

THE TOBAGO MAIN RIDGE FOREST RESERVE

est. 1776



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Remarks



Ambassador Dr Christophe Eick

German Embassy
Trinidad and Tobago

The Tobago Main Ridge Forest Reserve lies at the heart of Tobago's natural and cultural heritage. A "Core Area" of the UNESCO Man and the Biosphere Reserve of North-east Tobago, the reserve plays a pivotal role in climate change resilience and sustainable livelihoods.

UNESCO Biosphere Reserves are important building blocks in the preservation ofthe world's biodiversity. With its Main Ridge Forest Reserve, Tobago is well placed to contribute to a significant extent to Trinidad and Tobago meeting her international commitments under the UN Biodiversity Convention.

The German Embassy in Port of Spain is pleased to be associated with initiatives that call on us to be more ambitious in protecting and saving our natural resources.

The Tobago Main Ridge Forest Reserve, created in 1776, is one of the oldest protected tropical forests globally. As we approach the 250th anniversary of an historic milestone, this book is a fitting tribute to all those that help preserve Tobago's - and indeed the world's - natural treasures.

The Tobago Main Ridge Forest Reserve, a globally recognised UNESCO Biosphere Core Area



Darren Henry

Director Department of Natural Resources and Forestry, Acting Conservator of Forests Tobago

The establishment of the Main Ridge Forest Reserve was a visionary idea that was realised, and we as a people still celebrate its existence after approximately 249 years, boasting of having the oldest forest reserve in the world. The Main Ridge Forest Reserve serves as a sustainable measure for the management of our natural resources on the island of Tobago. We strive to maintain and enhance its protection, as it provides us with valuable ecosystem services that the population continues to benefit from. Public awareness and education initiatives have kept the reserve intact. Initiatives such as this book will continue to be pivotal in increasing awareness and knowledge of the Man and the Biosphere Reserve, which provides a livelihood for a large number of individuals on the island. As this initiative and others continue to be developed, it therefore means that the Main Ridge Forest Reserve and the North-east Tobago UNESCO Man and the Biosphere Reserve have a greater chance of being sustainably managed for future generations.



Linford Beckles

Director Department of the Environment, National UNESCO MaB Focal Point, Director TOBIMA

The Main Ridge Forest Reserve is one of the premier natural jewels of Tobago and it is critically important to the island and its people from a spiritual, cultural, ecological and socio-economic perspective. These features render the reserve central to the realisation of the ideals of the UNESCO Man and the Biosphere Programme as it is an integral part of the North-east Tobago Biosphere Reserve. While the reserve has often been the subject of literary focus over the years, I am particularly proud of this coffee table book initiative which summarizes its essential elements and services, highlights challenges to the maintenance of its integrity and engenders hope for progressive governance and management of the reserve in support of sustainable development. This has all been done in a manner which is easily intelligible and interesting from an informational and aesthetic perspective. I welcome the development of this book as an additional step in the process of institutionalizing the conservation of the natural and cultural heritage in North-east Tobago within the Biosphere Reserve concept, with a view to maintaining and expanding sustainable livelihoods in the green, blue, purple and orange economies.

It is now incumbent upon me to congratulate all entities and persons who have contributed to the development of this book, including the German Embassy of Trinidad and Tobago, Tobago House of Assembly led by the Office of the Chief Secretary, the Environmental Research Institute Charlotteville, all technical reviewers, community representatives and UNESCO.

I am confident this book will serve as a valuable tool in our effort to conserve our natural and cultural assets for the benefit of current and future generations. Congratulations again on this wonderful achievement.



Antonio Abreu

Director, Division of Ecological and Earth Sciences
Secretary, Man and the Biosphere Programme, UNESCO

Across small islands worldwide, nature and culture are deeply interwoven. From ancient forests to vibrant coral reefs, from oral traditions to scientific inquiry, these landscapes reflect both the unique challenges and the remarkable potential of Small Island Developing States. In this context, the Main Ridge Forest Reserve is a powerful example of the interdependence between people and the natural world.

This publication brings that story vividly to life. It captures what makes places like North-east Tobago of global relevance: rich biodiversity, enduring cultural traditions, and the resilience of communities navigating environmental and social change.

The ecological data alone are striking. The Main Ridge Forest Reserve harbours more than 660 plant species, 128 birds, 37 mammals, and 22 non-venomous snakes. Many are endemic, found nowhere else on Earth, including unique birds, frogs, and trees that underscore the area's national and global importance.

Designated in 2020 under UNESCO's Man and the Biosphere Programme, the North-east Tobago Biosphere Reserve, with the Main Ridge Forest Reserve at its heart, marks a significant milestone for the Caribbean. It exemplifies how small island communities can lead the way in conserving biodiversity while advancing sustainable development and safeguarding cultural heritage. Its forested slopes, diverse microclimates, and ridge-to-reef ecosystems sustain the livelihoods of over 15,000 people and serve as natural buffers against the impacts of climate change.

However, the actual value extends beyond its ecosystems. It lives in the knowledge, stories, and practices of its people. From the use of healing plants to oral traditions and spiritual connections with sacred trees and ancestral sites, these pages reveal a profound and ongoing relationship with nature that offers insights for a more sustainable and inclusive future.

This book is more than a collection of data and images. It is an invitation to recognise and safeguard what North-east Tobago represents: a living heritage where environmental care, cultural identity, and sustainable development are seamlessly connected.

May this publication inspire us to learn from island communities, support their leadership, and reaffirm the essential role of Biosphere Reserves as hubs for conservation, knowledge, education, and sustainable progress. In doing so, we honour the Main Ridge Forest Reserve as a source of Tobagonian pride and a beacon of global significance.

Acknowledgements

The Environmental Research Institute Charlotteville would like to thank:

- the German Embassy, Port of Spain, Trinidad and Tobago, and the German Federal Foreign Office, for its support in securing and administering the required funding to publish this book;
- the Tobago House of Assembly, and specifically, the Department of the Environment for their endorsement;
- all persons that provided insights and inspiration regarding the Main Ridge Forest Reserve, especially participating residents; and
- past and present staff and volunteers that contributed to this publication.

