

A new species of *Conostylis* R.Br. (Haemodoraceae) from the Fitzgerald River area, Western Australia

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Abstract

Green, J. W. A new species of *Conostylis* R.Br. (Haemodoraceae) from the Fitzgerald River area, Western Australia. Nuytsia 4(1): 55-59 (1982). *Conostylis deplexa* J. W. Green, belonging to section *Catospora* Benth., is described. It is distinguished from all other species in the genus by having marginal setae embracing the otherwise glabrous leaf blades.

Conostylis deplexa J. W. Green, sp. nov. (Figures 1-3)

Planta perennis. *Folia* linearia, plana, glabra, praeter setas marginales distichos amplectentes. *Scapus* foliis breviorus. *Perianthium* parte libra ovario superanti, lobis tubo paulo longioribus. *Antherae* connectivum longum, decurrens. *Placentae* peltatae, ovulis pluribus reflexis ornatis. *Semina* in quoque loculo 1 vel 2, curva, longitudinaliter sulcata.

Typus: 6 km E of Fitzgerald River on Ravensthorpe-Jerramungup road, 31 Oct. 1975, J. W. Green 4619. (holo: PERTH; iso: CANB).

Perennial in small tufts or solitary. *Stem* short. *Leaves* linear, 15-20 cm long, 1.5-3 mm broad, flat, longitudinally striate, glabrous except for marginal setae; *setae* in 2 alternate ranks on each margin, stiff, simple (though sometimes themselves minutely spinulose), encircling the leaf blade often across its entire breadth, white or tinged reddish-brown at the base. *Scape* 2-5 cm long, shorter than the leaves, bearing near the middle a brown, scarious, broadly lanceolate bract 2-3 cm long which sometimes becomes leaf-like; *indumentum* of the scape softly tomentose, of branched or simple trichomes. *Inflorescence* excluding the scape congested, 2.5-3.5 cm across, subtended by 1 or 2 brown, scarious, lanceolate bracts 1.5-2 cm long and abaxially tomentose on their midrib. *Flowers* in clusters of 10-20, each subtended by a linear, \pm tomentose, brown bracteole 3-7 mm long; pedicel 1-2 mm long. *Perianth* campanulate, 1-1.5 cm long, yellow; *lobes* \pm equal, 4-7 mm long, exceeding the free part of the tube; *outer surface of the perianth* bearing a woolly tomentum of short, branched trichomes mixed with longer, simple, minutely spinulose ones; *inner surface of the lobes* pubescent, trichomes simple; *inner surface of the tube* glabrous. *Stamens* erect, uniseriate, 3.5 mm long. *Anther* 2.5 mm long, bisporangiate and bilocular (Green, 1980); *connective* decurrent, $\frac{2}{3}$ as long as the anther; *filament* slender. *Style* exceeding the stamens, \pm reaching the tips of the perianth lobes. *Ovary* 3-locular; placentas axile, peltate, each with several ovules dependent from near the margin. *Fruiting perianth* enlarged to 3.5 mm diameter near the base. *Seeds* 1-2 in each loculus, curved-cylindrical, 1.8 mm long and 0.4 mm diameter, orange, longitudinally grooved.



HOLOTYPE

Conostylis deplexa J.W. GreenDETERMINED BY J.W. Green
Western Australian Herbarium (PERTH)

25 Mar. 1981

WESTERN AUSTRALIAN HERBARIUM PERTH
Flora of Western AustraliaConostylisAssoc. *Euc. tetragona*, *Euc. falcata*.
Occasional mallees 2 m high emerging from
dense shrubs 30-50 cm high.Very pale grey-brown coarse sand over
lateritic gravel.Loc 6 km E of Fitzgerald River on
Ravensthorpe to Jerramungup road.

Coll. J.W. Green 4619 31 October 1975

4/81 Isotype
to CARB

Figure 1. *Conostylis deplexa*. Holotype: 6 km E of Fitzgerald River on Ravensthorpe to Jerramungup road. Green 4619.

