



Jamaica's Wildlife Treasures

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National Environment
and Planning Agency

About NEPA

The National Environment and Planning Agency (NEPA) is the lead government agency with the mandate for environmental protection, natural resource management, land use and spatial planning in Jamaica. NEPA, through the Town and Country Planning Authority and the Natural Resource Conservation Authority, operates under a number of statutes which include:

- The Town and Country Planning Act
- The Land Development and Utilization Act
- The Beach Control Act
- The Watershed Protection Act
- The Wild Life Protection Act
- The Natural Resources Conservation Authority Act.

Vision

NEPA's vision is "for a Jamaica where natural resources are used in a sustainable way and that there is a broad understanding of environment, planning and development issues, with extensive participation amongst citizens and a high level of compliance with relevant legislation."

Mission

"To promote Sustainable Development by ensuring the protection of the environment and orderly development in Jamaica through highly motivated staff performing at the highest standard."

The agency executes its mandate through the development of environmental and planning policies; monitoring the natural resource assets and the state of Jamaica's environment; enforcement of environmental and planning legislation; processing of applications for environmental permits and licences; preparing Town and Parish Development Plans and Parish Development Orders; providing environmental and land use database systems; advising on land use planning and development; public education and information among others.



A view of the Blue Mountains

Notes



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**National Environment
and Planning Agency**



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Paul Rand, Ricardo Miller, Andrea Donaldson, Peter Wilson-Kelly and NEPA



The Jamaican Mango Hummingbird
Anthracothrax mango

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and Planning Agency**

Foreword

This booklet, Jamaica's Wildlife Treasures, represents the first of a series on Jamaica's wild fauna and flora. Jamaica has a wealth of wildlife species, many of which are found nowhere else in the world and are therefore endemic to the island. Some of the animals and plants are endangered by virtue of their small population size or their habitat being under threat.

All animals protected under the Wild Life Protection Act are considered to be endangered. No plant is protected under this Act. The plants included in this booklet are either restricted in distribution or low in numbers.

This booklet on Jamaica's wildlife treasures is intended to be a reference document and the primary target audience includes teachers, students and the general reading public interested in conducting library research on Jamaica's wildlife. The range of species and the extent of the treatment presented in this booklet is by no means exhaustive. For readers who are interested in accessing the entire list of animals protected under Jamaican Law, we refer you to the Wild Life Protection Act which carries lists and which may be viewed or downloaded from the NEPA website <http://www.nepa.gov.jm/legal/index.asp> or the Ministry of Justice website <http://www.moj.gov.jm> where you can type in the search words 'Wild Life Protection Act'.

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Caribbean Monk Seal (also called, West Indian Monk Seal)
Monachus tropicalis

The Caribbean Monk Seal was reported as an extinct species. It was also believed to be the only seal native to the Caribbean Sea and the Gulf of Mexico. It grew to between 6 and 9 feet and had rolls of fat around its neck and a brown covering that faded to yellowish white on its stomach. Christopher Columbus in his early writings referred to the Caribbean Monk Seal as a sea wolf.

Jamaican Monkey

Xenothrix mcgregori

The Jamaican Monkey is a species of monkey believed to have been only located in Jamaica. Proof of its existence is based only on fossils found in the Long Mile Cave in Trelawny. Various sources have indicated that the Jamaican Monkey may have survived until the 18th century.

Jamaican Giant Galliwasp

Celestus occiduus

The Giant Galliwasp was last recorded in the 19th century and is believed to have been pushed to extinction by the introduction of predatory species such as the mongoose.

Jamaican Rice Rat

Oryzomys antillarum

The Jamaican Rice Rat is an extinct species that was only found in Jamaica. Its extinction (since 1900) has been attributed to the introduction of the mongoose to Jamaica.

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List of Acronyms

CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
IUCN	International Union for Conservation of Nature and Natural Resources
NEPA	National Environment and Planning Agency

List of Symbols

Kg	Kilogram
m	meter
cm	centimeter
mm	millimeter

Possibly Extinct Species



Jamaican Flower Bat

Phyllonycteris aphylla

Status – Endangered (Jamaica)

Endemic (possibly extinct)

Description and Importance:

The Jamaican Flower Bat is one of the three endemic bat species found in Jamaica. The Flower Bat is a medium sized bat weighing between 14-19 grams and has a yellow brown colour on the upper parts of the body. There are approximately six species in the genus *Phyllonycteris* which also includes the Puerto Rican, Cuban and Hispaniola Flower Bats. Jamaican Flower Bats are typically found in caves at altitudes of up to 42 m. These bats feed on fruits, pollen, nectar and insects. Bats are threatened by the disturbance of their habitat as well as forest clearance which severely impacts their foraging areas.



Blue Mountain Stream Eleuth

Eleutherodactylus orcutti

Status – Critically Endangered

(IUCN), Endemic

Location/Habitat: Blue & John Crow Mountains

Description and Importance:

Jamaica's native amphibian fauna are among the most threatened in the world with 17 out of 21 species considered to be threatened with extinction. *Eleutherodactylus orcutti* is a stream dwelling frog believed to be extinct for the last 25 years as it has not been since the 1980's. This extinction or critically endangered status is believed to be caused by the infectious amphibian disease, chytridiomycosis, which has ravaged frog populations worldwide. Jamaica's native amphibians are threatened by habitat loss and predators. *Eleutherodactylus* frogs require healthy forests to survive and reproduce. They are absent from even moderately disturbed habitats.