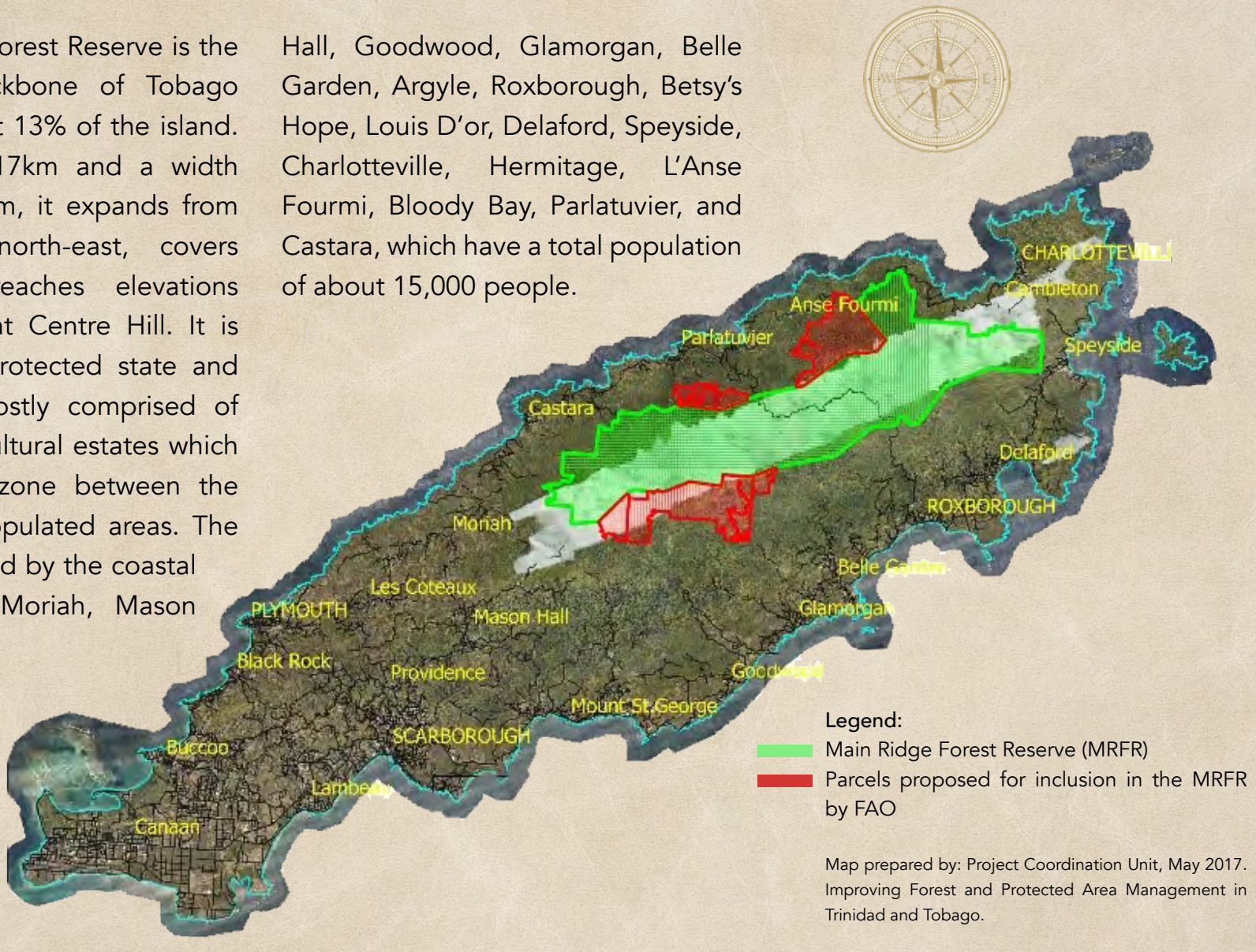




Trinidad Motmot - *Momotus bahamensis*

Tobago's Backbone

The Main Ridge Forest Reserve is the mountainous backbone of Tobago and covers almost 13% of the island. At a length of 17km and a width between 2 to 6km, it expands from south-west to north-east, covers 3,958ha, and reaches elevations of up to 630m at Centre Hill. It is bordered by unprotected state and private lands, mostly comprised of abandoned agricultural estates which act as a buffer zone between the protected and populated areas. The ridge is surrounded by the coastal communities of Moriah, Mason Hall, Goodwood, Glamorgan, Belle Garden, Argyle, Roxborough, Betsy's Hope, Louis D'or, Delaford, Speyside, Charlotteville, Hermitage, L'Anse Fourmi, Bloody Bay, Parlatuvier, and Castara, which have a total population of about 15,000 people.

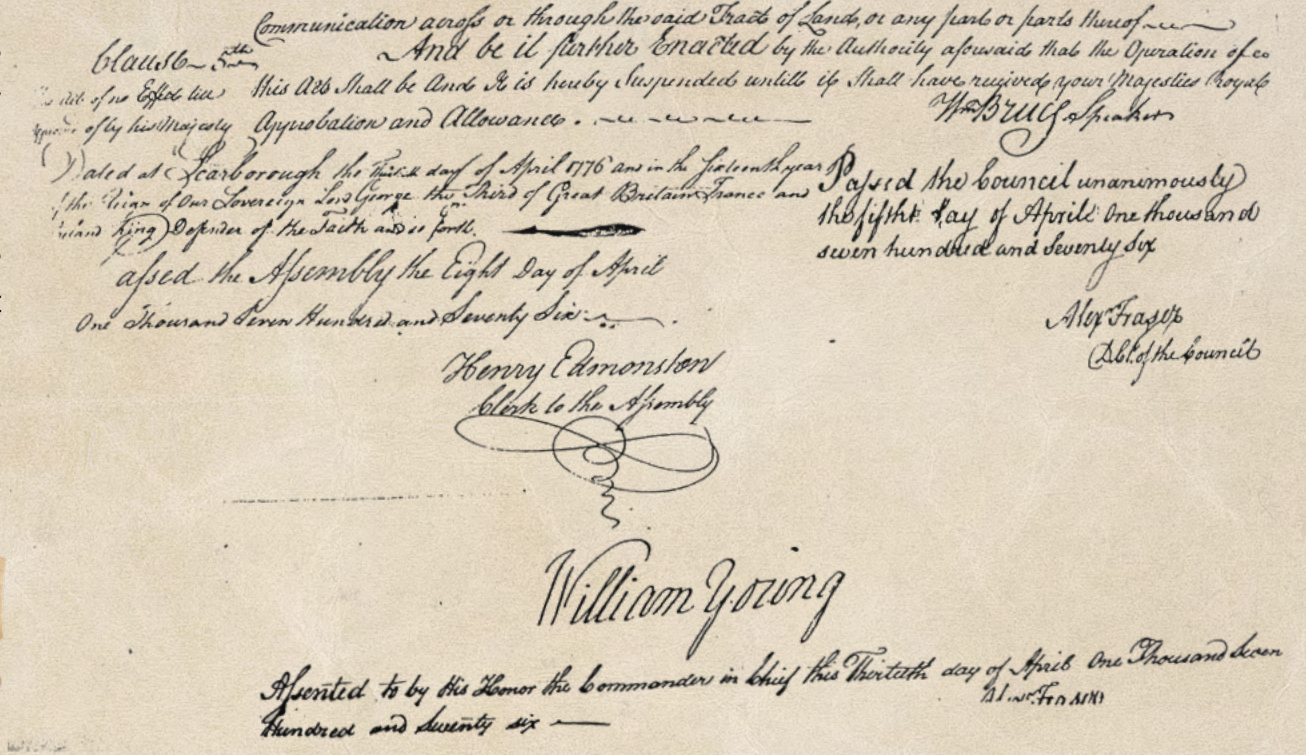


The Tobago Main Ridge Forest Reserve, a globally recognised UNESCO Biosphere Core Area

A Historical Record

The Main Ridge Forest Reserve is historically significant as the first legally protected tropical forest globally.

In 1776, North-east Tobago set this global milestone when, after almost a decade of continuous effort and instructions by King George III to conserve the area, the Forest Reserve was established.


Communication across or through the said Tracts of Lands, or any part or parts thereof.
Clause 6th
And be it further Enacted by the Authority aforesaid that the Operation of
This Act shall be And it is hereby Suspended until it shall have received your Majesties Royal
Approbation and Allowance.
Wm Young Speaker
Dated at Scarborough the Third day of April 1776 and in the Sixteenth year
of the Reign of Our Sovereign Lord George the Third of Great Britain France and
Ireland King Defender of the Faith and so forth.
Passed the Council unanimously
the Fifth day of April One Thousand
seven hundred and Seventy Six
Passed the Assembly the Eight Day of April
One Thousand Seven Hundred and Seventy Six
Alex Fraser
Clk of the Council
Henry Edmonston
Clerk to the Assembly
William Young
Assented to by His Honor the Commander in Chief this Thirtieth day of April One Thousand Seven
Hundred and Seventy six

Mountainous land proper for attracting "rains inalienable"

Created by the Council of the Tobago House of Assembly and signed by Major William Young, the Act for rendering a certain tract of land proper for attracting "Rains Inalienable" was entered into force, enabling sustained water supply for communities and agriculture. Other national forest reserves in Trinidad and Tobago were not designated until the 20th century. The 1776 declaration, passed more than two centuries before the declaration of the United Nations Sustainable Development Goals in 2015, is an outstanding example of preserving ecosystem services for economic and livelihood purposes.

Trinidad and Tobago's National Treasure

In 2019, the Tobago House of Assembly applied through the National Trust of Trinidad and Tobago for listing the Tobago Main Ridge Forest Reserve as a natural National Heritage Site.

A National Heritage Site is defined as a "*place of natural beauty and national, historic, scientific, or archaeological interest*". They are important physical reminders of our nation's past and of our national treasures, representing what we hope to pass on to future generations. As such, they are protected under the National Trust of Trinidad and Tobago Act 1991, which makes it illegal to damage or deface the site and prevents unauthorised changes to the area.

The lush green forests, clear streams, and rolling mountains of the Main Ridge Forest Reserve are of impressive natural beauty. Undisputed is its historic significance as the first legally protected tropical forest reserve globally (according to the western law system). The remarkable geology, biodiversity, ecological connectivity, location between two biogeographic regions, and cultural relevance are of high conservation value attracting eco-tourists, university groups, and scientists from around the globe.

