The larger American genera of the Lauraceae are notoriously difficult taxonomically and Persea is no exception. Persea can be separated into two subgenera, subg. Persea and subg. Eriodaphne, and these are about as distinct as some of the genera in the Lauraceae. The type of the genus Persea is Persea americana Miller, Gardners Dictionary, ed. 8. 1768. Miller’s rather full account indicates that he was discussing the ordinary “West Indian” avocado for he wrote: “The fruit is as large as one of the largest Pears, enclosing a seed with two lobes, included in a thin shell.” The plant was said to grow in the “Spanish West-Indies, as also in the island of Jamaica, and has been transplanted into most of the English settlements in the West-Indies. . . .”

This plant with the pyriform fruits was the only one that Linnaeus knew and was included in the Species Plantarum 370. 1753, as Laurus Persea.

The “West Indian” avocado was the first one known to Europeans although there is no record of the tree in the West Indies at the time of discovery. The name “West Indian” avocado or, in this century, “West Indian” race has been applied to this plant—unfortunately.

Since Persea americana Miller is the type of the genus it is also the type of the subgenus Persea. Miss Kopp in her “A taxonomic revision of the genus Persea in the western hemisphere,” Mem. N.Y. Bot. Gard. 14:1–117. 1966, apparently accepted Nees’ Persae Propriae (Linnaea 8:49. 1833) as a basionym for the subgenus Persea. Since none of the species given by Nees is a synonym, or even a relative, of Persea americana and only one of them belongs in the genus Persea the basionym chosen by Miss Kopp is incorrect and does not agree with her correct statement that P. americana is the type of the genus Persea.

There were at least three kinds of edible avocados known to the pre-Columbian peoples of America. The oldest of these is the little Mexican avocado (P. americana var. drymifolia). Dr. Smith has detailed the archeological evidence for the use and selection of the Mexican avocado by pre-conquest peoples in the Tehuacán valley in the state of Puebla, Mexico. These fruits apparently were in use as long ago as 8000–7000 B.C. Data presented by Dr. Smith indicates that the Indians did select the Mexican avocado for size. Later studies based on archeological materials found in caves near Mitla, state of Oaxaca, indicates that these small Mexican avocados were in use there perhaps as long ago as 7800 B.C. and as recently as 1300 A.D. Dr. Smith believed that selection was not practiced by these Indians nor that they received the selected forms from the Tehuacán valley.

In addition to the Mexican avocado there were two others, and more important ones, selected and grown by pre-conquest peoples in Mexico and Guatemala—the “West Indian” avocado (P. americana var. americana) and the Guatemalan avocado (P. nubigena var. guatemalensis). Unfortunately, I know of no archeological evidence to indicate the approximate time of origin and how long these fruits may have been used by pre-conquest peoples in Mexico and Guatemala. Both were in cultivation in essentially their present forms at the time of discovery and doubtless had been for many centuries. It is possible that plants of hybrid origin, between the Mexican (or a derivative of it) and the Guatemalan avocados, may

---

1 Submitted for publication September 23, 1975; accepted for publication August 6, 1976.
2 Route 6, Pointe Clear, Rogers, Arkansas.
have existed pre-conquest. I know of no evidence for this but hybridization could have occurred over a long period of time.

The "West Indian" avocado (P. americana var. americana) most probably originated by selection from the Mexican avocado (P. americana var. drymifolia). I believe that the place of origin must have been along the mountains and the lowlands of eastern central Mexico. The time perhaps as much as 4,000–5,000 years ago for these avocados. Presumably P. americana var. americana must have gotten into Peru at least as early as 1800 B.C. Dr. Pozorski extracted two sites in the Moche valley, one dating from 2000–1500 B.C. and the other 1500–1200 B.C. and found abundant remains of the avocado. Margaret A. Towle brought together the published data on the avocado in Peru and found at least eight references to discoveries of avocado remains in pre-Columbian archaeological sites. The evidence indicating the presence of avocados in pre-Columbian Peru is clear.

We may assume that avocados were in northern and eastern South America in pre-Columbian times but I have no evidence to support this thesis. Why avocados did not get into the West Indies, at least were not reported there until post-conquest times, is a curious circumstance. They must have been there!

The Guatemalan avocado (Persea nubigena var. guatemalensis), in my opinion, is the best avocado known to have appeared in pre-conquest America. The presumed progenitor, P. nubigena, is or was native in the montane forests all the way from Puebla and Vera Cruz in Mexico to Costa Rica. I see no reason not to believe that the Guatemalan avocado was a selection, or a series of selections by the Indians from the widely distributed and still abundant Persea nubigena. Selection of the Guatemalan avocado could have taken place anywhere along the range of the wild species. The most logical places are in the high interior valleys of Guatemala where, at least from conquest times to the present the tree was and is so abundant. Whether the Guatemalan avocados were in or were carried into the highlands of Mexico before conquest times I do not know. If the place of origin was in Guatemala, as I believe, then it may have been carried to Mexico post-conquest and hybridization with the Mexican avocado (or a derivative of it) may have occurred to produce the "Fuerte-like" cultivars discovered toward the beginning of this century—not that they may not have been there long before they were recognized.

The limited distribution of the Guatemalan avocado pre-conquest argues for a relatively recent origin. Ecological barriers southeastward from Guatemala, low hot regions extending from the Atlantic to the Pacific, may have inhibited the spread of this plant which is native of cool interior valleys. Why such a valuable food plant did not get into the mountains of Costa Rica, Panama and on into the South American highlands with early man is not easy to explain otherwise.

**The Species of Persea subg. Persea**

There have been published two taxonomic accounts of *Persea* in America since 1945. The first of these by Dr. Allen contains a basic account of the Perseas and covers both subgenera without distinguishing them. The second publication is Dr. Kopp's formal revision of *Persea*. Miss Kopp's revision is quite good. She had no field experience and did not mention some of the important cultivated avocados so my concepts of these are often quite different from hers.

**A KEY TO AND MY CONCEPT OF THE TRUE AVOCADOS AND THEIR RELATIVES**

Fruits round to ovoid or obovoid, not much longer than broad.

Fruits with thin green covering, stone cells absent or not obvious; rare species of eastern Mexico.

---
