

Clarification of *Chamædorea Pacaya*. In 1854 Oersted described this species from Costa Rica, applying to it (although without explanation) the vernacular native name. The species has been misunderstood and erroneously defined. Photograph of Oersted's specimen by the Field Museum enables us at last to clarify the situation: Fig. 135. One notes the slenderness of the plant, the few very narrow long-pointed only slightly sigmoid pinnæ, the small pistillate inflorescence. I match this plant very well by recent collections in Costa Rica and contiguous Panama.

From central Panama Paul H. Allen sends me a plant (Fig. 136) very like *C. Pacaya*, but it is undoubtedly *C. flavovirens*, Wendl., heretofore a palm without a country. Differences between the two palms are apparent in the much broader strongly sigmoid less pointed and more sparsely nerved pinnæ of *C. flavovirens*, as well as in the inflorescence.

Acceptance of the species *C. flavovirens* raises several important questions. Wendland refers the plant to *Chamædorea* with a question mark and he states that inflorescences had not been seen by him, the character having been drawn from vegetative parts. That was in 1854. In 1859, however, Oersted describes the inflorescence of *C. flavovirens* and says that he saw specimens from Herrenhausen, Wendland's place. Two photographs of apparently authentic specimens from Herrenhausen in the Field Museum collection identify the plant for me; I assume they are the specimens seen by Oersted, and that they were taken after the original description was drawn. The species has been known only from material cultivated by Wendland, the supposition being that it is native in New Grenada (Colombia) or Central America. Dugand, however, does not list it in his *Palmas de Colombia: Caldasia* no. 1, 1940. Burret reviewing the case in 1933 supposes *C. flavovirens* to be the same as *C. Pacaya*, in which case the latter name would fall.

The word *Pacaya* is a native vernacular applied to several palms and sometimes to other trees or their parts. As applied to palms it "apparently is restricted to Central America," as stated recently by O. F. Cook. He prefers, however, to restrict the vernacular *Pacaya* to a larger palm of Verapaz, Guatemala; regretting application of the name to the small southern species Cook renames the Costa Rican palm *Chamædorea Oerstedii*, and *C. Pacaya* of Oersted becomes a synonym. (*Nat. Hort. Mag.* xviii, 168, July 1939). For the Guatemalan *Pacaya* he erects a new genus, *Edanthe*, and the species becomes *E. veræpacis*. Under this disposition no palm may bear the name *Chamædorea Pacaya*.

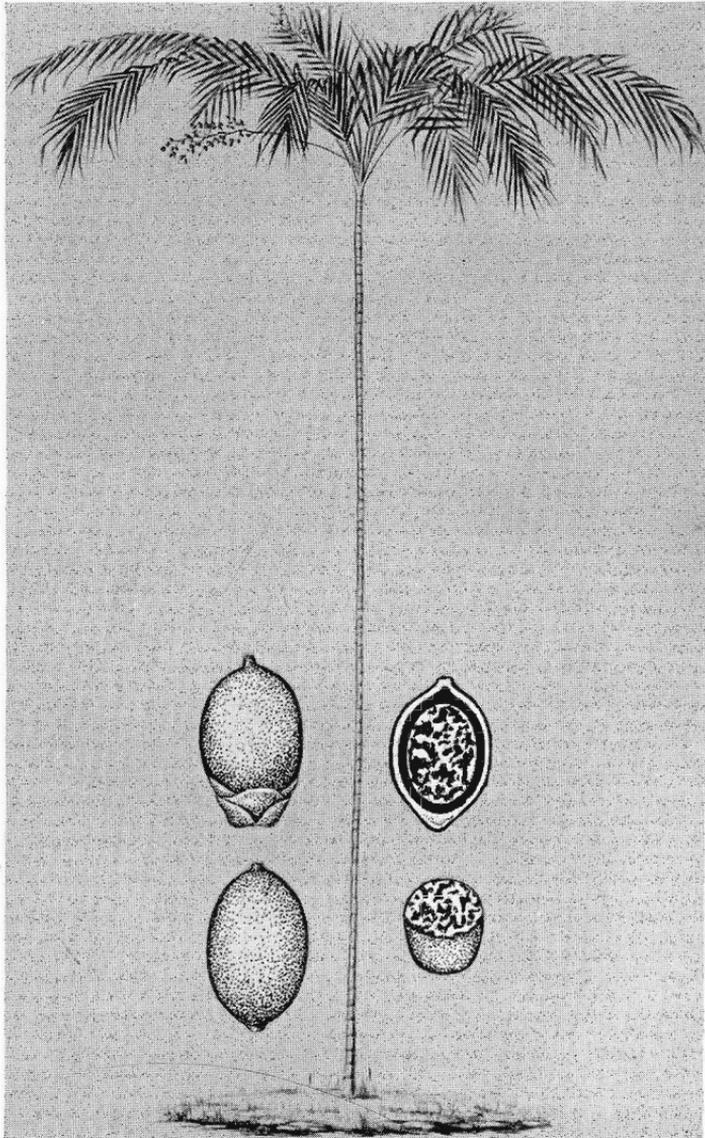
REINHARDTIA—MALORTIEA

Lately the genera *Reinhardtia* and *Malortiea* have been combined, and all the *Malortieas* become *Reinhardtias*. Fortunately the species are few. We may now examine this situation.