Based on these values, the application was ratified by Cabinet and the Main Ridge became our nation's first natural National Heritage Site.

The Main Ridge is the pride of every Tobagonian and is deeply ingrained in our island's culture.

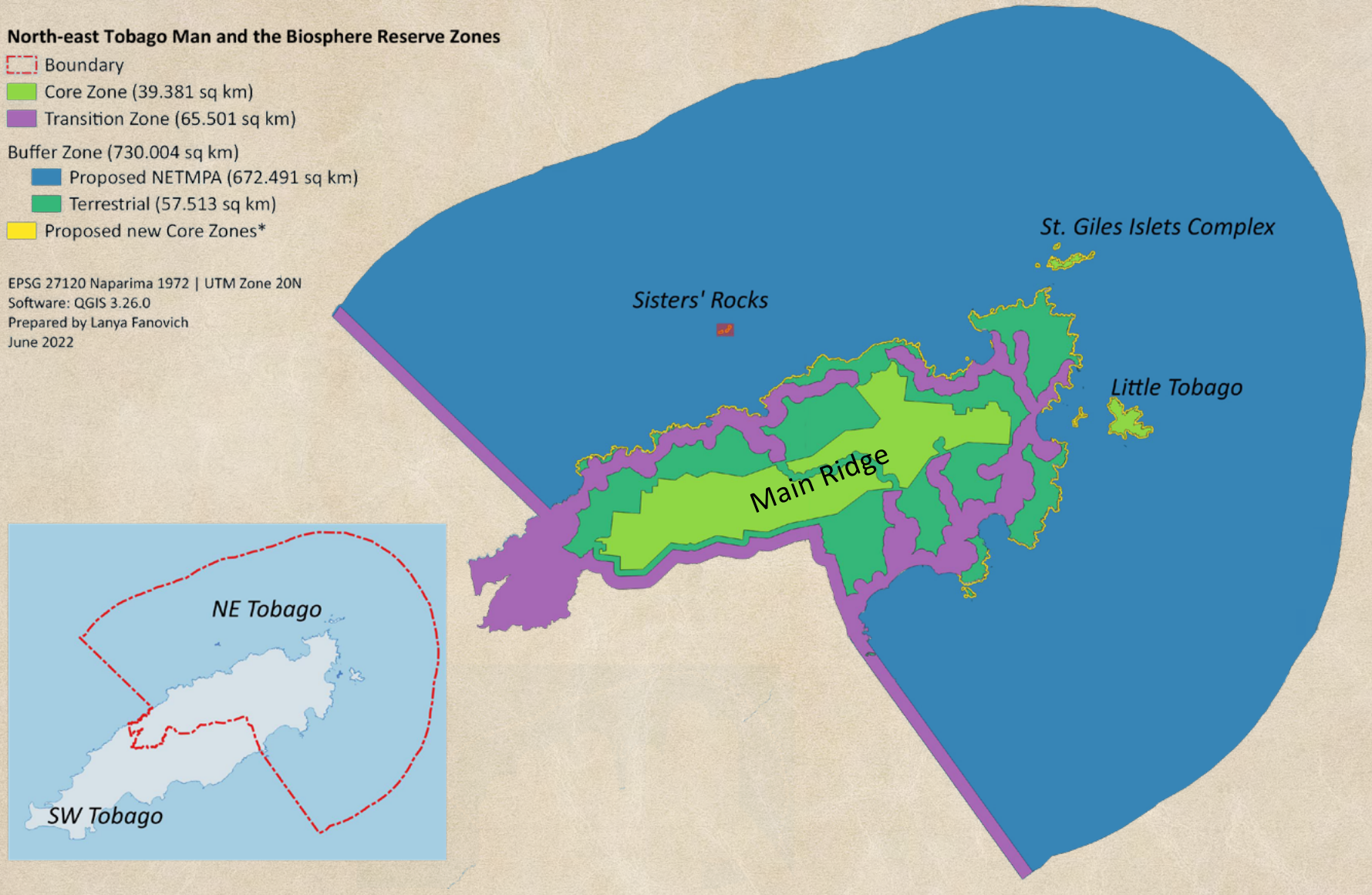




Path crossing in the MRFR

A "Core Area" of the Tobago Biosphere Reserve

Only one year after the declaration as a natural National Heritage Site, North-east Tobago was designated by the United Nations as a "Man and the Biosphere Reserve", an area of global relevance for conservation, sustainable livelihoods, and knowledge exchange.
After 2.5 years of drafting the required documents by the Environmental Research Institute Charlotteville, the Tobago House of Assembly submitted them via the Ministry of Foreign Affairs to the United Nations Educational, Scientific, and Cultural Organization (UNESCO) which carefully evaluated the application.
In October 2020, North-east Tobago was declared a Biosphere Reserve, currently the largest among Caribbean Small Island States, with the Main Ridge Forest Reserve as its most significant "Core Area".
A Core Area in a Biosphere Reserve must be protected under national law, with the primary focus on preserving its conservation value. Human intervention is prohibited to preserve the natural ecosystem and its biodiversity.
If this were not enough, the Main Ridge is an internationally recognised Important Bird Area and was named the Caribbean Nature Park of the Year in 2019 by the Caribbean Journal's Green Caribbean Awards.

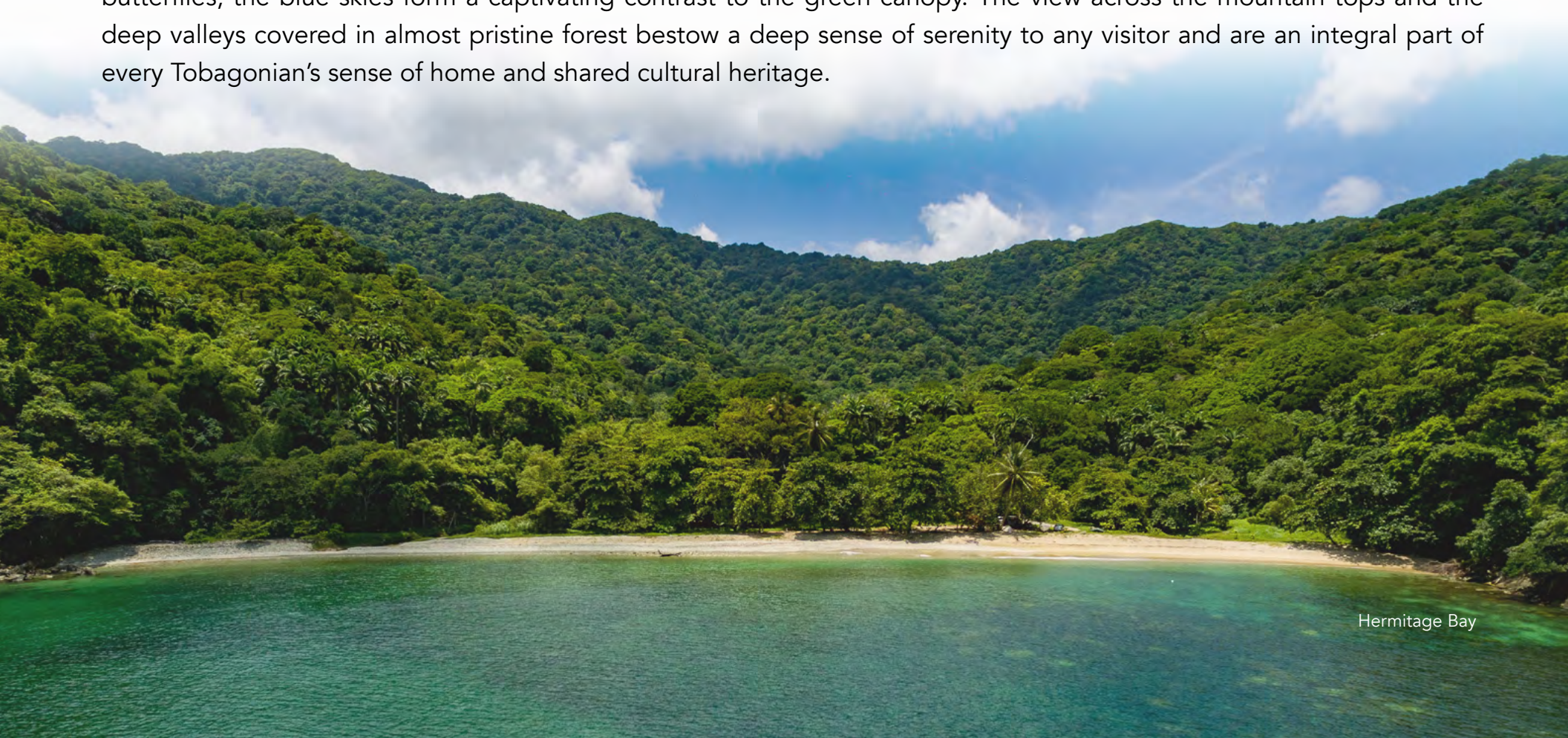


The Tobago Main Ridge Forest Reserve, a globally recognised UNESCO Biosphere Core Area

