

smaller ones often about equal diameter either way; nut compressed endwise, irregular, 2.5–3 cm. diameter crosswise and about 2 cm. endwise, all 3 micropyles prominent.

Western side of Nicaragua and Costa Rica, as originally described, but probably across the continent at least in the latter country. Fig. 278 is a photograph sent me (together with specimens) by my correspondent, Señor Raul Coto-fernández, from San Ramón, central Costa Rica; trees growing at an altitude of 850 meters reached a height of 25 meters and very slender. Fig. 279 is drawn from a photograph of the original spathe preserved in Copenhagen. Original account by Oersted does not provide a detailed description of pinnæ and nothing about the fruit. Wine is made from the contents of the trunk, whence the name *vinifera*, wine-bearing.

I have photograph of an *Acrocomia*, section *Sentocomia*, in a banana plantation in Costa Rica, as if wild; I do not have specimens and its identity is unknown to me.

10. ***Acrocomia Wallaceana***, Becc. in *Palms Indigenous to Cuba* (Pomona Coll. Journ. Econ. Bot. ii, 362, 1912).

A. sclerocarpa var. *Wallaceana*, Drude, in *Fl. Bras.* iii, II, 391 (1882).

A. lasiospatha, Wallace, *Palm Trees of the Amazon*, 97, t. xxxvii (1853), non Martius.

It is not yet possible to diagnose this *Acrocomia* as distinct from certain other species subsequently described, but the fruit as pictured by Wallace is quite unlike that of *sclerocarpa* as illustrated by Martius, being somewhat longer than broad and umbonate at apex rather than oblate. Alfred Russel Wallace in his interesting little book, *Palm Trees of the Amazon and their Uses*, says this tree is about 40 feet high; pinnæ long and narrow, and spread irregularly from the midrib, every part of which is spiny; "the sheathing bases of the leaf-stalks are persistent on the upper part of the stem, and in young trees clothe it down to the ground"; "the spathes are woody, persistent and clothed with spines"; "fruit is the size of an apricot, globular, and of a greenish-olive color, and has a thin layer of firm edible pulp of an orange colour covering the seed"; he pictures the fruit natural size, and it is 38 mm. broad and 41 mm. high.

This palm was supposed by Wallace to be *A. lasiospatha*, Martius, but Drude was not able to recognize this Martian species in Brazil. Wallace states that his tree "grows on dry soil about Pará and the Lower Amazon, but is quite unknown in the interior." This palm is not understood.

Wallace's picture suggests a bole as if with notches rather than rows of spines; he records the stem as smooth.

† 11. ***Acrocomia hospes***, spec. nov. Figs. 264, 281, 282, 283.

Species culta: § *Tectocomia*: truncus gracilis, sæpe non rectus et inter-

dum curvatus, non ventricosus, pæne inermis, ad 8 m. altus, basibus petiolorum cataphractus; spinæ 1-5 vel 6 cm. longæ, compressæ: folia longi-pinnata; petiolus rachisque pubescentes et spinescentes; pinnæ 3 cm. vel minus latæ, supra glabra, infra cinerea puberulentaque, margines non spinosi: spatha 1 m. vel plus longa, dense tomentosa, non spinifera: fructus brevi-pyriformis, circa 3.5 cm. diam.; semen oblatum.

Tree to 8 m. and perhaps more; trunk not heavy nor tumid and often bent near top, flanged petiole-bases persistent and bearing most of the armature, bases finally loosening or rotting away and leaving the bole with a stepped appearance; spines 5-6 cm. long but the smallest ones less than 1 cm., flat and not very stiff, with light colored callus at base on upper side; head of many curving leaves that bear numerous narrow pinnæ: rachis of leaves plano-convex but not prominently or narrowly ridged unless toward the top where it is narrow, spinescent-pubescent on both surfaces and bearing flat dark spines 1-3 cm. long; pinnæ 3 cm. or less broad at middle but basal and terminal ones very narrow, upper surface glabrous and dull with midrib strong light colored and very prominent, under surface conspicuously gray and closely puberulent but not hirsute, margins not prickly: spadix long and prominent, 1.3 m. long, the main valve or part 25 cm. broad at expansion, long-pointed, spineless, outer surface covered with



