

**Summary of  
Jamaica's  
Third National  
Report to the  
Convention on  
Biological  
Diversity**

**2003 - 2004**



# Summary of Jamaica's Third National Report to the Convention on Biological Diversity

2003 - 2004

Prepared by NEPA, January 2010  
under the Assessment of Capacity Building Needs,  
Preparation of the Third National Report (CBD)  
and the Clearing House Mechanism Project,  
funded by the Global Environment Facility  
through the United Nations Development Programme

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## Overview



**Jamaican Tody (*Todus todus*)**  
Photo credit: NEPA

This represents a summary of the key elements in Jamaica's Third National Report to the Convention on Biological Diversity (CBD). The information presented relates to the status as at the end of 2004. It also sets out the context of the report in terms of the International Convention on Biodiversity and the country's National Strategy and Action Plan on Biological Diversity (NBSAP) which was prepared in July 2003.

The NBSAP proposed and outlined 37 project concepts which charted the priority actions for monitoring, managing and using biological resources in a sustainable manner. Of these project concepts, 17 were identified priority projects for implementation over the next five to seven years, and eight were designated highest priority for the next two years. These span the three objectives of the convention.

Each project concept outlines information on specific activities and/or policies required for implementation; partner organisations, institutions or agencies and the sub-components and sub-projects which make them up.

The main Jamaican priorities agreed in relation to the main Articles of the Convention are in the areas of:

1. General measures for conservation and sustainable use
2. *In-situ* conservation
3. Management of alien invasive species
4. Public education and awareness
5. Handling of biotechnology and distribution of its benefits
6. Management of Forest and Marine and Coastal biodiversity

Jamaica's Third National Report to the CBD was prepared by the National Environment and Planning Agency (NEPA) in association with the Office of the Prime Minister. Input on components was obtained from academia, and the relevant ministries associated with land, environment, agriculture, forestry, and fisheries.

The Government of Jamaica (GOJ) acknowledges the technical and financial support of the UNEP/GEF and the CBD Secretariat in the preparation and submission of the Third National Report, as well as initiatives to ensure appropriate public consultation.

## Introduction

Jamaica became a signatory on June 11, 1992, and a party to the CBD on January 6, 1995. The CBD has the following three main objectives:

1. To conserve biological diversity
2. To use biological diversity in a sustainable fashion
3. To share the benefits of biological diversity fairly and equitably

## Species

The island of Jamaica is rich in biodiversity. Terrestrial endemism as rated by the United Nations Environment Programme is high. A number of the plants and animals present are indigenous (originating and living or occurring naturally in an area or environment) while a large number are endemic (found nowhere else in the world). The Appendix shows some of Jamaica's endemic species. The table below shows the species diversity in Jamaica.

Species Diversity in Jamaica		
Fauna and Flora	Total number of Indigenous Species	Number of Endemic Species
Rotifers	211	<21
Land Snails	514	505
Grapsid Crabs	9	9
Jumping Spiders	26	20
Fireflies	48	45
Butterflies	133	20
Ants	59	6
Amphibians	22	22
Reptiles	43	33

Fauna and Flora	Total number of Indigenous Species	Number of Endemic Species
Shore and Sea Birds	39	1
Land Birds	67	30
Bats	21	2
Other Mammals	2	2
Bromeliads	60	22
Orchids	230	60
Ferns	579	67
Cacti	20	10
Palms	10	7
Grasses	~200	1

Source: NBSAP, 2003

There are approximately 130,000 botanical specimens in the Institute of Jamaica's (IOJ) Herbarium (representing over 3,000 higher plant species and 600 fern species) and over 80,000 zoological specimens. In addition there are over 30,000 botanical specimens housed in the University of the West Indies Herbarium.

The IOJ builds on previous publications<sup>1</sup> on Jamaica's flora through ongoing field work



*Phyllanthus* sp.  
Photo credit: Laura Ogle

<sup>1</sup>*"The Flowering Plants of Jamaica"* by C.D. Adams (1962), and *"Ferns of Jamaica"* by G.R. Proctor (1985).

and research/revisions, collecting trips, botanical research, and species annotations. The organization also maintains and updates a database. Access to its herbarium is widely available to local and overseas researchers. In 2004, the IOJ collaborated with the Natural History Society of Jamaica to produce the book "Endemic Trees of Jamaica". This project, which involved extensive field work, was funded by the Environmental Foundation of Jamaica (EFJ).

The Forestry Department through the Trees for Tomorrow Project (supported by the Canadian International Development Agency) published the book "Manual of Dendrology Jamaica" in 2003. It provides a reference to a number of the endemic, indigenous and introduced tree species to be found in Jamaica.

There are no specific programmes related to marine biodiversity. However under , the Centre for Marine Sciences-University of the West Indies and the Jamaica Coral Reef Monitoring Network (JCRMN), Jamaica has been conducting video-monitoring of selected coral areas since 1998. The JCRMN has conducted 'Reef Check' monitoring of established sites inclusive of bleaching events since 2003. The aim of the exercise to measure the resilience and status of these resources. In addition, a species list of marine fauna and flora was created.

