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Hypolaena exsulca R.Br.

Author: Barbara G. Briggs, Carolyn L. Connelly and Siegfried L. Krauss.

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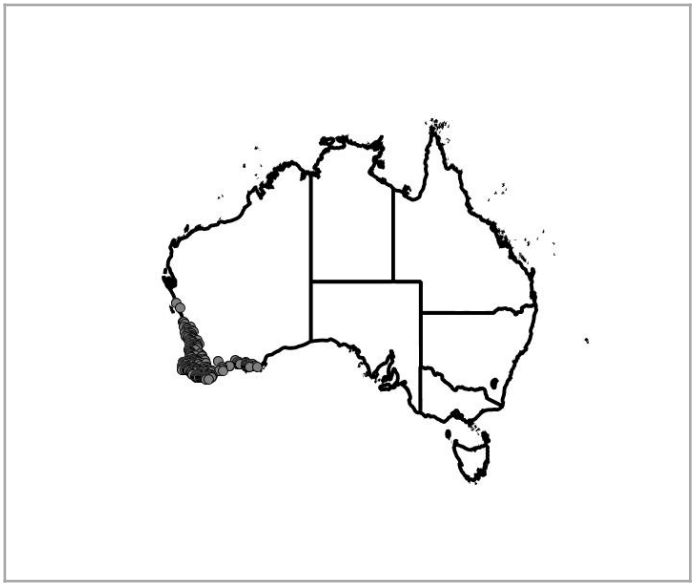
Hypolaena exsulca R.Br.

- Brown, R. (1810) , *Prodromus florae Novae Hollandiae et insulae Van-Diemen, exhibens characteres plantarum quas annis 1802-1805* : 251

Barbara G. Briggs, Carolyn L. Connelly and Siegfried L. Krauss.

Herb, dioecious, perennial, rhizomatous, forming dense tussocks or diffuse patches to 1 m or more across. Rhizome horizontal, stout, 3–8 mm diam.; scales pale brown, scarious, partly covering a pale brown pubescence. Culms spaced up to 1 cm apart, erect to sinuose, terete to slightly compressed, smooth to striate, 20–60 cm long, 0.5–1.5 mm diam., glabrous, lowest internode pubescent. Sheaths scarious, 5–25 mm long, cuspidate with lamina 2–3 mm long, rarely longer. Inflorescence: male spikelets usually in a large, diffuse, terminal inflorescence 10–25 cm long, numerous, pedicellate; female spikelets solitary and terminating branches or few at the distal nodes of branches. Male spikelets ovoid to obloid, 3–7 mm long; glumes 10–20, all fertile, ovate, cuspidate to mucronate, glabrous, red-brown, 1.6–2.2 mm long; mucro erect, to c. 0.6 mm long. Female spikelets narrow at the base but upper glumes recurved and spreading, 8–18 mm long; glumes 3–8, lanceolate, abaxial surface of lowest glumes pubescent, cuspidate, 6–12 mm long tapering to a prominent reflexed tip, initially red-brown becoming grey with age. Male flowers: tepals 6, ovate; outer lateral tepals truncate, 1–1.7 mm long; inner tepals concave, obtuse to acute, 0.8–1.2 mm long; anthers c. 0.7 mm long. Female flowers: bract on flower stalk single, 0.2–0.5 mm long; tepals 0.5–1.0 mm long; style 3-branched. Fruit a nut with woody pericarp, globose, brown, 2.2–3.5 mm long, smooth to sparsely pitted, shed with a short thick stalk and perianth. Seed narrowly cylindrical, orange-tan, 1.6 mm long, 0.9 mm wide. Culm anatomy: chlorenchyma of 2–4 layers of short cells, interrupted by pillar cells and partial sclerenchyma ridges opposite the outer vascular bundles.

Distribution: Western and southern Western Australia from Lake Indoon near Eneabba to Cape Le Grande east of Esperance.



Etymology: The epithet is from the Latin *ex* (without) and *sulcus* (furrow), referring to the smooth culms.

Diagnostic Features: Distinguished from other *Hypolaena* species by the combination of features: extended rhizomes; culms erect and sparsely branched, 0.5–2 mm diam.; ♂ glumes with narrow hyaline margin; ♀ glumes recurved.

Phenology: Flowers September, October, November.

Biostatus: Native. Endemic to Western Australia.