Reinhardtia was founded by Liebmann in a letter from which Martius published in 1849. The usual reference cited for the genus is 1845 (or 1846) to a contribution by Liebmann in a Danish publication, but it is only a *nomen* and does not possess taxonomic standing. No statement is made in either place on the origin of the generic name. One species, *R. elegans*, from southern Mexico, was then described in Martius. Little material has been available of *R. elegans*, and it apparently has been imperfectly understood.

Recently, however, we have had photographs of Liebmann's specimens at Copenhagen as well as of the drawings in his unpublished *Icones* (page 186), through the cooperation of the Field Museum of Natural History in Chicago; we also have a photograph of Wendland's material of *Malortieas* although those species have not been in doubt.

Liebmann's account of *Reinhardtia elegans* in Martius calls for an erect tree 20 feet tall with a terminal crown of long spreading pectinately-pinnate leaves with linear attenuate-pointed pinnæ, spadix 3 feet long and



137. TREE AND FRUITS, LATTER SOMEWHAT ENLARGED, of *Reinhardtia elegans*, from Liebmann's pictures.

doubly branched, albumen strongly ruminated. The tree and fruit, made up from Liebmann, are shown in Fig. 137. All this is very unlike the plants we know as *Malortiea*.

The genus *Malortiea* was founded by Wendland in Otto & Dietrich's *Allgemeine Gartenzeitung*, xxi, 25, 145, in 1853, dedicated to Dr. Ernst V. Malortie, in the military service of the Kings of Hannover. There has been no doubt of the plants intended in this and other publications, one of which is shown in Fig. 138. All the *Malortieas* are little palms, often less than 2 feet high when in full flower or fruit, with divided or fenestrated strongly toothed leaves which are broader at apex than at base, the strong veining not strictly pinnate so that they could not bear a *Reinhardtia* type of foliage if the leaf were to be compound; inflorescence is simple, albumen plane.

In his treatment of the genera of palms in *Die Natürlichen Pflanzenfamilien*, 1889, Oscar Drude combines *Malortiea* with *Reinhardtia*, but this combination is protested on the basis of very dissimilar evident characters of the two genera by Udo Dammer in 1901 (*Gard. Chron.* ser. 3, xxix, 341, in discussion of *Malortiea Koschnyana*.) About ten years ago Max Burret made critical examinations of flowers and fruits of the different species, correcting errors in former accounts (*Notizblatt*, xi, 551, 1932), and followed Drude in uniting the two genera. Subsequent availability of the Liebmann drawings, however, presents an aspect of the case that is hardly obtainable from dried specimens. The fact appears that the two groups are incompatible. The unlikenesses between them are much more significant than certain similarities (or lack of contradiction) under dissection. Note Figs. 137 and 138.

Relationship of *Reinhardtia* is apparently with the *Euterpe* group, but it cannot belong to that genus because of lack of crownshaft on the tree and the many stamens. The straight basifixed anthers (as shown in Liebmann's detail drawings) take it away from *Geonoma*, and the monœcious character separates it from *Chamædorea*. Drude places it in the group with *Chamædorea*, *Hyophorbe*, *Gaussia*, *Pseudophoenix*, *Synechanthus*, but these things have little in common. Bentham & Hooker put *Reinhardtia* and *Malortiea* in a bracket by themselves in the great tribe *Areceæ*. Probably we shall dissociate the two genera more completely when we understand the plants better.

Genus *Reinhardtia* was based on a palm collected in southern Mexico. Burret added *R. gracilior* from British Honduras; I have not seen it. The two species *latisecta* and *gracilis* from Guatemala, as well as *simplex* and *Koschnyana* from Costa Rica, were all placed by Wendland in *Malortiea* and were transferred by Burret to *Reinhardtia*; I should restore them to *Malortiea*. *Reinhardtia rostrata*, Burret (in *Ann. Naturhist. Mus. Wien*, xli, 228, 1932, and *Notizblatt*, xi, 554, Dec. 1932), from Costa Rica, I now make † ***Malortiea rostrata***, trans nov.