

EXPLORING FOR PERSEA IN CHIAPAS, MEXICO

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INTRODUCTION

Chiapas is the most south-eastern state of Mexico bordering with Guatemala. Its territory extends from the Pacific where the lowland is used for extensive crops that include cotton, cacao, rubber and others, to the highlands. These highlands are an extension of the Western Guatemalan highlands, and with natives as inhabitants, it has the same rural type of agriculture that includes corn, wheat, potatoes and forests. We have explored the highlands of Chiapas in recent years (since 1972) for avocados and related species of *Persea*. The only lowlands we have explored are at the Guatemala-Mexico border where we have found *Persea schiedeana* as will be mentioned again. This is part of the University of California program of developing resistance to *Phytophthora* root rot of avocado.

The areas explored are the following: border with Guatemala (700 meters), Comitán (1688 meters), Amatenango (1843 meters), San Cristobal de las Casas (2100 meters) (Figure 1), La Ventana (2500 meters), Chamula (2220 meters), Zinacantán (2100 meters), San Andrés (2300 meters), Huixtán (2050 meters), and Aguacatenango (1800 meters). In all these areas, we have located trees of several important *Persea* species, and have also made market collections. We have made over 70 collections in Chiapas in recent years. These findings are summarized in this article.



Figure 1. Market in San Cristobal de las Casas in Chiapas.

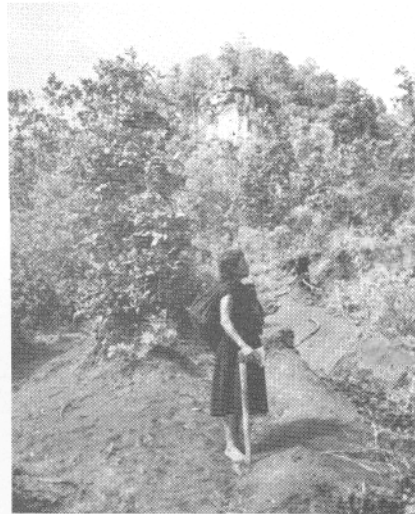


Figure 2. The guide, near the crater of La Ventana, where *Persea nubigena* was found.

1. New center for *Persea schiedeana*.

Several centers of *Persea schiedeana* have been explored in recent years in middle America. A new center has been found at the Guatemala-Mexico border, that is at the border of Chiapas with the Department of Huehuetenango in Guatemala. Here natives call this *Persea* Coyou and Coyeve, and some also name it as Mexicans do "Chinini." Different fruit types or forms have been collected here, varying from the long-necked ones to the pear-shaped and almost round ones. Several vigorous trees have been observed in this area in the last two years.

2. First report of *Persea nubigena* for Chiapas.

The senior author was informed by natives around San Cristobal de las Casas, that a tree known as "Aguacate de Monte" grows on top of "La Ventana" mountain that is located between Cerro Santa Cruz and Cerro La Pantoja, in the mountain Sierra region on the south side of the valley where San Cristobal de las Casas is located. At an elevation of 2500 meters "on limestone and mostly with predominant *Quercus* species and some *Pinus* species, we found the tree with my guide.

My guide was the aunt of Luis, a worker at the Franklins, some friends of the senior author near San Cristobal de las Casas. This woman, 55 years old, took me along a narrow and steep trail to the top of the "La Ventana" mountain (Figure 2). It was a strange feeling to see such a sunburned "campesina" walking in front of me with an ax on her left shoulder and a "machete" in the right hand. She knew where the "Aguacate de Monte" trees were growing at the edge of the crater of La Ventana. Here we found two trees of *Persea nubigena*, with its typical oak-like leaves. This is the first report of this interesting *Persea* species for Chiapas, and the farthest north collection in middle America.

3. Collecting Tzitzí in San Cristobal de las Casas and Comitán.

Many collections of the typical Mexican avocado or "Tzitzí" (*Persea drymifolia*) were obtained on the trips made to Chiapas, mainly in San Cristobal and Comitán. These trees grow abundantly in the small rural patios of the "campesinos" of Chiapas. Many types or forms of fruit were found, from small pear-shaped ones to almost round ones. There is also great variety in size and color. Collections were made from trees and also from markets in these two areas. The name "aguacate de anís" is not used here. Natives eat these Tzitzis as plums without peeling.

4. The primitive, Guatemalan criolloj from San Andrés.

San Andrés in Chiapas can be reached only by jeep on a very rough road. After passing Chamula town, many curves take the jeep through passes and canyons to reach this remote town and region. Here several trees of Guatemalan criollo forms were located at very high elevation (2300meter-s). What is curious about these forms is that they resemble the most primitive ones collected in Guatemala. Small, round fruit and a very hard shell with oblate seed and dark green color characterize this group belonging to the Guatemalan race. Similar types have been found in Nahualá, Chichicastenango and Nebaj in the highlands of Guatemala. Also in San Andrés I collected some Tzitzis planted in the patios of the San Andrés natives. It is interesting that these primitive Guatemalan criollos are found in this remote part of Chiapas, Mexico.

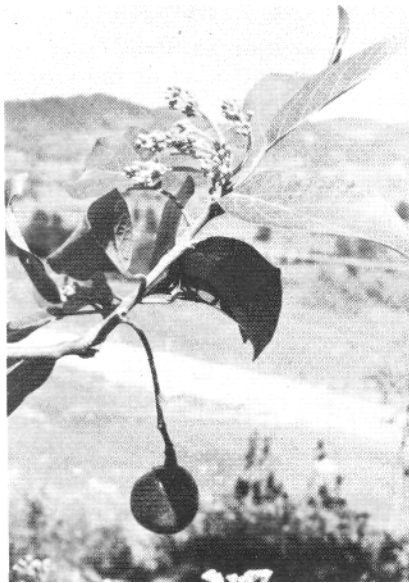


Figure 3. Tzitzí (*Persea drymifolia*) with almost round fruit collected in Huixtán, Mexico



Figure 4. Tzitzí tree (*P. drymifolia*), growing semi-wild in Chiapas

5. Huixtán and the wild *Persea drymifolia*.

A center for Tzitzí, Huixtán is surrounded by many trees of the *P. drymifolia* group (Figure 3). Trees are found growing in the "patios" of the campesinos and also right in the town. However, some trees were located in semi-wild state (Figure 4), growing

together with *Quercus* species. Several trees were seen on the mountain ranges encircling the valley where Huixtán is located. Perhaps this town (Huixtán) should be renamed as "Tzitzitenango," meaning the place of the Tzitzí.

6. Aguacatenango: place of the avocado.

South of Amatenango, the town of Aguacatenango is located. The name of this town means "Aguacate" (avocado), "nango" (place). Only a few trees of Tzitzí were located in and around this town, even though its name is "Aguacatenango." Also, there were a few trees of Guatemalan criollos.