

PHASCOPSIS

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Phascopsis I.G.Stone, *J. Bryol.* 11: 17 (1980); in reference to its similarity to the genus *Phascum*.

Type: *P. rubicunda* I.G.Stone

Diocious. Plants small, initially green, becoming brownish red when mature. Stems clavate, simple or branching by repeated subterminal innovations; central strand very weak. Branch and stem leaves not differentiated, entire, unbordered; costa strong, dark red, shortly excurrent as a mucro, in section with a well-developed abaxial stereid band. Axillary hairs of 3 or 4 hyaline cells. Laminal KOH colour reaction red. Some cauline leaves near the apex with the costa enlarged adaxially, forming leafy propagules. Rhizoidal gemmae occasionally present.

Calyptra campanulate, covering c. half the capsule, occasionally a larger split on one side; base crenate. Setae relatively short. Capsules cleistocarpous, subglobose to broadly ellipsoidal, barely exserted.

This monotypic genus is endemic to southern Australia.

References

Catcheside, D.G. (1980), *Mosses of South Australia* 131–134.

Stone, I. G. (1980), *Phascopsis rubicunda*, a new genus and species of Pottiaceae (Musci) from Australia, *J. Bryol.* 2: 17–31.

Zander, R.H. (1993), Genera of the Pottiaceae: mosses of harsh environments, *Bull. Buffalo Soc. Nat. Sci.* 32: 1–378.

Phascopsis rubicunda I.G.Stone, *J. Bryol.* 11: 17 (1980)

T: Pink Lake, Dimboola, Vic., 4 Sept. 1971, *I.G.Stone 2990*; holo: MEL; iso: BM, MELU.

Illustrations: I.G.Stone, *op. cit.* 18, fig. 1; facing p. 18, pl. 1; 22, fig. 2; D.G.Catcheside, *op. cit.* 132, fig. 57; 133, fig. 58.

Plants erect, to 6 mm tall, pale green, becoming brownish red. Rhizoids sparse, smooth, pale brown. Leaves erecto-patent, elliptical to oblong, increasing in length from base to apex of stem, 0.50–1.75 mm long, 0.25–0.75 mm wide; margins plane, entire. Upper laminal cells quadrate, hexagonal or short-oblong, 11–40 × 9–23 μm, multipapillose on both surfaces; basal cells rectangular, 34–79 × 18–27 μm, hyaline, smooth.

Perichaetial leaves larger than vegetative leaves, 1.75–2.00 mm long, 0.25–0.50 mm wide, usually overtopping the capsule. Archegonia c. 6–12, 350–600 μm long. Calyptra c. 700 μm long. Setae straight, 200–500 μm long. Capsules brownish red, c. 0.6 mm long. Spores smooth, globose, 20–29 μm diam.

Occurs in W.A., S.A. and Vic.; grows in dense patches on salt marshes and along the shores of salt lakes.

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W.A.: The Loop, Murchison Gorge, *I.G.Stone 6140* (MEL); Morawa, *D.G.Catcheside 73.163* (AD); Davies Breakaway, 10 km N of Coorow on No. 43 road, *R.J.Cranfield s.n.* (PERTH); Carnamah, Hwy 1 to Geraldton, 200 MP, *I.G.Stone 6134* (MEL); Mortlock R., near Goomalling, *D.G.Catcheside 73.182 A* (PERTH); *loc. id.*, *D.G.Catcheside 73.180* (AD); Wargangering Rock, c. 120 km E of Southern Cross on Great Eastern Hwy, *R.Wyatt & A.Stoneburner 4226* (PERTH); Northam to Goomalling, *I.G.Stone 6977* (MEL); Glover Wells Rd East, near Bindoon, c. 70 km N of Perth, *R.J.Cranfield s.n.* (PERTH); N side of Eyre Hwy, 7 km W of Eucla, *B.G.Hammersley 3301* (PERTH); Kondinin L., *G.H.Bell 435* (AD); The Sugarloaf, Cape Naturaliste, *I.G.Stone 6278* (MEL); East Mount Barren, *I.G.Stone 6386* (MEL); Pallinup R., *I.G.Stone 6294, 6295, 23624* (MEL).

S.A.: Port Niel, *I.G.Stone 6058* (MEL); Port Germein, *I.G.Stone 6056* (MEL); Meningie, *L.D.Williams 1244* (AD); *loc. id.*, *L.D.Williams 1506* (AD, MEL); 7 miles [11.3 km] from Port Wakefield on Androssan road, *I.G.Stone 6042* (MEL); 16.2 km W of Meningie, *I.G.Stone 5304–5307, 5309, 5371* (MEL).

Vic.: salt lake c. 4.5 km N of Jeparit, *H.M.Jolley 53* (MEL); S of Teddywaddy, *W.W.Watts 834* (NSW); opposite motel, Dimboola, *I.G.Stone 14450* (MEL); Pink Lake, Dimboola, *H.M.Jolley 48–52, 68–76* (MEL); Lochiel Salt Lake, *A.C.Beauglehole 5305, 9403* (AD, MEL); Dip Swamp, *A.C.Beauglehole 9394* (MEL).

Zander (1993) reported this species from New Zealand, based on a Sainsbury collection from Whakamahia in the North Island. That record is yet to be confirmed.

Phascopsis rubicunda is often found without sporophytes, and this may be due to a shortage of male plants. Stems are occasionally bare below, readily detaching to form separate individuals. Plants are often found partially buried, with the laminal tissue eroded away by sand, leaving only the prominent blackish costae. Polysety has been observed in this species. Only nine fertile collections are known. Stone (1980) observed gall-like structures in the holotype, these having developed following infestation by nematodes.

While *P. rubicunda* is currently treated as a single species, Stone (1980) and Catcheside (1980) commented on variation between populations. However, Stone noted that this "... is seldom greater than the variation within a population", and an examination of additional populations is required for clarification.

In Victoria, *P. rubicunda* has been listed as potentially endangered (Category 'K') in the Department of Sustainability and Environment's *Advisory List for Rare or Threatened Plants in Victoria* [see http://www.dse.vic.gov.au/data/assets/pdf_file/0005/103388/Advisory List of Rare or Threatened Plants in Victoria-2005.pdf]