

## THE FAMILIES OF CYCADS AND THE ZAMIACEAE OF AUSTRALIA.

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(Four Text-figures.)

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12. *M. STENOMERA* L. Johnson, sp. nov.

*Typification*: Above Coryah Gap at 4500 ft., Nandewar Mountains, New South Wales, L. A. S. Johnson and E. F. Constable, xi.1954 (NSW.32204), vegetative.  
HOLOTYPE.

*Synonymy*:†

*M. heteromera* C. Moore var. *tenuifolia* C. Moore in *Journ. Roy. Soc. N.S.W.*, 17 (1884), 122 (not *M. tenuifolia* Hort. ex Miq. in *Versl. Meded. Koninkl. Akad.*, ser. ii, 3 (1869), 55, in synonym., nom. invalidum).

*M. heteromera* var. *tenuifolia* Schuster, *Pflanzenr.*, IV, 1 (1932), 96, nom. illegit., in part, excl. forma *harmsii* Schuster (this var. is described as new, not taken from C. Moore).

*M. heteromera* var. *dicranophylloides* Schuster, *l.c.*

Caudex plerumque subterraneus, ca. 8–15 cm. diametro. Frondes in corona paucae (ca. 2–10), 40–80 cm. longae, petiolo (basi lanata expansa exclusa) 7–15 cm. longo; rhachi plerumque praesertim apicem versus plus minusve torta (per 90°–360°) etiam plus minusve recurvata vel sinuosa, ad pinnae infimas (4–)5–9 mm. lata, supra proxime plana vel concaviuscula vel nonnunquam aliquantulum carinata sed versus apicem rotundato-convexa, sulcis duobus lateralibus angustis e basibus pinnarum decurrentibus instructa (in sicco), infra plerumque rotundato-convexa. Pinnae 70–120, patentes (seriebus duabus tamen non in eodem plano) vel suberectae, plus minusve prorsum directae, basi tortae, plurimae arctae sed infimae 1.3–4 cm. distant, quam illis *M.*

\* See under *M. stenomera*, below.

† Since the synonyms are all in varietal rank and of confused past application, and since they were based on a specimen rather than a population-concept, I prefer (as the I.C.B.N. permits) to use a new epithet and a new type in describing the taxon in specific rank. This epithet may be legitimately retained in the rank of subspecies, should further knowledge show this to be more appropriate.

*heteromerae* laxiores, omnes (apicalibus aliquando exceptis) plerumque versus bases suas in segmentis angusto-linearibus plus minusve divergentibus 1-4-plo (pleraeque 2-3-plo) dichotome divisa, longissimae 10-20 cm. longae, infimae haud vel vix abbreviatae nunquam spiniformes; segmentis primariis 2-4 mm. latis (secundariis tertiariisque 1-3 mm.) infra nervis prominentibus 4-6 (2-5 in segmentis secundariis tertiariisque) striatis, (segmentis ultimis) in apicem mucronatum vel aliquando bidentatum angustatis vel ultime abruptiuscule rotundatis, (pinnae) basi flavescenti aurantiacave callosiuscula sed non rugosa constrictae (callo in sinu furcarum pinnarum vel obsoleto vel parvo), supra virides vix nitentes (sed quam illis *M. heteromerae* viridiores), infra non glaucae, pagina inferiore sola stomatibus instructa. Coni non certe noti, probabiliter illis *M. heteromerae* specierumque aliarum sectionis *Parazamia* similes.

*Description* (English), *specimens* and further *discussion*: See Johnson in Anderson, *Flora of N.S.W.*, part 1 (in press).

*Distribution*: New South Wales: North-western Slopes and Northern Tablelands outlier in and around the Nandewar Mountains, in dry sclerophyll forest, on stony but not highly siliceous soils.

In the past these plants have not been distinguished from *M. heteromera*, but they appear to constitute a reasonably distinct group of populations which I have accordingly treated as a distinct species. Definitely matched cones are unfortunately lacking, but within section *Parazamia* these organs differ little from species to species and, though their collection is much needed, they probably have little bearing on the independent status of *M. stenomera*. The specific epithet refers to the characteristically narrow segments of the pinnae which, together with their usually higher degree of division, lack of glaucousness and especially lack of stomata on the upper surface, distinguish the species from *M. heteromera*. Spiral twisting of the fronds is also generally more pronounced in *M. stenomera*. The species grows on less siliceous soils than *M. heteromera*.

Specimens of apparent hybrids of *M. stenomera* with the adjacent *M. heteromera* are discussed by Johnson in Anderson, *l.c.*