

species is common. Martius added a new locality, Admedabad (also in Gujarat) where Baron von Hugel (Car. = a misprint for Bar.) had collected the specimens.

Gammie (fide Beccari) suggested that this species occurred as far south as Goa and Blatter 1926 published a plate of a palm growing at Bassein north of Bombay.

2. *Hyphaene taprobanica* Furtado spec. nov.

H. thebacia sec. Haeckel, A Visit to Ceylon, ed Engel.: 180 (1883); Becc., Borasseae: 24 t 13 (1924); Macmillan, Trop. Plant. & Gardening: 161 t. (1935); Blatter, Palms Brit. Ind. & Ceyl.: 165 (1926); Taekholm & Drar, Fl. Egypt 2: 279 (1950); McCurrah, Palms of the World: 104 (1960): omnino pro parte zeylanica. **Figure 2, Plate 1.**

Ab *H. dichotoma* cui affinissima, fructibus obovato-oblongis, dorso paulo ventricosis cum sarcocarpio osseoso multo tenuiore quam putamen paulo majore, ovoideo-oblongum vel ovatum, in uno latere magis convexum apice rotundatum, basi fere truncatum sat distincta.

Caulis iterum iterumque dichotomus, cum ramis primis a basi ejusdem modice remotis. *Fructus* obovate oblongus, dorso magis convexus, vertice in perimetro stigmatico-pedunculari depressiusculus, ventre obscure carinatus ad basin carpellis duobus sterilibus plerumque conspicue tuberculatus, circa 7 cm. altus, 5.5 cm. latus, 4–4.5 cm. crassus, epidermide nitidus, obscure tessellatus, partim irregulariter rimulosus. *Sarcocarpium* in parte fibrosa 4.5–7 mm. crassum, in parte osseosa 2–3 mm. crassum. *Putamen* ovoideo-oblongum vel ovatum, basi rotundato-truncatum uno latere magis convexum, vertice late rotundatum. *Albumen* conforme, pariete 7–8 mm. crassum, embryone carens.

ZEYLONA: probabiliter indigena, in locis supralittoreis. Cult. in Horto Botanico, Peradeniya, feminea tantum (Tissera: June 1969, K, holotypus).

All the fruits, even the very young ones, have the same shape, being much ventricose on the dorsal side and slightly carinate on the ventral side which is taller at the apex and bears two knobs of the vestigial carpels at the base. The epidermis is at first nitid and partly dark brown, but later it is almost dark and opaque, tessellately marbled all over and cracked in parts. Like *H. sinaitica* and *H. dichotoma*, this appears to be a coastal species and so the external characters regarding the colour of the fruit might be abnormal and the effects of the cold mountainous climate of Peradeniya.

Beccari's t.11 attributed to *H. thebaica* shows a very variable habit as in the members of the "*H. multiformis*" group. Some plants are branched at the ground level, others higher up. There is one that has not branched at the base but instead has a very thick stem and a few short and stout branches higher up—a phenomenon also noticed in the Ceylon plants, though this is totally different.

from the Egyptian species as illustrated by Beccari. In the absence of fruits I have assumed that all Ceylon plants are specifically identical. The solitary plant from the Peradeniya Gardens has not branched at the base but has bifurcated several times higher up.

When Dr. J. C. Willis, former director of the Botanic Gardens, Peradeniya, provided in 1908 a male specimen from Jaffna to Beccari in Italy with the information that the species was introduced by the Peradeniya Gardens from Egypt but that it had then become diffused on the island; he was obviously acting on the long current belief of the staff of the Gardens that the species is *H. thebaica* introduced into the Gardens from Egypt (cf. also Haeckel op. cit. 1883), but the species is in no way related to the Egyptian plant. I am inclined to believe that the species is a native of the sea-coast of Ceylon, and is introduced into Peradeniya. The fact that Peradeniya in all these years has only one female palm which, being dioecious, has not produced nuts with an embryo hence are not viable, and that formerly the species seems to have been widely distributed along the sea-coast of Ceylon (e.g. Jaffna, Galle, Colombo, Batticaloa, etc.) favour my view. As noted in the introduction there might have been unsuccessful attempts to acclimatize the Egyptian species in Ceylon.

Due to the mistaken identity of the Ceylon species as *H. thebaica*, Haeckel (1883) wrote, as said above, a glowing account to show that this species readily evokes numerous changes in the habit, shape and size of flowers and fruits. Though as early as 1908 & 1924 Beccari had shown that *H. thebaica* is a misnomer applied to several species from Egypt and elsewhere and had described a new *Hyphaene* from India, the fantastic adaptability of *H. thebaica* has, as shown above, been quoted even in modern books.