Possibly Extinct Species



Jamaican Petrel

Pterodroma caribbaea

Status:	Critically Endangered (IUCN), Protected, Endemic (possibly extinct)
Description and Importance:	The Jamaican Petrel is one of Jamaica's 30 endemic bird species. It is a medium-sized seabird about 35 to 46 cm in length with a uniformed sooty brown body. It has a cream-colored rump and upper part of the tail. The legs and feet are pinkish-white and it has a black bill. It is a nocturnal species that spends most of its time at sea, only returning to the island to breed during the months of March to June. The Jamaican Petrel has been presumed extinct because it has not been seen since 1879 despite numerous attempts to locate it. However, because of their nocturnal habit, petrels are difficult to record so there is a possibility that some still exist. Also, similar nocturnal petrels have been rediscovered on other islands after much longer periods of presumed extinction.
Location/Habitat:	It was only known from eastern Jamaica where it nests on very remote cliffs of the Blue and John Crow Mountains returning to and leaving the nests under the cover of night.
Conservation Issues:	The species was believed to have suffered from the introduction of the mongoose and wild pigs.

Did You Know?

The Jamaican Petrel is one of 2 Jamaican endemic birds that are presumed extinct. The other species is the Jamaican Parakeet (*Siphonorchis americana*).

Key Terms

Endemic Species	Refers to species or subspecies that are only found in a specified region or locality, and do not occur naturally in any other region. (NEPA)
Indigenous Species	A species that occurs in multiple areas, but is confined to areas that it occupies naturally, unless directly or indirectly introduced and cared for by humans. (NEPA)
Protected Species	A protected species is one that is covered under a specific piece of legislation. Under such legislation it is illegal to carry out any action that contributes to its depletion or threatens the survival of the species.
Endangered Species	Species or subspecies of plants and animals that are considered to be at very high risk of extinction in the near future, provided present factors contributing to numerical decline or habitat degradation remain as they are or worsen over time. (NEPA)
Threatened Species	Species or subspecies or their populations that are likely to become endangered within the foreseeable future throughout part or all of their range, if the factors causing numerical decline or habitat degradation continue to operate. (NEPA)
Extinct Species	A taxon (category) is extinct when there is no reasonable doubt that the last individual has died. A taxon is presumed extinct when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual), throughout its historic range have failed to record an individual. (IUCN)
Critically Endangered Species	A species which faces an extremely high risk of extinction in the wild in the immediate future. (NEPA)
Vulnerable Species	A vulnerable species is a species which is likely to become endangered unless the circumstances threatening its reproduction and survival improves. (http://en.wikipedia.org/wiki/Vulnerable_species)

Introduction to Jamaica's Biodiversity

Biodiversity refers to the variety and abundance of life forms in a particular place or ecosystem and comprises flora (plants) and fauna (animals). Within our small nation home of Jamaica are numerous endemic wildlife jewels. The various and diverse habitats (such as the Blue & John Crow Mountains, the Cockpit Country and the Hellshire Hills) have been home to a wide variety of species which have been the focus of numerous local and international studies. The period of European colonization realized the introduction of various species such as the Small Indian Mongoose, which have in turn impacted many Jamaican endemic species.

Changes have occurred in the survival pattern of species, hence some species are extinct, critically endangered or vulnerable. Development and the destruction of our forests and wetlands have had critical negative impacts on species such as the American Crocodile, Jamaican Iguana, various birds and plants. A look towards our hills will reveal just how much of our forest cover has been and continues to be lost.

"Jamaica has been rated fifth in islands of the world in terms of endemic plants. There is also a high level of endemism for many species of animals including snails, land-dwelling grapsid crabs, amphibians, reptiles and land birds. The status of species of fungi, bacteria, viruses and some invertebrates is not yet well known. According to Jamaica's Conservation Data Centre database, at least 221 endemic species are classified as critically imperiled and especially vulnerable to extinction". (NEPA, 2003. National Strategy and Action Plan on Biological Diversity in Jamaica)

The animals listed in this booklet are currently covered and protected by Jamaican legislation and international agreements such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The International Union for Conservation of Nature and Natural Resources (IUCN) also maintains a Red List of Threatened Species, which lists all of Jamaica's stable, vulnerable, endangered and critically endangered species.

The aim of this booklet is simple, to provide information for you the reader, information that you may not have had before. For example, not many persons are aware that Jamaica's native amphibian fauna rank among the most threatened on the planet, with 17 of our 21 endemic frog species being considered by the IUCN to be threatened with extinction (Wilson, 2008).

Government agencies such as the National Environment and Planning Agency, the University of the West Indies and private conservation organizations are working to reduce the loss of species and further habitat loss. The truth is, however, these organizations cannot hope to accomplish such an arduous task on their own. Success can only be attained if every Jamaican accepts and fulfills a small role in the battle to protect against habitat and species destruction.

Ternstroemia glomerata (Note: This Plant has no common names).

Status: Critically Endangered (IUCN), Endangered (Jamaica), Endemic

Description and Importance: *Ternstroemia glomerata* is a species of plant in the Theaceae family and is endemic to Jamaica. It has tightly clustered flowers always borne at the top of a leafy stem.

Location: Parishes of St. James and Trelawny

Conservation Issues: *Ternstroemia glomerata* has limited distribution island-wide. Deforestation remains a serious threat to these trees.

Eugenia kellyana (Note: This Plant has no common names).

