

area represented by Ghana. But Jeppesen (Danish Plantations on the Gold Coast in Geogr. Tidsskrift 65: 73–88 (1966) shows that the Danes had only small plantations and defence posts dotted in the eastern parts of Ghana especially towards the Lower Delta, and Lasegue (Musée Bot. Delessert: 70 (1845)) notes that Palisot de Beauvais from Lisbon had reached Chamah, a Dutch “factory” (comptoir) on the Gold Coast lying between the Cape of Three Points and Cape Corse (modern Cape Coast) and thence to Koto, a Danish “comptoir” on the same coast on the River Volta. Therefore the type of *H. crinita* in Amsterdam could have been sent from Ghana by a Dutch planter.

The fact that *H. crinita* is closely allied to *H. togoensis* and *H. baikieana*, both of which are based on the types collected in Upper Guinea supports the view that the type of *H. crinita* had also come from that region. All three species have fruits which are broad at the apex and narrowed at the base and which are slightly longer than broad. The fruits of *H. crinita* and *H. baikieana* are on the dorsal side almost vertically straight though the base is slightly rotundate in the former, broad and cordulate in the latter. In *H. togoensis* the fruit is dorsally convex. The broadest diameter is below the middle in this species, in the middle or slightly above in *H. crinita*, and near the apex in the third. In both *H. crinita* and *H. baikieana* fruits are laterally compressed so that it appears somewhat triangular in cross-section. Though the available fruit specimens of *H. baikieana* have only embryonic seed, that of *H. crinita* is half-developed (known only from one fruit), and those of *H. togoensis* are fully developed. The distinctions shown above seem to justify recognition of the three taxa as distinct species. On the other hand, none of these three species are allied either to *H. thebaica* or to *H. natalensis*.

The Species form Upper Guinea

Since *H. guineensis* has been definitely identified, advantage is taken here to enumerate the species that have been found in the region and to give their synonyms.

1. *Hyphaene baikieana* Furtado *spec. nov*

H. crinita sec. Furtado in Rev. Garcia Hort. 15, 1967: 449 Ic. 2 fig. A tantum (1970) quoad synonymum *H. macrosperma* sec. Becc. p.p. **Figure 1.**

H. guineensis sec. Drude in Engl. Jahrb. 21: 124 (1895) in nota.

H. macrosperma sec. Drude op. cit.: 123; Becc., Borass: 27 t. 19 fig. 6 (1924) p.p.

H. crinita valde affinis, sed fructibus bilateraliter compressis, in sectione transversa trigonoideis, supra stigma abrupte ventricosis, dorso gibbosis, apice oblique truncatis haec species sat distincta.

Fructus omnes immaturi visi, unusquisque cum semine vix evoluto, ambitu obovato pyriformes, ex dorso latiores ventrem versus angustati, autem lateraliter compressi, dorso ad basin gibbosi vel sub-cordulati et ad apicem rotundati, ventre supra stigma abrupte carinati, vertice oblique truncati, centro depressiusculi, ad apicem carinae altiores, epidermide non fragili, flavescente minute punctato, 7–8 cm alti, 5–6 cm lati, 4–4.5 cm crassi. *Infructescentiae* rami duo visi, usque ad 15 cm longi, uterque amenta tres, 8–11 cm longa, 1 cm diam. ferens.

AFRICA BOREO-OCCIDENTALIS: Regio ad Fluvium Niger (Baikie leg. circa 1859 — K, **holotypus**).

Since this specimen belonged to "Dr. Baikie's Niger Expedition", both Drude and Beccari separately mistook it to be the type of *H. macrosperma*, a species described to have an "ovate" fruit as in *H. thebaica* but rounder in cross-section, and not obovate-pyriform and triangular. Geographical considerations misled Drude to identify this species as *H. guineensis*.

The peculiar facets shown in the entire fruits photographed by Martelli for illustrating Beccari's monograph are somewhat misleading and the fruit represented in Furtado figure 1, B, (copied from Beccari) is not found in the collection at Kew, though it is the one that had made me identify Beccari's *H. macrosperma* with *H. crinita*.

Because the fruit is yellow and ventricose and shows no cracks in the epidermis, I surmise that, like *H. crinita*, this species is an inland one and of higher and drier regions and that it has a stem that branches dichotomously.

The specimen was originally named as "*Hyphaene macrocarpa* Wendl.?" but later named by Martelli as "*H. macrosperma* Wendl." on grounds that it is so named by Beccari in his manuscript on "Borasseae". Wendland did not describe any species called *H. macrocarpa* and so this might have been an error for "*H. macrosperma* Wendl.?"

The holotype is indicated as if it was collected by Barter in Jan. 1860. However, Barter had died in July 1859 (Hutchinson & Dalziel, Fl. W. Trop. Afr. 1: 71 (1927)). The specimen is also indicated as being from "Dr. Baikie's Niger Expedition", with which Barter seems to have been associated only in 1857, though all the collections from Dr. Baikie's Niger Expedition (1854–59) are attributed erroneously to Barter. I have therefore not cited the name of Barter. Further, the date "Jan. 1860" seems to be the date when the specimens were received at Kew or when they were sorted out and incorporated into the Kew Herbarium. A duplicate of this specimen was donated to Drude in Berlin and was similarly labelled (op. cit. p. 124 footnote).

2. ***Hyphaene crinita*** Gaertn., Fruct. 2: 13 t. 82 fig. 4 (1791); Mart. Palm. 3 ed 2: 225 (1949) pro parte typica; Becc. in Agric. Col. 2: 157 (1908) 157 p.p. Borasseae: 29 fig. 13 (1924); Furtado in Rev. Garcia de Orta 15 (4), 1967: 449 t. Ic. 2 excl. A & B, excl. syn. et addenda: 459 t. 19 fig. infra (**holotypus**) (1970). **Figure 2.**