

***Gomphrena verecunda* (Amaranthaceae), a modest new species
from Western Australia's arid zone**

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SHORT COMMUNICATION

The new species of *Gomphrena* L. described below was first collected by David William Goodall in 1965; however, it wasn't recognised as a potential new species for another 30 years (Ray Cranfield *in sched.*) and Palmer (1998) does not appear to have viewed any material during her revision of the genus in Australia. Targeted field work was recently conducted to obtain type material and enable its taxonomic status as a distinct species to be confirmed.

Gomphrena verecunda* R.W.Davis, *sp. nov.

Type: 19.4 km north-west along Warriedar Road from junction of Great Northern Highway, Western Australia, 3 September 2016, R. Davis 12649 & F. Obbens (*holo*: PERTH 08814414; *iso*: BRI, CANB).

Gomphrena sp. Bebele (D.W. Goodall 3215), Western Australian Herbarium, in *FloraBase*, <https://florabase.dpaw.wa.gov.au/> [accessed 22 February 2016].

Prostrate or open *herb* (1–)2–10(–20) cm high, 4–15(–28) cm wide. *Stems* terete, glabrous to sparsely hairy, becoming dense towards the nodes; hairs nodose, wiry, to 3 mm long. *Cauline leaves* opposite, flat, sessile, slightly clasping stems, ovate, elliptic to narrowly obovate, 4–25 mm long, 2–5 mm wide, upper surface with sparse simple hairs towards the base, lower surface with scattered hairs towards the base and sometimes along the mid-rib. *Inflorescences* spiciform, axillary, solitary or rarely clustered, green-white with a pink tinge, cylindrical to ovoid, 8–15(–20) mm long, 7–10 mm diam. *Bracts* translucent, broadly ovate, 2.4–2.6 mm long, 1.8–2.2 mm wide, glabrous, mid-nerve faint. *Bracteoles* longer than tepals, translucent throughout, ovate, 3.8–4 mm long, 1.8–2.3 mm wide, glabrous, mid-nerve faint; apex centrally folded, appearing attenuate. *Outer tepals* green, tinged pink along median section and fading to translucent-white towards margins, oblong, 2.6–2.8 mm long, 0.6–0.8 mm wide, mid-nerve terminating before apex, with woolly hairs along proximal margins and near base; apex shortly tapering to rounded, entire; inner surface white, glabrous. *Inner tepals* similar to outer tepals but slightly smaller, 2.4–2.6 mm long, 0.5–0.7 mm wide. *Stamens* 5, 1.1–1.3 mm long; filaments united to 1/2 of length or slightly above, tube much shorter than fruit, glabrous throughout; free portion 0.3–0.5 mm long; anthers 0.2–0.25 mm long; pseudostaminodes absent. *Style* 0.19–0.21 mm long; stigma 0.15–0.2 mm long. *Fruit* ovoid, 2.9–3.1 mm long, 1.6–1.8 mm wide. *Seeds* brown, glossy, compressed ellipsoid, 1.1–1.3 mm long, 0.8–0.9 mm wide. (Figure 1A)



Figure 1. *Gomphrena verecunda*. A – prostrate habit on gritty soils; B – habitat near a salt lake at the type locality. Photographs by R. Davis from R. Davis 11388 (A) and R. Davis 12649 & F.Obbens (B).

Diagnostic features. Distinguished from other *Gomphrena* in having narrow spikes to 10 mm wide; glabrous, translucent bracteoles longer than tepals; filaments glabrous, united to 1/2 their length or slightly greater; pseudostaminodes absent; and a short style to 0.21 mm long.

Other specimens examined. WESTERN AUSTRALIA: on Davyhurst Goongarrie road on the shores of dry salt lake 6.3 km from the Goongarrie Homestead, 2 May 2006, *G. Byrne* 2026 (PERTH); 16 km NNW of Mileura Hill, 10 May 1995, *R.J. Cranfield* RJC 9766 (PERTH); Thundelarra Station, 30 Sep. 2003, *R. Davis* RD 10643 B (PERTH); 42.4 km west along Kalli road from junction of Cue-Beringarra road, 16 Aug. 2009, *R. Davis* RD 11388 (PERTH); Byro Plains, 15 Oct. 1971, *H. Demarz* 3447 (PERTH); 41 miles N of Bulga Downs, 24 Sep. 1975, *H. Demarz* 5641 (PERTH); Burnerbinmah Station, Corryalgo Pool, 7 km NW of Homestead, 29 Mar. 1997, *D. Edinger et al.* 110 (PERTH); Mafia Dam, 9 km NNW of Mount Elvire Station, 24 Apr. 2000, *D.J. Edinger* 1849 (PERTH); Belele Station, Minderoo paddock, 23 Aug. 1965, *D.W. Goodall* 3215 (PERTH).

Distribution and habitat. *Gomphrena verecunda* has a scattered distribution in the Murchison and Yalgoo bioregions, with a single record from the southern boundary of the Gascoyne bioregion. It can be found low in the landscape, on flood plains, seasonally wet areas, clay-pans or near salt lakes, and around granite outcrops, often on gritty, sandy clay soils (Figure 1B).

Conservation status. *Gomphrena verecunda* has a widespread distribution and is not currently considered to be under threat.

Phenology. Flowering has been recorded from March to October and appears to occur opportunistically in response to rainfall.

Etymology. The epithet is from the Latin *verecundus* (shy or modest) and refers to its inconspicuous presence in the landscape.

Vernacular name. Shy Bachelor Buttons.

Notes. *Gomphrena verecunda* is the most southerly distributed species of *Gomphrena* in Western Australia (apart from the invasive weed species *G. celosioides* Mart.) and is the only one recorded from the Murchison and Yalgoo bioregions (Western Australian Herbarium 1998–). It looks most similar to *G. sordida* Farmer but differs in having bracteoles longer than tepals (*cf.* equal to or shorter than), and filaments united for 1/2 their length or slightly more (*cf.* filaments united to 1/3 of their length). The bracteoles in *G. verecunda* are translucent throughout (*cf.* opaque-white in the upper 1/2 in *G. sordida*). *Gomphrena sordida* occurs throughout the Pilbara region and in the northern parts of the Carnarvon and Gascoyne bioregions; there is no overlap in distribution with *G. verecunda*.

Identification. The following modification to Palmer's (1998) key to Australian species of *Gomphrena* accommodates *G. verecunda*.

- 23. Filaments united into a tube longer than fruit **G. celosioides**
- 23: Filaments united into a tube shorter than fruit
 - 24. Outer surface of all tepals hairy
 - 25. Bracteoles slightly or distinctly shorter than tepals..... **G. eichleri**
 - 25: Bracteoles distinctly longer than tepals..... **G. verecunda**
 - 24: Outer surface of all tepals glabrous or sparsely hairy, usually on the inner two tepals
 - 25a. Spikes solitary or clustered, short cylindrical; bracteoles slightly to distinctly longer than tepals **G. humifusa**

- 25a:** Spikes usually only solitary, ovoid or conical to cylindrical; bracteoles equal to or slightly shorter than tepals **G. diffusa**

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References

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