

## EXPLORING FOR PERSEA IN NORTHERN GUATEMALA

**Eugenio Schieber**

*Plant Pathologist, Antigua, Guatemala*

**G. A. Zentmyer**

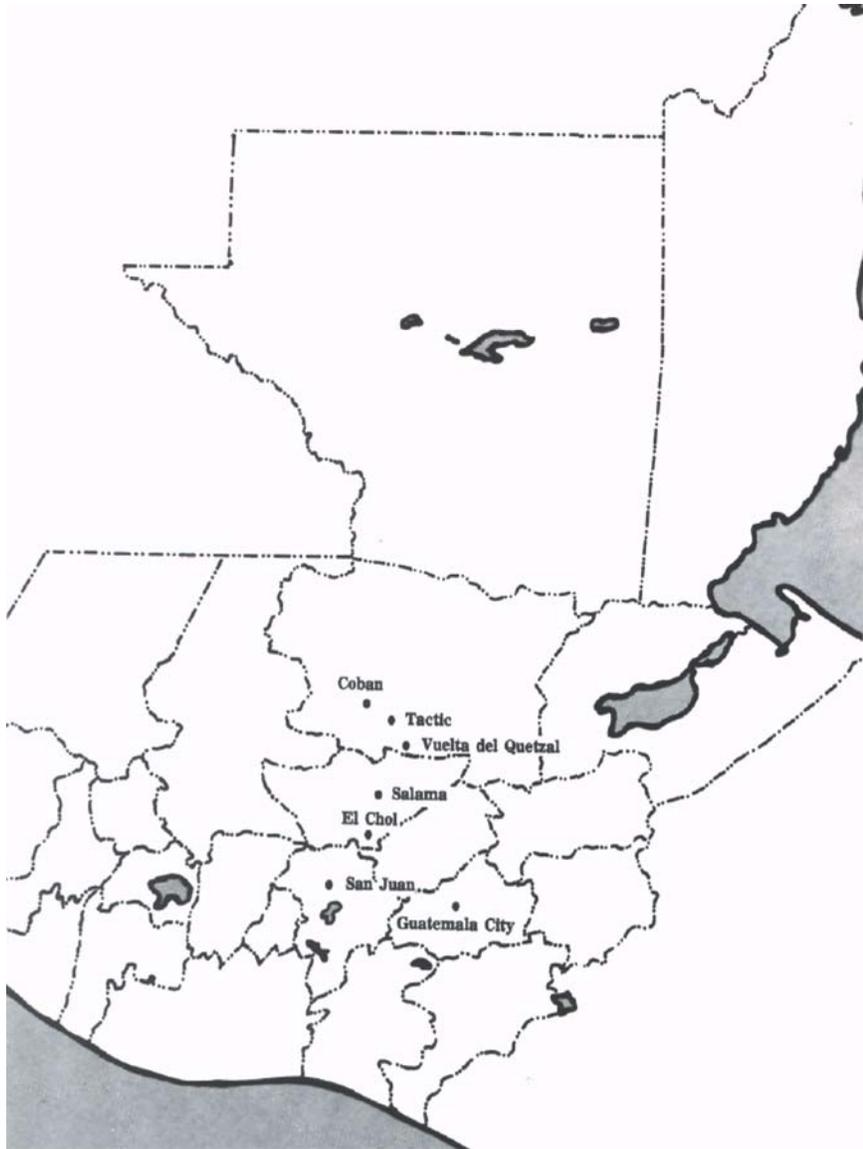
*Pathology, University of California, Riverside*

After seeing a TV documentary made recently on the life of the Quetzal bird (see article in this same issue) in its natural habitat in two regions in northern Guatemala, we decided to explore these regions for the first time in regard to collections of species of *Persea*. These explorations involved two cloud forests in the Baja Verapaz, known as El Chol and La Vuelta del Quetzal forest near Purulha.

To reach these regions we took the old road to Coban that previously was the main road to this important city in the north, before the new asphalt road was completed. To reach the first cloud forest of El Chol, we had to drive 9 hours in a jeep on the gravel road, through San Juan Sacatepequez that was severely damaged by the 1976 earthquake. From this region we drove up to the El Chol cloud forest, then down to the valley of Salami. From here we drove up to Sierra de Santa Elena and then to the cloud forest of La Vuelta del Quetzal in Purulha, also in the Baja Verapaz. During this collecting trip we also collected Coyou fruit (*Persea schiedeana*) in the region of Tactic and Cobán (Alta Verapaz).