Habitat: Forest, woodland and heath; in regions of moderate rainfall and in drier sites in moist regions; also beside streams or in swamps in sand or peaty sand.

Ecology: Wind-pollinated. Resprouts after fire.

Conservation Status: Widespread and often abundant.

Representative Herbarium Specimens: W.A.: 4.5 km W of Mogumber on Regans Ford road, 2 Oct. 1984, *B.G. Briggs 7788 & L.A.S. Johnson* ♂ (AD, NSW, PERTH); Brickwood Reserve, Byford, 13 Nov. 2003, *M. Hislop MK5–1* ♀ (NSW, PERTH); Flora Road, 5 km W of Collie, 16 Oct. 1997, *T.R. Lally 1485 & B. Fuhrer* ♂ (NSW, PERTH); Walpole River, 1.7 km W of Walpole on South Western Highway, *B.G. Briggs 7788 & L.A.S. Johnson* ♂ (CANB, K, MEL, NSW, PERTH, PRE); Duke of Orleans Bay, 64 km E of Esperance, 29 Sept. 1968, *P.G. Wilson* ♀ (NSW, PERTH, RSA).

Nomenclature and Typification: ***Hypolaena exsulca*** R.Br., *Prodromus Florae Novae Hollandiae et Insulae Van-Diemen* 1: 251 (1810); *Calorophus exsulcus* (R.Br.) F.Muell., *Fragmenta Phytographiae Australiae* 8: 124 (1883), as *Calostrophus*. Type: King George III Sd [Sound], [W.A.], *R. Brown (Bennett 5878)* ♀; syn: BM 000991393, BM 000991394, E, K; a lectotype will be designated by B.G. Briggs in Mabberley & Moore (in press).
Synonyms
Restio clavatus R.Br., *Prodromus Florae Novae Hollandiae et Insulae Van-Diemen* 1: 246 (1810). Type: King Georges Sound [W.A.], *R. Brown (Bennett 5857)* ♂; syn: BM 00991395-6, E 00318292, K 000873615; a lectotype will be designated by B.G. Briggs in Mabberley & Moore (in press).
Hypolaena esenbeckii F.Muell., *Fragmenta Phytographiae Australiae* 8: 86 (1873). Type: Ad flumen cygnorum, *Preiss 1783* ♀ (with ♂ fragment); syn: MEL 14969; ad sinum regis Georgi, *Muir*; Swan River, *Drummond 338* ♀; syn: MEL 14971–2; isosyn: BM, CGE, GH, PERTH 2131242.
Restio vacillans Steud., *Synopsis plantarum glumacearum* 2: 255 (1855). Type: Nova Hollandia, *Drummond. IV 337*, 1845 ♂; iso: CGE, K, MEL 14976, P.
Caustis squamellata C.B.Clarke, *Bulletin of Miscellaneous Information, Kew, Additional Series* 8: 48 (1908). Type: Swan River, *J. Drummond s.n.*, 1839 ♀; holo: BM 000991391.

Illustrations: K.A. Meney & J.S. Pate (eds), *Australian Rushes* 314–315 (1999); J. Scott & P. Negus, *Field Guide to the Wildflowers of Australia's South West* 19 (2002); J.R. Wheeler, *Flora of the South West* 1: 450 (2002); B.G. Briggs & L.A.S. Johnson, *Telopea* 10(2): 577, fig. 2h–j (2004); R.L. Barrett & E.P. Tay, *Perth Plants* 255 (2005); C. Hollister & K. Thiele, *A key to the Western Australian species in the family Restionaceae* (2014).

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Source: First published 19 April 2019.

Nomenclature

CHAH (2010) , *Australian Plant Census*

- nomenclatural synonym: Calostrophus exsulcus F.Muell.
- nomenclatural synonym: Calorophus exsulcus (R.Br.) F.Muell.
- taxonomic synonym: Restio clavatus R.Br.
- taxonomic synonym: Hypolaena fastigiata Nees
- taxonomic synonym: Restio clavatus Nees
- taxonomic synonym: Restio vacillans Steud.
- taxonomic synonym: Hypolaena esenbeckii F.Muell.
- taxonomic synonym: Caustis squamellata C.B.Clarke

Images

Fig. 1: '*Hypolaena exsulca*' by Thiele, K.R. (© Thiele, K.R.)

Fig. 2: '*Hypolaena exsulca*' by Thiele, K.R. (© Thiele, K.R.)

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Phillip G. Kodela

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