Guidelines for the introduction of endemic and threatened species have been drafted and are being reviewed.

The Jamaican Iguana (*Cyclura collei*), Giant Swallowtail Butterfly (*Pterourus homerus*), orchids and endemic cacti are the subject of activities to restore and maintain taxa. Game bird populations (doves and pigeons), winter migrants, conch, finfish, and orchids continue to be monitored regularly.

The Giant Swallowtail Butterfly, an endemic species, is the largest swallowtail butterfly in the Western Hemisphere. It was listed in the world's top 12 endangered species of all categories by the International Union for Conservation of Nature (IUCN). The host plant for the Giant Swallowtail larvae is the endemic Water Mahoe or Water Wood (*Hernandia catalpifolia*). To aid in the protection and conservation of the species, the Jamaica Conservation and Development Trust (JCDT) has established a nursery to grow the plant at Millbank in the Blue Mountains.



**Giant Swallowtail Butterfly (*Pterourus homerus*)**  
 Photo credit: Vaughan Turland

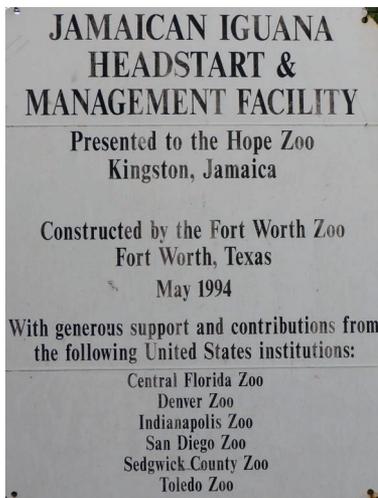
The habitats of the endemic Jamaican Iguana in the dry limestone Hellshire Hills are protected and managed. In their native habitat, the resident population is monitored and an eradication programme for the predatory invasive Indian Mongoose (*Herpestes auropunctatus*) is conducted. There appears to be population recovery underway for this endemic species which was once thought to be extinct.



**Jamaican Iguana (*Cyclura collei*)**  
 Photo credit: Laura Ogle

A small population of Jamaican Iguana was removed and introduced to the Hope Zoo in 1991 for the purpose of establishing a headstarting programme. This programme is conducted by NEPA in association with the

University of the West Indies, and the Hope Zoo where the programme is conducted. A selected number of hatchlings were collected



**Headstart Facility Sign at the Hope Zoo**  
 Photo credit: Laura Ogle

and raised until large enough to defend themselves against their main predator, the Indian Mongoose. Through various *ex-situ* and *in-situ* programmes more persons are aware of the species and the need for their preservation.



***Euphorbia alata* at Plant Conservation Centre**  
 Photo credit: Laura Ogle

The Plant Conservation Centre housed at the Hope Botanical Gardens has approximately 170 taxa in its collection, of which 65 species are native and 40 endemic to Jamaica.

## Habitat



Rio Grande

Photo credit: Kimberly John

NEPA has identified areas, considered critical habitats, to conduct species and habitat status assessments.

A number of forest reserves are in place or have been declared. The Forestry Department has carried out biophysical inventories of designated watersheds to develop sustainable management plans for these watersheds. The ecosystem approach is being applied by the Forestry Department in policy development processes especially related to watershed management and protected areas.



Royal Palm Reserve

Photo credit: Ricardo Miller/NEPA

The Ridge to Reef Watershed (R2RW) Project (2000 – 2005) was a joint project between the National Environment and Planning Agency and the United States Agency for International Development. The project involved work with several communities, including Cascade, Penlyne Castle and Irish Town, on reforestation projects. R2RW was designed to build upon the achievements of a previous project, the Coastal Water Improvement Project (CWIP), in terms of establishing strong community partners to improve environmental management in selected watersheds and expanding the

coastal mandate of CWIP into upland areas. The project addressed the degradation of watersheds in Jamaica by improving and sustaining the management of natural resources in targeted watershed areas that are both environmentally and economically significant. This has been an important initiative in partially addressing some of the gaps and challenges identified in the areas of sustainable tourism, and coastal and marine resources.

## Conservation



Yellow-Billed Amazon parrot (*Amazona collaria*)

Photo credit: Laura Ogle

The Wild Life Protection Act of 1945 provides protection for a number of animal species including all bird species, except those considered introduced pests or domestic animals. There is however no protection for plants, despite the drafting instructions for the appropriate legislation already being prepared.

The Natural Resources Conservation Authority's (NRCA's) Permit and Licensing System became effective in 1997 and requires all individuals/companies to obtain a permit for any development, and a licence to discharge any waste. Where projects are likely to have a significant impact on the natural environment, an Environmental Impact Assessment (EIA) will be required.

