PTERYGONEURUM

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Pterygoneurum Jur., Laubm.-Fl. Oesterr.-Ung. 95 (1882); from the Greek pterygion (a small wing or feather) and neuron (a nerve), in reference to the lamellae on the costa.

Type: *P. cavifolium* Jur. [= *P. ovatum* (Hedw.) Dixon]

Autoicious. Plants small, scattered or gregarious, bulbiform, growing on soil. Stem with a central strand. Rhizoids extensive, smooth, colourless. Leaves elliptical to broadly ovate, concave with incurved margins; costa percurrent or excurrent and forming a strong hyaline hairpoint, occasionally denticulate; in section with an abaxial stereid band; 2–4 chlorophylllose lamellae on the adaxial surface of the leaf; terminal cells of filaments papillose. Laminal cells smooth, subquadrate-rhombooidal above, short-rectangular below; laminal KOH colour reaction yellow. Axillary hairs of 5–7 short hyaline cells. Setae short or long, twisted. Capsules erect, ovoid to cylindrica, stegocarpous; operculum rostrate. Peristome absent.

*Pterygoneurum* is a genus of eight species, three of which occur in Europe, North Africa, North America and south-western Asia. Two species are currently recognised in Australia.

References


Willis, J.H. (1954), Mosses new to Western Australia, *Victorian Naturalist* 71: 8–12.


Costa percurrent to short-excurrent; leaves lacking a hyaline hairpoint.............................. 1. *P. macleanum*

Costa excurrent, forming a strong hyaline hairpoint......................................................... 2. *P. ovatum*


Illustrations: J.H.Willis, op. cit. 9; R.H.Zander, op. cit. 201, p. 73; J.Guerra, M.J.Cano & R.M.Ros, op. cit. 46, figs 1–12.

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Plants 0.75–2.00 mm tall, green. Leaves broadly ovate, 0.5–0.8 mm long, deeply concave in the upper half, imbricate when dry, strongly incurved when wet; margins plane, incurved from apex to mid-leaf; apex mucronate; costa strong, percurrent or short-excurrent, not forming a hairpoint; adaxial surface of costa bearing 2–3 (4) lamellae, distal portions of lamellae usually bearing short filaments. Upper laminal cells subquadrate, 11–13 × 14–16 µm; basal cells rectangular, hyaline, 25–30 × 25–38 µm.

Calyptra narrowly cylindrical, c. 2 mm long, smooth. Setae 3–5 mm long, reddish, twisted to the right above. Capsules erect, ovoid, 0.9–1.0 mm long; operculum c. 0.6 mm long. Spores 25–30 µm diam., smooth.

Rare in arid and semi-arid areas of southern W.A., S.A., N.S.W. and Vic.; also in South Africa.

S.A.: Barrier Hwy, 147 km by road W of Broken Hill, J.A. Curnow 5751 (AD, CANB), Koonamore Stn, Yunta, L.D. Williams 4763 (AD).

N.S.W.: Mootwingee Natl Park, I.G. Stone 9571 (MEL); Wentworth to Milparra, I.G. Stone 9548 (MEL); junction of Rufus River Rd and ‘Talgarry’ Rd, c. 25 km NW of Wentworth, D.J. Eldridge BSCS 780 (NSW); L. Mango, D.J. Eldridge BSCS 444 (NSW); 214 km from Broken Hill to Wentworth, I.G. Stone 8262 (MEL).

Vic.: Swan Hill and Boundary Bend, I.G. Stone 1763 (MEL).


Gymnostomum ovatum Hedw., Spec. Musc. 31 (1801).


Plants 1.0–2.5 mm tall, reddish green. Leaves elliptical to broadly obovate, 0.8–1.0 mm long, 0.55–0.65 mm wide, concave, appressed when dry, spreading when wet, with an obtuse or subacute apex that is slightly denticulate in young leaves; margins entire, inflexed above; costa narrow, golden, excurrent, forming a strong hyaline hairpoint 0.45–0.55 mm long; ventral surface of costa bearing 2–4 lamellae; distal parts of lamellae rarely bearing short filaments. Upper laminal cells smooth, quadrate-rhomboidal, 13–15 µm wide; basal laminal cells short-rectangular, 27–30 × 23–25 µm.

