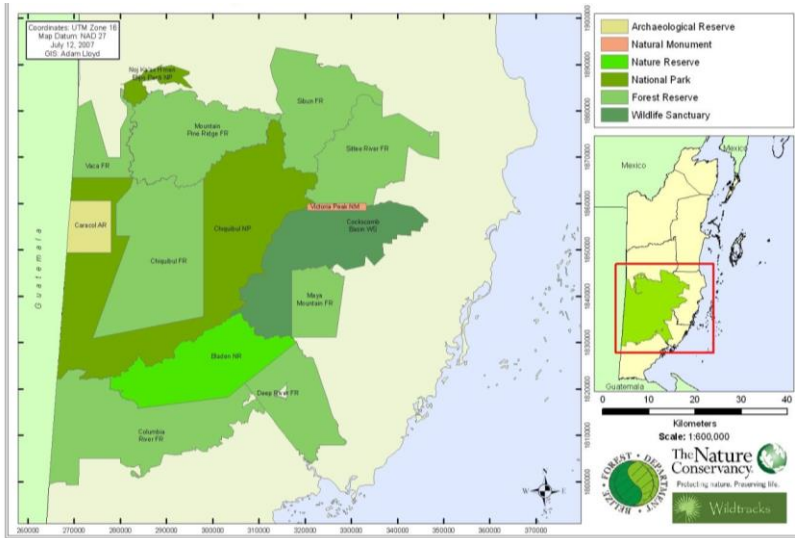


The Natural Wonders of the CM3



The Chiquibul/Maya Mountain Massif is comprised of 14 different protected areas, making it the largest protected land mass in Belize.

The CM3 is an exceptionally diverse ecosystem. Six hundred sixty-two plant species and 786 animal species are found here, as is the only known nesting area for the endangered scarlet macaw in Belize. The Chiquibul Cave System is the longest and largest cave network in Central America, consisting of 55 km of mapped caves and more than 60 sink holes. Caracol Archaeological Reserve is the largest excavated Mayan site in Belize, which dates back to 10,000 B.C. Hundreds of archaeological sites and ceremonial caves are yet to be unearthed throughout the Massif. The Belize River Watershed, the largest in the country, originates in the CM3, recycling more than 4.4 billion gallons of clean water for Belize and Guatemala every year. The Massif boasts a breathtaking landscape of panoramas of unbroken forests, the highest peaks in the country, beautiful waterfalls, and intricate caves. Efforts are underway to present the CM3 as a designated World Heritage Site.

Places to Visit:

- Victoria Peak, Doyle’s Delight & Natural Arch
- Thousand Foot Falls, Hidden Valley Falls & Big Rock Falls
- Mountain Pine Ridge, Rio Frio Caves & Rio On Pools
- Chiquibul National Park & Caracol Archaeological Reserve
- Actun Tunichil Muknal Cave
- Noj Kaax Me’en Elijo Panti Medicinal Trail
- Cockscomb Basin Wildlife Sanctuary & Mayflower Bocawina National Park
- Chiquibul Cave System & Chechem Ha Pottery Caves
- Blue Hole, St. Herman’s Cave & Billy Barquedier National Park

Authors

Venetia Briggs-Gonzalez, Rebecca G. Harvey,
Rafael Manzanero, Jan Meerman, Frank J. Mazzotti



Adapted from Briggs, V.S., R.G. Harvey, F.J. Mazzotti, T.K. Barnes, R. Manzanero, J.C. Meerman, P. Walker and Z. Walker. 2013. A conceptual ecological model of the Chiquibul/Maya Mountain Massif, Belize. Human and Ecological Risk Assessment 19:317-340.



Founding partners of the Conceptual Ecological Model framework for the Chiquibul/Maya Mountain Massif

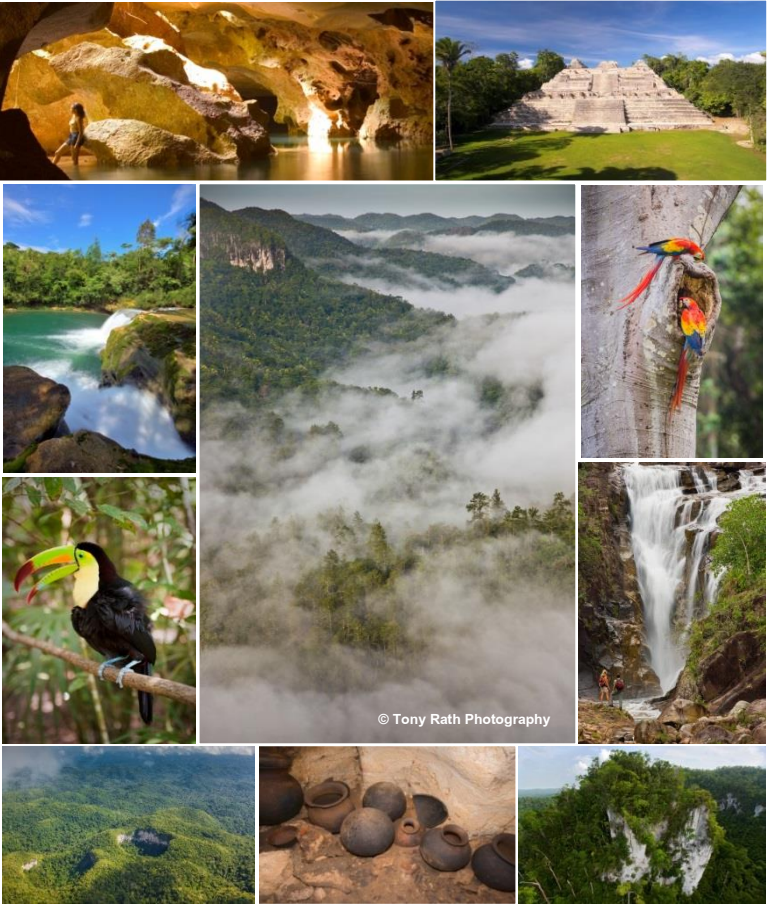
Photos copyright and graciously provided by © Tony Rath Photography, www.tonyrath.com, and Derric Chan (Chiquibul Forest Reserve).

