

TWO NEW AUSTRALIAN SPECIES OF BRACHYCOME Cass.
(Compositæ)

by

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SUB-GENUS EUBRACHYCOME.

BRACHYCOME TETRAPTEROCARPA G. L. Davis, *species nova*
[Fig. 1-3, p. 113.]

Herbæ adscendentes, pilis glandulosis, ad 30 cm. altæ, e basi ramosæ, folia radicalia non nisi in herbis immaturis reperienda; folia caulina sessilia, ad 6 cm. longa, 1.5-2 mm. lata; peduncula nuda; capitula ad 50 numero, 1 cm. sine radiis transverse mensa; involucri phylla 18, 4 mm. longa, 1.5 mm. lata, arte lanceolata, obtuse acuta, glabra, marginibus minute denticulatis; flores radii 25-34; radii 5 mm. longi, 1.2 mm. lati, albi; receptaculum 5 mm. latum, 2 mm. altum, minime convexum; achænia 2 mm. longa, 2 mm. lata, late oblongata, suffusca, corpore levi, alis lateralibus valde incurvatis, integris, alis dorsalibus ventralibusque quibus margines undulatæ adsunt; pappus minutus albusque.

Ascending glandular-hairy herbs up to 30 cm. high, branching from the base. *Radical leaves* only present on young plants. *Cauline leaves* sessile, up to 6 cm. long, pinnatipartite with 9-11 acute, lanceolate segments about 6 mm. long, 1.5-2 mm. broad. *Peduncles* naked. *Capitula* up to 50, 1 cm. diameter excluding the rays. *Involucral bracts* 18, 4 mm. long, 1.5 mm. broad, narrow-lanceolate, bluntly acute, glabrous, with minutely denticulate margins. *Ray florets* 25-34; the rays 5 mm. long, 1.2 mm. broad, white. *Receptacle* 5 mm. broad, 2 mm. high, slightly convex. *Fruits* 2 mm. long, 2 mm. broad, broadly oblong, light-brown; the body smooth, with broad, strongly incurved, entire, lateral wings and narrow dorsal and ventral wings with undulate margins; pappus minute, white.

Holotype: 15 miles south-east of Muttaborra on Aramac-road, Queensland, "Open grassy downs, in small water channel", 9.9.1956, N. T. Burbidge (CANB. No. 5523).

Paratypes: Same collection (MEL; NSW; BRI; ADW.).

Specimens examined: Type series; Aramac (Qd), 7, 1950, W. Robertson (CANB. No. 1950).

The fruits of this species are unique in that they bear four longitudinal wings at equal distances around the glabrous poorly-defined body. The lateral wings are rather thick but are very similar in form to those of *B. curvicarpa*, whereas the dorsal and ventral wings are narrow and thin. This resemblance between the two species is seen also in the habit and vegetative features and suggests a close relationship.

In view of the fact that *B. tetrapterocarpa* is known only from the type district, it is possible that it originated as a local variant of *B. curvicarpa*, whose most northern record is Longreach, approximately 60 miles from both Muttaborra and Aramac.

SUB-GENUS METABRACHYCOME.

BRACHYCOME DIMORPHOCARPA G. L. Davis, *species nova* [Fig. 4-7, p. 113.]

Herbæ adscendentes aut infirme erectæ, ad 38 cm. altæ, multistipitatæ, ramosæ in partibus maturis minutissime septato-pilosæ, aliter pilis glandulosis; folia radicalia non nisi in herbis immaturis reperienda; folia caulina ad 3 cm. longa, late sessilia, pinnatisecta, segmentis 9-11 lanceolatis, breviter mucronatis, ad 9 mm. longis, 1.5 mm. latis; pedunculi filiformes, nudî, glandulosi; capitula 50-100, fere ad 5 mm. (sine radiis) transverse metientia; involucri phylla 16, 3 mm. longa, 0.9 mm. lata, oblanceolata, acuta, glandulosa, marginibus minutissime serrulatis; flores radii 12-20, ligulis 4-6 mm. longis, 0.8-1 mm. latis, violaceis; receptaculum alte convexum, 1.4 mm. latum, 0.8-1 mm. altum; achænia dimorphica—radiatorum 1.5 mm. longa, 0.5 mm. lata, fusca, clavata, compressa, alte tuberculata, marginibus levibus, pappo albo minutissimoque; discorum autem 1.7 mm. longa, 1.3 mm. lata, corpore valde fusco glabro, pilis glandulosis paucis lineam erectam mediam utrinque formantibus, alis lateralibus latis integris albis aut subluteis apicem versus perimplicatis atque secus marginem a pilis parvis glandulosis instructis, pappo albo minutoque.

