

**TAPEINOSPERMA REINIANUM (MYRSINACEAE),
A NEW SPECIES FROM NEW GUINEA**

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SUMMARY

Report on a thick-stemmed '*schopfbaum*' with very large leaves, hanging globose inflorescences densely packed with flowers 1.5 cm long, in the montane zone. The first species of this habit in mainland New Guinea of a genus centered in New Caledonia and Fiji.

***Tapeinosperma reinianum* Jacobs, n. sp.**

T y p u s: *Jacobs 8841* (holo L; iso BISH, CANB, LAE), Malesia, E. New Guinea, Mt. Bosavi, northern side, c. 6°26'S 142°50'E, alt. 1600—1800 m, fl. 27.IX.1973.

Arbor 3 m foliis 40—45 apice confertis obovatis basi cuneatis apice acutis ad 105 cm longis 23 cm latis glabris glandulosis. Inflorescentiae axillares pendentes globosae multiflorae. Calyx infundibuliformis 1.5 cm longa profunde incisa sepals 3 mm latis. Corolla tubuliformis 13.5 mm longa 5.5 mm lata 2—3 mm incisa.

Life data. '*Schopfbaum*' 3 m high with a single trunk 6—7 cm diameter, bark brown. Leaves in the crown c. 40—45, densely conferted, to c. 105 by 23 cm, widest about 85 cm above the base. Young leaves olive-green. Inflorescences numerous, apparently axillary rather inside the crown, at base with a reddish green reduced leaf; peduncle hanging, sordidly green. Flowers scentless, white, but near the top with irregular purplish lines and dots; stamens white; style pinkish especially towards its base, stigma whitish. Young fruit white with small purplish stripes.

Herbarium data. Trunk 4.25 cm diameter, with rings c. 3.5 cm apart consisting of several very broad leaf scars. Plant glabrous but in virtually all parts with dark purplish dots or lines, or in the young leaves pustules. Petiole indistinct from the midrib, its insertion 1.5 cm in diameter. Blade in the holotype 101 cm long, 21 cm wide, widest at c. 80 cm above the base; base decurrent; top acute with a small blunt acumen. Midrib above furrowed, beneath 7—8 mm prominent, on section roughly triangular. Nerves above 20 cm from the base (where the blade is c. 4 cm wide) c. 26 on either side, rather parallel-curved upwards and thinly connected near the margin. Veins above obscure, beneath conspicuous, tending to be scalariform. Surface above dull greenish, beneath dull brown-purplish. Peduncle with at the base one or a few more or less reduced, to 15—22 cm long and 20—32 mm wide leaves, 3—4 mm thick, angular, roughish, at the very top widened to c. 7 mm, there bearing 1 or 2 reflexed leaves c. 3 cm by 5 mm, branching into c. 8—10 radiating axes c. 5 mm long on which approximately 20 pedicels are crowded; the whole head at anthesis measuring 3.5—5 cm across, bearing an estimated 100—200 flowers, about all open at the same time. Bract at the base of a pedicel c. 12 by 2 mm; pedicel 3—6 mm. Calyx funnel-shaped, incised to near the base with blunt sinuses, sepals 5, c. 15 mm long, widening from 1.5—2 mm at the base to 3 mm in the upper part, top rather blunt. Corolla tubular, outside with 5 ribs between the sepals, c. 13.5 mm

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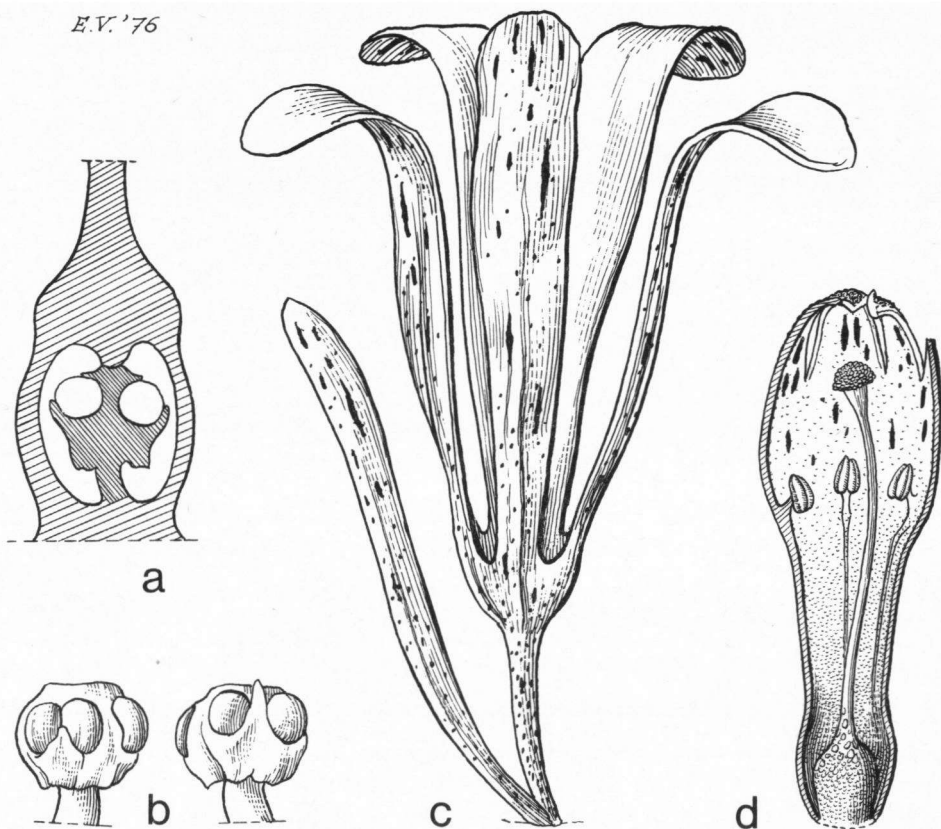


