

## ***Acacia armigera* (Fabaceae), a new, geographically restricted wattle from the Coolgardie bioregion of Western Australia**

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### SHORT COMMUNICATION

*Acacia* Mill. is Australia's most species-rich, and one of its most iconic, genera. The genus has a significant centre of species diversity in the south-west and adjacent semi-arid parts of Western Australia (Hnatiuk & Maslin 1988). Sustained taxonomic research in this area, particularly by Bruce Maslin at the Western Australian Herbarium, has led to more than 390 new Western Australian *Acacia* taxa being described in the last 50 years, many of which are conservation-listed (Western Australian Herbarium 1998–). There remain around 75 informally named taxa in Western Australia that require further taxonomic research, some of which are also potentially rare. One such species is dealt with in this paper.

The new species described below was first noted by one of us (GC) and Sophie Fox of Western Botanical in 2015 during flora surveys of gold leases in the Mount Dimer area. It was regarded at the time of collection that it was likely to be new, although the plants were without flowers. The species was collected from the same location in 2016 (again sterile), and subsequently phrase-named at the Western Australian Herbarium as *Acacia* sp. Southern Cross (G. Cockerton et al. WB 38518). Further field work in 2021 led to a collection of adequate type material, allowing it to be described here.

***Acacia armigera*** R.W.Davis, K.R.Thiele & Cockerton, *sp. nov.*

*Type*: Mount Dimer area, north of Southern Cross, Western Australia [precise locality withheld for conservation reasons], 31 August 2021, *K.R. Thiele & G. Cockerton* KRT 5719 (*holo*: PERTH 09457879; *iso*: CANB, MEL).

*Acacia* sp. Southern Cross (G. Cockerton et al. WB 38518), Western Australian Herbarium, in *FloraBase*, <https://florabase.dpaw.wa.gov.au/> [accessed 3 May 2022].

Dense, rounded, rigid, sub-glaucous *shrubs* 0.8–1 m high, 1–2 m wide. *Branchlets* terete, smooth, with two rows of dense, minute, patent to ascending white hairs to 0.2 mm long, glabrous to sparsely hairy between the rows of hairs, tardily glabrescent. *Stipules* absent. *Phyllodes* on short stem projections,

rigid, pentagonal with equal faces, patent to ascending, straight or shallowly curved, 13–34 mm long, 1–1.2 mm diam., each with a small patch of dense, white hairs at the base on the adaxial surface, the remaining surface with very sparse, appressed or sub-appressed white hairs, glabrescent; *longitudinal nerves* 5, scarcely raised, with no anastomoses; *apex* excentrically pungent-pointed with a long, fine, acicular point to 3 mm long; *pulvinus* absent; *gland* 1, elliptic, pit-like, *c.* 0.5 mm long, 8.5–13 mm from the base of the phyllode. *Inflorescences* simple, globular, paired-axillary, pedunculate, bright yellow; *peduncles* erect to ascending, slender, 4.5–7.5 mm long, glabrous or occasionally with sparse appressed hairs, subtended by a strongly cupped, caducous bract 1–1.4 mm long that is abaxially minutely pubescent; *heads* 3–4.5 mm diam. when dried, 17–23-flowered; *bracteoles* oblanceolate to spatulate, 0.7–0.9 mm long, glabrous. *Flowers* 5-merous; *calyx c.* half as long as petals, the sepals free or very shortly united, glabrous, the lobes spatulate, smooth; *corolla* 1.4–1.6 mm long, nerveless, glabrous. *Pods* terete, 32–40 mm long, 2.5–3 mm wide, thick-crustaceous, curved, acute at both ends, with a sparse covering of appressed white hairs, dark red while immature becoming dark brown at maturity. *Seeds* longitudinally arranged in the pods; mature seeds not seen. (Figure 1)

*Characteristic features.* Dense, rounded, rigid, sub-glaucous *shrubs*. *Branchlets* terete, with two rows of dense, patent to ascending hairs to *c.* 0.2 mm long, glabrous to sparsely hairy between the rows of hairs; stipules absent. *Phyllodes* rigid, epulvinate, pentagonal with equal faces, patent to ascending, straight or shallowly curved, 13–34 mm long, 1–1.2 mm diam., with 5 scarcely raised nerves; *apices* excentrically and finely pungent-pointed. *Inflorescences* simple, globular, paired-axillary, on slender, usually glabrous *peduncles* 4.5–5 mm long; *heads* 3–4.5 mm diam. when dried. *Flowers* 5-merous; *calyx c.* half as long as petals, the sepals free or very shortly united. *Pods* terete, 32–40 mm long, 2.5–3 mm wide, with sparse, appressed, white hairs. *Seeds* longitudinally arranged.

*Other specimen examined.* WESTERN AUSTRALIA: [locality withheld for conservation reasons] 16 Oct. 2016, G. Cockerton, D. Brassington & D. Leach WB 38518 (PERTH).

*Distribution and habitat.* *Acacia armigera* is currently known from a single location near Mount Dimer, north of Southern Cross. At this site it grows in a tall open eucalypt woodland on medium red-brown clay with a discontinuous pizolitic lag gravel, in a broad, non-incised drainage line. Associated species include *Eucalyptus salubris*, *E. salmonophloia*, *E. transcontinentalis*, *Eremophila hamulata*, *E. caperata*, *Atriplex bunburyana*, *Templetonia sulcata* and *Olearia muelleri*.

*Phenology.* The type specimen was flowering in late August; young pods were also present at this time.

*Etymology.* The epithet is from the Latin *armiger* (bearing thorns or armed), in relation to its spiny phyllodes.