Beccari (Agric. Colon. 2, (3), 177 (1908)), who had examined the leaves of both *H. dichotoma* and *H. taprobanica* (the latter from a male specimen from Jaffna) noted that the leaf of the Ceylon plant had a greater number of segments which were also much shorter, the lamina being less deeply divided and very much lepidote on both the surfaces. Further, the male spadix was more robust and longer than 1 m., but the spathes were glabrous in the lower parts and fugaciously furfuraceous above (not densely tomentose as in *H. dichotoma*), their tips broadly triangular and longer than the respective axillary branch, the spikelets being inserted at the mouth of the spathe, and each branch bearing generally five spikelets (in *H. dichotoma*, the spikelet-bearing branch is very much longer than its axillant spathe). Apparently the same spadix was later mistaken by Beccari as having come from the Botanic Gardens in Peradeniya and was described and illustrated as of *H. thebaica* in Borasseae 24 t.13 (1924).

Since fruits were lacking in the specimen, Beccari could not decide whether the Ceylon *Hyphaene* represented a new species quite distinct from the region of Cutch or another i.e. one already known.

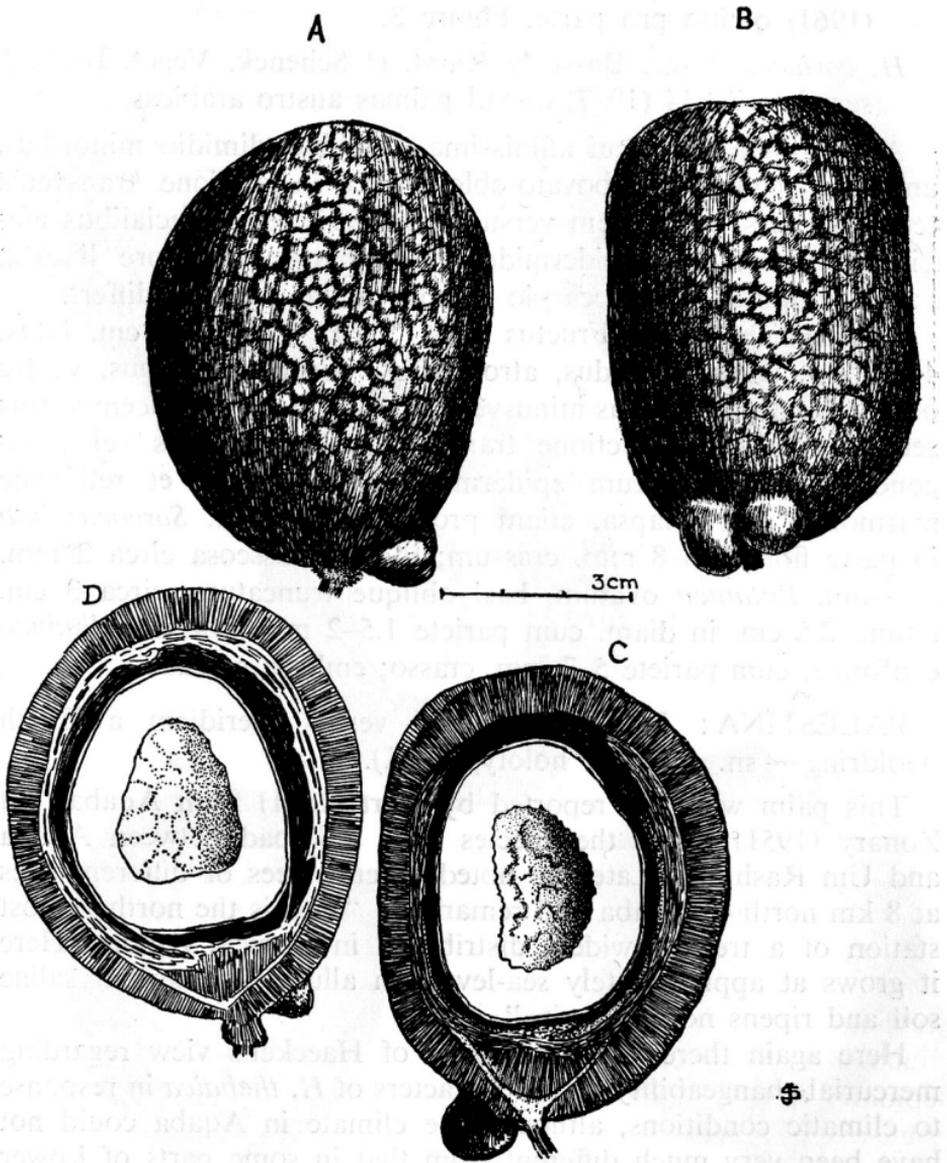


Fig. 2. *Hyphaene taprobanica* Furtado (ex collectione fructuum holo-
typica)

A: Fructus latere visus. B: Idem ventre visus. C & D: Sectiones
verticales duorum fructuum.



Plate 1 *Hyphaene taprobanica* Furtado

Plants growing at Batticaloa, Ceylon.

(Photographed by Mr. I. Balachandran of St. Michael's College, Batticaloa).