

PACIFIC CAPSULAR MYRTACEAE 7

Mooria

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INTRODUCTION

The genus *Mooria* Montr., Mém. Acad. Lyon 10 (1860) 207, was based on a single species, *M. artensis* Montr., Mém. Acad. Lyon 10 (1860) 207. According to Beauvisage (1901), the same species was included by Brongniart and Gris, Bull. Soc. Bot. Fr. 10, (1863, 576), in their genus *Cloezia*, and this will become the valid name for the genus if it is ruled that Montrouzier's name is an orthographic variant of *Moorea* Lemaire, Ill. Hort. 2 (1855) Misc. 14.

The genus is probably restricted to New Caledonia, where about eight species occur in shrub associations from near sea level to about 700 metres.

I have not seen specimens of *Mooria microphylla* A. C. Smith, B. P. Bish. Mus. Bull. 141 (1936) 110, from Fiji, but from the description and illustrations I doubt that it belongs to the genus. The ovules and placentation are not described and fruits were not obtained, but such features as the rounded sepals and petals, the white colour of the latter, and the 5-loculed ovary are at variance with those of the New Caledonian species.

DESCRIPTION OF MOORIA MONTROUZIER

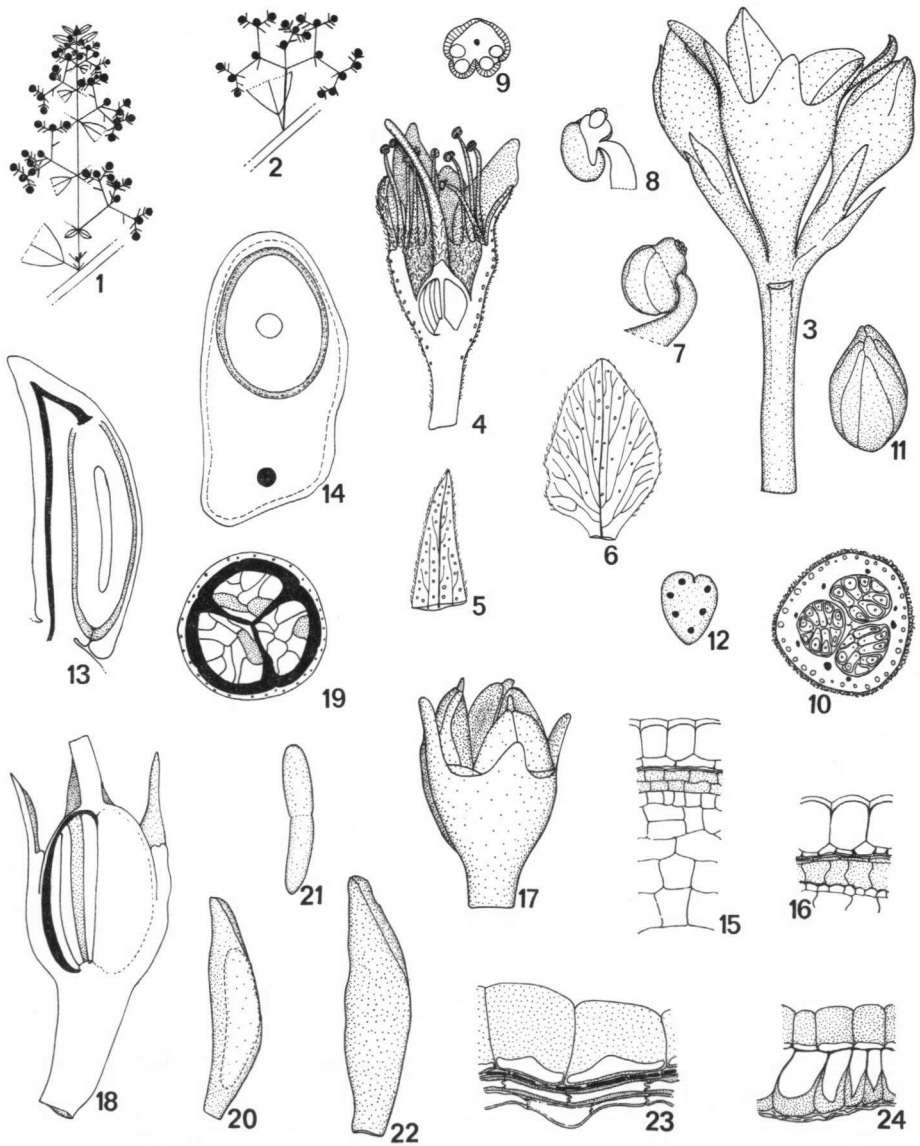
Shrubs; branching monopodial; bud scales wanting; leaves opposite, dorsiventral, leptophyllous to microphyllous, in the larger species leaves of juveniles and of basal shoots of adults often larger and broader than those of flowering branches; pubescence of vegetative parts very variable in some species, even from glabrous to densely pubescent at different stages or on different branches of the same plant.

Inflorescences (figs. 1, 2) simple to compound dichasial cymes¹⁾ or reduced to a single flower, in leaf axils on branches terminated by a dormant vegetative bud (fig. 1) or sometimes by an inflorescence; bracts adnate for varying distances to the axes they subtend (figs. 1—3).

All flower parts, except distal parts of stamens and style, pubescent, sometimes densely so (fig. 4); sepals (fig. 5) 5, petals (fig. 6) 5, usually acute, yellow; stamens four to six times the number of petals, variable in length within a flower from shorter than to about as long as the petals, in a single whorl, free, not grouped; anthers (figs. 7—9) very small, dorsifixed, versatile, with strongly protuberant connectives with a single prominent oil gland, of which the overlying epidermal cells are enlarged and vesicular (figs. 7, 8).