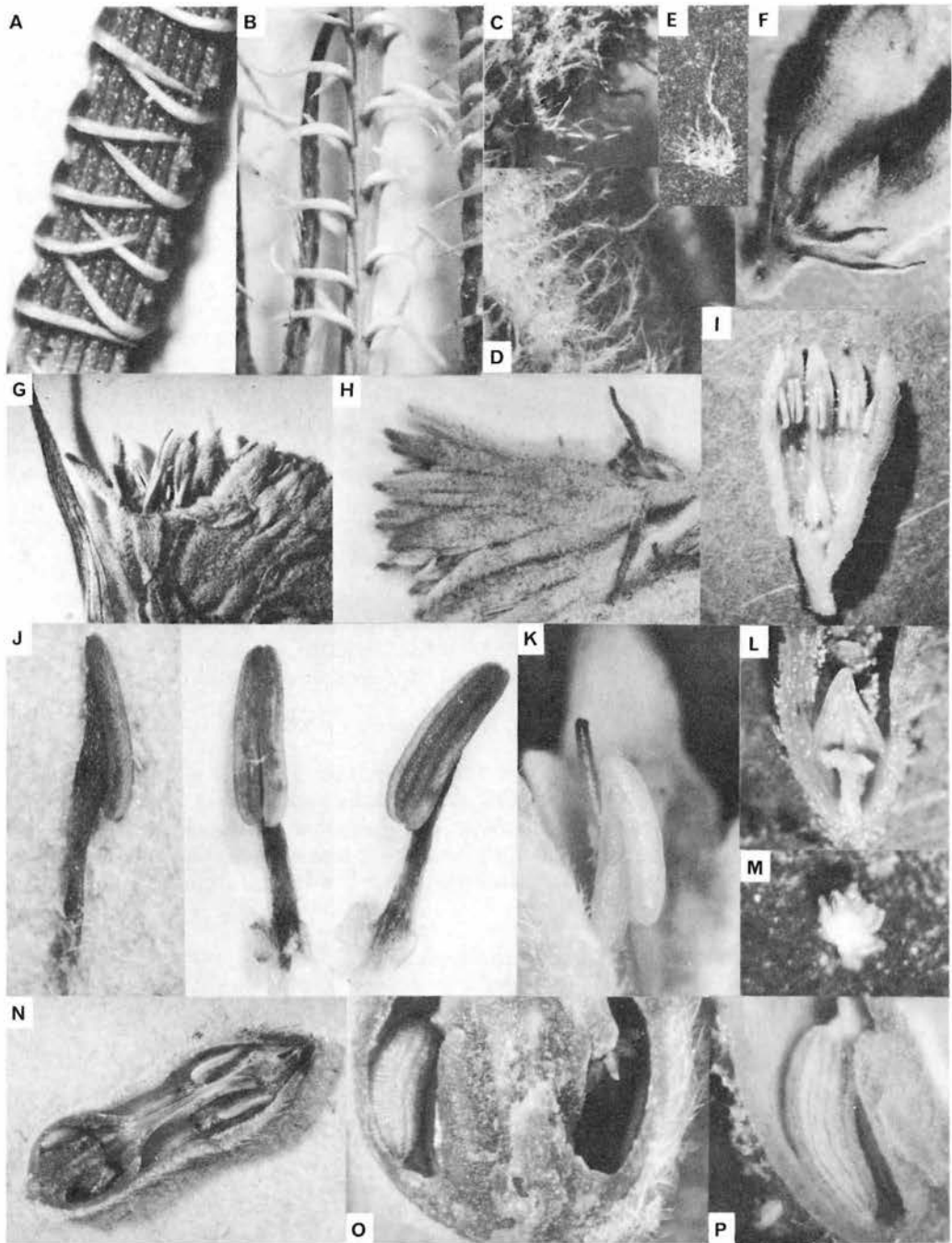


Figure 2. *Conostylis deplexa*. A—B: Leaf showing marginal setae x15. C—E: Indumentum of inflorescence x15. C—scape. D—outer perianth. E—dissection of branched and simple trichomes. F—portion of flower cluster, showing bracteoles x3. G—I: Flower x3. G and H—external view showing stamens and tube. I—ovary showing placentation. J—stamens showing sporangia and connective x10. K—stamens and style x10. L—longitudinal section of ovary x4. M—placenta and ovules dissected out x15. N—fruiting perianth, longitudinal half x3. O—P: Fruit, longitudinal half, showing seeds and unfertilised ovules O x10, P x15. All from Green 4819 (holotype, PERTH) except C, D and K from Hopper 1142 (PERTH) and G from Newbey 3865 (PERTH).

Habitat. According to specimen label data, the species occurs among open shrub mallee, low closed heath or low open woodland containing a low closed heath understorey. Associated species include *Eucalyptus tetragona*, *E. falcata*, *E. redunca*, perhaps other mallees and, in one case, "emergent hakeas 1.5 m". The soil is commonly pale grey sand, or sandy loam, mostly over laterite, on rolling hilltops or winter-wet flats.

Flowering and fruiting period. Flowering has been recorded between early September and late October; fruiting has been recorded in October.