Status: Critically Endangered (IUCN), Endangered (Jamaica), Endemic

Description and Importance: *Eugenia kellyana* is a member of the Myrtaceae family of flowering plants. These plants are woody with essential oils and with flower parts in multiples of four or five. The genus *Eugenia* has many species, with new ones still being described. They are woody, evergreen trees and shrubs with several being grown as ornamental plants because of their attractive glossy foliage. The tree is slender, grows to about 10m tall and was named in honour of Dr. Daniel Kelly in recognition of his ecological studies at the location where this tree was found.

Location/Habitat: *Eugenia kellyana* is found in limestone forest in areas in the John Crow Mountains (Hog House Hill and Holland Mountain).

Conservation Issues: The *Eugenia kellyana* is extremely rare and found in only two areas.

Did You Know?

There are only three plants of *Ternstroemia glomerata* in Jamaica. (IUCN)



Lignum-vitae
Guaiacum officinale

Status:	Endangered (IUCN; Jamaica)
Description and Importance:	The Lignum-vitae, which bears the Jamaica national flower, is a slow growing evergreen tree found in continental tropical America and the West Indies. The tree grows to between 3 and 12 m in height with dark and glossy leaves. The wood is hard and dense and contains natural lubricating oils which do not dry out. The wood is used to make a variety of items such as furniture, clocks, cricket balls and cutting boards. The wood is also used in ship building. The tree serves as a wildlife habitat for the Lignum-vitae butterfly, (<i>Kricogonia lyside</i>), which can be seen in abundance around the tree during the breeding season.
Location/Habitat	Lignum-vitae trees are found mostly in dry areas of the north and south coasts and on alluvial plains. These plants are most commonly found in the Parishes of Portland, St. Elizabeth, Kingston & St. Andrew, St. Catherine, St. Ann, Clarendon, Westmorland, St. Thomas and Manchester.
Conservation Issues:	The Lignum-vitae tree is threatened by harvesting activities, fires, natural disasters (hurricanes and landslides), land/forest clearing for development and wood and charcoal burning. The species has been listed under Appendix 2 of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES) in an effort to protect the tree.

Did You Know?

A permit is required to import or export parts or derivatives of the Lignum vitae tree into or from Jamaica.

The Wild Life Protection Act, 1945

The Wild Life Protection Act and Regulations are primarily concerned with the protection, management and conservation of specified species of animals and the regulation of the hunting of specified animals including birds. The Wild Life Protection Act and Regulations are administered by the Natural Resources Conservation Authority/National Environment and Planning Agency. Some offences and penalties under the Wild Life Protection Act are outlined below:

Table 1: Offences and Penalties Under the Wild Life Protection Act

Section	Offence and Penalties
4 (1)	In a Game Sanctuary*: a) Hunt any animal or bird b) Take the nest or egg of a bird c) Take or allow a dog to enter d) Carry gun, catapult or other weapon for hunting Penalty - \$100,000 and/or imprisonment up to 1 year
4 (2)	Possess animal or bird or its nest or egg Penalty - \$100,000 and/or imprisonment up to 1 year
6 (2)	a) Hunt protected animal or bird b) Possess all or part of protected animal or bird c) Take or possess nest or egg of protected bird Penalty - \$100,000 and/or imprisonment up to 1 year
7 (2)	a) Hunt game bird in closed season or on unauthorized day b) Possess hawks for sale/offer or sell; store game birds Penalty - \$100,000 and/or imprisonment up to 1 year
8	a) Take, possess or try to sell turtle eggs b) Hunt animal/bird in Exclusive Economic Zone without license Penalty - \$100,000 and/or imprisonment up to 1 year

* A Game Sanctuary is an area declared as such and in which no hunting of birds is allowed.

The Endangered Species (Protection, Conservation and Regulation of Trade) Act, 2000

Jamaica became a Party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) on 22 July 1997. CITES is an international agreement amongst world governments with the predominant objective to ensure the protection of the various endangered animals and plants from international trade, thus ensuring that species are not exploited. Over 30,000 species are protected world wide. CITES does not only speak to the protection of these animals and plants, but also addresses products that may be derived from them.

In 2000, Jamaica enacted the Endangered Species (Protection, Conservation and Regulation of Trade) Act to provide for the protection and regulation of the trade of endangered species. Trade includes domestic trade, export, re-export, import and introduction from the sea. The Act is administered by the Natural Resources Conservation Authority/National Environment and Planning Agency. This Act established the national legal framework necessary to fulfill Jamaica's obligations under the Convention.

The Natural Resources Conservation Authority (NRCA) is the designated CITES Management Authority in Jamaica. All CITES applications for permits and certificates are processed by the Scientific Authority which advises the Management Authority regarding the trade of endangered species.

Appendices

The Convention has three appendices (representing categories of protection) which have been included in the Act as schedules:

Schedule 1 – Includes all species threatened with extinction which are or may be affected by trade

Schedule 2 – Includes all species which may become threatened unless trade in specimens of such species is subject to strict regulation

Schedule 3 – Includes all species which any Party identifies as being subject to regulation within its jurisdiction and needs cooperation of other Parties to control the trade.



Orchids

Oncidium gauntlettii (Note: This Plant has no common names).