There is a draft Orchid Policy which addresses the conservation and restoration of Jamaican orchids.

There are closed seasons at spawning times for the harvesting of spiny lobster (*Panulirus argus*) and Queen Conch (*Strombus gigas*); and a closed season and permit system with bag limits for game birds shooting.

There are biennial population surveys on the main fishing site for Queen Conch and harvest limits established for industrial and artisanal fishermen. An annual export quota is

also established under the Endangered Species (Protection, Conservation and Regulation of Trade) Act, 2000.



**Hawksbill (*Eretmochelys imbricata*) Hatchling**  
Photo credit: Ricardo Miller/NEPA

Index beaches on the mainland and offshore cays are being established to monitor sea turtle populations.

The Dolphin Head Trust implemented a project entitled “Bamboo Conservation and Utilization Facility”. This was an initiative to provide women and youth in the Dolphin Head area with alternatives to environmentally destructive activities, while laying the foundation for re-forestation efforts.

## Terrestrial Ecosystems and Protected Areas

The Blue and John Crow Mountains National Park was established in 1990. This first Jamaican National Park covers some 196,000 acres (79,300 hectares) and houses the watershed for the capital city of Kingston and all communities in the eastern section of Jamaica. The Park is managed by the Jamaican Conservation Development Trust (JCdT), which continues to work in partnership with residents of local communities to protect the boundaries and introduce more environmentally compatible practices and ventures.

The development of a Protected Areas System Master Plan has commenced and once completed is expected to provide a structured framework within which protected areas will be managed. This plan is to address *inter alia* public awareness, legislation, culture and heritage, institutional arrangements, financial sustainability, and biodiversity including protected area categories, as well as the criteria and procedures for the selection and prioritization of areas proposed for inclusion in the protected areas system. The plan is to provide a framework for the management of protected areas which are the responsibility of NEPA, the Forestry Department, Fisheries

Division, and the Jamaica National Heritage Trust. The development of a financial sustainability plan is also being done.

RAMSAR sites have been declared (the Black River Lower Morass, the Palisadoes-Port Royal area and the Portland Bight wetlands and cays) highlighting the importance of the wetlands in these areas and their function as a habitat for waterfowls, especially the West Indian Whistling Duck.

Work on the production of an ecological zoning map for Jamaica has started and is ongoing.

## Marine Ecosystems



**Hawksbill turtle (*Eretmochelys imbricata*)**  
Photo credit: Dayne Buddo

A number of initiatives were undertaken during the period which focused on marine and coastal resource issues.

In October 2004, Jamaica's *National Programme of Action for the Protection of the Coastal and Marine Environment from Land-based Sources of Pollution (2005-2010)* was prepared. It identified a number of programme elements for implementation:

- Review and revise policy, legal and instructional framework to effectively manage the implementation and operation of sewage solutions;
- Expand and improve the collection, treatment and disposal of sewage island wide;
- Expand and improve public education on the effect of sewage and solid waste disposal, recovery and reuse, and the effect they have on the environment
- Expand and improve the solid waste collection and disposal network.

In monitoring the island's coral reefs, a number of methods were implemented. Atlantic and Gulf Rapid Reef Assessment Protocol (AGGRA) is one such method. In 2004, an assessment of the coral reef in the

Palisadoes-Port Royal Protected Area commenced in partnership with the Port Royal Marine Lab and the Department of Life Sciences (UWI) using the AGGRA protocol.

## Alien Invasive Species



**Indian Mongoose (*Herpestes javanicus*)**

Jamaica's NBSAP addresses Alien Invasive Species and the development of a Strategy and eradication/removal of feral goats from Goat Island along with the White Tailed Deer (*Odocoileus virginianus*) from Portland.

An Alien Invasive Species Working Group was established in 2001 and comprises representatives from organizations and government agencies. Their terms of reference include assisting with the development of a National Policy and Management Plan on alien invasive species and to develop an action plan to eradicate invasive species in protected areas.

The JCDT has rehabilitated several areas by planting native fast growing forest trees and removing invasive species.

The following Invasive Species are monitored:

- the Indian Mongoose (*Herpestes javanicus*),
- Red-Claw Crayfish, (*Cherax quadricarinatus*),
- White-tailed Deer (*Odocoileus virginianus*),
- Australian Box (*Pittosporum undulatum*),
- White Ginger Lily (*Hedychium coronarium*),
- Vampire Fern (*Dicranopteris pectinata*); and
- Feral pigs

The Mason River Reserve ecosystem is threatened by the native invasive thicket forming fern species (*Dicranopteris pectinata*), and the



**Australian Box (*Pittosporum undulatum*)**

alien invasive Strawberry Guava (*Psidium cattleianum*). The IOJ manages the area and undertakes control programmes.

