

Heterospathe lepidota, so named because of its lepidote sepals, is similar to *H. Versteegiana* but differs in its vestite sepals and in its pinnae with conspicuously elevated secondary nerves toward the margin of the upper surface and little or no brown punctulation on the lower surface. It clearly belongs with that group of species which Beccari at one time called *Barkerwebbia*, including in addition to the above two, *H. elegans* and *H. humilis*.

Heterospathe Muelleriana (Beccari)

Beccari in Martelli, Nuov. Giorn. Bot. Ital. ser. 2, **42**:50, 74. 1935.

Ptychandra Muelleriana Beccari, Nuov. Giorn. Bot. Ital. **20**:177. 1888.

New collections agree with the type of *Heterospathe Muelleriana* and extend its range substantially. They also permit the addition of information on the staminate flowers which are 7–8 mm. long with (10–) 14–15 stamens and a trifid-conic pistillode shorter than the stamen-filaments.

Specimens examined: NEW GUINEA. PAPUA: Eastern Highlands District; northeast slopes, Mt. Michael, alt. 2000 m., 9 Sept. 1959, *L. J. Brass 31484* (A). Central District; Mt. Obree, a. 1887, *W. A. Sayer s. n.* (FI, type). Milne Bay District; east slopes, Goodenough Island, alt. 1600 m., 20 Oct. 1953, *L. J. Brass 24839* (A).

Heterospathe obriensis (Beccari) H. E. Moore, *tr. nov.*

Ptychandra obriensis Beccari, Nuov. Giorn. Bot. Ital. **20**:178. 1888.

Ptychandra? montana Burret, Notizbl. Bot. Gart. Berlin **12**:324. 1935.

Additional collections suggest that *Heterospathe obriensis* would include *Ptychandra? montana* which Burret compared only with *Ptychandra glabra*

and *P. glauca*. I have examined types of both species and have compared other collections with them. Staminate flowers, not previously described, are 9–11 mm. long with 18–21 stamens and short conic pistillode. Fruit is variable in size, 29–35 mm. high, 22–28 mm. in diameter. The species as I now interpret it is known from the following stations in Papua.

Specimens examined. NEW GUINEA. PAPUA: Central District; Mt. Tafa, May–Sept., 1933, *L. J. Brass 4974* (isotype of *P. montana*, A); Mt. Obree, a. 1887, *W. A. Sayer s. n.* (type of *P. obriensis*, FI). Milne Bay District; mossy forest of riverbanks, gorge of Upper Gwariu River, north slopes of Mt. Dayman, alt. 2030 m., 15 June 1953, *L. J. Brass 22940* (A). District not known; Lala River, alt. ca. 5000 ft., 26 Dec. 1935, *C. E. Carr 14023* (A), 7 Mar. 1936, *C. E. Carr 16004* (BH).

Heterospathe pulchra H. E. Moore, *sp. nov.*

Caulis solitarius ad 10 m. altus; foliorum pinnae utrinque 40–50; inflorescentia infra folia ad 1.24 m. longa ramis in rachillas glabras glaucas 10–11 divis; flos masculus 3–4 mm. altus staminibus 6 pistillodio trifido-conico; fructus ruber globosus 8 mm. in diam.

Stem solitary, 8–10 m. high. Leaves fewer than 10, pale green; petiole and short sheath ca. 1 m. long; sheath alone ca. 35 cm. long with scattered, minute, brown, membranous, fringed scales; petiole ca. 65 cm. long, at first with pale appressed scales (at least above) becoming glabrescent or glabrous; blade ca. 2.5 m. long; rachis glabrous; pinnae probably 40–50 on each side, glabrous except for large, shining, brown, membranous scales on the midnerve below, the lower surface not or scarcely brown-punctulate, midnerve and submarginal nerves prominent above, basal pinnae

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 infrafoliar (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 *Heterospathe* 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