Status:	Endemic, Vulnerable (CITES)
Description	Orchids are part of Jamaica's wild flora population and belong to one of the major flowering plant families – Orchidaceae. Of the over 200 species, 30% are endemic to Jamaica. They have been used in the horticultural industry for many years and contribute to the nation's economy. <i>Oncidium gauntlettii</i> has thickened stiff leaves arranged in a fan and lives on other plants for support only. Petals are commonly pale rose in colour and the disc of the lip is a pale yellow with a minute, cream coloured mound at the centre of the base surrounded by a thin red line. This orchid flowers between September and April.
Location/Habitat	<i>Oncidium gauntlettii</i> is located in the Parishes of Hanover, Westmoreland and St. Ann. The plant thrives best in medium shade on slabs of tree fern root or hard wood.
Conservation Issues:	Orchids in the wild are threatened by deforestation through housing developments, bauxite mining, charcoal burning, agriculture, local market sales and orchid collection. The Endangered Species (Protection, Conservation and Regulation of Trade) Act, 2000 and the Convention on International Trade in Endangered Species of Wild Fauna and Flora are designed to protect local species against international trading.

Did You Know?

The most populous habitats for Jamaica's orchids are the Cockpit Country (west central), Manchester and St. Ann which has over half of the orchids in the island.



Malpighia proctorii (Note: This Plant has no common names).

Status:	Status: Endemic, Endangered (Jamaica), Critically Endangered (IUCN)
Description and Importance:	The <i>Malpighia proctorii</i> was named after noted Jamaican botanist George Proctor and was first identified and collected in 1974. It is a small tree or shrub about 4m high. The leaves are leathery to the touch and egg-shaped with a shiny, smooth dark green upper surface and a pale green lower surface with hairs.
Location/Habitat	The <i>Malpighia proctorii</i> is located along the Road from Free People to Harris Savanna, Harris Savanna and Cornpiece/Hill Settlement (Clarendon) and west of Salt Island Lagoon (St. Catherine). The plant has been found in a tropical dry forest on limestone (dry limestone forest). Typical of this forest are plants adapted to living in dry/arid habitats.
Conservation Issues:	The plant is listed as a critically endangered plant species on the World Conservation Union's Red List. It is threatened by development, fire, quarrying and harvesting of wood for timber, yam sticks and other uses.

Did You Know?

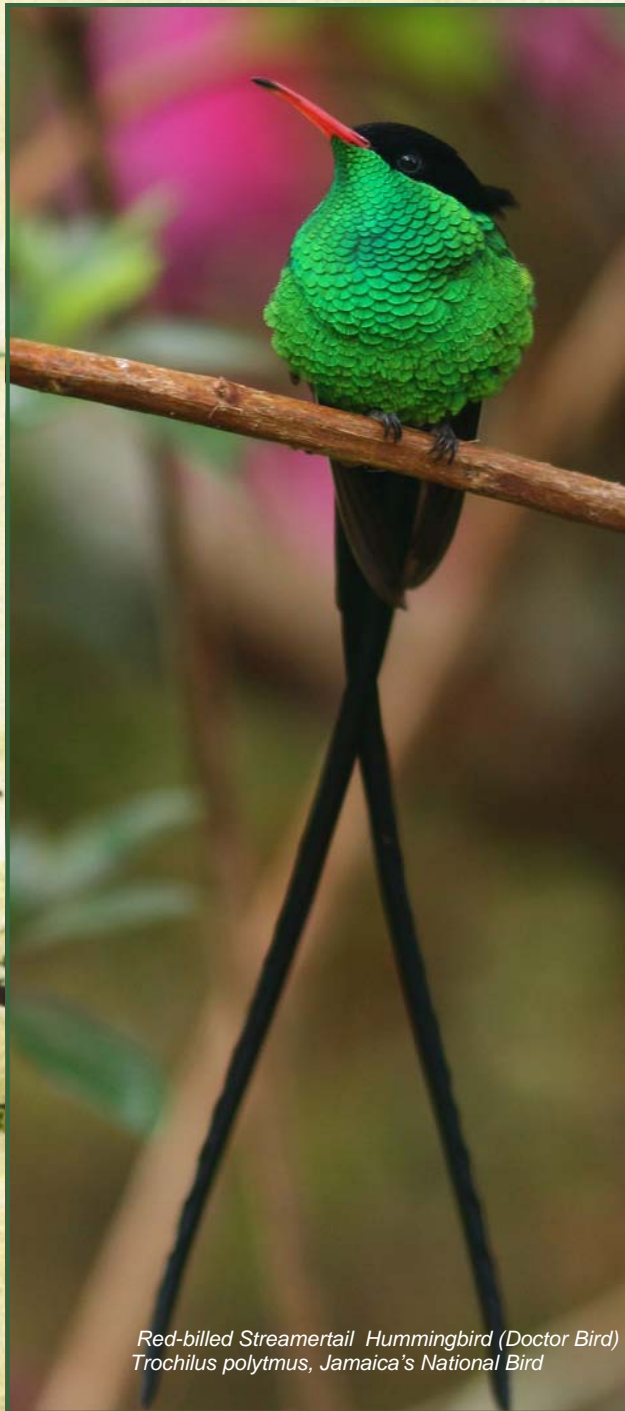
A permit is required for the import and export of all specimens and derivatives of the *Malpighia proctorii* plant.

There is a fourth schedule in the Act which includes species for which Jamaica wishes to regulate trade.

Some offences and penalties under the Endangered Species (Protection, Conservation and Regulation of Trade) Act, 2000 are shown in table 2 below.

Table 2: Offences and penalties under the Endangered Species (Protection, Conservation and Regulation of Trade) Act , 2000.