Natural Serene Beauty

The lush green forests, clear streams, and rolling hills of the Main Ridge Forest Reserve are an impressive natural wonder. The Tobagonian historian C.R. Ottley wrote in his 1969 description of the Main Ridge: "*It's a thing of beauty, a joy serene, a cure for aching heads and lonely hearts.*"

While walking through the green forest with the gentle sounds of the wind blowing through leaves and birds singing to one another, you will be able to inhale a deep breath of fresh, crisp air and enjoy the moment. As you look for birds and butterflies, the blue skies form a captivating contrast to the green canopy. The view across the mountain tops and the deep valleys covered in almost pristine forest bestow a deep sense of serenity to any visitor and are an integral part of every Tobagonian's sense of home and shared cultural heritage.



Hermitage Bay

A Moving Island

The geological history of Tobago is remarkable. Ten million years ago, Tobago was an oceanic island thousands of miles away in the Pacific Ocean but, over the millenia, the Caribbean tectonic plate, with Tobago on top of it, shifted to its present location in the Atlantic. Together with its sister isle, Trinidad, Tobago forms part of the southermost islands of the Lesser Antilles and shares a multitude of species with the South American continent due to their repeated transitional fusions back in time.

These fusions happened when low sea levels during the last Ice Age allowed the formation of land bridges to Trinidad and from there to Venezuela which facilitated increased migration of a multitude of species.

Geologically, the Main Ridge is part of the oldest section of the North Coast Schist Group, containing metavolcanic and metasedimentary rocks, which were formed deep in the Earth's crust millions of years ago under intense heat and pressure.







The Tobago Main Ridge Forest Reserve, a globally recognised UNESCO Biosphere Core Area

Walk Good

Walking through the forest, one can sense the echoes of its storied past. For centuries, it has been a vital resource, offering fresh water, medicinal and spiritual herbs, lumber, and provisions from plants and wildlife. A still intact historic trail weaves through the forest from Bloody Bay to Roxborough. Once used for hunting, transporting goods, and visiting family members across the Main Ridge, it holds the footprints of generations who lived in harmony with this land. In the last century, the trail partially transformed into the only road through the Main Ridge and stands today as a must-see for every visitor to Tobago. As you journey along this path, you experience a living testament to the forest's enduring legacy.

Its associated trails offer excellent opportunities for every level of hiking, from easy to difficult, to explore the forest with an experienced tour guide. However, most of the forest reserve remains inaccessible due to the lack of roads and trails. On the plus side, this also limits deforestation and other illegal activities which might harm this fragile ecosystem.



Leaf-cutter ants - *Atta cephalotes*



Microclimate

Small differences in weather, altitude, and humidity can make big differences regarding habitat preferences and survival rates of many animals, plants, and fungi. Each type of micro-climate provides habitats for specific organisms whose life cycles are interlinked and dependent on a specific microclimate. Seasonal changes in microclimate trigger the flowering of trees and smaller plants, nectar and pollen eating animals like insects and hummingbirds align their breeding seasons according to this seasonal abundance of highly nutritious food.

Overall, temperatures are varying between 22°C and 33°C on average. The humidity is high: more than 70% year-round, with a higher average temperature and humidity in the rainy season.

Once rhythmic and predictable, the microclimate of the Main Ridge is increasingly altered by Climate Change. Once rhythmic and predictable, the microclimate of the Main Ridge is increasingly altered by climate change, making it difficult for organisms to adapt their life cycles and putting the ecosystems and biodiversity of the Main Ridge in grave danger!

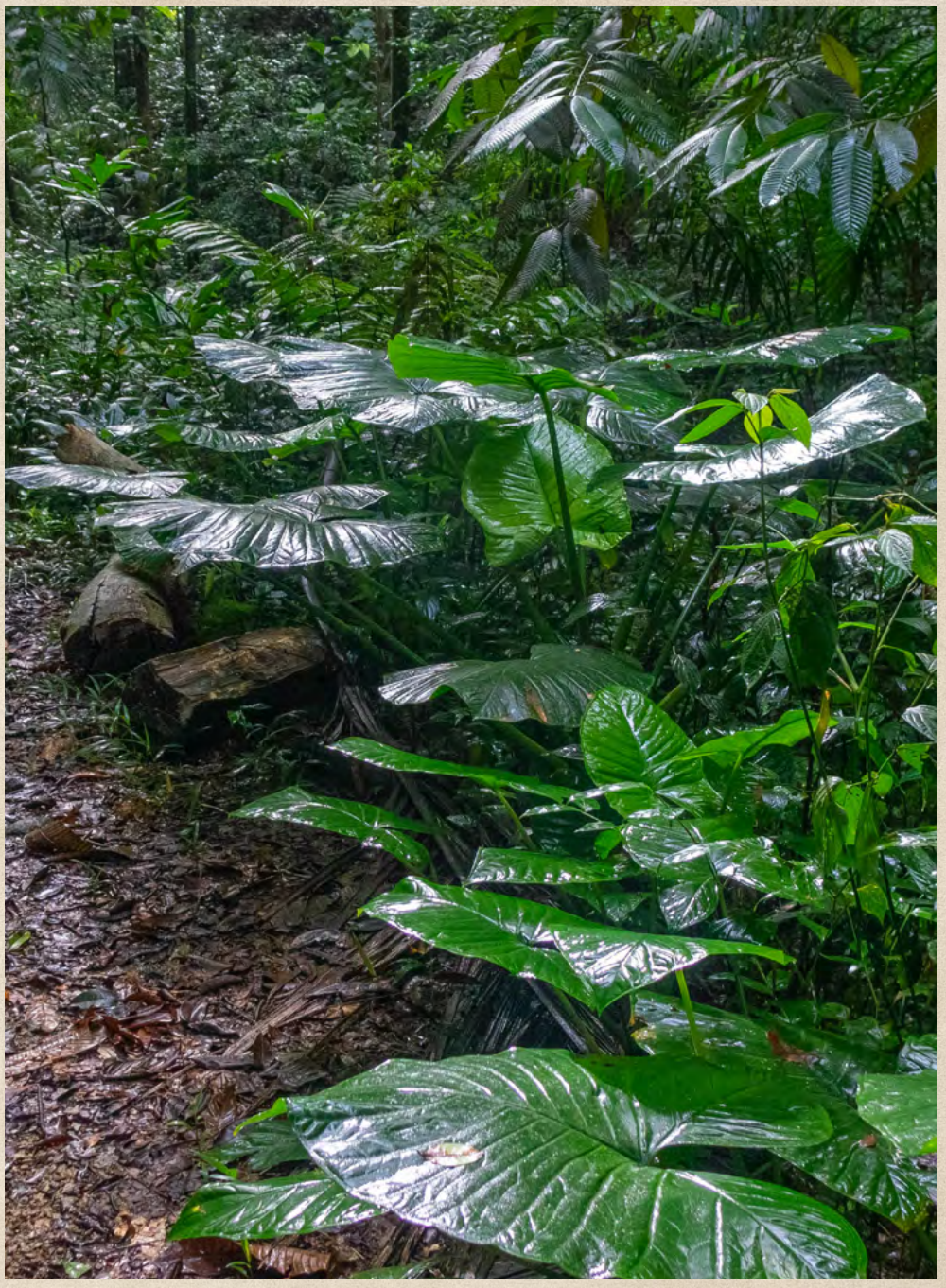
The Tobago Main Ridge Forest Reserve, a globally recognised UNESCO Biosphere Core Area

Diverse Niches for Diverse Species

In contrast to the more isolated islands of the Antilles, Tobago's forests constitute a mix of South American and Antillean tree and animal species. The different microclimates within the Main Ridge Forest Reserve resulted in the formation of four different types of moist broadleaf forests: lower montane forest, xerophytic (dry) tropical forest, evergreen formations, and some Elfin woodland.