*Branches of Persea donnell-smithii in foreground. Jeep used for explorations in background, on road to Tactic, Alta Verapaz.*



*Area explored in northern Guatemala during this collecting trip.*

### **REGION NORTH OF SAN JUAN SACATEPEQUEZ**

On the old road to the Baja Verapaz, we passed the town of Concua Motagua, of Potrero Grande, Granados, en route to the town of El Chol which is still in the warm region with mangos and citrus growing beside avocados. In this warm and dry region, we could see Guatemalan criollos also growing but very few "Antillanos" (West Indian trees). From the town of El Chol we then climbed to approximately 8,000 feet above sea level, where the Cumbre del Chol is located.

### **CUMBRE DEL CHOL**

Here in one of the last original cloud forests left in Guatemala, we know that Quetzals

still live. We camped there to explore the region. The first *Persea* was detected just before reaching the Cumbre del Chol, while climbing toward the summit; this was *P. donnell-smithii*, a small fruited species. Then we found several trees of "Aguacate de Mico"; this is a new center for Aguacate de Mico in Guatemala. This primitive type of avocado is well known by natives in the area. We collected 15 fruits with the help of our guide who threw stones to knock them down. The tall tree trunks were slippery from rain so that even the native guides could not climb them. The tree was recorded as Gu-1018. We found that it had similar characteristics to the trees of Aguacate de Mico that we have seen in Los Andes in the Republic of El Salvador.

In La Cumbre del Chol, a tree that apparently was *P. steyermarkii* had been cut down. Natives told us that the little fruit were like very small pears, yellowish-green in color. We have collected this interesting species in several other areas of Guatemala; it has some resistance to *Phytophthora cinnamomi*.



Tree of Coyou or Chucte (*P. schiedeana*) near Tactic in the Alta Verapaz.

### **NEW CENTER FOR PERSEA DRYMIFOLIA**

Going down to Rabinal, from La Cumbre del Chol, the natives told us of the little avocado called "Aguacate de Santiago", an Aguacate de Anis (*P. drymifolia*) that grows in the aldeas Xabaj and Chirum. Both aldeas or small towns have no roads at all, and during the heavy rains it was not possible to reach them. It is of interest that natives informed us that these avocados are sold in the market of Rabinal the valley below. This then is a new center for the Mexican race of avocado Guatemala.



Beautiful tree of *P. donnell-smithii* growing in northern Guatemala (Alta Verapaz).

## **RABINAL**

Rabinal is an important native center in the valley of Salamá. We saw several trees of "Antillanos" in this region. This was the first time during our collecting years that we have visited Rabinal.

## **LA VUELTA DEL QUETZAL**

Located near Purulhá in the Baja Verapaz, is a fabulous rain-forest, where the University of San Carlos of Guatemala has installed a National Park for the preservation of the Quetzal bird. Biologist Mario Dary of the University established this national park, of 675 hectares, located in a sub-tropic rainforest, where the fabled green plumage of Guatemala's national bird, the Quetzal, has a sanctuary in the dense foliage. Biologist Dary hopes to make the Quetzal sanctuary a model of what a national park should be. He also hopes that the natural balance of the ecosystem will be preserved, and that the park will also be used for scientific research.

The overgrown forest is almost impassable, so natural paths are used to enter it. La Vuelta del Quetzal is located in a sparsely populated region and undisturbed by wood cutters.

This was our first visit to this region, that is similar in many ways to the Xiquival region of Guatemala that we have also explored for *Persea*, but with more ferns in the lower strata. Here we detected *P. vesticuia*, another small-fruited species. This is the second center for this species in Guatemala with the other one in the Tajumulco and Tacana regions. Seedlings of *P. steyermarkii* were also detected in the thick rain-forest. *Persea donnell-smithii* abounds and also *Ocotea* species. We even saw a quetzal on top of a stump of an old tree in the family Lauraceae.

## COYOU COLLECTIONS IN COBAN AND TACTIC

As in previous trips, we collected Coyou or Chucte (*P. schiedeana*) in the markets. Several collections were made in the market of Cobán as well as in Tactic. We have marked trees near Tactic that provide fruit for our resistant tests in Riverside California

## PURULHÁ

On our way back from Tactic, between this town and Purulhá in the Baja Verapaz, we detected a tree that appears to be the same as a tree described by Dr. Holdridge as *Persea rigens* in the Cabrejo-La Palma region in Costa Rica. The leaves are exactly the same, with the leathery character, but the tree is much taller than the one in Costa Rica. The trunk is smooth, resembling almost a "Guaslipe" trunk, however the leaves are distinctly different, and more like the tree that Holdridge detected and labeled as *P. rigens* in Costa Rica.

This article may give the reader an idea of one of our collecting trips, and how many and varied *Persea* species are encountered during such an exploration trip to two undisturbed forests of Guatemala.



One of the authors with his native guide near the aldea "El Quetzal".