*Common name.* Fierce Wattle.

*Conservation status.* *Acacia armigera* is listed as Priority One under Conservation Codes for Western Australian Flora (Western Australian Herbarium 1998–), as *A. sp.* Southern Cross (G. Cockerton et al. WB 38518). The area where it occurs is relatively sparingly collected, and it is likely that the species is at least slightly more widespread than is currently known.

*Affinities.* *Acacia armigera* is morphologically somewhat similar to *A. asepala* Maslin, *A. inamabilis* E.Pritz. and *A. calcarata* Maiden & Blakely, sharing with these species five-nerved, epulvinate, rigid, pungent phyllodes that are regularly pentagonal in section. *Acacia armigera* differs from all three in

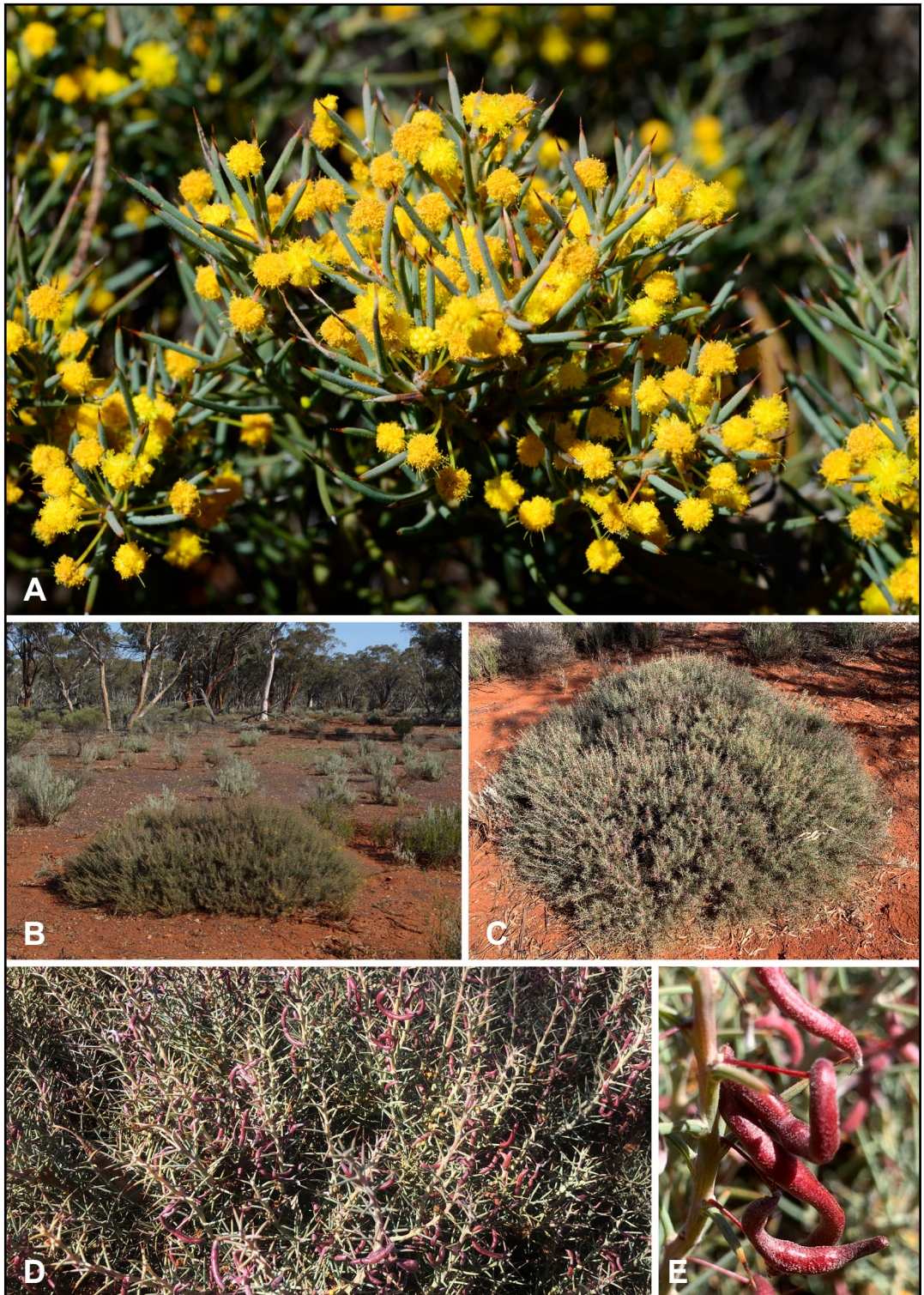


Figure 1. *Acacia armigera* at the type locality. A – flowering branch; B, C – shrubs in habitat; D – fruiting branches; E – immature fruits. All photos G. Cockerton (except top, K.R. Thiele).

having branchlets with two distinct rows of dense hairs, stipules absent, sepals free to very shortly united, and pods narrow (2.5–3 mm wide), terete and sparsely appressed-pubescent. The other taxa have glabrous branchlets (excepting two specimens of *A. inamabilis* that have evenly pubescent branchlets and phyllodes). Sepals are absent in *A. asepala*, while in *A. inamabilis* and *A. calcarata* they are united for  $\frac{1}{2}$  to  $\frac{3}{4}$  of their length. Both *A. inamabilis* and *E. calcarata* have prominent, persistent, spinose stipules. Pods in *A. asepala*, *A. calcarata* and *A. inamabilis* are more than 5 mm wide, non-terete and glabrous.

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### References

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