The lower montane forest is most abundant and found at heights between 250 and 350m. This area receives the greatest amount of rainfall, the greatest exposure to wind, and the lowest temperatures, thus making it an evergreen forest.

The xerophytic tropical forest is found on the southern slopes at heights above 250m, is the driest compared to the other types, and restricted to the sheltered valleys of the Main Ridge.



The Tobago Main Ridge Forest Reserve, a globally recognised UNESCO Biosphere Core Area

Evergreen formations are characterised by moist forests and found at more sheltered locations between 100 and 300m. They comprise mainly of broad-leaved evergreen trees with some foliage reduction in the dry season. On the highest elevations, some Elfin woodland can be found consisting of tree ferns, bromeliads, epiphytes and anare palms as a stunted gnarled thicket festooned with moss and lichen.

This variety of forest types and micro-climates provides an abundance of ecological niches that are occupied by often highly specialised and therefore vulnerable organisms. On the other hand, these niches are also traversed by ecological generalist species, making tropical rain forests one of the world's most biodiverse ecosystems.

"Wind makes trees shorter!"



Xerophytic dry tropical forest

The Tobago Main Ridge Forest Reserve, a globally recognised UNESCO Biosphere Core Area



Roxborough to Bloody Bay main road - the only road leading through the MRFR

Biodiversity Galore

The Main Ridge supports globally significant levels of biodiversity, including 22 non-poisonous snake species, 37 mammal species, 16 lizard species, 128 bird species, 662 plant species, 15 frog species, 41 fish, and numerous invertebrates. Further research will very likely discover even more new species in this area.



Tobago Scrub Greenlet - *Hylophilus flavipes insularis*
© Doug Gochfeld



Ocellated Gecko - *Gonatodes ocellatus*



Agnosia Clearwing "Blue Transparent" - *Ithomia agnosia*

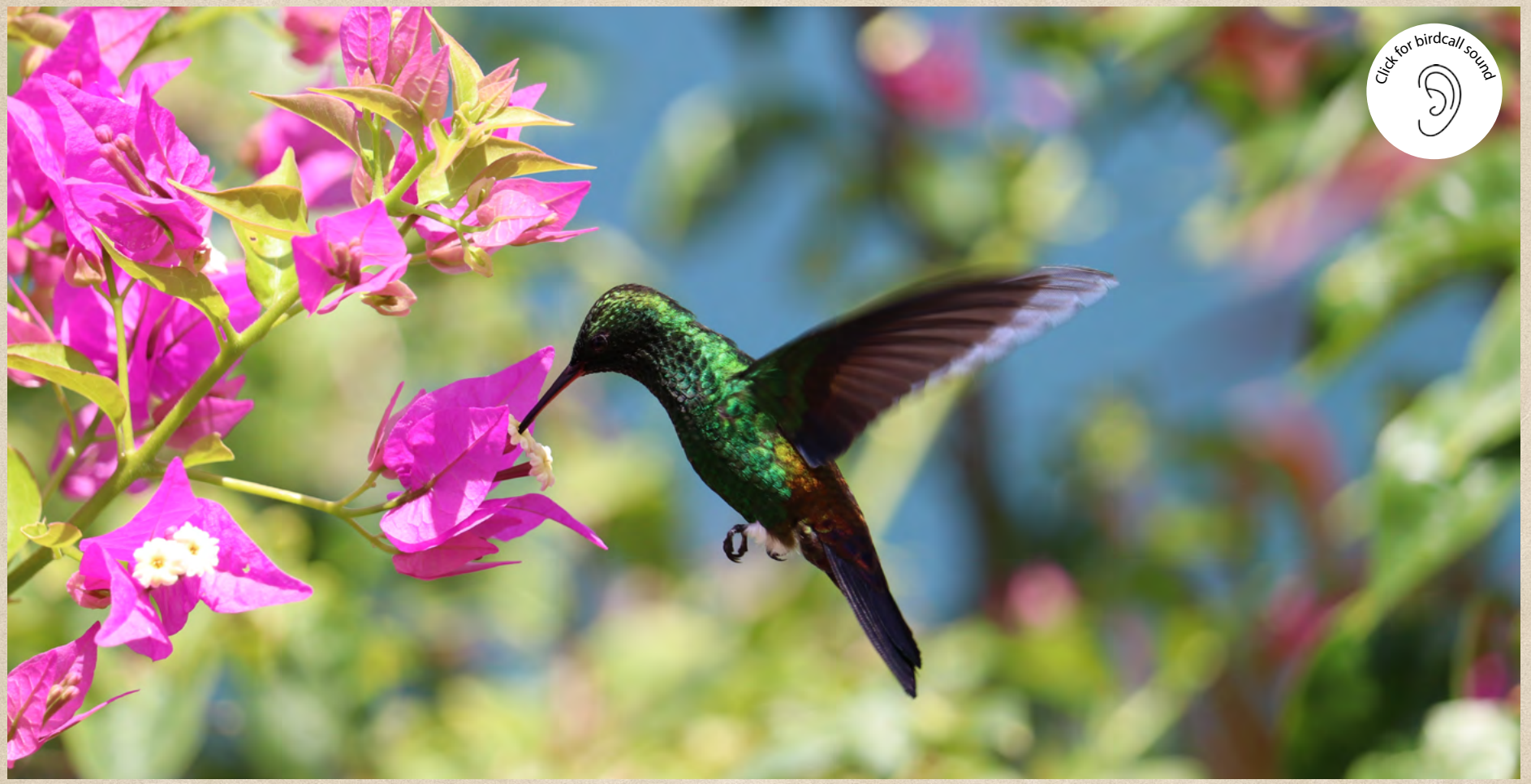
Most remarkably, this natural National Heritage Site hosts 25 plant species, four frog species, and one bird species that cannot be found in the wild anywhere else in the world, the so-called endemic species.

Amongst these are the Tobago Greenlet, a small passeriform bird, the Ocellated Gecko, the Charlotteville Litter Frog, the Tobago Glass Frog, several snake species, and a myriad of astonishing insects.

At least 37 plant and animal species living in the Main Ridge Forest Reserve are globally endangered or threatened with extinction according to the International Union for Conservation of Nature and Natural Resources.

Many of these creatures can be observed along roads and trails, naturally attracting environmentalists, scientists, birders, and wildlife enthusiasts from all over the world.

This outstanding biodiversity offers unique opportunities to study the processes and patterns of animal and plant colonisation from nearby mainland Venezuela, as well as the speciation that has occurred over thousands of years.



Copper-rumped hummingbird - *Amazilia tobaci*



White-tailed Sabre Wing Hummingbird – Camplyopterus ensipennis

The Tobago Main Ridge Forest Reserve, a globally recognised UNESCO Biosphere Core Area

The White-tailed Sabre Wing, also called "*Campy*" by Tobagonians, is an environmentally sensitive large hummingbird only found in Tobago and north-eastern Venezuela. It breeds close to rivers and is a must-see for birders. Fears that Hurricane Flora, which destroyed much of Tobago and the Main Ridge in 1963, would have wiped out the entire Sabre Wing population did not materialise, and the species has greatly recovered.

The Turpin's Litter Frog, endemic to Tobago, can be observed in litter along streams in hilly, forested areas, which are its preferred habitat. That is why they are found within the Main Ridge but also along the Northside Road. Its soft chirping vocals sound similar to insects. Story has it that the late Mr. Turpin of Charlotteville Estate imitated that sound so realistically that the little frog jumped on to his shoulder.

