



World Magnolia Adventures

Magnolia yoroconte (yaro):

Rediscovered on the Honduran/Guatemalan border

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Critically
Endangered

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There are five native species of *Magnolia* in Honduras, most of them endemic and endangered: two were recently described and belong to the *Magnolia* sect. *Talauma*: *Magnolia atlantida* and *M. cochraney* and three belong to the *Magnolia* sect. *Magnolia*: *M. hondurensis*, *M. sororum*, and *M. yoroconte*, the latter, is an endemic and endangered species, even though it was discovered nearly a century ago is still poorly understood.

Two weeks ago, Dr. Antonio Vázquez-García from the University of Guadalajara-CUCBA contacted us to explain the importance of exploring San Jose de Tarros, Santa Barbara, Honduras, to locate in situ populations of *Magnolia yoroconte*, only confirmed from the type locality where it was discovered nearly a century ago. Understanding the fruit and floral morphology of this species, the extent of its endemism, habitat condition and current threats is essential in designing a conservation strategy.

On September 14, 2021, we launched a first visit to the imprecise general area indicated in the holotype specimen (*H. N. Whitford & L. R. Stadtmiller 51*, US Herbarium), in Trascerreros Municipality, Nueva Frontera, Santa Barbara, Honduras. We first visited Mr. Manuel Mejía (67 years old), a native of Ocotepeque, owner of a farm in El Ermitaño, Nueva Frontera, where a ca. 25 years old *Magnolia yoroconte* was thriving, in agroforestry systems associated with coffee trees, managed by Francisco Vidal (an inseparable friend of Manuel Mejía since childhood). We succeeded in finding the first mature fruits known to science for this species. We agreed on the need for an additional expedition to further searched for in situ forest relics on steep ravines in the neighboring mountains that may still harbor *Magnolia yoroconte*.

The following week (September 21), leaving from San Pedro Sula, we drove 102 km to Trascerreros. with the support of Francisco Deras Martínez, chief of the Environmental Municipality Unit of Trascerreros, Nueva Frontera, we visited Jose Moran Guerra at El Suspiro village, where vouchers of *Magnolia yoroconte* were obtained from trees ca. 60 years old, within an agroforestry system with coffee but presumably of natural regeneration. *Magnolia yoroconte* is locally known as “yaro”, “canelón” or “yaroconte”. We also visited Rafael Morales's farm, where we saw another “yaro” tree, and he explained that the “yaros” would eventually benefit their children and grandchildren. That night we met Yovany Alberto Alvarado Padilla, a nineteen years old man of Guatemalan descent, at La Galera restaurant in Trascerreros and planned a visit to El Corozo on the border with Guatemala. Yovany exactly knew where we could find the natural habitat of the “yaro” tree.



Magnolia yoroconte



Magnolia yoroconte



Wilson Morales with *Magnolia yoroconte* (The yaro tree)

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On September 22, we drove to the border and walked towards Asunción Norte, Morales, Izabal, Guatemala, the property of Yovany's family, and with great surprise, we found a magnificent specimen of "yaro" 42 m tall, 1.12 m in diameter at breast height, and presumably 200 years old, from which we managed to collect botanical samples and take a series of photos. Unfortunately, the Honduran mountainside and presumed type locality (1225 m asl) of *M. yoroconte*, is currently deforested and we could not find it around the Corozo area. Further exploration should focus forest remnants near the streams. Motivated by the awesome *Magnolia* seen in Izabal, Guatemala, we decided to visit El Ermitaño, Honduras (heading south), where Manuel Mejía and Francisco Vidal help us locate the "father" tree of the "yaro" trees they cultivate. We arrived at the Plan del Limo Farm, owned by Manuel Mejía, with an agroforestry system where various species of colored wood predominate in association with coffee and cardamom, there we were able to collect and verify two "father" seed-trees of "yaro" ca. 40-50 years old, with natural regeneration and with plantations 5-10 years old. Among the several "yaro" plantations, the one of Juan Erazo is quite large, estimated to have 8,000 "yaro" plants (pers. comm. M. Mejía & F. Vidal, September 2021).

We discussed the potential of propagating these fast-growing trees for sale to Guatemalan and Honduran producers. We demand further institutional support for rescuing local experience and for integrating in situ and ex situ conservation efforts of the "yaro" trees. Forest producers showed interest in knowing about other species of Magnolias from Honduras and other regions. We are planning for a virtual conference on Honduran and Central American *Magnolia*. We must continue strengthening the knowledge, conservation, and forestry of *Magnolia* plantations through building local and international alliances and seeking funding to promote the ex-situ and in-situ conservation of the *Magnolia yoroconte* species. We plan to send the botanical vouchers collected to the IBUG herbarium of the University of Guadalajara and the corresponding duplicates to the national herbarium in Honduras.

Currently, a taxonomical synopsis of Honduran Magnoliaceae is underway through collaborative work between the University of Guadalajara, México, the Trinity College of Dublin, Ireland (Dr. Daniel Kelly) and the National Institute for Conservation Forestry Development, Protected Areas and Wildlife (ICF), Honduras and the Global Conservation Consortium, ABG. Through further collaborative efforts, we are confident that the number of *Magnolia* species in Honduras could double in the next three years and likewise the conservation agenda.

Finally, we thank our families and collaborators who made this exploration possible to verify the *Magnolia* species. We received support from Marlon Antonio Guerra ("Lito") a tree climber, from El Suspiro, Santa Bárbara.

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Darío Mejía, Yovany Alvarado & Francisco Deras at Izabal, Guatemala

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View from the Guatamalan/Honduran borderline with cardamomo & banana plantations at El Corozo, Nueva Frontera, Santa Bárbara, Honduras



View of remnant forest adjacent to the magnificent yaro tree at Izabal, Guatemala

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Coonifer shaped
Magnolia yoroconte



Rafael Morales



Manuel Mejía



Marlon Guerra ("Lito"), José Morán & Francisco Deras



Presumed Type Locality
of *Magnolia yoroconte*



Francisco Deras, Yovany Alvarado, Francisco Vidal, Darío Mejía & Wilson Morales