

nearly 9 dm. long, 0.7 cm. wide, terminating in a loria, middle pinnae ca. 8 dm. long, 2.2 cm. wide, apical pinnae ca. 31 cm. long, 0.5 cm. wide. Inflorescences infralior (1 in flower, 1 in fruit), ca. 1.24 m. long; peduncle 8.4 dm. long; bracts not known; rachis not known; branches several, again once-branched into 10–11 slender, glabrous and (at anthesis) glaucous or glaucescent rachillae to 16 cm. long, 2 mm. wide; triads subtended by an acute to rounded bract; bracteoles of pistillate flowers low, rounded, brown, to ca. 1 mm. high. Staminate flowers asymmetric, 3–4 mm. high; sepals glabrous, ca. 1.4 mm. high; petals angled apically, 3–3.5 mm. high; stamens 6; pistillode trifold-conic, shorter than the stamen-filaments: pistillate bud 3 mm. high, the pistillate perianth in fruit with sepals 2 mm. long, petals 3.5 mm. long, and 3 staminodes. Fruit red at maturity, globose, with lateral stigmatic residue in upper third, 9 mm. high, 8 mm. in diam.; seed brown, 6.5 mm. in diam. with 5–6 ascending raphe-branches from the base.

Specimen examined. NEW GUINEA. PAPUA: Milne Bay District; Fergusson Island, common locally in heavily mossed forest of ridge crests, mountains between Agamoia and Ailuluai, alt. 900 m., June 12, 1956. *L. J. Brass 27116* (A, type).

This species is exceptional in several respects. The glabrous rachillae with a distinct glaucescence at anthesis, the combination of six stamens and trifold-conic pistillode in the staminate flower, the lack of conspicuous brown punctulation on the lower surface of the pinnae, and the small globose fruit differentiate the species from all others in New Guinea. It is noteworthy that the staminate flowers of *H. pulchra* combine the number of stamens (6) formerly attributed to *Heterospatha* and the type of pistillode (trifold-conic, shorter than

stamen-filaments in bud) formerly attributed to *Ptychandra*.

LICUALA

***Licuala tanycola* H. E. Moore, sp. nov.**

Licualae parviflorae similis sed floribus pedicellatis, fructu globoso-ellipsoideali 13 mm. longo 9 mm. in diam., foliis dense brunneo-lepidotis vel brunneo-punctulatis, inflorescentiis bracteam unicum gerentibus differt.

Stem solitary, to 2 m. high, 6 cm. in diam. below leaves, clothed in upper portion with persistent leaf-bases. Leaves ca. 18; sheath (from interior leaf) ca. 35 cm. long in entirety, ca. 17 cm. long from base to point of separation from petiole, produced in a ligule ca. 18 cm. long adaxial to the petiole, this ligule adnate ca. 12 cm. to the adaxial margins of the petiole and with a free tip ca. 6 cm. long, the ligule of coarser fibers than the basal portion of the sheath and these tending to separate, the whole reddish brown when dry and rather densely clothed with irregular, impressed patches of very thin, membranous, brown-centered, irregularly hyaline- or whitish-margined scales where protected, or merely dark-brown-punctulate with persistent scale attachments where exposed; free portion of petiole ca. 78.5 cm. long, armed with recurved to spreading teeth to 3 mm. long for ca. 50 cm. above base, unarmed apically, concave adaxially at the base becoming convex with a rounded central ridge toward the apex, rounded abaxially at the base becoming prominently ridged toward the apex, the adaxial surface essentially glabrous with occasional small, linear, brown, membranous scales, the abaxial surface with a more or less continuous cover of appressed, brown-lacerate-margined, interlocking, peltate scales where protected or rather densely brown-punctulate with persistent scale



1. *Licuala tanycola*. Photograph of Brass 13010 showing inflorescence and leaf with sheath and ligule. Photo by H. H. Lyon.

attachments where exposed, continued abaxially as a prominent costa ca. 5 cm. long and then into the central segment, terminated adaxially by a short, acute

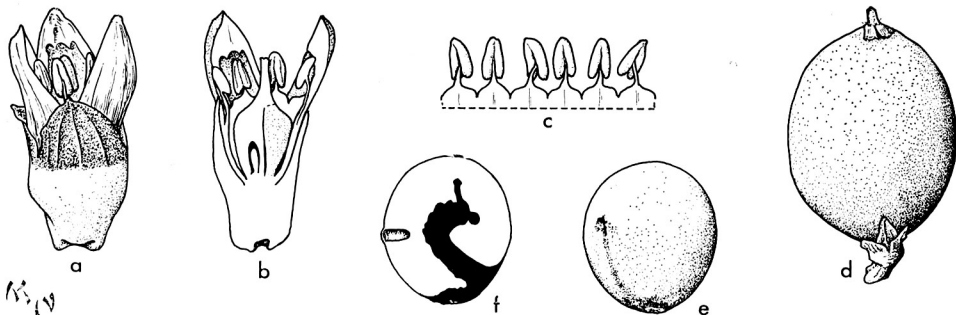
hastula 1–1.5 cm. long; segments (13–) 17–19, densely covered below, less densely above, with minute, shining, red-brown scales, the outermost seg-