Ascending or weakly erect herbs, up to 38 cm. high, many stemmed, branching, minutely septate-hairy on mature parts, otherwise with glandular hairs. *Radical leaves* only present on young plants. *Cauline leaves* up to 3 cm. long, broadly sessile, pinnatisect with 9-11 lanceolate, shortly mucronate segments, up to 9 mm. long, 1.5 mm. broad. *Peduncles* filiform, naked, glandular. *Capitula* 50-100, about 5 mm. diameter, excluding the rays. *Involucral bracts* 16, 3 mm. long, 0.9 mm. broad, oblanceolate, acute, glandular, with minutely serrulate margins. *Ray florets* 12-30, the rays 4-6 mm. long, 0.8-1 mm. broad, mauve. *Receptacle* steeply convex, 1.4 mm. broad, 0.8-1 mm. high. *Fruits* dimorphic, those of the ray 1.5 mm. long, 0.5 mm. broad, brown, clavate, flattened, deeply tuberculate with smooth margins; pappus white, microscopic. *Disc fruits* 1.7 mm. long, 1.3 mm. broad, the body dark-brown, smooth with a few glandular hairs down the centre of each face; lateral wings broad, entire, white to pale yellowish-brown, strongly infolded distally, with small marginal glandular hairs.

Holotype: Bon Bon Station to Kingoonya, South Australia. "Low wash in red sand country with Myall (*Acacia sowdenii* Maiden)", 11.10.1955, N. T. Burbidge and M. Gray (CANB. No. 4653).

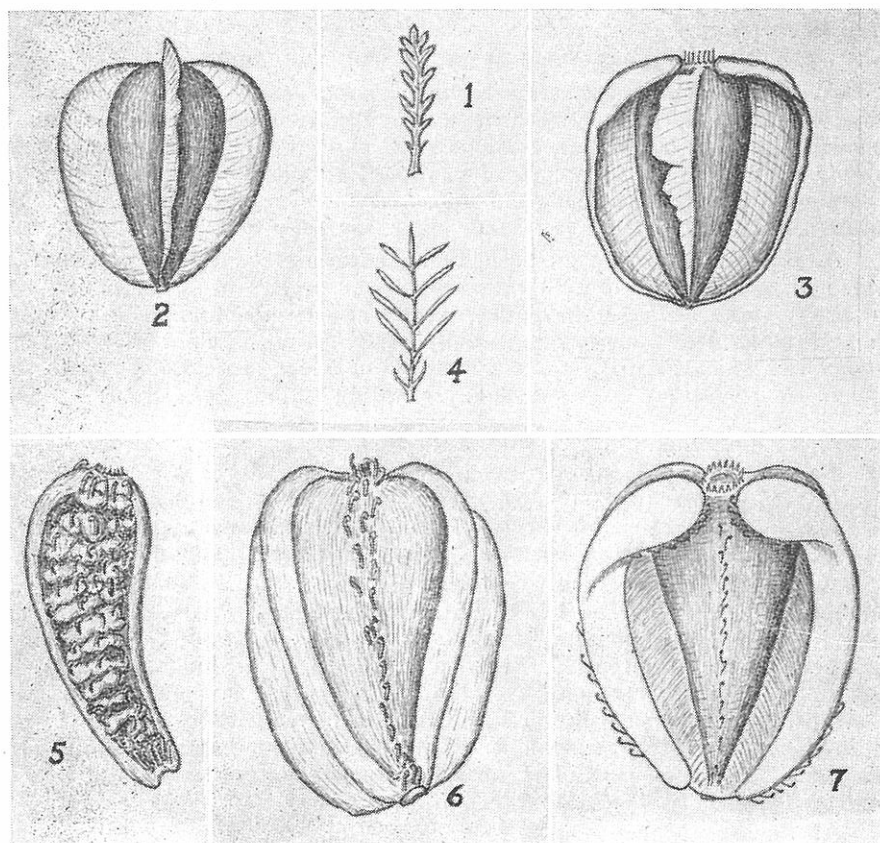
Paratypes: Same collection (MEL; NSW; ADW; BRI).

The vegetative similarity of this species with *B. ciliaris* (Labill.) Less., together with the presence of dimorphic fruits, indicates a close relationship, particularly with *B. ciliaris* var. *lanuginosa* (Steetz) Benth. The disc fruits of *B. dimorphocarpa*, however, are quite distinct in the curved and infolded nature of their lateral wings.

Mr. Gray, in personal communication, described the wings of the fruits as being "a most effective aid to wind-dispersal as they spin off at a great rate when the wind catches them".

B. dimorphocarpa is only recorded from the type locality, near Kingoonya, South Australia, but there is a possibility that, owing to its close vegetative resemblance to *B. ciliaris*, it has not been recognized elsewhere as distinct.

I am indebted to Dr. Adair Dale of the Classics Department, University of New England, for supplying the Latin diagnoses of these species.



Brachycome tetrapterocarpa.

- 1. Lower cauline leaf, x 1.
- 2-3. Fruit. Outer and inner surfaces, x 15.

B. dimorphocarpa.

- 4. Lower cauline leaf, x 1.
- 5. Ray fruit, x 30.
- 6-7. Disc fruit. Outer and inner surfaces, x 30.