Ovary semi-inferior (fig. 4); usually three locules (fig. 10), sometimes four, both in the same inflorescence; style stout, longer than the stamens, not set into the top of the

¹⁾ In larger inflorescences the primary axis often bears three instead of two lateral axes (figs. 1, 2).



Figs. 1—24. *Mooria* Montr. —1. *M. canescens*. Group of inflorescences. Only one of each pair of inflorescences shown. Dormant vegetative bud at tip of branch; nat. size. —2. *M. deplanchei*. Inflorescence; nat. size. —3. *M. artensis*. Part of inflorescence; $\times 5$. —4. *M. artensis*. L.S. flower; $\times 5$. —5. *M. angustifolia*. Sepal; 5. —6. *M. angustifolia*. Petal; $\times 5$. —7. *M. deplanchei*. Side view anther. Connective to right; $\times 20$. —8. *M. deplanchei*. L.S. anther; $\times 20$. —9. *M. deplanchei*. T.S. anther; $\times 20$. —10. *M. angustifolia*. T.S. ovary; $\times 10$. —11. *M. deplanchei*. Group of ovules from one locule; $\times 10$. —12. *M. angustifolia*. Placenta. Large spots are ovule scars; $\times 20$. —13. *M. angustifolia*. L.S. ovule. Inner integument stippled; $\times 40$. —14. *M. angustifolia*. Diagram T.S. ovule. Inner integument stippled; $\times 100$. —15. *M. artensis*. Cell detail T.S. ovule. Inner integument stippled; $\times 300$. —16. *M. angustifolia*. Cell detail T.S. ovule. Inner integument stippled; $\times 300$. —17. *M. artensis*. Empty fruit; $\times 5$. —18. *M. artensis*. L.S. undehiscent fruit. Endocarp black. Fertile

ovary; stigma small, convex; placentas small, oblique in the basal angles of the locules, remote from the base of the style (fig. 4); ovules 5—10 per locule, in a single, more or less circular series on the placenta (figs. 10—12), anatropous (fig. 13) with the raphe towards the centre of the placenta (fig. 10); the raphe produced a little beyond the chalaza and coming to a point, the vascular bundle extending in to the point before angling back to the chalaza (fig. 13); in the median transverse plane of the ovule (figs. 14—16) the nucellus five or more layers thick, the inner integument mostly two layers thick, the outer integument two layers thick lateral to the nucellus, but increasing in thickness elsewhere; the outer layer of the outer integument with thickened outer walls (figs. 15, 16) and sometimes pale brown contents; the walls where the integuments are in contact also somewhat thickened; all ovules potentially fertile.

In the mature fruit the capsule exerted beyond the rim of the hypanthium (figs. 17, 18); fruit very hard owing to the thickness of the lignified endocarp (figs. 18, 19).

Fertile seeds few (fig. 20), testa (fig. 23) derived from both integuments; outer layer of outer integument with very thick outer walls and brown contents; inner layer of outer integument flattened tangentially, each cell containing one large or a few smaller prismatic crystals lying parallel to the testa surface; outer layer of inner integument brown, flattened tangentially and with the inner and outer walls of each cell moderately thickened; inner layer of inner integument colourless and with slightly thickened walls.

Sterile seeds (fig. 22) consisting of the outer integument and the crushed remains of the inner integument (fig. 24), the outer layer of the outer integument with heavily thickened outer walls and the inner layer with less heavily thickened inner walls.

Embryo straight or slightly curved (fig. 21); hypocotyl about equal to the cotyledons; hypocotyl sheath wanting; cotyledons approximately the same width as the hypocotyl and lying face to face.

DISCUSSION

The differences between *Mooria* and typical *Metrosideros* (Dawson 1970) greatly outnumber the similarities, so the former is probably misplaced in the subtribe *Metrosiderinae*. It is also distant from *Xanthostemon* and *Eucalyptus*, but appears to be somewhat closer to *Kania* Schlechter of New Guinea and the monotypic *Lysicarpus* F. v. M. of south east Queensland, although comparisons of all features have yet to be made.

Weberling (1966) established a new subtribe, *Kaniinae*, to accommodate *Kania* and this may prove to be the appropriate place for *Mooria*.

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seed stippled; $\times 5$. — 19. *M. artensis*. T.S. undehisced fruit. Endocarp black. Fertile seeds stippled; $\times 5$. — 20. *M. angustifolia*. Fertile seed. Embryo outlined; $\times 8$. — 21. *M. angustifolia*. Embryo; $\times 8$. — 22. *M. angustifolia*. Sterile seed; $\times 8$. — 23. *M. angustifolia*. Cell detail T.S. testa fertile seed; wall thickening outer layers of both integuments stippled. Crystals blacked in; $\times 300$. — 24. *M. artensis*. Cell detail T.S. testa sterile seed. Wall thickenings stippled; $\times 300$. (*Mooria angustifolia*: WELTU 9611; *M. artensis*: WELTU 9597 (flower), WELTU 9599 (fruit); *M. canescens*: WELTU 9607; *M. deplanchei*: McKee 22,842).

POSTSCRIPT

While this paper was in press the author was advised that a majority of the General Committee on Botanical Nomenclature, I.A.P.T., thought that the names *Mooria* Montrouzier and *Moorea* Lemaire are sufficiently alike to be confused and should be treated as variants under Article 75. *Cloezia* Brongniart et Gris is now the valid name for the genus.