Section	Offence and Penalties
40	Trade in any endangered species listed in the Schedule without a certificate or permit Penalty - \$2,000,000 and/or imprisonment up to 2 years Circuit Court: Fine at discretion of High Court judge and/or imprisonment up to 10 years
41	Enclose in or with a letter, parcel, package, or other postal item, or transport in van, aircraft, ship any endangered species in contravention of the Act. Penalty - 1st offence: \$1,000,000 and/or imprisonment up to 1 year 2nd offence: \$2,000,000 and/or imprisonment up to 2 years Circuit Court: imprisonment up to 10 years
42	a) Make false/misleading declaration/statement to get permit/certificate b) Knowingly give, utter/produce false/misleading information/document c) Unlawfully amend/falsify information in permit/certificate Penalty - \$1,000,000 and/or imprisonment up to 1 year



Red-billed Streamertail Hummingbird (Doctor Bird)
Trochilus polytmus, Jamaica's National Bird

Flora (Plants)

Jamaica is well known for its many species of flowering plants and ferns, more than four hundred of which are considered threatened or endangered due to clearing of land and habitat changes. Approximately 30% of the island's flowering plants are endemic. An example of one of our indigenous plants is the Lignum-vitae which bears the national flower. Many of the island's more familiar and useful plants including breadfruit, ackee, coconut and banana were introduced with European colonization. There are other introduced plants which have become so well established that they are replacing native species and threatening their survival in some areas.



Broughtonia sanguinea

Fauna (Animals)

Jamaica is home to a wide variety of fauna, with a high number of them being endemic. Species such as the Jamaican Iguana and Jamaican Coney are found nowhere else. Many of these species are now critically endangered, endangered or in a vulnerable state. Some species such as the American Crocodile or the Jamaican Boa are feared by people. It should be noted that whereas the Jamaican Boa is harmless, the American Crocodile will attack a person, but only if provoked. Frogs are also another unpopular group with Jamaicans, however their existence signals healthy forests. Some animals have not been seen in many years and their status is unsure. Some species are believed to be critically endangered or possibly extinct. The Jamaican Petrel, for example, is considered to be extinct. The major threats to Jamaica's fauna are obvious and typical of many countries in the Caribbean and the world. Habitat loss, misguided human activities and the impact of invasive species (plant species that tend to spread and cover large areas) have succeeded in reducing our rich biological diversity.



Broughtonia negrilensis



West Indian Whistling Duck
Dendrocygna arborea

7



Jamaican Iguana

Cyclura collei

Status:	Endemic; Critically Endangered (IUCN); Protected
Description and Importance:	The Jamaican Iguana has spiny ridges and scales and a muscular, tapered body with a predominantly rock grey colour. This Iguana is Jamaica's largest lizard and can grow up to 1.5m in length. The Jamaican Iguana is primarily a plant eater (leaves, fruits and flowers), but sometimes consumes arthropods (spiders, scorpions, centipedes) and other animal material. The Iguana was previously thought to be extinct but was 'rediscovered' in the 1990's in the Hellshire Hills.
Location/Habitat:	The Iguana is found only in the dry limestone forest of the Hellshire Hills of St. Catherine, where it shelters in rock crevices. The habitat of the Jamaican Iguana is also home to other species such as the Jamaican Coney and the Yellow Snake.
Conservation Issues:	The habitat of the Jamaican Iguana is threatened by proposed mining, development and timber harvesting. The most serious threat is the illegal cutting down of trees for charcoal production. Other important threats include predation from mongooses, feral dogs and cats.

Did You Know?

Our Jamaican Iguana is considered to be one of the rarest animals in the world and is Jamaica's largest native land animal.

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Black-billed Streamertail Hummingbird

Trochilus scitulus

Status:	Endangered (Jamaica), Local Endemic, Protected
Description and Importance:	There are three hummingbird species endemic to Jamaica - the Jamaican Mango (Mango Hummingbird-see page 32), Red-billed Streamertail (Doctor Bird, see page 5) and the Black-billed Streamertail (Doctor Bird). The Black-billed species is very similar to the Red-billed type with the obvious difference being the colour of the bill. The female is not as bright as the male and does not have long tail feathers that give the species its name. The Black-billed species is less abundant than the other species and is only found in the eastern section of the island.
Location/Habitat:	The Black-billed species is only found in the humid eastern section of Jamaica in the Rio Grande Valley from Port Antonio east to Bowden on the south east coast and in the John Crow Mountains. It is rarely found with the Red Billed species except where their ranges overlap.
Conservation Issues:	As a result of a restricted habitat, its predominant threat would be habitat changes in the Rio Grande Valley.

Did You Know?

One interesting fact about this bird (and many other birds and animals) is that the female looks completely different from the male leading some persons to believe that they are two different species of hummingbirds. The male Red-billed Streamertail Hummingbird is Jamaica's national bird.

19



Jamaican Blackbird

Nesopsar nigerrimus

Status: Endangered (IUCN; Jamaica) Endemic, Protected

Description and Importance: The Jamaican Blackbird is a small bird with a short tail and a pointed bill. The Blackbird spends its time in trees or bushes and its diet consists mostly of insects.

Location/Habitat: The Jamaican Blackbird prefers wet montane forest types and is widely distributed but local in the Cockpit Country, the Blue Mountains and the central hilly regions of the country such as Worthy Park. They are found at elevations of 510-2,200m.