The Tobago Glass Frog got its name due to its transparent belly and is another endemic and IUCN vulnerable species of Tobago. Usually found along streams in in and around the Main Ridge Forest Reserve, these frogs place their eggs on the underside of leaves of Heliconia or Cocoa. A male frog was once observed guarding seven clutches of eggs simultaneously.

Another larger and endemic Pristimantis species, the Charlotteville Litter Frog, can also be found in the Main Ridge and is listed as vulnerable by IUCN.



Turpin's Litter Frog – *Pristimantis turpinorum*



Tobago Glass Frog – *Hyalinobatrachium orientale tobagoense*



Charlotteville Litter Frog - Pristimantis charlottevillensis

As sister islands, Trinidad and Tobago claim two national birds. The Rufous-vented Chachalaca is the national bird for Tobago, while the Scarlet Ibis represents Trinidad's avifauna.

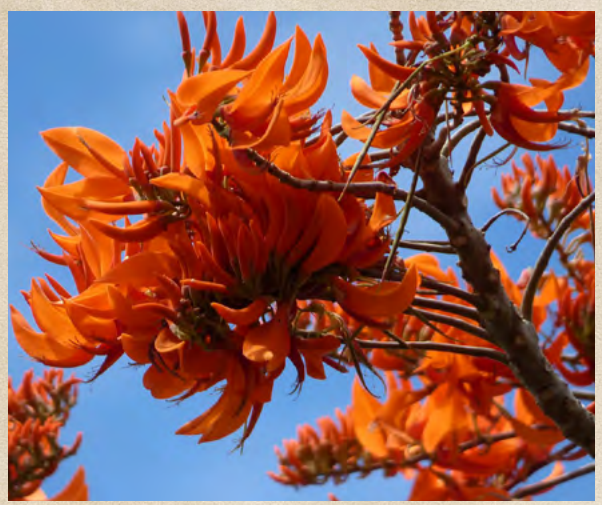
Every resident of Tobago knows the loud and characteristic calls of the Cocrico, as the bird is called here. It is the only Chachalaca species that is known to nest on the ground and every visitor is almost guaranteed to encounter, it is often foraging for fruit in flocks of four to 20 birds, but even flocks over 50-strong have been recorded.



Rufous-vented Chachalaca - *Ortalis ruficauda*



Bloody Bay Poison Frog - *Mannophryne olmonae*



The Immortelle - *Erythrina poeppigiana*



Collared Trogon – *Trogon collaris exoptatus*

Click for birdcall sound

The Bloody Bay Poison Frog is an endemic species only found near small streams in the moist, broadleaf forests of central and eastern Tobago and is listed as vulnerable on the IUCN red list; they prefer the upper course of rivers in gravelled streams and riverbanks. Despite its scary name, the little frog is not poisonous.
After the females lay their eggs on land, the males care for the brood by carrying the tadpoles on their backs into shallow, rocky pools to mature. The amphibian chytrid fungus, which is an infectious disease for frogs, seriously threatens its population.

Every year, shortly before the dry season starts, great swaths of our forests turn brilliant vermillion when the Immortelles are flowering in bright, spectacular orange. Most of these trees were originally planted as shade trees on cocoa farms.

The Collared Trogon is famous for its colours and is therefore a "bucket list" species for photographers and birders. The male with its beautiful, bright-red belly and barred tail is a special treat for the eye. Trogons nest in holes of termite nests or trees, with a typical clutch of two white eggs.



Bloody Bay River

Forest Connectivity

The North-east Tobago UNESCO Man and the Biosphere Reserve is a great example for a relatively intact, interconnected Ridge – River – Reef – Islands – Ocean (R^3IO) ecological system.

The riparian ecosystems of the Main Ridge, its rivers, and small streams, as well as their associated vegetation and processes, are the critical link, the "blood vessels", within the landscape. They provide corridors for animals, plants, and nutrient movement from the ridges to the ocean. Although there are four largely permanent rivers in the area, most watercourses are seasonal between dry and rainy seasons. These aquatic ecosystems are critical habitats for many vulnerable species; unfortunately, the average water flow in most rivers is decreasing at an unprecedented rate due to Climate Change.

Threats to our Natural National Heritage

As with most natural areas of outstanding heritage values in the Caribbean, the major threat to the Main Ridge Forest Reserve is unsustainable management, which is often caused by a lack of financial and human resources, or by short-term profit thinking. Despite limited resources, the Main Ridge Forest Reserve has, fortunately for our nation, been remarkably well maintained over decades by the Department of Natural Resources and Forestry, which falls under the Tobago House of Assembly. However, successful management will require improved participation of civil society and the private sector to stave off the increasing threats.

Although not yet occurring on a large scale, illegal poaching of songbirds, hunting, logging, harvesting medicinal plants, and littering must be controlled. The mining and export of a special clay, used for Carnival festivities locally and abroad, is a very specific threat which is causing forest destruction and removal of fertile soil.

Alien invasive species, such as the kudzu vine, bamboo, and a chytrid fungus, which harms and kills frogs, are a serious threat and need to be kept in check. We must also not forget climate change: for several years now, the regularity of the seasons and the finely tuned interaction between floral and faunal species e.g., mating, breeding, fruiting, flowering, and migrating have been seriously disturbed. This creates significant imbalances within these fragile ecosystems



The Tobago Main Ridge Forest Reserve, a globally recognised UNESCO Biosphere Core Area



Raised Spirits

Like the spirits in the Main Ridge Forest Reserve, which live amongst the roots of very large trees, cultural heritage is alive everywhere even though it is not always seen. Folk stories about the Main Ridge Forest Reserve embody experiences with the forest that have been passed down from generation to generation.

According to legend, if you desire a spirit's help, you must bring a silver coin and a sealed bottle of rum. You give the coin to the spirits by placing it next to the roots of the trees. As you unseal the bottle of rum, ask for what you desire. For every sip of rum you take, you must pour a similar measure on to the roots of the tree. Share the bottle with the spirits and talk with them until the bottle is empty, and your wish shall be granted.

In olden days, people living along the coast travelled by boat around the island to buy and sell their goods. When the hunting trail from Bloody Bay to Roxborough was developed into a passable road, most of it built with manual labour, the new route steered around the large and old trees, honouring their spirits, cultural heritage, and linkages.

Hunters in the Main Ridge Forest Reserve sometimes observed their dogs chasing phantoms the hunters' senses could not perceive. The legend told is that the dogs were chasing forest spirits who wanted to gather where the hunters were resting, possibly expecting rum sacrifices. Another spirit, the Garby, turns the chase around. It defends the forest and allures the hunting hounds to run into unknown territory, never to be seen again.

Springs and rivers are believed to have certain powers against evil spirits. Everyone should treat Silk Cotton Trees with respect – if you harm these majestic trees, the folklore holds that you will suffer an unfortunate fate.

Red-rumped Agouti - *Dasyprocta leporina*

Medicine from the Earth

Certain herbs of the Main Ridge Forest Reserve are used for medical and spiritual practices. One must know how to use the herbs or else you may experience effects worse than your illness. The communities surrounding the Main Ridge highly value their herbal treatments for body and spirit, passing their traditional knowledge to each generation.



The Vervine herb grows at sunny and dry locations, often at the side of the road; it is used to treat infections and increase lactation. Zebapique is used to treat ear infections, cough, and fever; its leaves contain a potent anti-parasitic agent effective against intestinal parasites, candida, and fungal infections.

The leaves of the Naked Boy Tree are used as treatment for dropsy, dysentery, and yellow fever. Bois Canon tree's leaves are used in the treatment of colds, coughs, hyper tension, constipation, Typhoid fever, and even Parkinson's desease. Much research is still needed to verify the effectiveness of such treatments.



Vervine herb - *Verbena officinalis*



Zebapique - *Neurolaena lobate*



Naked Boy Tree - *Bursera simaruba*



Bois Canon tree - *Cecropia peltata*



Dave Horsford



Britget Horsford



Welldon Mapp



Olga Caruth

All ah We are Stakeholders

As a nationally protected area, the Main Ridge Forest Reserve is primarily managed by the Department of Natural Resources and Forestry. The Main Ridge provides numerous ecosystem services including "rains inalienable", clean water, recreation, and eco-tourism opportunities.

