

A NEW SPECIES OF *MARSILEA* L. (MARSILEACEAE) FROM AUSTRALIA

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ABSTRACT

Jones, David L. A new species of *Marsilea* L. (Marsileaceae) from Australia. *Muelleria* 8(1): 65–67 (1993). — *Marsilea costulifera* is described and illustrated with notes on distribution and habitat.

INTRODUCTION

The opportunity is taken here to formally describe an entity related to *Marsilea angustifolia* R. Br., to facilitate use of the new name in the 'Flora of Victoria'. Chinnock (1978) was the first to recognize the distinctiveness of this taxon and his interpretation has been followed in other publications (Chinnock 1986, Duncan & Isaac 1986), although Andrews (1990) treated *M. angustifolia* in the broad sense while noting the comments of Chinnock.

TAXONOMY

Marsilea costulifera D.L. Jones *sp. nov.*

M. angustifoliae R. Br. affinis sed habitu robusto minore, foliis brevioribus oblanceolatis vel cuneatis, squamis sporocarporum parvioribus et sporocarpis minoribus costatis valde et concavis dorsaliter differt.

HOLOTYPE: New South Wales: Gilgunnia, 32°25'S, 145°56'E, 31 Dec. 1903, *W. Baeuerlen 3175* (NSW).

Rhizomatous perennial fern forming patches; rhizomes slender, creeping, rooted at nodes, much-branched, glabrous except at the tips, bearing sterile fronds and sporocarps. *Sterile fronds* arising in clusters at nodes, erect on plants growing in mud, floating when growing in water; stipes 1–12 cm long, glabrous or hairy; juvenile sterile fronds often with a single small obovate leaflet; mature sterile fronds with 4 leaflets; leaflets oblanceolate to cuneate, 1–12 mm long, 1–5 mm wide, glabrous or sparsely hairy, outer margin entire, flat to shallowly rounded, arranged unequally at the apex of the stipe. *Sporocarps* clustered, borne singly on unbranched pedicels, 2.5–3 mm long, 1.8–2 mm wide, c. 1 mm thick, at right angles to the pedicel, brown, densely scaly, distinctly ribbed, apex broadly rounded, upper surface concave, one basal tooth prominent, the apex of the pedicel forming a second less-prominent, tooth-like protruberance; pedicels 1–2 mm long, more or less shorter than the sporocarp, glabrous or scaly. (Fig. 1)

REPRESENTATIVE SPECIMENS (55 collections examined, all at Herb. NSW) (an additional 36 collections are located at MEL ed.)

New South Wales — Cumberoona Reserve, Bowna, 35°57'S, 147°07'E, 18 Apr. 1948, *E.J. McBarron 1681*; Corowa Rd, Albury, 36°02'S, 146°42'E, 16 Oct. 1947, *E.J. McBarron 1159*; 'Pelora' c. 80 km north-west of Louth, 30°18'S, 144°40'E, 22 Sep. 1978, *C.W.E. Moore*; Mulwarrina Ck, Mulgowan Station, south of Bourke, 30°33'S, 145°49'E, 17 Oct. 1963, *E.F. Constable 4567B*; Cobar township, 31°30'S, 145°50'E, 11 Nov. 1969, *E.J. McBarron 18421A*; Doonside, 33°46'S, 150°52'E, Apr. 1967, *R. Coveny s.n.*; c. 5 km north-east of 'Noonarah' homestead, 30°08'S, 143°56'E, 4 Oct. 1971, *J.C. De Nardi 909*.

Victoria — (the following collections at MEL have not been seen by the author but have been added to indicate the distribution of this species in Victoria ed.) -33 miles W of Mildura, 25 Oct. 1972, *A.C. Beauglehole 40647*; Lake Powell, 16 km SE of Robinvale, 4 May 1977, *A.C. Beauglehole 56162*; c. 2 km ESE of Toolern Vale, Dec. 1988, *I. Tankard s.n.*; Wyperfeld National Park 3½ miles SW of

