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Phoenix theophrasti on Crete

JAMES A. VAMVOUKAKIS

25 Cutler Street, Providence, R.I. 02909, USA

“Crete is a region lying in the midst of the black deep, a fair and fruitful land, girt by the waters. Many are the men, nay, numberless, who make it their abode, and ninety are its cities. . . .”

This is how Homer (8th century B.C.) describes Crete in his famous work “The Odyssey.” Indeed, in ancient times Crete was densely covered with forests but today very few of them remain due to the excessive human activity that has continued on for thousands of years. These remaining forests, however, are of some interest and well worth a visit (Zacharis and Flegas 1982).

Crete is the southernmost island of Greece and the southern limit of Europe, as well. It is situated in the eastern Mediterranean, just below 36° latitude, and is almost equidistant from the continents of Europe, Asia, and Africa. It covers an area of 8,330 km² and is 270 km long and from 12 to 61 km wide. The climate is mild and typically mediterranean. The winter is never harsh and the heat of the summer is tempered by northern sea-winds. The temperature averages 20° C (68° F) and very rarely rises as high as 40° C (104° F). Average precipitation is 400–600 mm. Frost is not common and rarely lasts more than a day or two. Snow is found only in the mountains, and the climate along the coast is pleasant all year long (Zacharis and Flegas 1982).

Crete’s geographic location along with its climate make its flora of great interest. Crete has a great variety of plants—about 1,600 species, including some 150 endemics (Iatridis 1985). For a comparatively small island, these figures are impressive.

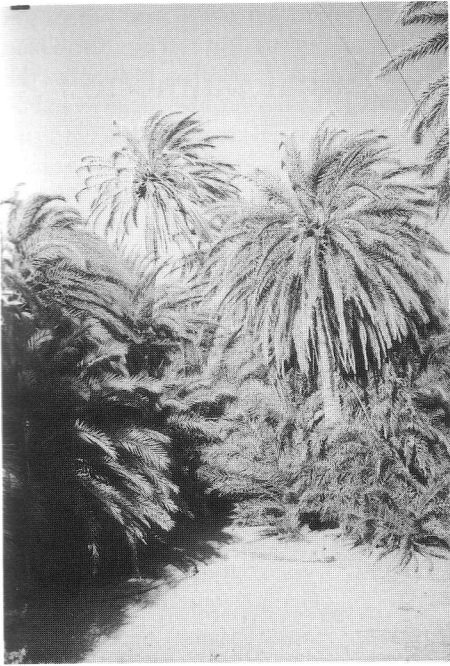
A very rare species of palm can be found growing on Crete, namely *Phoenix theo-*

phrasti Greuter. Until recently it was thought to be endemic to Crete, but now it is known to grow further northeast in the Datca Peninsula, Turkey (Boydak 1985).

Phoenix theophrasti is closely related to the date palm (*Phoenix dactylifera* L.) and has almost the same appearance. It differs from the date palm in its flowers, which are short-stalked, and in its fruit which is smaller (1.5 by 1 cm) and inedible. It grows to about 15 m tall with leaves 2 m or longer (Polunin 1976). Very often it suckers to form clumps, and as Boydak (1985) mentions, it reproduces both vegetatively and by seed on Crete (Fig. 2) and in Turkey as well. Theophrastus, the ancient Greek botanist (372–287 B.C.) and the first man to study this plant, reported meeting palms having two, three, and even five “heads” (Theophrastus, *De Historia Plantarum*).

This palm was known to the Minoans, the ancient inhabitants of Crete (3,500–1,400 B.C.), who considered it a sacred tree and often represented it in their art (Zacharis 1977; Zacharis and Flegas 1982). Even though its presence was known since then, it has only recently been recognized as a distinct species. This palm was thought to be an escape from formerly cultivated date palms, but, according to Greuter’s investigation in 1967, it should be regarded as a separate species as the differences are significant (Boydak 1985).

Isolated palm trees and small stands of this palm can be found in several coastal areas on Crete. The stands of this palm are the only ones in Europe (Zacharis and Flegas 1982). The largest grove on the island is found at Vai (Fig. 1) on the eastern tip of Crete. It covers a small valley of about 20 ha and runs down to the shore.



1. The palm trees cover the sandy beach of Vai.



2. *Phoenix theophrasti* in young fruit.

It is estimated that about 5,000 palms grow there. Cultivation in the area has reduced the size of the stand from about 80 ha to the present 20 ha (Zacharis 1977). To protect the palms from further abuse, the government declared the location a national park and erected a fence around the grove (Boydak 1985; Iatridis 1985).

In addition to the grove at Vai, Crete has two other smaller groves of this palm; one is located near the village of Achen-trias, Iraklion District, and the other along the river in the gorge which is near the Monastery of Preveli, Rethymnon District (Zacharis and Flegas 1982).

There are also a few other even smaller stands; one is located near the village of Selia, Rethymnon District, one at Almyros west of Iraklion, and another at Stalida, Iraklion District (Zacharis 1977).

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