Tropentag, September 9-11, 2020, virtual conference

"Food and nutrition security and its resilience to global crises"

The Maya Breadnut Tree: Providing Sustainable Nutrition and Forestry from the Ancient Maya Until Today

Scott Forsythe[1], Sebastian De La Hoz[2], Andrew Puente[3]

[1] *Forest Foresight, Beekeeping/Reforestation, Guatemala*
[2] *Green Balam Forests, Agroforestry Management, Guatemala*
[3] *Journeys in Conservation, Conservation Management, Guatemala*

Abstract

Brosimum alicastrum, a keystone rainforest tree species ranging naturally between Mexico and the Amazon region, known variously within the Yucatan region as ramón, breadnut, Maya nut or yaxox, has been a staple of lowland Maya nutrition since pre-columbian times. Its resistance to drought, its high germination and survival rates, its ubiquity, productivity, and seed storability are all reasons for its importance in Maya nutrition. Stands of ramón are commonly associated with Mayan archaeological sites. It figures in the concept of the Maya forest garden, in Maya forest management, and provides forage for a wide variety of forest wildlife. Its leaves provide preferred forage for domestic animals. Today, there is international demand for its prolific seeds when processed into flour or into a substitute coffee drink, thus providing income for local collecting and processing cooperatives, usually organised by women.

Considering this knowledge, we are employing B. alicastrum as the predominant species in reforestation of post-deforestation cattle pastures in the heavily deforested, multiple-use zone of the Maya Biosphere Reserve in northern Guatemala. In this reforestation initiative, the ca. 25 species planted are strictly native, yet economically or nutritionally useful. In our presentation, we intend to illustrate the exceptional nutritional, productivity and drought resistance aspects of this traditionally significant species and its potential to stimulate nutrition and agroforestry initiatives, especially in the Petén area of Guatemala, where only a few decades ago existed the largest unbroken tract of rainforest in Central America. Cattle ranches surrounding and inside the Maya Biosphere Reserve are the source of extensive fires which encroach into the forested core area. Both deforestation and climate change combine to lower water tables, which in turn is limiting the profitability and/or feasibility of cattle ranching. Thanks to government forestry incentives, and with proper selection of native species, we can provide a working model demonstrating the long-term, economically attractive option of reforestation over cattle ranching.

Keywords: Agroforestry, breadnut, brosimum alicastrum, cattle pasture, cattle ranching, cooperatives, Guatemala, Maya Biosphere Reserve, Maya nut, Petén, ramón, reforestation, women

Contact Address: Scott Forsythe, Forest Foresight, Beekeeping/Reforestation, El Remate, Guatemala, e-mail: forsythe_scott@hotmail.com