## Climate Change



**Homes Destroyed by Hurricane Storm Surge**  
Photo credit: Laura Ogle

As a part of the Caribbean Planning for Adaptation to Global Climate Change (CPACC), the NEPA and NRCA have been associated with CPACC since the inception of the coral reef monitoring initiatives within the region. This has involved coral reef monitoring for climate change impacts under CPACC and activities have been carried out since 1998 when Jamaica was selected as a pilot country for the programme. Additionally NEPA has been involved with several other aspects of the CPACC project and has benefited from this

interaction by obtaining equipment, training and exposure at various intervals.

The issue of sustainability after CPACC was expressed by Caribbean governments as early as 1997 during the review of the BPOA. This has been partially addressed by a project funded by the Canadian Climate Change Development Fund (CCCDF) through the Canadian International Development Agency (CIDA). The project, "Adapting to Climate Change in the Caribbean" (ACCC) begun in 2001 and ended in September 2004. Outputs include:

- Development of "Caribbean Risk Management Guidelines for Climate Change Adaptation Decision Making";
- A draft regional Public Education and Outreach Strategy;
- Business Plan for the Caribbean Community Climate Change Centre;
- Development and application of climate scenarios for Caribbean SIDS (to be completed under MACC). Work is in progress at the Climate Studies Group in the Physics Department of the UWI, Mona;
- A Guide to assist CARICOM environmental impact assessment (EIA) practitioners in the integration of climate change into the EIA process;
- Staff training and development at the Caribbean Institute for Meteorology and Hydrology (CIMH) to strengthen its climate change capacity;
- Eight Students, including one Jamaican, participated in the Master's Degree course in climate change at the UWI; and
- Dialogue established with SPREP and the Pacific Islands Climate Change Assistance Program (PICCAP) for collaboration on issues related to climate change.

## Research

Research at the University of the West Indies, NEPA, Scientific Research Council (SRC), IOJ, Forestry Department etc, all contribute to the conservation and sustainable use of biodiversity.

The University of the West Indies has a Masters

Degree programme in Natural Resource Management and other degrees that include scientific and technical education for maintaining biodiversity.

The JCDT has training programmes in the identification of birds and plants. There is also the opportunity to learn from researchers who conduct work in the Blue and John Crow Mountains National Park.

Biodiversity is part of the general Environmental Education programmes and initiatives conducted by institutions including the Ministry of Education, the Joint Board of Teacher Education, NEPA and NGOs in the formal education sector as well as in the non-formal sector. This is done at the community level or in general environmental awareness campaigns. The school curriculum specifically includes a focus on all international environmental conventions. Education programmes in Jamaica's protected areas and national parks focus on the preservation of biodiversity in support of the Convention.

A draft biodiversity public education programme is being developed and NEPA is developing a programme to address some of the gaps identified in the NBSAP.

The Urban Development Corporation (UDC) has a research prospectus in the new management plan for the Hellshire Hills (a part of the Portland Bight Protected Area) which includes various research gaps for the Park. The UDC plans to advertise this on its website and the websites of some universities.

Organisations such as the SRC, Bodles Research Station and the Rural Agricultural Development Authority (RADA) incorporate research into practical applications and advice on how to conserve biodiversity and apply the relevant new knowledge. At the SRC and Bodles research stations, outcomes are routinely passed on to farmers and incorporated into practices leading to improved production.

Improved Coral and sea grass relocation methods developed from research, and new understandings resulted in transplanted sea grass survival increased from 10% to 80%.



Sea grass

Photo credit: Dayne Buddo

## Public Outreach and Education

The level of interest by the media and general public, as well as media coverage of all environmental issues including biodiversity-related topics, has increased significantly in recent years.

Jamaica's efforts to support the Decade of Education for Sustainable Development (DESD) are now being designed; the National Environmental Education Committee is working with UNESCO and other organisations to promote DESD.

Biodiversity-related issues are promoted and discussed at the community level by a national network of NGOs, sometimes within externally-funded projects. This includes the environmental school programme of the Jamaica Environment Trust and the Jamaica Conservation and Development Trust. The SRC annually hosts a poster and essay competition on various environmental issues and also hosts an annual conference on Science and Technology.

The IOJ offers annually "An Afternoon with a Scientist" programme to primary and high school students which includes promotion of biodiversity conservation and related careers.

The Ministry of Education's curricula for primary and secondary schools include biodiversity issues as well as all international environmental conventions. The Joint Board of Teacher Education syllabuses for the teachers colleges also include biodiversity issues.

Public outreach efforts are consistently made through Green Expo, Wood and water day and other environmental days. NEPA cele-

brates events such as International Day for Biological Diversity, World Wetland Day, Earth Day, and World Oceans Day – using these for raising awareness about the issues concerning the general public. Capacity development of environmental educators and communicators is undertaken in the formal education system through the teachers colleges, in-service teacher training programmes and the Caribbean Institute of Media and Communication as well as in the informal system through community-level initiatives often led by NGOs.