Conservation Issues: Habitat loss continues to be the major threat to Jamaica's wildlife. Within the Blackbird's known habitats are issues of tree removal for charcoal burning, fires, farming and other forms of development. The fact that one of the habitats of the Blackbird - the Blue Mountain - is a protected area, offers some assistance in protecting the population of Jamaican Blackbirds. Habitat destruction still occurs, however.

Did You Know?

The Jamaican Blackbird is the only species in the family of birds known as the Nesopsar.

8



Jamaican Boa (Yellow Snake, Nanka)

Epicrates subflavus

Status: Endemic, Protected, Endangered (CITES), Vulnerable (IUCN)

Description and Importance: The Jamaican Boa is one of the largest and most attractive of the boas within the Epicrates group, and has an oval, scaled body with yellow and black coloration and a predominantly black tail. It is the largest of the nine types of snakes found in Jamaica, and has been known to reach up to 2.2m in length. The Jamaican Boa, as with all other snakes found in Jamaica, is non-poisonous and has no fangs or venom. Adult snakes feed on rats, birds and bats, while the young will eat lizards, frogs and insects.

Location/Habitat: Many years ago, the Yellow Snake could be found in all parishes. Today, the snake is only found in specific locations. This naturally secretive and nocturnal reptile is easily adaptable to a variety of habitats such as mangrove, woodland, salt marsh, dry coastal and limestone forests such as the Hellshire Hills, Portland Ridge, Cockpit Country and the south and north foothills of the Blue Mountains.

Conservation Issues: Snakes suffer from the widespread destruction of their habitat as a result of poor agricultural practices, reduced forest cover, and persecution by man. Their survival has been attributed to the physical remoteness and difficulty of the terrain of their habitat. Snakes are naturally attracted to human activity in cultivated areas where water and rats on which they prey are usually available. Snakes have been the victims of road accidents, burning cane fields, and increased exposure to domesticated animals such as cats and dogs.

Did You Know?

Snakes appear to 'knot' together when they are mating, sometimes for many hours.

9



Jamaican Hutia (*Coney, Mountain Rabbit, Wild Guinea Pig*)
Geocapromys brownii

Status: Endemic, Endangered, Protected (Jamaica); Vulnerable (IUCN)

Description and Importance: The Jamaican Hutia or Coney is a rabbit-sized endemic rodent which is now very rare and difficult to find throughout Jamaica. It has a large head, short ears, legs and neck, and is clothed in short stiff black or dark reddish brown hairs. The Coney is a nocturnal animal and is very shy. They emerge at nights to feed on fruits, vegetables or seeds and they particularly like eating Spanish Needle, Guinea Grass, Bananas and Oranges.

Location/Habitat: The Coney is restricted to the remote mountain regions of Jamaica, in the Blue and John Crow Mountains (Portland and St. Thomas) and the Hellshire Hills (St. Catherine). They often shelter in holes in limestone areas for safety, especially for their young.

Conservation Issues: Deforestation, development, domesticated animals and man have all contributed to the destruction of the Coney's habitat and its near extinction. At present, half of the world's Coney species are extinct.

Did You Know?

Coneys are only found in the Caribbean with the Jamaican Coney being the largest.

18



Ring-tailed Pigeon

Patagioenas caribaea

Status: Vulnerable (IUCN), Endangered, Endemic, Protected (Jamaica)

Description and Importance:

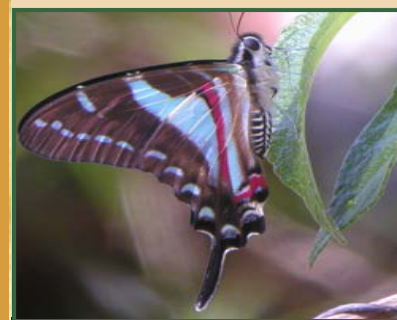
The Ring-tailed Pigeon is large, sleek and light grey with a black band across the middle of its buffy ash tail and an iridescent bluish green patch on the back of the neck. It has a black bill and a white throat. Its call is a fairly low pitched "cru cru crooo".

Location/Habitat:

The Ring-tailed Pigeon prefers wet forested mountain areas such as the Cockpit Country and the Blue and John Crow Mountains.

Conservation Issues:

Forest destruction and illegal hunting pose a serious threat to the Ring-tailed Pigeon.



Blue Swallowtail Butterfly (Blue Kite)

Eurytides marcellinus

Status: Endangered (Jamaica), Protected, Endemic, Vulnerable (IUCN)

Description and Importance:

The Blue Swallowtail Butterfly (Blue Kite) is easily distinguished from other species by its small size (forewing length of 30-35 mm), a long slender tail and bands of black and delicate pale blue green. It prefers wooded areas with the food plant Black Lancewood. Males migrate across the island; however their population is primarily located at Rozelle in St. Thomas. The species is threatened by a restricted breeding habitat and range, deforestation of its habitat and its larval host plant being limited in distribution.

17



Black-billed Parrot

Amazona agilis

Status:	Endemic, Vulnerable (CITES, IUCN)
Description and Importance:	The Black-billed Parrot is much smaller than the Yellow-billed (26.5 to 29 cm in length) and is less colourful. It has a black bill and a green body. They have a few red feathers (speckles) over the beak and on the shoulders. The ear feathers are black. It feeds on a variety of fruits, blossoms, nuts, berries and also likes to eat corn. This is a primary reason why they are persecuted by farmers. Both Black-billed and Yellow-billed Parrots contribute to seed dispersal. Parrots excavate a very deep cavity in a living tree trunk, which they use for nesting year after year, hence the importance of old growth forests for parrots.
Location/Habitat:	The Black-billed parrot can be found in tall trees in the mountain, in wet limestone forests or forest edges at elevations from 100 to 1400m. Common locations include Mount Diablo, John Crow Mountains and the Cockpit Country.
Conservation Issues:	Parrots are commonly sold illegally as pets. Poachers cut down trees with nests to take young birds. These trees are often also destroyed, thus greatly reducing the wild population as well as nesting habitats. Parrots are often mistreated and their wings clipped.