Fig. 1. *Tapeinosperma reinianum* Jacobs, flower details. a. Length section of ovary showing the mushroom-shaped placenta with ovules, $\times 20$; b. placenta from both sides, the same ovule depicted in two facing parts, $\times 20$; c. pedicel with bract and calyx, $\times 7$; d. corolla opened somewhat irregularly, and pistil, $\times 7$ (Jacobs 8841).

long, widening from 2 mm at the base to 5.5 mm at the top, incised for 2—3 mm; lobes 5, triangular, mostly incurved, apparently 2 outside 2 inside, glabrous all over but inside in the basal half with minute colourless papillae and towards the top of the lobes with small orangish papillae. Stamens inserted just above the middle of the corolla tube, epipetalous, filament very short, somewhat swollen towards the top; anther subbasifixed, ellipsoid, 1 mm long (see remark below). Pistil nearly as long as the corolla; ovary ellipsoid with 5 slight bulges, 2 mm long, at the base with minute whitish papillae, at the top with small orangish papillae, 1-celled, placenta mushroom-shaped, perhaps initially adnate to the ceiling of the cell but later free; ovules 5, sunken in the tissue in the apical half of the placenta, inserted at the base in the centre, hemi-anatropous/apotropous, integuments obscure; style slender, 11 mm, with some papillae in the basal part; stigma half-globose, 1 mm diameter, densely papillate. Fruits unknown.

E c o l o g y. Ravine in primary forest on old well-drained volcanic soil.

N o t e s. Named in honour of Dr. Reinier C. Bakhuizen van den Brink Jr., Rein to

his friends. A biographical note on him was given in Fl. Males. Bull. 29 (1976) 2532—2535, the same issue bearing on the cover a portion of the flower analysis of the type specimen of the present species.

No pollen was found. The anthers are slightly apiculate; opening seems to be lengthwise.

Species assigned to this genus show a wide spectrum of habit from pachycaul to leptocaul. Resemblance of *T. reinianum* seems closest with *T. acutangulum* and *T. gracile* from New Caledonia (the two perhaps conspecific), which also have the 'schopfbaum' habit. Their inflorescences are terminal on slender, presumably axillary, branches with several reduced leaves evenly distributed. It is remarkable to find the main stem pachycaul, the lateral shoots leptocaul. Those of our new species may be analogous in structure, namely terminal on axillary shoots which in this case are extremely short and bear a few reduced leaves only of very different size. Fresh material is needed to make this certain. There is also a similarity with *T. capitatum* from Fiji, a 'schopfbaum' with hanging, bracteate, head-like inflorescences but these much smaller and laxer. It seems also close to *T. cristobalense* and *T. pachycaulum*, both from the Solomons, described by Stone & Whitmore in Reinwardtia 8 (1970) 3—11.

These resemblances are in habit. Our species is unmatched as for the closed compact inflorescence, the size and shape of calyx and corolla. Nothing like it is known from New Guinea.

The genus is now on record for West Australia and Queensland (leptocaul species), New Caledonia (all kinds), Fiji (all kinds), New Hebrides (leptocauls), the Solomons (2 pachycauls just mentioned and at least 1 leptocaul), New Guinea (from the mainland leptocauls, previously). It is noteworthy that *T. pachycaulum*, a Solomons species, also occurs in Bougainville: Pavairi, 6°15'S 155°30'E, NGF 31267 Lavarack & Ridsdale (BRI, L, LAE), y.fr. 26.I.1967, rainforest on steep hillside, 1600 ft. It matches BSIP 5561. Distribution West of New Guinea may depend on generic delimitation; the records given by Philipson (J. Bot. 77: 102—103. 1939) should be re-examined against *Ardisia*. And, as Gillespie (Bish. Mus. Bull. 74: 8. 1930) already suggested, the generic limit between *Tapeinosperma* (the earlier name) and *Discocalyx* (a later name) may be hard to draw and requires monographic study.

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