As such, there is a significant number of persons and organisations that have a legitimate interest in the conservation and health of the area. Between 2014 and 2019, a group of stakeholders, assembled under a project managed by the Food and Agricultural Organisation of the United Nations, has been working together to improve the



Darlington Chance





Camille Carouth



Gaston Jackson

management of the Main Ridge for the benefit of the people and ecosystems (IFPAM). This group included representatives of the Tobago House of Assembly, academia, and civil society organisations representing the people and communities whose livelihoods depend on a healthy Main Ridge Forest Reserve.

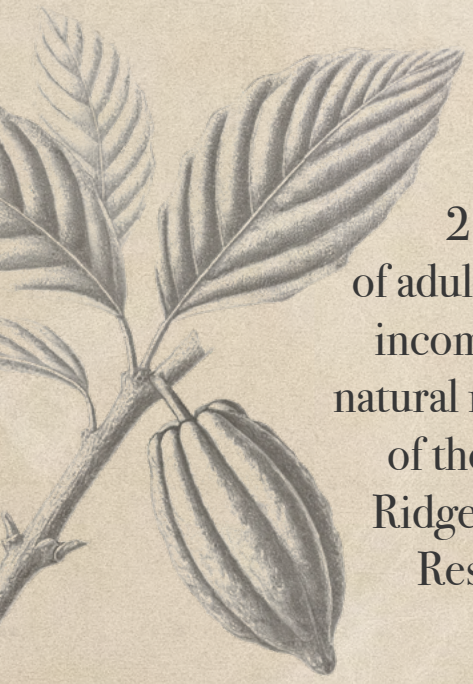
The reserve's designation as a National Heritage Site and as a UNESCO Biosphere Reserve widens stakeholder interest and provides unique opportunities to working and growing together for the betterment of all.

Living for All

The Main Ridge Forest Reserve provides significant ecosystem services to the 15,000 people living in the adjacent communities and for Tobago as a whole.

A livelihood assessment around the Main Ridge Forest Reserve in 2018 reports that 27% of adults derive income from natural resources of the Main Ridge Forest Reserve in the form of employment through reforestation work, tourism-related jobs, tour guiding, hunting, etc.

Additionally, the Main Ridge provides significant recreational value, and Tobagonians appreciate the serenity of the forests and its trails as an ideal weekend getaway. With the declaration as a natural National Heritage Site and the designation as a UNESCO Man and the Biosphere Reserve Core Zone, the door opens to further link conservation to livelihoods through sustainable economic activities such as responsible tourism, education, and research, as well as sustainable extraction of resources in specially designated areas.



27%
of adults derive income from natural resources of the Main Ridge Forest Reserve



Forest Check Tour Guides in the Main Ridge. Trained under an award winning, United Nations financed project, these experienced naturalists teach visitors to take valuable ecosystem data while exploring the forest (http://www.eric-tobago.org/forest-check-tobago)

Governance



MRFR entrance structure


Climate Change Champion's meeting

Through the Tobago House of Assembly (THA) Act, the THA is directly responsible for formulating and implementing policy for the conservation of biodiversity resources in Tobago, including terrestrial and marine protected areas.

The MRFR is protected under several Acts, notably the Conservation of Wildlife Act and the Forests Act, which provide guidelines for the management of the area. The Water and Sewerage Authority oversees all activities taking place in watershed protection areas, following the Water and Sewerage Act. With the designation as a natural National Heritage Site in 2019, another layer of legal protection for the Main Ridge Forest Reserve was added through the National Trust of Trinidad and Tobago Act.

Sustainable management of the Main Ridge Forest Reserve means protecting natural resources such as land, water, soil, plants, and animals, with a particular focus on how management affects the stability of the ecosystem and the quality of life for both present and future generations. Unfortunately, in the past, the conservation of natural heritage and creation of related sustainable livelihoods have not always received the required governmental resource allocation.

The establishment of the Tobago Biosphere Management Alliance (NGO) in 2022, mandated with managing the UNESCO Man and the Biosphere Programme in Tobago, has been the starting point for a close collaboration between government agencies, civil society, and the private sector.

What is a UNESCO Biosphere Reserve?

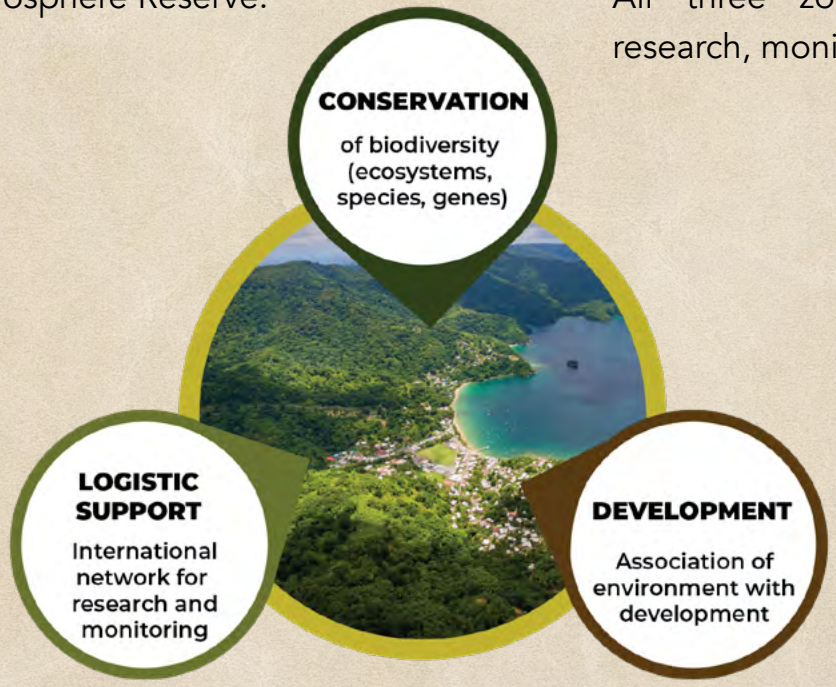
UNESCO is the United Nations Educational, Scientific and Cultural Organization and seeks to build peace, ensure that each child and citizen has access to quality education, and promote cultural and natural heritage.

The Man and the Biosphere Programme is designed to help participating countries to:

- manage natural and cultural resources for the benefit of their people and the environment,
- find new approaches to economic development that are socially, culturally, and environmentally friendly,
- combine economics and education to improve wellbeing, and
- support the equitable sharing of benefits.

The Man and the Biosphere Programme is implemented in so called "Biosphere Reserves", which are designated by UNESCO upon application by a country. These areas are not "reserves" as the term is used in conservation, and laws do not change because an area becomes a Biosphere Reserve.

Biosphere Reserves are divided into three zones: a core zone (i.e., Main Ridge Forest Reserve), a buffer zone, and a development zone. The core and buffer zones are primarily responsible for nature conservation, while the development zone focuses on sustainable regional development. All three zones are involved in research, monitoring, and education.



The three functions of UNESCO Man and the Biosphere Reserves

The Tobago Main Ridge Forest Reserve, a globally recognised UNESCO Biosphere Core Area

The Tobago Biosphere Management Alliance

Understanding the significance of the North-east Tobago UNESCO Biosphere Reserve for the sustainable economic development of Tobago, the Inter-American Development Bank funded, in 2022, the preparation of an institutional and corporate governance framework for a not-for-profit / non-governmental organisation NGO that would be empowered to receive and manage substantial funding.

The resulting Tobago Biosphere Management Alliance (TOBIMA) was mandated by stakeholders to implement the North-east Tobago Biosphere Management Plan, which includes supporting the THA in the management of the Main Ridge Forest Reserve.

Once operational, TOBIMA will consist of a:

Stakeholder Council of appointed representatives: four from the THA, three from civil society, and three from the private sector; it represents the expectations of societal sectors and guides the Board regarding the overall goals of sustainable development in North-east Tobago.

Board of Experts on key areas such as sustainable financing, communication, networking, protected area management, economic development, culture, and governance. Directors of the Board are formally recruited based on a stringent and transparent recruitment process from local and international applicants. The Board translates stakeholder expectations into overall strategies and objectives, based on the North-east Tobago Biosphere Management Plan (2025), and oversees the Programme Management Unit regarding the achievement of the strategies.