Did You Know?

The Black-billed parrot was once as common as the Yellow-billed species but is much more rare now as a result of deforestation.

10



West Indian Manatee (Sea Cow)

Trichechus manatus manatus

Status:	Endangered (CITES), Vulnerable (IUCN), Protected
Description and Importance:	Manatees, described as Jamaica's largest native animal, are large, grey, gentle and harmless creatures with an oval body, two small front flippers and a broad, flat rounded tail. Manatees are mammals and therefore nurse their young. They are about 5m in length and can weigh as much as 700kg. They are herbivores and eat sea grass of about 10% of their body weight per day. Sea Cows also help to control vegetation in rivers keeping waterways clear. They rest for several hours each day, surfacing only to breathe.
Location/Habitat:	The Sea Cow can be found in Jamaican waters as well as elsewhere in the Caribbean region and as far north as Florida. The Antillean subspecies inhabits riverine and coastal systems in the tropical and sub tropical Western Atlantic from Bahamas to Brazil, including the Caribbean Sea and the Gulf of Mexico. They can therefore be found swimming in the warm waters of the north and south coasts of Jamaica.
Conservation Issues:	Future generations will not be able to see a Manatee up close if these animals are not protected. Very little has been done by way of conservation for these sea mammals with recent reports of a declining adult population. Manatee sightings in Jamaica have also become rare, with the belief that fewer than 100 are in existence. Sea Cows are non-aggressive towards each other and other creatures. Unfortunately, they are often entangled in fishing nets and killed for their meat.

Did You Know?

Manatees have been known to help drowning persons by pushing them up to the surface. Manatees have been associated with the mermaid myth from 1493 when Columbus reported in his diaries seeing three mermaids.

11



American Crocodile

Crocodylus acutus

Status:	Endangered (CITES), Vulnerable (IUCN), Protected
Description and Importance:	The American Crocodile is the least aggressive of the crocodilian species. It is a large lizard-shaped reptile with a long muscular tail and four short legs. The nesting period for crocodiles occurs during the dry period at the end of April to May. Crocodiles help in the removal of diseased animals and create deep natural ponds which support other aquatic life forms during drought. If it is difficult to find food, crocodiles will scavenge through garbage dumped along rivers, in wetlands and along beaches.
Location/Habitat:	Crocodiles can be found in coastal brackish, salt water, swamp habitats and also in rivers. They however, prefer the quiet and secluded waters of coastal swamps. Crocodiles are located along the South coast from Morant Point, Kingston, Portland Ridge, Black River, Negril and Montego Bay to Falmouth.
Conservation Issues:	Crocodiles are most affected by deliberate and unintentional killings. The misplaced fear of this shy yet rare animal has resulted in a significant decline in the number of crocodiles. Added to these are the issues of habitat loss through commercial and residential development, which has destroyed wading ponds, nesting sites, and nurseries, resulting in crocodiles seeking out new areas to inhabit. This will undoubtedly increase the frequency of human and crocodile confrontations.

Did You Know?

What is commonly called alligator in Jamaica is really the crocodile, the largest wild animal found in Jamaica and one of the oldest living animals in the world.

16



Yellow-billed Parrot (generally known as Amazon Parrot)

Amazona collaria

Status:	Endemic, Vulnerable (IUCN, CITES), Protected
Description and Importance:	This colourful beauty has a yellow bill, a mostly green body with bluish crown and a pink neck. It feeds on a variety of fruits, blossoms, nuts, berries and also likes to eat corn. The Yellow-billed Parrot is much larger than the Black-billed species. Parrots are believed to contribute significantly (through their feeding habits) to the general dispersal of seeds. Parrots excavate a very deep cavity in a living tree trunk, which they use for nesting year after year, hence the importance of old growth forests for parrots.
Location/Habitat:	The Yellow-billed Parrot prefers mid-level wet limestone forests at elevations up to 1200m. They are located from the Cockpit Country to Mount Diablo and in the Blue and John Crow Mountains.
Conservation Issues:	Parrots are commonly caught and sold illegally as pets. Poachers cut down trees with nests to take young birds. Destruction of such trees greatly reduces the wild population as well as nesting habitats. Parrots are also seen as a nuisance by farmers who often shoot them because they eat their crops.

Did You Know?

Yellow-billed parrots will sometimes fly considerable distances just to feed.

15



Giant Swallowtail Butterfly (*Homerus Swallowtail*)
Pterourus homerus (formerly known as *Papilio homerus*)

Status:	Endemic, Endangered (IUCN,CITES), Protected
Description and Importance:	The Giant Swallowtail Butterfly is one of over one hundred butterfly species found in Jamaica. This treasure is immaculately dressed in black and gold (or dark brown) with gold patches from the top centre of its wings curving inwards. A series of dark blue circular spots also decorate its lower wings which taper off into separate tail- like features. The Giant Swallowtail Butterfly is a proud symbol of Jamaica's heritage and represents the beauty and distinction of our rainforests. The Giant Swallowtail Butterfly is also described as one of the most spectacular butterflies in the world and needs the protection of our parks and forests for its survival. It flies from plant to plant sucking nectar and particularly likes the Water Mahoe, Hibiscus and Spanish Needle plants.
Location/Habitat:	The Giant Swallowtail Butterfly flies at high elevations (150-550m) and is to be found mostly in the mountainous regions of Jamaica such as the Cockpit County and the Blue & John Crow Mountains.
Conservation Issues:	The population of the Giant Swallowtail Butterfly has declined significantly as a result of habitat loss due to agriculture, and predatory threats from birds and lizards; as known habitats continue to decrease for both predator and prey.