Initiatives of the Communication, Education, Participation and Awareness (CEPA) programme of the RAMSAR Convention, including biodiversity issues, are being conducted among the following sectors: community, business, tourism, forestry, agriculture, fisheries, etc.

Government agencies such as the Ministry of Education, NEPA, and the Forestry Department as well as NGOs are pursuing initiatives that integrate biodiversity conservation into their education programmes. Agencies such as the Forestry Department and NGOs that manage protected areas also incorporate biodiversity conservation into their operational practices.

Jamaica has developed its national Clearing-House Mechanism (CHM), hosted by the Institute of Jamaica, that collects and distributes information on Biological Diversity in support of the Convention. Links are provided to Jamaican biodiversity-related information and organisations, as well as to the global CHM which has links to global biodiversity information, scientific and technical initiatives, search engines and funding opportunities. The CHM has continued to improve and provide information on Jamaica's biological diversity through its website, school presentations and brochures produced. The CHM web site was developed and launched in April 2000, using seed funding provided by the Global Environment Facility (GEF) and the Environmental Foundation of Jamaica.

Many of the Jamaican-based organizations involved in biodiversity conservation now know about the CBD through the various activities of the Jamaica CHM and utilize its services most commonly for sourcing species list, locating resource persons or organizations, keeping informed about national biodiversity conservation related activities, policies and publications and commenting on national and Caribbean policy and strategy related to biodiversity conservation.

## “Appendix: Some Jamaican Endemic Animals and Plants”

### Animals



**Common/Local Name:** Black-Billed Amazon Parrot

**Scientific name:** *Amazona agilis*

**Photo credit:** Laura Ogle

**Location:** Hope Zoo

**Status on IUCN Red-list of Threatened Species:** Vulnerable

This parrot is mostly green with small patches of red on the wing and sometimes flecked on the head. Its bill makes it easy to separate it from the Yellow-billed Amazon.

The Black-Billed Amazon lives in mountainous rainforests, feeding on fruit, seeds, and nuts.

The Black-billed Amazon was once as common as the Yellow-billed Amazon, but has become much rarer due to deforestation and hurricane damage fragmenting its forest, poaching for food and the illegal pet trade in wild parrots.



**Common/Local Name:** Yellow-Billed Amazon Parrot

**Scientific name:** *Amazona collaria*

**Photo credit:** Laura Ogle

**Location:** Hope Zoo

**Status on IUCN Red-list of Threatened Species:** Vulnerable

This parrot is mostly green with pink over the throat, upper breast and sides of neck, and blue in the larger wing feathers. The feathers over the ears are dark blue-green and the bare white eyerings are surrounded by a narrow rim of white plumage, which continues as a narrow band of white over the forehead. Its beak is yellow, and its irises are brown.

The Yellow-billed Amazon is found up to 1200m in mainly wet limestone forests and it is more abundant in the John Crow Mountains, Mount Diablo and in the Cockpit Country.

It is threatened by habitat loss and the illegal pet trade in wild parrots.



**Common/Local Name:** Jamaican Giant Anole

**Scientific name:** *Anolis garmani*

**Photo credit:** Eladio Fernandez

**Status on IUCN Red-list of Threatened**

**Species:** No entries found

It is believed that this lizard probably escaped from pet dealers in Florida in 1975 and since then has established colonies in Lee and Dade counties, and is considered an invasive species in Florida.



**Common/Local Name:** Jamaican Turquoise Anole

**Scientific name:** *Anolis grahamsi*

**Photo credit:** Eladio Fernandez

**Status on IUCN Red-list of Threatened**

**Species:** No entries found

The Director of Agriculture deliberately introduced seventy-one of these lizards into Bermuda in 1905.



**Common/Local Name:** Olive-Throated Parakeet

**Scientific name:** *Aratinga nana*

**Photo credit:** Laura Ogle

**Location:** Hope Zoo

**Status on IUCN Red-list of Threatened**

**Species:** Least concern

*Aratinga nana* are green on their head, back, and tail, but olive on their throat and upper breast area, thus the name Olive-Throated Parakeet. The eyes are orange and the bare skin around the eye is cream. They are easily distinguished from other Jamaican parrots by their smaller size, pointed tail, slender body, and rapid flight.



**Common/Local Name:** Blue-tailed Galliwasp or Duquesney's Galliwasp

**Scientific name:** *Celestus duquesneyi*

**Photo credit:** Jamaica Iguana Recovery Group

**Status on IUCN Red-list of Threatened**

**Species:** Data deficient

Discovered in the Hellshire hills in 1997, it has not been collected in Jamaica since the late 1930s when it was first collected from Portland Ridge.



