

UAM CUSE

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Ecology 2016

Professor Byron Walsh

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Investigative Environmental Report

Chocoyero Wildlife Refuge

Ticuantepe, Nicaragua

Intro

The Spring 2016 Ecology class went on their third field trip to the Chocoyero-El Brujo Natural Reserve.

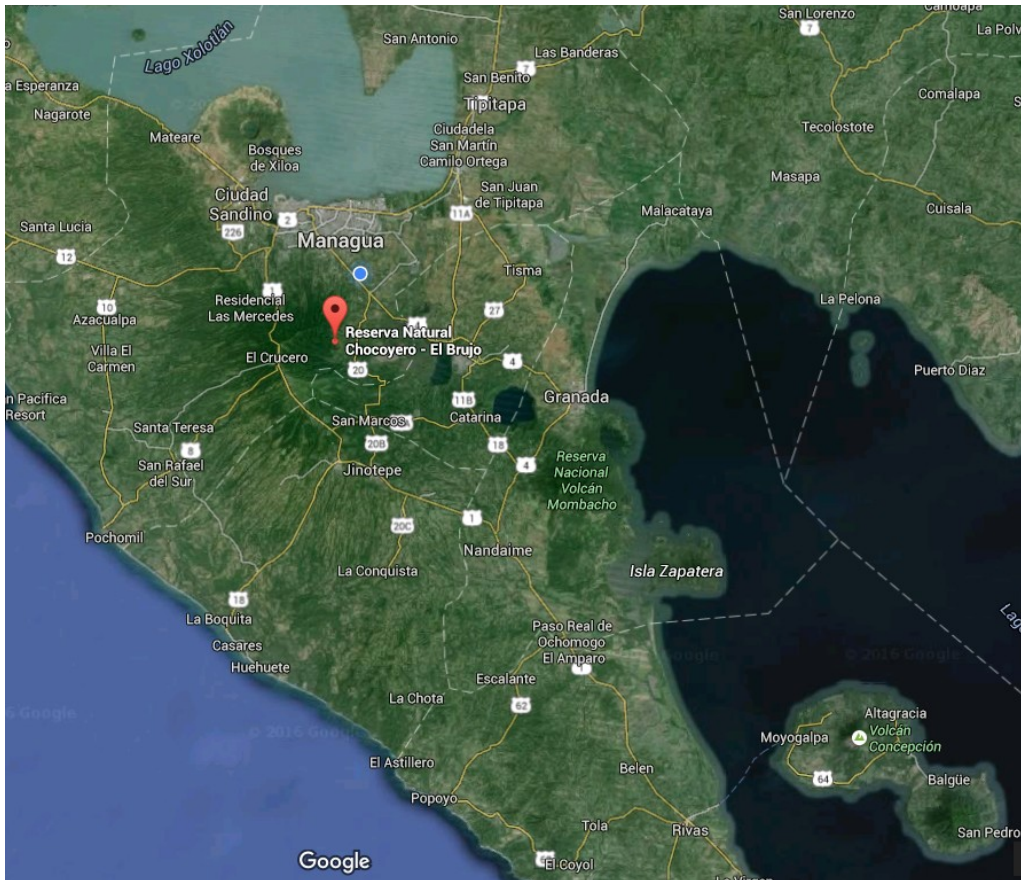


Photo Credit: Google



The Chocoyero-El Brujo Natural Reserve (Reserva Natural El Chocoyero-El Brujo) is located in Managua, in the Ticuantepe municipality. At 455 acres, Chocoyero-El Brujo is considered one of the smallest tropical forests in the world. In 1993, the Ministry of the Environment and Natural Resources (MARENA) declared it a natural reserve, meaning that the government has recognized the importance of the area, and has enacted measures to keep it protected. However, the reserve is open to the public, as a tourist attraction. As many as 10,000 people visit the reserve annually.

Methodology

The Ecology class boarded a bus at UAM, and departed for the reserve at 7:30am. The intent for the trip was to learn about the watershed technique, as well as the flora and fauna within the region. Generally speaking, a watershed is land that contributes water to a given site. It can be thought of as a line that connects all of the high points in an area. Rainfall from other locations, as well as underground water, convene at Chocoyero in what can be viewed as a boon for local civilization. Over 1/3 of Managua, or at least 500,000 people obtain their drinking water from Chocoyero-El Brujo. As much as twenty million gallons of water is pumped into Managua from the reserve. The reserve has two waterfalls, El Brujo and Chocoyero, which are named after the parakeet birds that live along the cliff walls.

Chocoyero-El Brujo is home to two ecosystems, a premontane forest, and a tropical dry forest. There are an estimated 113 bird species within the reserve, including hummingbirds, toucans, and the Pacific parakeet (*Aratinga strenua*), locally known as the chocoyo, which is touted as the emblem for conservation within the reserve. Nesting sites for the chocoyos exist within the protected reserve, though the birds are still threatened when they travel outside of the reserve to feed. There are an estimated 29 species of mammals, and 21 types of reptiles and amphibians. Tigrillo, agoutis and deer

have been spotted, along with white-face and howler monkeys. There are an estimated 154 species of plants, and 217 species of vertebrates.



Photo Credit: SergioTorresC – Wikipedia

Chocoyero-El Brujo has two zones of conservation, the core and buffer. The core conservation zone is what was explained above, the area that is left largely untouched, except for a few trails for tourism. This reduces man's footprint within the reserve, and allows the animals to live free, while remaining protected. The buffer zone utilizes the richness of the land, with minimal disruption to the core conservation zone. Coffee, pineapple, and pitaya are grown within the buffer zone. Ticuantepe is the largest grower of pineapple within Nicaragua. The buffer zone offers immense potential for the agricultural industry.





Rainbow lizard



Quaternary rock that was ejected from a volcanic eruption as far back as 16,000 years ago.



Various snakes that can be found within the reserve; these are preserved in jars for observation.





Photo Credits: William Sweet

Conclusion

Chocoyero-El Brujo is the perfect example of what nature can do when left to its own devices, and shows how incredibly beautiful the planet can be when humans make a conscious effort to minimize their footprint within a given region. The biodiversity in the region is truly something to admire, and can be appreciated by anyone. It was extremely wise for the Nicaraguan government to deem Chocoyero-El Brujo a protected area in 1993. The buffer zone allows for people to utilize the land commercially, while maintaining the protected status of the core zone. The class trip ended just after 3pm, and of all the locations we've gone to in this class, Chocoyero-El Brujo has piqued my interest the most.

Resources

Photos

Photo 1: Google Maps

<https://goo.gl/maps/qEVm9LMxHmA2>

Photo 3: SergioTorresC

<https://commons.wikimedia.org/wiki/File:Chocoyo.JPG>

Remaining photos were taking by William Sweet

Data

Professor Byron Walsh provided information via the “Important Topics As Guidelines” sheet

Chocoyero-El Brujo Natural Reserve – Wikipedia

https://en.wikipedia.org/wiki/Chocoyero-El_Brujo_Natural_Reserve

Watershed concept

<http://techalive.mtu.edu/meec/module01/whatiswatershed.htm>

Chocoyo

https://en.wikipedia.org/wiki/Pacific_parakeet