Calyptra split on one side, subulate, c. 1.75 mm long. Setae 2.5–3.5 mm long, yellow-brown, twisted. Capsules erect, ovoid, brown, 0.65–0.75 mm long, striate at the base when dry; operculum short-conical, rostrate. Spores densely granular, dark brown, 25–35 µm diam.

Occurs in W.A., S.A., N.S.W. and Vic.; usually on soil in semi-arid and arid areas. Also in North and South America, Europe, North Africa, south-western Asia, China and New Zealand.

W.A.: Abrakurri Cave, A.C. Beaughlehole 14964, 14878 (MEL); Eyre Hwy, 17.7 km W of Mundrabilla, A.C. Beaughlehole 14846 (MEL); Eyre Hwy, 67.7 km E of Balladonia, A.C. Beaughlehole 14836 (MEL); Dundas Rocks, S of Norseman, A.C. Beaughlehole 14766 (MEL).

S.A.: Parachina Gorge, Flinders Ra., D.G. Catcheside 78.311 (AD); Cave No. 3, Murrawijirrie Caves, Nullarbor Natl Park, N.K. Donner 7199 (AD, CANB); Koonalda Cave area, A.C. Beaughlehole 14935 (MEL); Nullarbor HS, 6 Jan 1952, D.S. Kemsley (MEL); 26.2 km E of Yalata, G.H. Bell 129 (AD); near Eyre Hwy, 19.3 km ENE of Kimba, A.C. Beaughlehole 15109 (MEL).

N.S.W.: 5 miles [c. 8 km] SE of Wilcanna, I.G. Stone 11548 (MEL); 19.5 km N of Pooncarie on Minindee–Wentworth road, G.H. Bell 821 (AD); road to route 79 [Silver City Hwy], 2 km S of Pooncarie, I.G. Stone 11524 (MEL); 214 km from Broken Hill towards Wentworth, I.G. Stone 8262, 8265, 8284, 8354, 9581 (MEL); Wentworth to Milparra, I.G. Stone 8252, 8259, 9548, 9550 (MEL); junction of Rufus River Rd and ‘Talgarry’ Rd, c. 25 km NW of Wentworth, D.J. Eldridge BSCS 780 (NSW).

Vic.: Red Cliffs, J.H. Browne 935 (MEL); Yatpool, S of Red Cliffs, A.C. Beaughlehole 57341 (MEL); 42 miles [67.6 km] N of Swan Hill, I.G. Stone 1714, 1715 (MEL); Hattah Lakes Natl Park, O.B. Lawson [IGS9337] (MEL); E of road, Boundary Bend, I.G. Stone 1504, 1516 (MEL); SW side of Hattah Lake, Hattah Lakes Natl Park, A.C. Beaughlehole 5147A, 57233 (MEL); Annuello, A.C. Beaughlehole 5146 (MEL); between Boundary Bend and Swan Hill, I.G. Stone 1550, 1560, 1566, 1567 (MEL); near Lake Hardy, Murray Sunset Natl Park, H.M. Jolley 86 (MEL); 19.3 km S of Ouyen, A.C. Beaughlehole 5148 (MEL); Chilengollah, A.C. Beaughlehole
57361 (MEL); 41 miles [66 km] W of Swan Hill, I.G.Stone 1613, 1614 (MEL); Bushlams Forest Reserve, c. 9 km NE of Sea Lake, near Lake Tyrrell, H.M.Jolley 85 (MEL); c. midway between Entrance and Wonga Hut, Wyperfeld Natl Park, A.C.Beauglehole 28410 (MEL); S of Eastern Lookout, Wyperfeld Natl Park, A.C.Beauglehole 28524 (MEL); Black Flat Car Park, Wyperfeld Natl Park, 21 Aug. 1980, G.A.M.Scott s.n. (MELU); Lalbert, A.C.Beauglehole 57391 (MEL); Nypos, E of Meridian Line, A.C.Beauglehole 57261 (MEL); Quambatook, A.C.Beauglehole 57381 (MEL); Boort Rd, 16 miles [26 km] S from Kerang, I.G.Stone 1623 (MEL); Beulah, A.C.Beauglehole 57327 (MEL); Pink L., Dimboola, I.G.Stone 23719, 23724 (MEL).

Scott & Stone (1976) and Catcheside (1980) stated that Australian material can be very variable, especially in the number of lamellae, the occurrence of filaments on the upper lamellae and the length of the hairpoint.