica, one of the major activities hosted with the aim of combating marine litter and protecting the island's marine life is International Coastal Cleanup Day (ICCD).

For the past two decades, NEPA has mobilized volunteers and organized cleanups on ICCD at various beaches island-wide.

This year, 768 volunteers supported NEPA's ICCD activities hosted in Hellshire Bay, St. Catherine.

The exercise, which was hosted in collaboration with the Urban Development Corporation (UDC) saw volunteers collecting almost 4,500 pounds of solid waste including 1,166 pounds of recyclables from the Hellshire Bay coastline, which lies within the Portland Bight Protected Area.

While many of the volunteers hailed from community based service clubs and companies, there was a strong contingent of primary and secondary school students.

Throughout the day, students as young as seven years old could be seen meticulously sifting through, recording and collecting solid waste from the beach with the assistance of their older peers, teachers and parents.

Sean Green, Site Captain for the Hellshire Bay beach clean-up and Coordinator of the Ecosystem Management Branch at NEPA said that the highlight of the day's activities was educating youngsters about the negative impact of marine litter on the environment.

"The children were especially excited about lending a hand to clean up the beach and were very receptive as we spoke to them about how marine litter could negatively affect sea turtles, fish and other marine life."

Mr. Green added that since the main cause of marine litter is improper garbage disposal inland, participants were challenged to be more responsible with their waste disposal practices.

The day's activities had a lasting impact on a sixth grade student at the Holy Rosary Primary School, Ashanti Nelson, who has committed to always use garbage bins to

dispose of her waste and to encourage those around her not to litter.

"We need to unite as a nation and take care of our coastal areas. We need our beaches for recreation, for our marine life and for

tourism, so it's important for us to keep our beaches clean," she said.

Jamaica was one of more than 100 countries that celebrated ICCD, which is coordinated internationally by the Ocean Conservancy.

The Jamaica Environment Trust (JET) is the National Coordinator for ICCD in Jamaica. This year over 130 cleanup sites were registered islandwide.

West Indian Manatee



QUESTIONS OR COMMENTS?

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