**Common/Local Name:** Jamaican Iguana

**Scientific name:** *Cyclura collei*

**Photo credit:** Laura Ogle

**Location:** Hope Zoo

**Status on IUCN Red-list of Threatened**

**Species:** Critically Endangered

The species was believed extinct after the population on the Goat islands disappeared in the 1940s. However, the continued survival of the Jamaican iguana in the Hellshire Hills was confirmed in 1970, and again in 1990. A preliminary survey in 1990 revealed a small surviving population of perhaps a hundred or so animals in the least disturbed central and western sections of the Hellshire Hills, and two active nesting sites. Iguanas have disappeared from northern and eastern sections of the Hellshire Hills because of extensive charcoal production, the use of dogs for pig hunting, and human settlements.



**Common/Local Name:** Whistling Toad

**Scientific name:** *Eleutherodactylus* sp.

**Photo credit:** Laura Ogle

**Status on IUCN Red-list of Threatened**

**Species:** Since the species is not known, its status cannot be determined.

Known as whistling toads in Jamaica because of their high-pitched, insect-like calls.



**Common/Local Name:** Jamaican Yellow Boa

**Scientific name:** *Epicrates subflavus*

**Photo credit:** Laura Ogle

**Location:** Hope Zoo

**Status on IUCN Red-list of Threatened**

**Species:** Vulnerable

The Jamaican Yellow Boa is non-poisonous and kills its prey by constriction.



**Common/Local Name:** Jamaican Brown Bat

**Scientific name:** *Eptesicus lynni*

**Photo credit:** Andrea Donaldson/NEPA

**Status on IUCN Red-list of Threatened**

**Species:** No entries found

The species is endemic to Jamaica. Recorded only in Clarendon, St. Catherine, St. Andrew, St. Ann, Trelawny, St. James and Westmoreland. They are insectivores.



**Common/Local Name:** Coney, Jamaican Hutia

**Scientific name:** *Geocapromys brownii*

**Photo credit:** Ricardo Miller/NEPA

**Status on IUCN Red-list of Threatened**

**Species:** Vulnerable

The Jamaican Hutia prefers to live on exposed sites usually made of limestone where it will make its home in crevices or tunnels in the rock. The Jamaican Hutia is nocturnal and will move through shrubby areas, foraging for food. It is an herbivore and feeds on numerous plant species and plant parts. Very little current information is available for its status and range.



**Common/Local Name:** Crested Quail Dove

**Scientific name:** *Geotrygon versicolor*

**Photo credit:** Ricardo Miller/NEPA

**Status on IUCN Red-list of Threatened**

**Species:** Near Threatened

Its natural habitat is subtropical or tropical moist montanes (Blue Mountains, Cockpit Country, John Crow Mountains, and Mount Diablo). It is threatened by habitat loss due to the establishment of mostly coffee and Caribbean pine plantations, as well as small-scale farming, and clearance for land development. It is also trapped for local and overseas consumption, and the cage-bird trade.



**Common/Local Name:** Pallas' Long-Tongue Bat

**Scientific name:** *Glossophaga soricina antillarum*

**Photo credit:** Andrea Donaldson/NEPA

**Status on IUCN Red-list of Threatened**

**Species:** No entries found

Jamaica is the only island in the West Indies where the species occurs. The subspecies *Glossophaga soricina antillarum* is endemic to Jamaica. They have been recorded in all parishes except, Manchester, Hanover and Kingston & St. Andrew, and Feed on pollen, nectar, flower parts, fruits and insects.



**Common/Local Name:** Pallas' Mastiff Bat

**Scientific name:** *Molossus molossus milleri*

**Photo credit:** Andrea Donaldson/NEPA

**Status on IUCN Red-list of Threatened**

**Species:** No entries found

The endemic subspecies *M. m. milleri* has been recorded in all parishes in Jamaica except for Portland and St. Thomas. They are likely to be insectivores.



**Common/Local Name:** Jamaican Tody

**Scientific name:** *Todus todus*

**Location:** Ecclesdown

**Status on IUCN Red-list of Threatened**

**Species:** Least concern

The Jamaican Tody is mostly green above, with a red throat and yellow underneath. There is some pink on its sides. The head is large and the bill is long and flat. It feeds on insects, larvae, and fruit. The Jamaican Tody nests in burrows, excavated in muddy banks or rotten wood.



**Common/Local Name:** Jamaican Slider Turtle

**Scientific name:** *Trachemys terrapen*

**Photo credit:** Laura Ogle

**Location:** Hope Zoo

**Status on IUCN Red-list of Threatened**

**Species:** Vulnerable

The turtle is consumed incidentally when found in traps, but concentrated populations in the Treasure Beach area of St. Elizabeth are deliberately and heavily exploited.



**Common/Local Name:** Red-Billed Streamertail Hummingbird or Doctor Bird

**Scientific name:** *Trochilus polytmus*

**Photo credit:** David Shackelford

**Status on IUCN Red-list of Threatened**

**Species:** Least Concern

This is the national bird of Jamaica. The mature males possess elongated rectrices that form the characteristic "streamertail".