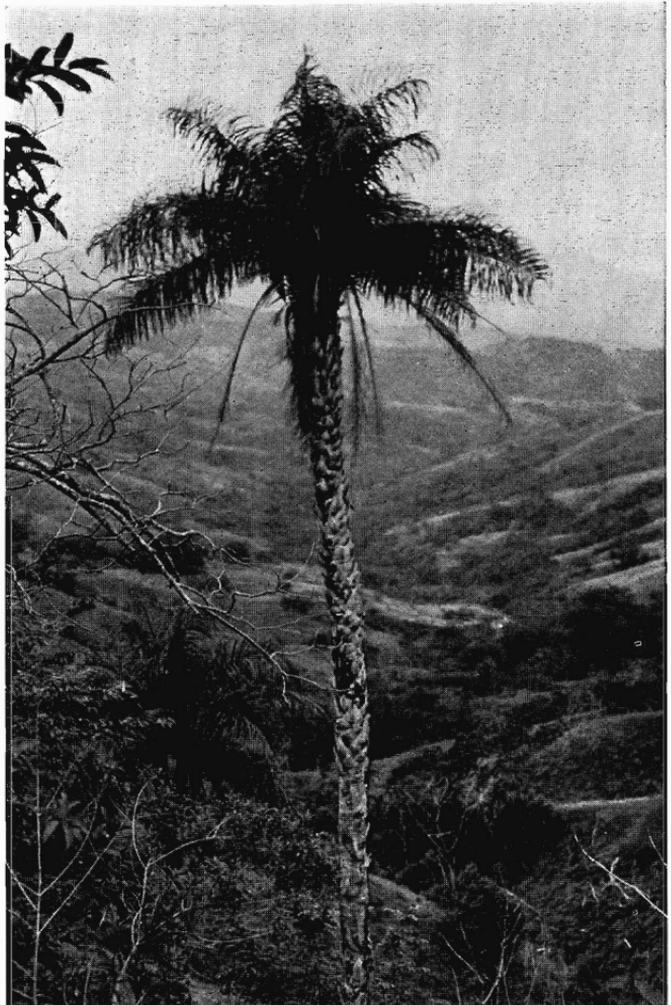
277. FULL-SIZED FRUITS AND A NUT of *Acrocomia mexicana*.

thick brownish coarse tomentum; spadix about as long as main spathe, glabrous and axis as well as peduncle spineless, the many rachillæ only moderately divaricating; staminate flowers 5-6 mm. long when dry, angled and veined, the 3 calyces short and narrow but prominent; pistillate flowers about 8 mm. long and broad: fruit typically short-pyriform and flat-topped, variable in size but commonly about 3.5 cm. diameter either way (sometimes a little less or more), dull brown and roughish, closely sessile; seed flattened endwise, 2-2.5 cm. across.

Southern Florida, where it is likely to be grown under the names *sclerocarpa* and *fusiformis*; nativity unknown, but long cultivated; I have given it the Latin name *hospes*, a stranger, the Latin word here used adjectively. Type, *Bailey 485*, Montgomery Palmetum, Coconut Grove, Florida.

This is apparently another case of an undescribed palm coming into cultivation and there receiving its botanical name, as in species of *Washingtonia*, *Erythea* and others.

I have noted two peculiarities in some of the trees of this palm. Sometimes the head of the tree (as in a tall one at Bradenton) stands obliquely for a time or even bends over and hangs down due to unexplained flexibility of the trunk, but in a few years straightens itself up although the bole may retain a crook or bend. Another tree near Miami, about 18 feet tall, was once



278. RAGGED BOLE of *Acrocomia vinifera*. Costa Rica.

bent over but the trunk is now erect. The other peculiarity is in the boots or petiole-bases; the lower part may separate from the main base, as shown in Fig. 283, due to an abscission that develops across the member before it loosens and falls. Reasons for these two peculiarities should invite morphological study.

This palm, which I have taken in Bradenton, Oneco, Homestead and Coconut Grove, apparently oftenest passes as *Acrocomia sclerocarpa*, but it differs at once from that species in the shape of the fruit and the spineless spathe as attested by the pictures of Martius, as well as in the longer spathe, unarmed peduncle and smooth margins of pinnæ. From *A. fusiformis* it differs in belonging with the Tectocomias rather than the Sentocomias, in the absence of tumidity in the bole, unarmed peduncle, mostly shortly pyriform fruit.



12. *Acrocomia Totai*, Martius, Palmetum Orbignianum, 78, t, ix, fig. 1 (tree as *Cocos Yatai*), also t, xxixB details (1847); Hist. Nat. Palm. iii, 286. TOTAL. Figs. 284, 285.

Trunk cylindric, about 15 m. tall and 20-40 cm. thick; spines 7 cm. or less long, in incomplete verticels: leaves 2.5-3 m. long; petiole strongly armed on the back with spines 3-10 cm. long; rachis armed with strong spines solitary or in groups of 2 or 3; pinnæ 50-70 cm. long and 1-2 cm. broad, about 110 pairs: outer spathe tomentose, about 30 cm. long; inner or main spathe densely reddish-villous-tomentose, beaked at apex and armed near top with spines 3 cm. long; spadix about 1 m. long, the peduncle densely provided with very small spines; branches or rachillæ 20-30 cm. long; staminate flowers 5-7 mm. long, the sepals ovate and mucronate, the petals ovate-oblong and concave; pistillate flowers 3-9 on each rachilla, the sepals broadly ovate and mucronate and about 2.5 mm. long, the petals broadly ovate and exceeding the sepals: fruit or drupe globose, glabrous at maturity, 27-30 mm. in either diameter.

Argentina; attributed also to Paraguay and Bolivia.

The word *Totai* is a vernacular Indian name.

This species has been inadequately described heretofore and has not been well understood. Now, however, we have the advantage of a technical account of it in contrast with the new *A. Chunta* by Guillermo Covas and Arturo Ragonese in Revista Argentina de Agronomía for March 1941; from this account the foregoing diagnosis of *A. Totai* is drawn and Figs. 284, 287 are adopted. These authors cite only Argentinian specimens. The vernacular names for *A. Totai* listed by them are Mbocaya and Coco.