For more information:

The Croc Docs crocdoc.ifas.ufl.edu/projects/mayamountains
FCD www.fcdbelize.org Ya’axche www.yaaxche.org
LFRC www.lamanai.org TIDE www.tidebelize.org
Belize Audubon www.belizeaudubon.org
Scarlet Six Biomonitoring Team <http://scarlet-macaws.blogspot.com/>



Conserving the Chiquibul/Maya Mountain Massif



Natural wonders of the CM3: Clockwise from top left: Chiquibul Caves; Caana temple, Caracol; nesting scarlet macaws, Big Rock Falls, limestone cliff, Maya Mountains, Chechem Ha Caves; Nohoch Ch'en sinkhole, keel-billed toucan; Rio Blanco Falls. Center: Mountain Pine Ridge Forest Reserve. All photos copyright © Tony Rath Photography.

The Chiquibul/Maya Mountain Massif (CM3) comprises 1.25 million acres in southwestern Belize and is the largest intact block of tropical forest north of the Amazon. It is nationally designated as a Key Biodiversity Area, and is the center of ancient Mayan civilization. The Massif provides valuable environmental services for all Belizeans and thousands of Guatemalans. But action is needed now to protect the nature and culture of the Massif.

Threats to the CM3

Despite the protected status of the CM3, the area is under severe pressure from incursions on the western border that threaten to destroy the Massif’s natural integrity and cultural heritage. Poverty and a lack of land in Guatemala drive incursions and illegal farming within Belize and the systematic devastation occurring in the Massif stems from a lack of border control and security. The illegal activities occurring in the CM3 are many and continue to increase.

Over 400 million *xate* palm (*Chamaedorea spp.*) leaves are illegally harvested for the floral trade every year. More than 1,500 *xateros* are penetrating deeply into the Massif, creating a security problem because they are sometimes armed and violent.



Wild *xate* plant; sacks of confiscated *xate* leaves; confiscated weapons carried by *xateros*, Chiquibul Forest Reserve

Indiscriminate hunting and poaching for the pet trade often accompany *xate* harvesting. Endangered trees such as old growth mahogany and cedar are illegally harvested. These practices destroy nesting sites and reduce wildlife populations. *Xatero* camps are littered with remains of poached wildlife and refuse.



Endangered yellow-headed parrot nestlings and a tapir calf are confiscated from poachers; Remains of a locally endangered scarlet macaw are found at a *xatero* camp; Illegally harvested timber planks are carried out on horseback.

In the Chiquibul Forest Reserve alone, more than US\$10,000,000 has been lost to illegal logging. Every year, slash-and-burn farming leads to the loss of about US\$526,000 in carbon stocks.



Land clearing in Chiquibul National Park; illegal logging in Chiquibul Forest Reserve

More than 20,000 acres of protected forest has been burned for farming in the Massif, causing land degradation, reduced forest connectivity, displaced wildlife, and air and water pollution. Illegal marijuana plantations are also found inside the Massif.



Stark contrast between cleared land in Guatemala (left) and forested land in the Massif in Belize which is steadily being cleared (right).

Illegal gold-panning is on the rise, stripping some areas of vegetation. This activity pollutes streams and drinking water, and causes river banks to erode. Simultaneously, ancient archaeological temples are being defaced and valuable historical artifacts are removed by looters, fueled by black-market demand for exotic antiquities.



Gold-panning at Ceibo Chico, Chiquibul National Park.; Looters’ trench penetrating Mayan temple, Caracol Archaeological Reserve.

Other threats to the CM3 include unsustainable hydropower development, oil exploration, and mineral mining. Dam construction requires extensive land clearing, which leads to habitat loss, flooding, erosion, and water pollution. Despite laws against oil mining in the protected areas of the CM3, oil exploration and mineral extraction continue, leading to complete removal of vegetation, erosion, and flooding. Poor road construction fragments the forest, opens the forest to homesteading, and pollutes waterways.

How You Can Help

Public support is needed to help conserve the culture and environment of the CM3. Here are a few ways to get involved:

- Support organizations that actively protect the CM3: Friends for Conservation and Development (FCD), Scarlet Six Biomonitoring Team, Belize Audubon Society, Ya’axche Conservation Trust, Toledo Institute for Development and Environment (TIDE)
- Support FCD’s Adopt-a-Ranger Program (www.fcdbelize.org)
- Encourage the Government of Belize to provide necessary finances and increased law enforcement to protect the Massif
- Adhere to hunting and harvesting regulations
- Support efforts for clear land demarcation and binational efforts to address poverty and landlessness
- Volunteer to help with research and conservation projects in the CM3
- Visit the CM3! Help spread the word about its natural wonders and its plight



Territorial volunteers at Jalacte village, Belize. Only nine forest rangers patrol the Chiquibul/Maya Mountain Massif and the Belize/Guatemala border.