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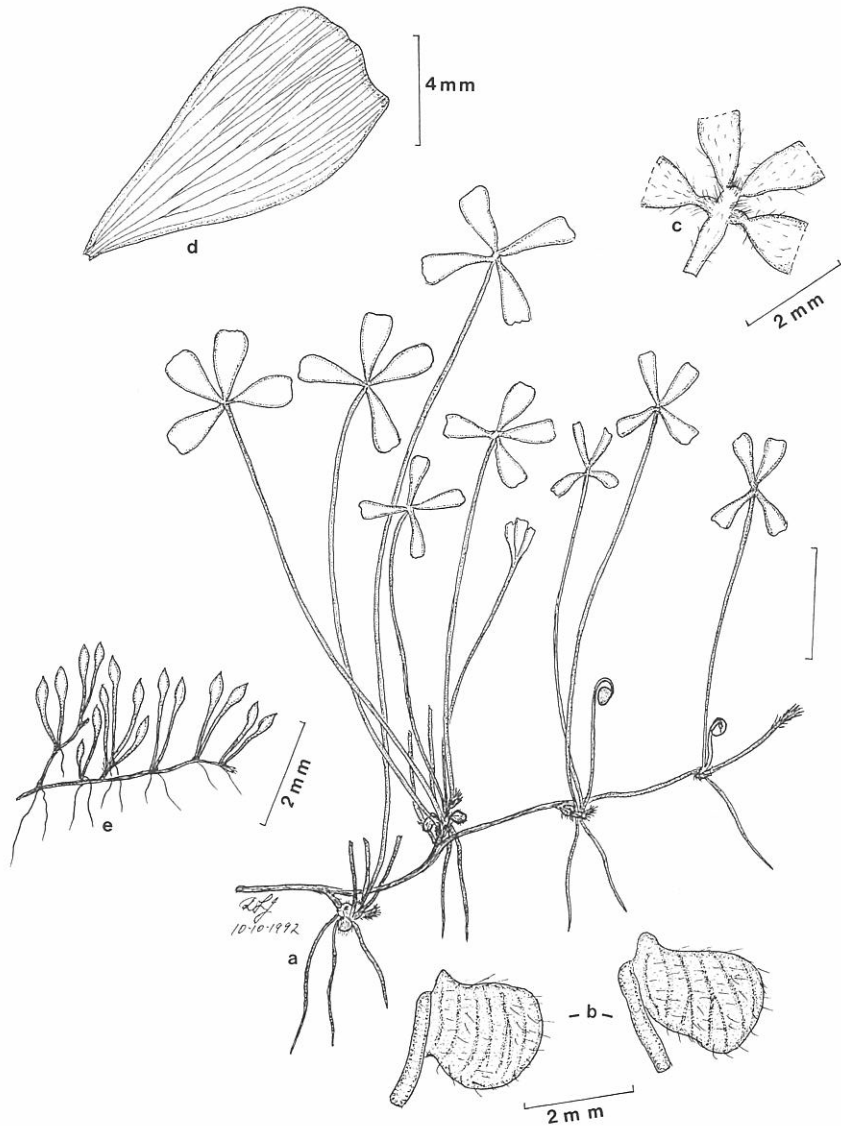


Fig. 1. *Marsilea costulifera* D. Jones. a — portion of a plant. b — sporocarps. c — base of frond showing arrangement of leaflets. d — leaflet. e — portion of young plant showing juvenile fronds. (a-d from the Type collection; e from Booberoi Ck, NSW, *K.L. Wilson 5848*).

Wonga Hut, 18 Sep. 1968, *A.C. Beauglehole 28492*; Barmah State Park, 28 Sep. 1985, *A.C. Beauglehole 81281*; Upper Glenelg River, c. 3 miles below Cherry Pool, 6 Mar. 1948, *J.H. Willis s.n.*

South Australia — Upper Murray River, Swan Reach, 34°34'S, 139°35'E, 19 May 1974, *R.J. Chinnock P899*; above Renmark, near junction of Chowilla Ck and Moolamon Ck, 38°05'S, 140°42'E, 13 Sep. 1979, *D.E. Symon 11581*.

Queensland — Gilruth Plains, Cunnamulla, 28°04'S, 145°41'E, 7 July 1949, *R. Roe s.n.*

DISTRIBUTION AND HABITAT

Coastal and inland localities in Queensland, New South Wales, Victoria and South Australia. Grows in mud on the verges of swamps and billabongs, in shallow water and less commonly among grass in moist depressions.

NOTES

This species can be distinguished from *M. angustifolia* by its much less robust habit, with sterile fronds to 12 cm long (to 30 cm long in *M. angustifolia*), shorter, relatively broader, oblanceolate to cuneate leaflets (narrowly cuneate in *M. angustifolia*), smaller scales on the sporocarps and smaller (2.5–3 mm × 2 mm × 1 mm), distinctly ribbed sporocarps which are usually concave on the upper surface (5.5 mm × 4 mm × 2.5 mm, shallowly and indistinctly ribbed and upper surface convex in *M. angustifolia*). *M. angustifolia* is strictly tropical in its distribution in Western Australia and the Northern Territory, whereas *M. costulifera* is widespread from subtropical to temperate regions. The distributions of each do not overlap.

CONSERVATION STATUS

Widely distributed, locally common and probably well conserved.

ETYMOLOGY

From the Latin *costula*, diminutive of rib, *ferens*, carrying, bearing; in reference to the distinctive small ribs on the sporocarps.

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