Did You Know?

The Giant Swallowtail Butterfly is the second largest butterfly in the world, and the largest Swallowtail in the Western Hemisphere.

12

Sea Turtles

Sea Turtles are ancient global travelers which nest in one country, feed in another and spend their entire life at sea. Sea turtle populations are presently on the decline and are listed as endangered and protected by many countries including Jamaica. Turtles breathe air and have a heart with three chambers. There are four species of sea turtles which have been recorded as nesting in Jamaica – the Hawksbill, the Leatherback, the Loggerhead and the Green Turtle.



Hawksbill Turtle

Eretmochelys imbricata

Status: Critically Endangered (IUCN),
Endangered (CITES), Protected (Jamaica)

Description and Importance:	The Hawksbill Turtle has a very attractive coloured shell with thick overlapping scutes. The shell is streaked and mottled with brown, orange, black, yellow and/or red. The shell is approximately 1m in length. The adult weighs about 50kg. The Hawksbill Turtle feeds mostly on sponges. Habitat – The Hawksbill Turtle is the most tropical of all the marine turtles and is usually found in coastal reefs and bays.
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Green Turtle

Chelonia mydas

Status: Endangered (IUCN, CITES) Protected (Jamaica)

Description and Importance:	The Green Turtle is olive brown in colour and has a shell length of up to 1m and generally weighs up to 230 kg. They are herbivores and feed on seagrass and algae. The Green Turtle gets its name from the colour of its fat, which is olive green, and the seagrass it feeds on. Habitat – The Green Turtle is found mostly in shallow waters inside coral reefs, where they also sleep. They are highly migratory and prefer tropical and to a lesser extent sub tropical waters.
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Conservation Issues:	Turtles are often over harvested and hunted for their meat, eggs, oil and leathery skin (in the case of the Leatherback) and are sometimes captured by shrimp trawlers or fishing nets. Sand mining and coastal zone developments have also destroyed nesting beaches and foraging habitats. Lights, noise, trash and activities along the beach very often discourage females from coming ashore.
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Sea Turtles



Loggerhead Turtle

Caretta caretta

Status: Endangered (IUCN,CITES),
Protected (Jamaica)

Description and Importance: The Loggerhead Turtle is reddish brown in colour with a large head and powerful jaws. Its maximum shell length is 1m and can weigh as much as 180kg. They feed mostly on shellfish such as clams, crustaceans and encrusting animals attached to rocks and reefs.

Habitat – They are highly migratory and live mostly in deep waters where food bearing currents are located.



Leatherback Turtle

Dermochelys coriacea

Status: Critically Endangered (IUCN),
Endangered (CITES), Protected
(Jamaica)

Description and Importance: The Leatherback is the largest of the marine turtles. It lacks a bony shell but is covered with a firm, rubbery skin with seven longitudinal ridges. The skin is covered with black and white blotches. The Leatherback can weigh up to 600 kg and can reach a length of 1.8m. It feeds mostly on jellyfish. It is a very powerful swimmer and deep diver which prefers to nest on sandy beaches.

Habitat – The Leatherback is the largest and most aquatic of the sea turtles and prefers waters up to 36m deep.

Did You Know?

- The sex of baby turtles is dependent on the temperature of the surrounding sand.
- Female turtles always return to the beach they were hatched to lay their eggs.

Corals

Corals look like rocks but are actually living colonies of tiny animals. Coral reefs are considered the rainforests of the sea and exist in warm, tropical, clear and unpolluted waters. The Caribbean accounts for about 20% of the world's coral reefs. Corals feed on small marine organisms and also provide food and shelter for a variety of fish, crabs, lobsters, turtles and many other marine creatures. They aid in the generation of sand and protect coastal areas from direct battering from storm and hurricane waves.



Staghorn Coral

Acropora cervicornis

Status: Critically Endangered (IUCN),
Vulnerable (CITES), Protected (Jamaica)

Description and Importance: The Staghorn Coral is no longer common and can be found at a wide range of depths. Branches are known to grow to over 1m in length and are quite slender. Living colonies are yellow, brown or golden in colour.



Elkhorn Coral

Acropora palmata

Status: Critically Endangered (IUCN),
Vulnerable (CITES), Protected (Jamaica)

Description and Importance: Elkhorn Corals are found in shallow waters throughout the Caribbean, forming dense forests between the surface and depths of about 4m. Branches can grow to over 2m long and as thick as a human body at their base. Living colonies are yellow, brown or golden in colour.



Black Coral

Antipathes gracilis

Status: Vulnerable (CITES),
Protected (Jamaica)

Description and Importance: Black Corals are rare corals found in relatively shallow waters off Jamaica's coast. They resemble plants and grow in large bushy colonies frequently exceeding 1m in height. The black material used in jewelry making forms the internal part of the living coral and grows very slowly. Black Corals are threatened by over collection for use as semi precious jewelry.