## Plants



**Common/Local Name:** Lady of the Night  
**Scientific name:** *Brassavola subulifolia*

**Status on IUCN Red-list of Threatened Species:** No entries found

The common name for this orchid refers to the strong and delightful citrus-like scent which only occurs after sunset. As with many white flowers which are fragrant at night, it is pollinated by moths. It can be found in large populations in dry limestone forests near the coast and is frequently plentiful on large Guango trees (*Samanea saman*) in the central limestone areas. The species is closely related to the Central American species *Brassavola nodosa* and *Brassavola grandiflora* – but differs by having smaller and much more numerous flowers on the inflorescences.



**Common/Local Name:** Negril Broughtonia  
**Scientific name:** *Broughtonia negrilensis*

**Status on IUCN Red-list of Threatened Species:** No entries found

The genus *Broughtonia* is considered to be restricted to Jamaica and is made up of two species. As the name suggests, *Broughtonia negrilensis* is restricted to quite a small area in the western parishes from the Savannah-la-Mar area to Negril. It grows in the dry limestone woodland near the coast. The restricted habitat and narrow range has resulted in this species being threatened by marginal agriculture and housing developments. It occasionally forms natural hybrids with *Broughtonia sanguinea* where the two species occur together, and these hybrids have been named as *Broughtonia jamaicensis*.



**Common/Local Name:** Red Broughtonia  
**Scientific name:** *Broughtonia sanguinea*

**Status on IUCN Red-list of Threatened Species:** No entries found

Arguably the most “famous” of all the Jamaican orchids, *Broughtonia sanguinea* has been widely used for many years in producing red floriferous orchids, by hybridising the species with a variety of large flowered *Cattleya* species. It is widespread and often quite frequent in low lying and coastal areas, in dry limestone forests and often on trees hanging over the sea. There are two distinct forms – a bright pink form on the South coast and one with dark red flowers with a yellow spot in the lip of the North coast. Rare apricot, yellow and white forms have also been found.



**Common/Local Name:** None  
**Scientific name:** *Charianthus fadyenii*  
**Photo credit:** Patrick Lewis/UWI Herbarium

**Status on IUCN Red-list of Threatened Species:** No entries found

This is the only representative of this genus in Jamaica – one which is found throughout the West Indian islands. The plants, which grow into shrubs or small trees, are frequent in wooded limestone areas from altitudes of 1,200 to 3,000 feet (400 to 1,000 metres) in the central parishes. The orange red flowers have distinctive yellow anthers. The berries are dark purplish when ripe. It is a member of the Melastome family (like the endemic “Cup and Saucer” – *Blakea trinerva*) and therefore has the characteristic leaves with three prominent parallel nerves.



**Common/Local Name:** Flying Goldfish Plants  
**Scientific name:** *Columnnea* sp.  
**Photo credit:** Laura Ogle  
**Location:** Plant Conservation Greenhouse, Hope Botanical Gardens

**Status on IUCN Red-list of Threatened Species:** Since species not known, its status cannot be determined.

*Columnnea* is a genus of around 200 species of epiphytic herbs and shrubs which are native to tropical America and the Caribbean. The tubular or oddly shaped flowers are usually large and brightly colored – usually red, yellow, or orange –, sometimes resembling a fish in shape. The common horticultural name of “flying goldfish plants” is due to the unusual flower shape. The Jamaican species are known to be hummingbird pollinated. There are at least 12 recorded species locally – and they are all considered to be endemic.

The Jamaican *Columnnea* species grow as epiphytic plants on large trees and require bright light, good air circulation, and frequent rainfall. The Jamaican species come from mid altitudes, and are frequent in the Cockpit Country.



**Common/Local Name:** None  
**Scientific name:** *Disocactus alatus*  
**Photo credit:** Cal Lemke

**Status on IUCN Red-list of Threatened Species:** No entries found

This cactus is epiphytic and has hanging stems which are flattened. The stems will grow up to 16 feet (3 - 5 m) in length and 1-2 inches (2.5 - 5 cm) wide. Small flowers are formed along the side of the stems from shallow notches. Each bloom is yellowish-cream. Pollinated flowers develop into 3/8 inch (1 cm) long berries which are black.

This cactus can be found on trees in montane forests on the west side of the island.



**Common/Local Name:** None  
**Scientific name:** *Euphorbia alata*  
**Photo credit:** Laura Ogle  
**Location:** Plant Conservation Greenhouse, Hope Botanical Gardens

**Status on IUCN Red-list of Threatened Species:** No entries found

A team from the Fairchild Tropical Botanic Garden (Florida) rediscovered this species in the Cockpit country in 2009. It had not been seen since 1905. The plant is known for its "stick-like" appearance of large elongated ridged green stems and branches. It bears tiny white flowers which are only slightly larger than pinheads.