Programme Management Unit consisting of programme management and subject matter experts, which are recruited by the Board. The PMU mobilises and provides resources and capacity building, and enacts the Biosphere Management Plan through the design of programmes and projects implemented by THA Divisions, NGOs, and the private sector. Furthermore, it communicates with and seeks guidance from Regional Councils, where community stakeholders have a special voice.

The Tobago Main Ridge Forest Reserve, a globally recognised UNESCO Biosphere Core Area



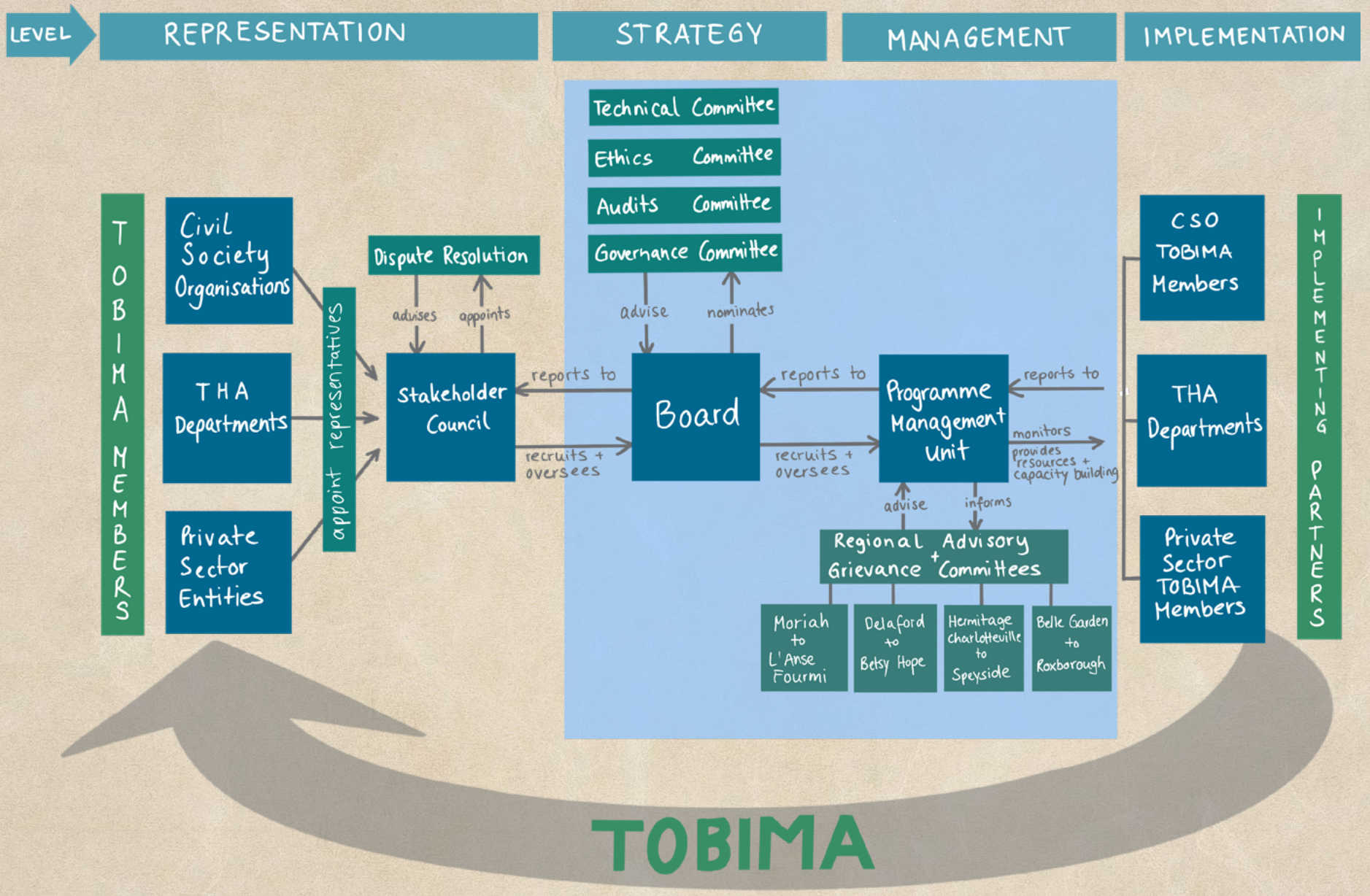
Louis D'or wetlands

TOBIMA was carefully designed to:

- provide access to such funding the THA and other civil society organisations in Tobago have currently no access to,
- attract sustainable investment and business opportunities,
- built capacity of stakeholders,
- facilitate research and knowledge exchange,
- help the THA, NGOs, and private sector to work together and achieve common goals, and
- achieve the goals of the UNESCO Man and the Biosphere Programme including the United Nations Sustainable Development Goals.

The TOBIMA logo

The Tobago Main Ridge Forest Reserve, a globally recognised UNESCO Biosphere Core Area



The TOBIMA governance structure

Main Ridge Factoids

- The first legally protected tropical forest reserve globally, declared in 1776
- The first natural National Heritage Site of Trinidad and Tobago, declared in 2019
- With 3,958ha the Main Ridge covers almost 13% of Tobago, is 17km long, 2 to 6km wide, and reaches elevations up to 630m at Centre Hill
- Tobago was several times connected to Trinidad and South America
- Temperatures are between 22°C and 33°C on average; humidity is more than 70% year-round





Overlooking the MRFR

- Habitat for 22 non-poisonous snake species, 37 mammal species, 16 lizard species, 128 bird species, 662 plant species, 15 frog species, 41 fish, and numerous invertebrates
- Endemics: at least 25 plant species, five frog species, and one bird species that cannot be found in the wild anywhere else in the world
- Rivers are the the “blood vessels” of the Main Ridge connecting the ridges to the ocean
- Don’t harm a silk cotton tree, it may be the last thing you do
- Trinidad and Tobago’s first natural National Heritage Site, a internationally Important Bird Area, the Caribbean Nature Park of the Year 2019, and a designated UNESCO Man and the Biosphere Reserve Core Area



Knight Anole - *Anole equestris*

The Tobago Main Ridge Forest Reserve, a globally recognised UNESCO Biosphere Core Area

Useful Links

- Certified Tours Guides with Forest Check Training
  - Darlington Chance
  - Harris McDonald
  - Junior Thomas
  - Jason Radix - go to Jason's website
  - Newton George - go to Newton's website

- Environmental Research Institute Charlotteville, Tobago
  ERIC's mission: To value and integrate diverse knowledge and experience to manifest a mutually beneficial relationship between the coastal communities and ecosystems of North-east Tobago.

- Forest Check Video

- German Embassy Port of Spain, Trinidad

- Income Sharing: Castara Retreats, a Green Key certified eco lodge, is a regional role model for sustainable tourism and contributes on an ongoing basis to conservation efforts in and around the Main Ridge Forest Reserve

- North-east Tobago UNESCO Man and the Biosphere Reserve Stock Footage Database

- North-east Tobago UNESCO Man and the Biosphere Reserve Management Plan

- Tobago Destination Management Organisation: Tobago Tourism Agency Limited (TTAL)

- UNESCO Man and the Biosphere Programme





Rufous-tailed Jacamar - *Glabula ruficauda*

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Special thanks to Ms Glenda - Rose Layne, Coordinator for Culture, Division of Tourism and Transportation, Tobago House of Assembly, for her invaluable guidance.

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"Step into the heart of North-east Tobago"



Discover the heart of Tobago's natural and cultural heritage with The Tobago Main Ridge Forest Reserve coffee table book. This stunning compilation invites you on a journey through the world's oldest legally protected tropical rainforest globally, revealing its unparalleled biodiversity, historical significance, and enduring cultural legacy. Explore vivid tales of folklore, uncover the secrets of endemic species, and delve into the forest's pivotal role in sustainable livelihoods and climate resilience. With breathtaking visuals and insightful narratives, this booklet is more than a keepsake, it's an invitation to cherish and protect one of the Caribbean's most precious treasures.

North-East Tobago
Man and the Biosphere Reserve

unesco
Man and the Biosphere Programme

german cooperation
DEUTSCHE ZUSAMMENARBEIT