Other specimens examined. WESTERN AUSTRALIA: 6 km S of the S end of Lake Magenta, S. D. Hopper 1806 (PERTH); 38.5 miles (61.9 km) W of Ravensthorpe on road to Ongerup, A. S. George 7043 (CANB, K, MEL, NSW, PERTH); 6.1 km ENE of Fitzgerald River bridge, S. D. Hopper 550 (PERTH); 6 km ENE of Fitzgerald River, S. D. Hopper 1142 (PERTH); 17.1 km ENE of Fitzgerald River bridge, S. D. Hopper 1144 (PERTH); 1.3 km W of Fitzgerald School, S. D. Hopper 1151 (CANB, K, NSW, PERTH); 1 km NE of Roe's Rock, K. Newbey 3865 (PERTH).

The new species belongs to section *Catospora* (Bentham, 1873), judging by the placentation of the ovary. Geerinck (1969) has amended Bentham's sectional description ("perianth often hairy or woolly inside") to "tube . . . velue a l'interieur". This modification, which might seem to exclude *C. deplexa* from section *Catospora*, is, however, an oversimplification since some of the species included in the section by both Bentham and Geerinck have the inside of the perianth, especially the tube, only sparsely pubescent or quite glabrous. In *C. deplexa* the inside of the lobes is pubescent and the tube glabrous.

Conostylis deplexa is the fourth species to be described since the revision of Green (1961); *C. pauciflora* S. D. Hopper (1978) and *C. neocymosa* S. D. Hopper (1980) both fall into section *Conostylis* Geerinck (= *Euconostylis* Bentham) while *C. wonganensis* S. D. Hopper (1982) is said to have affinities with *C. dielsii* W.V. Fitzg. (section *Catospora*, fide Geerinck) and *C. teretiuscula* F. Muell. (section *Conostylis*).

Conservation status. The species is said to be rare by K. Newbey, (pers. comm.) and, since only one recorded locality occurs in a reserve (the Fitzgerald River National Park), the species may be endangered.

The epithet (Lat. *deplexus*, embracing or clasping) refers to the unique character of the leaf setae which distinguishes the species.

Acknowledgements

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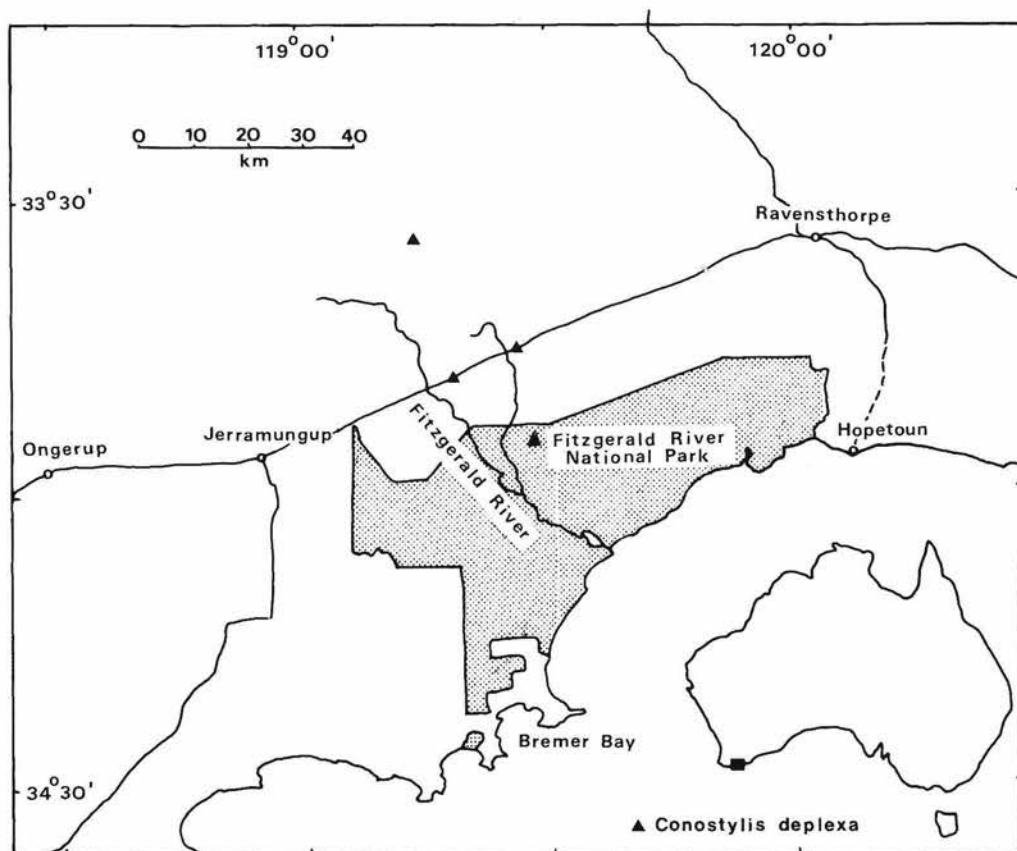


Figure 3. Distribution of *Conostylis deplexa*.

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