ments (21-) 37-42 cm. long, 2-5 cm. wide at about the middle, the central on each side (41-) 50-68 cm. long, 5-9 cm. wide, the median segment with a long slender base, 50-70 cm. long, 5.4-7.5 cm. wide, all the segments widest at or above the middle, somewhat narrowed to the obliquely toothed apex and long-cuneate at the base, the major nerves 3-5 and elevated on the upper surface. Inflorescence 1.35-1.7 m. long (in 2 complete inflorescences available); peduncle elongate, 1.24-1.4 m. long, bearing a single acipitous bract (prophyll) to 50 cm. long or more, inserted ca. 34-45 cm. above the base, expanded apically and often splitting dorso-ventrally into two keeled valves, both peduncle and bract rather densely clothed with patches of red-brown peltate scales with irregularly woolly-lacerate margins or merely brown-punctulate with persistent scale attachments; rachis 8-22 cm. long, with 17-30 or more branches, these either all undivided or the lower few once-branched with up to ca. 20 rachillae, the rachis and flexuous rachillae densely red-brown furfuraceous at anthesis and in fruit, each branch subtended by an acute bract, those of the lowest branches up to 2.5 cm. long. Flowers greenish-yellow in life, ca. 5 mm. long when dry, solitary or very rarely paired on reddish-purple (when dry) pedicels to 3 mm. long at bases of rachillae or only 1 mm. long at or near the apex, each pedicel subtended by a minute bract; calyx ca. 3.5 mm. long, produced basally in a ring around the apex of the pedicel and adnate ca. 1 mm. to the floral receptacle, then free, with 3 acute lobes ca. 1-1.5 mm. long, the base drying pale brown externally, not nerved, sparingly clothed with minute, red-brown scales, the lobes drying red-purple with distinct nerves and essentially glabrous; corolla 4 mm. long, drying red-purple with prominent nerves, the tube 1-1.5 mm. long, the

lobes 3 mm. long, thick, acute, excavate on inner surface; stamen-filaments connate by their bases in a 6-lobed ring at the throat of the corolla-tube, the bases broad, not lobed, suddenly narrowed into subulate tips, anthers basifixed, sagittate, ca. 1 mm. long; pistil 3 mm. long at anthesis. Fruit red (?), globose-ellipsoid at maturity, ca. 13 mm. long, 9 mm. in diam., with abortive carpels prominent at the apex; seed globose, 7 mm. in diam., with testa intruded beyond the middle.

Specimens examined. NEW GUINEA. WEST IRIAN: common in forest undergrowth, 6 kms. southwest of Bernhard Camp, Idenburg River, 1200-1350 m. alt., February, 1939, *L. J. Brass 13010, 13010A* (holotype), *13010B, 13010C* (A); occasional in rain forest of both ridges and river plains, 4 kms. southwest of Bernhard Camp, Idenburg River, 850 m. alt., March, 1939, *L. J. Brass 13436, 13460* (A).

Licuala tanycola, from the Greek *tanyein* (to stretch out) and *kolon* (limb, leg) in allusion to the long peduncle of the inflorescence (Fig. 1), most closely resembles *L. parviflora* Dammer ex Beccari of subgenus *Licualella* in Beccari's monograph of the genus (*Annals of the Royal Botanic Garden, Calcutta* **13**: 109-224. 1933 [1931]). I have not seen the type of *L. parviflora* (formerly at Berlin) but from the description, it becomes evident that *L. tanycola*, though similar in flower, differs in several respects. The peduncle bears only one major bract rather than the two reported for *L. parviflora* (though Beccari actually described only one), the flowering axes are more numerous from a continuing rachis, the flowers are clearly and prominently pedicellate rather than sessile, the calyx is prominently 3-lobed rather than shortly 3-toothed (Fig. 2), the fruit is globose-ellipsoid, ca. 13 mm. long, 9 mm.



2. *Licuala tanycola*. a, flower, external view $\times 6$; b, flower, vertical section $\times 6$; c, stamens removed from corolla-tube, abaxial (dorsal) view $\times 6$; d, fruit $\times 2\frac{1}{2}$; e, seed, external view $\times 2\frac{1}{2}$; f, seed in vertical section showing embryo and intruded seed-coat $\times 2\frac{1}{2}$. (a-c from *Brass 13010A*; d-f from *Brass 13460*, both at Arnold Arboretum).

in diameter rather than exactly globose and 9 mm. in diameter, and the leaves are densely brown-lepidote or brown-punctulate on both surfaces. Beccari described the leaves of *L. parviflora* as polished on both surfaces with no reference to scales which he usually mentioned.

Superficially, *Licuala tanycola* resembles also *L. Beccariana* Furtado of Beccari's subgenus *Dammera* which has a similar long-pedunculate inflorescence, bract and pedicellate flowers. The inflorescence bears only 3-4 branches, the flowers are twice as large as those of

L. tanycola and possess very different stamens.

A noteworthy feature of *L. tanycola* is the prominent continuation of the leaf-sheath above the petiole and adnate to its inner face (Fig. 1). Seldom is the entire leaf-sheath collected or even noted, though it may offer important diagnostic characteristics as in *Thrinax* (Read, R. W., *A study of Thrinax in Jamaica*, Ph.D. thesis, University of the West Indies, Mona, Kingston, Jamaica, 1967). Noteworthy also is the reduction of major bracts on the inflorescence to one.

NEWS OF THE SOCIETY

Mr. Otto Martens, immediate Past President of The Palm Society, has been awarded the Pacific Coast Nurseryman Award—the highest recognition to be paid anyone in California horticultural circles. The award is accorded to the individual having made outstanding contributions in the field of horticulture.

In presenting the award, Mr. James L. Perry, chairman of C. A. N.'s awards committee, cited Mr. Martens' efforts in

re-popularizing the use of palms in California landscapes. "In the past seventeen years, thanks mainly to Otto Martens, Californians have come to value this plant family as one of the greatest for semi-tropical landscaping. Mr. Martens promoted the use of palms. More than fifty species are now commercially available."

Keep up the good work, Otto!