**Common/Local Name:** Bell Flower  
**Scientific name:** *Portlandia grandiflora*

**Status on IUCN Red-list of Threatened Species:** Near threatened

This species is a member of the coffee family and is the most spectacular of the six *Portlandia* species which are considered endemic to Jamaica – although *Portlandia grandiflora* has recently been reported from Cuba. It is quite widespread but confined to thickets and woodlands in the dry limestone forests near the coastal areas of Jamaica. The large shiny cream coloured flowers make the species one of the showiest of our natives, and it is widely cultivated in tropical gardens around the world. The six-inch long, bell-shaped white flowers are fragrant at night.



**Common/Local Name:** Mountain Pride  
**Scientific name:** *Spathelia sorbifolia*  
**Photo credit:** Patrick Lewis/UWI Herbarium

**Status on IUCN Red-list of Threatened Species:** No entries found

There are two published – and possibly a third - endemic species of the “Mountain Pride”; although the illustrated *Spathelia sorbifolia* is the most widespread. These trees, which can be up to 60 feet (20 metres) tall, bloom just once and then die. This habit is thought to have given rise to the folk tale of the tree growing from the dead body of a young Taino maiden who leapt to her death rather than being captured by Spanish invaders. There are over 10 species of the genus in Cuba – and most of these are endemic.

The showy flowers last for several months. The species has been found to contain the anti-cancer compounds methylsorbifolin and spatheliachromen.



**Common/Local Name:** The Beautiful Tolumnia  
**Scientific name:** *Tolumnia pulchella*  
(*Oncidium pulchellum*)

**Status on IUCN Red-list of Threatened Species:** No entries found

The genus *Tolumnia* was recently separated from *Oncidium* – on the basis of the unusual fan shaped leaves which enable the plants to prosper in periodically very dry and high light situations. The *Tolumnia* species are all restricted to the Caribbean basin. There are about 20 species, and the four species found in Jamaica are all endemic. *Tolumnia pulchella* is one of the loveliest of the genus, and the only one with pink flowers. It has been used in virtually every *Tolumnia* hybrid which has ever been made. It grows on small trees in humid forests in bright light and high air movement in the central parishes, at elevations of 900 to 2,000 feet (300 to 1,000 metres).



**Common/Local Name:** none  
**Scientific name:** *Turnera zeasperma*  
**Photo credit:** Andrea Donaldson/NEPA  
**Location:** Cane River

**Status on IUCN Red-list of Threatened Species:** No entries found

This is one of five species of *Turnera* which are found in Jamaica, of which two are endemic. The plant is apparently restricted to the Cane River Gorge in St Andrew – an area of high local endemism. This species is closely related to the widespread *Turnera ulmifolia*, but differs by having more wiry stems with a distinctive reddish tinge, floral bracts without glands, and leaves which are obovate and not distinctly toothed.

## Insects, Molluscs, and Terrestrial Invertebrates



**Common/Local Name:** none  
**Scientific name:** *Anoma levis*  
**Courtesy of:** the Academy of Natural Sciences

**Status on IUCN Red-list of Threatened Species:** No entries found

This snail was found in Hanover, Jamaica.



**Common/Local Name:** none  
**Scientific name:** *Dellia karstics*  
**Courtesy of:** the Academy of Natural Sciences

**Status on IUCN Red-list of Threatened Species:** No entries found



**Common/Local Name:** none  
**Scientific name:** *Dellia maroona*  
**Courtesy of:** the Academy of Natural Sciences

**Status on IUCN Red-list of Threatened Species:** No entries found

Both grasshoppers were found in Cockpit Country and were described/named in 2001.



**Common/Local Name:** Zebra Millipede  
**Scientific name:** *Eurhinocriscus rosenbergi*  
**Courtesy of:** the Academy of Natural Sciences

**Status on IUCN Red-list of Threatened Species:** No entries found

This millipede was found in the Cockpit Country and was described/named in 2002.



**Common/Local Name:** none  
**Scientific Name:** *Pleurodonte peracutissima*  
**Courtesy of:** the Academy of Natural Sciences

**Status on IUCN Red-list of Threatened Species:** No entries found

This snail was collected in the Cockpit Country.



**Common/Local Name:** none  
**Scientific Name:** *Poteria* sp.  
**Courtesy of:** the Academy of Natural Sciences

**Status on IUCN Red-list of Threatened Species:** Since species not known, its status cannot be determined.

This snail was collected in the Cockpit Country.



**Common/Local Name:** Giant Swallowtail Butterfly  
**Scientific name:** *Pterourus homerus*  
**Photo credit:** Vaughan Turland

**Status on IUCN Red-list of Threatened Species:** Endangered

This is the largest Swallowtail butterfly in the Western hemisphere. This butterfly is under pressure as a result of poor agricultural practices.



**Common/Local Name:** none

**Scientific Name:** *Sagda pila*

**Courtesy of:** the Academy of Natural Sciences

**Status on IUCN Red-list of Threatened**

**Species:** No entries found

This snail was collected in the Cockpit country.

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