

## GRAND BOIS NATIONAL PARK

Grand Bois is the first of many unique biodiversity hot spots that Haiti National Trust is determined to protect for future generations. The remarkable biodiversity of this isolated mountain in southwestern Haiti was discovered in 2011 through our expeditions. It is the highest mountain west of the town of Les Anglais and has an elevated bowl-shaped valley oriented towards the west with an unusually large area (195 hectares) above 1000 meters elevation. Most importantly it has significant tracts of original forest and multiple springs. Accessibility is difficult, and therefore we used a helicopter to conduct initial biological surveys of the mountain. The major threat is deforestation, rapidly encroaching on the last significant forests. To preserve this unique ecosystem, Haiti National Trust has worked with the government of Haiti in a unique public-private venture whereby the land is being purchased and managed by us, through generous donations, while at the same time legal protection is conferred by national park status. We work closely with families living in the area to help them transition towards sustainable agriculture and stewardship of this unique biological treasure.

### Geography & Physiography

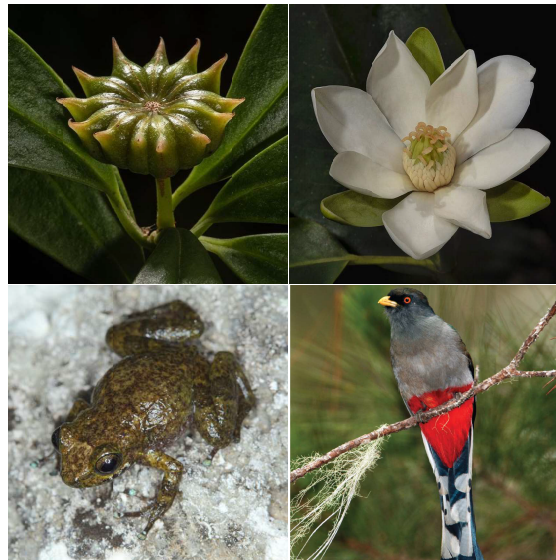
Grand Bois is a bowl-shaped mountain with valley and drainage flowing to the west, 11.5 km NW Les Anglais and 30 km W of Macaya National Park. The highest part of the Main Ridge is in the south (Morne Grand Bois, 1248 m) and southeast (Morne Piton, 1234 m), the two peaks separated by 380 meters. The south face (below Grand Bois West Peak) drops steeply down to the Tiburon River (100 m). Elsewhere, several accessory ridges fan out away from Grand Bois, including a major ridge on the east side (East Ridge), which appears to provide the best access to the upper elevations of Grand Bois by people in nearby communities to the east. A second major entry point is from a valley to the southwest, up the south slope to Morne Grand Bois and the Main Ridge. Dozens of springs and a waterfall occur within the park boundaries and form the headwaters of two important rivers in this region of Haiti.

### Biodiversity

We identified Grand Bois as a potential hot spot in 2011, landing there in a helicopter on 26th of July of that year. Since then we have visited Grand Bois on multiple occasions, with helicopter and on foot, and explored the area, conducting biological inventories and meeting with families living on the mountain and in surrounding areas. As part of the land purchase we have also conducted surveys of the mountain together with land owners, surveyors, and local authorities.

Based on satellite imagery and ground observations we estimate that 80% of the area above 1200 m (11 of 14 hectares) currently has original forest, declining to 70% of the area above 1100 m (52 of 75 hectares) and 47% above 1000 m (92 of 195 hectares). Below 1000m, there are no significant areas of original forest remaining, although there is great potential for replanting forest in these adjacent areas. We also observed evidence of recently cut trees within the forest, off the trails, including the highest elevations. Grand Bois has a large population of the Sierra Palm, *Prestoea acuminata* var. *montana*, which is otherwise rare in Haiti. There is also a population of a rare and endangered magnolia tree, *Magnolia ekmanii*.

We observed and identified 68 total species of vertebrates, which is an unusually large number for any place in Haiti. In only three nights of observations and collection on Grand Bois we identified 19 species of frogs, including three species new to science. This number of co-occurring frog species is one of the largest, if not the largest, at any location on a Caribbean Island.



Top: Fruit of rare *Illicium hottense* (left) and *Magnolia ekmanii* (right)  
Bottom: Tiburon Stream Frog, *Eleutherodactylus semipalmatus* (left) and Hispaniolan Trogon, *Tamnotrogon roseigaster* (right)

### Ecosystem Threats

The forests are being cut for building materials, slash-and-burn agriculture, and charcoal. We are continuing to learn more about the specific threats, methods used, and types of foods grown, so that we can help educate local inhabitants in sustainable land use practices. Socio-economic data were collected to determine livelihood profiles and specific threats to the forest ecosystems. Traps were set to capture invasive rats and continued efforts are currently focused on removing invasive tree, shrub and herbaceous species. Feral dogs and cats that are a particular threat to the native vertebrates will be part of a strategic plan in the near future.



Wood cutting for charcoal in Morne Grand Bois.

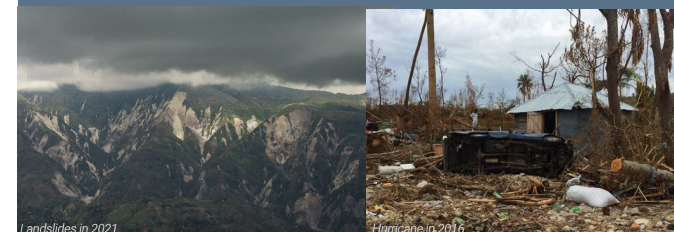
### Importance for Haitians

The ecosystem of Grand Bois is critical for people living in this general region of Haiti because it stabilizes the water resources, providing fresh drinking water. Other mountains in Haiti that have lost all forests have essentially become deserts, detrimentally impacting the local populations. When it rains in an area that has lost forest, water runs off quickly creating floods and often loss of life.

### Natural Threats

The location of Grand Bois National Park is at risk to the twin disasters of **severe hurricanes** and **major earthquakes**. The eye of Hurricane Matthew, a Category 5 hurricane, passed over the park on October 4, 2016. The 7.2 magnitude earthquake of August 14, 2021 struck the Tiburon peninsula and caused much damage and landslides primarily along the same geological fault that gave rise to the mountains of Grand Bois. The loss of housing and displacement of people throughout the region put pressure on the park by increased harvests of palms and trees to repair shelters and income-producing activities of cash crops and charcoal.

**We need to assist the local community to build permanent housing and provide alternate sources of income that decreases pressure on the forest and builds a mutually beneficial partnership with the Grand Bois community. This would not be possible without the help from your donations.**



Landslides in 2021

Hurricane in 2016

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