

**HYBANTHUS STELLARIOIDES NEW COMBINATION (VIOLACEAE),  
A WIDESPREAD SPECIES FROM EASTERN AUSTRALIA AND  
PAPUA NEW GUINEA**

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ABSTRACT

Forster, Paul I. *Hybanthus stellarioides* new combination (Violaceae), a widespread species from Eastern Australia and Papua New Guinea. *Muelleria* 8(1): 17–19 (1993). — *Hybanthus stellarioides* is newly recognised at specific rank, based on *H. enneaspermus* var. *stellarioides* Domin. It is widespread in coastal and subcoastal areas of eastern Australia in New South Wales and Queensland and has been recorded once from southern Papua New Guinea.

INTRODUCTION

A taxonomic revision of the genus *Hybanthus* Jacquin in Australia was presented by Bennett (1972), and adapted with little change for a 'Flora of Australia' treatment by George (1982). In both of these accounts, *H. enneaspermus* (L.) F. Muell. is considered to comprise two subspecies, with subsp. *enneaspermus* widely distributed in subtropical and tropical Australia, Malesia, Asia and Africa whereas the subsp. *stellarioides* (Domin) E. Bennett is endemic to eastern Australia.

Bennett (1972) separates the two subspecies with the following key:

"1. Stipules long (up to 4 mm). Margins of leaf closely revolute, usually glabrous, but if pubescent then hairs spreading. Flowers blue ..... subsp. *enneaspermus*  
1. Stipules short ( $\pm 1$  mm). Margins recurved, leaves up to 5 mm wide, hairs always antrorse. Flowers yellow ..... subsp. *stellarioides*"

*H. enneaspermus* subsp. *stellarioides* is based on *H. enneaspermus* var. *stellarioides* Domin, described from a plant collected by Domin at Yarraba near Cairns in north Queensland.

To some extent, the recognition and rank of taxa of plants remain subjective. Some taxonomists now recognise 'species' on as little as single-character discontinuity, whereas others prefer three or more. Where subspecies are recognised, there should be allopatry of the taxa concerned.

In the case of the two subspecies of *H. enneaspermus*, there are four reliable discontinuities in morphological characters, namely the key characters of Bennett (1972). Although both Bennett (1972) and George (1982) map the two subspecies and provide a verbal description of distribution, no information is given as to the ecological preferences of the taxa or as to whether or not they occur as allopatric entities and whether or not they intergrade.

By and large *H. enneaspermus* subsp. *enneaspermus* and *H. enneaspermus* subsp. *stellarioides* are sympatric, although generally allotypic throughout the area of eastern Australia where both occur. *H. enneaspermus* subsp. *enneaspermus* is commonly found in coastal areas often near the sea, although it is also common in rocky areas in eucalypt dominated communities in subcoastal areas and over much of northern tropical Australia. By comparison, *H. enneaspermus* subsp. *stellarioides* is common in sandy areas in eucalypt dominated communities from coastal to subcoastal areas. It is rare to see the two taxa growing together; however, I have seen and collected both in close proximity in the Embley Range area in Cook District, Mt Aberdeen in North Kennedy District and the Didcot area in Wide Bay District. No intermediates occur in the areas where the taxa coexist.

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Given the lack of intermediates and the relatively high number of morphological discontinuities between the two, it is concluded that both taxa should be recognised at specific level and the relevant change of status for *H. stellarioides* is made.

#### TAXONOMY

*Hybanthus stellarioides* (Domin) P. Forster *comb. et stat. nov.*

**BASIONYM:** *Hybanthus enneaspermus* var. *stellarioides* Domin, *Biblioth. Bot.* 89: 983 (1928); *H. enneaspermus* subsp. *stellarioides* (Domin) E. Bennett, *Nuytsia* 1: 229 (1972). **TYPUS:** Queensland, Cook District, in *rupibus collis* apud. opp. Yarraba, Jan. 1910, *K. Domin 6794* (HOLOTYPUS: PR *n.v.*).

**ILLUSTRATION:** K.A.W. Williams, *Native Pl. Queensl.* 1: 161 (1979).

*Annual herb* to 30 cm high. *Stems* with scattered to sparse, antrorse to divaricate simple trichomes. *Leaves* alternate, subsessile; lamina linear, linear-lanceolate or elliptic-ovate, 12–80 mm long, 2–8 mm wide, discolorous, entire or with occasional marginal tooth; venation obscure, with scattered to sparse trichomes; margins recurved, never revolute. *Stipules* linear, 0.8–1 mm long; venation obscure. *Flowers* solitary in leaf axils; peduncle filiform, 3–13 mm long, glabrous or with scattered indumentum; bracts triangular, 0.6–1 mm long, *c.* 0.3 mm wide; pedicels 2–4.5 mm long, with scattered to sparse indumentum. *Sepals* lanceolate-ovate, 2.5–4.5 mm long, 0.8–1.2 mm wide, glabrous or with scattered trichomes. *Corolla* orange; anterior petal spatulate, 10–14 mm long, 5–9.5 mm wide; outer lateral petals linear-oblong, 3–4.2 mm long, 1.3–1.5 mm wide; inner lateral petals lanceolate-falcate, 4–5 mm long, 1.8–2 mm wide. *Filaments* filiform, dimorphous, 3 posterior ones short, 2 anterior ones  $\pm$  equal in length to anthers and with hair-tipped nectaries; *anthers* elliptic-oblong, 0.7–0.8 mm long, *c.* 0.5 mm wide. *Capsule* 5.5–7.5 mm long, 3–6 mm diameter; seeds 5–10, ovoid-ellipsoid, 1.8–2.2 mm long, 1.2–1.4 mm diameter, usually longitudinally ribbed and  $\pm$  pitted between the ribs, yellow.

#### DISTRIBUTION AND CONSERVATION STATUS

Widespread in subcoastal and coastal eastern Australia, from central New South Wales more or less continuously in subcoastal and coastal eastern Australia northward to near Cairns. There are a few apparently disjunct collections on Cape York Peninsula and one collection from southern Papua New Guinea.

The species is very common and not rare or threatened.

#### HABITAT

*H. stellarioides* grows in sandy or rocky soils of various types in eucalypt-dominated open forests from near sea level up to 500 m altitude. Flowering plants are most noticeable in late summer and autumn, with seeding occurring from autumn onwards. In most instances the plants appear annual, as opposed to *H. enneaspermus* which appears to be at least biennial.

#### REPRESENTATIVE SPECIMENS (66 specimens examined)

*Papua New Guinea* — Western Province, Penzara between Morehead and Wassi Kussa Rivers, Dec. 1936, *L.J. Brass 8434* (BRI).

*Queensland* — Cook District, Iron Range, 11 June 1948, *L.J. Brass 19128* (BRI); Northern base Round Mt, Embley Range, 13 June 1992, *P.I. Forster 10458* & *T. Kenning* (BRI); Turtle Beach, Lizard Island, 7 Oct. 1988, *G.N. Batianoff 10341* (BRI). North Kennedy District, Mt Aberdeen National Park, 29 May 1992, *P.I. Forster 10005 et al.* (BRI); “Taravale” near Hell Hole Creek, 22 Mar. 1987, *B.R. Jackes 8711* (BRI). South Kennedy District, Horseshoe Bay, Keswick Island, 36 km NE of Mackay, 26 Mar. 1989, *G.N. Batianoff 11099* (BRI); Peak Downs Highway, 17 km W of Moranbah turnoff, 26 Mar. 1989, *I. Champion 436* (BRI). Leichhardt District, Salvator Rosa National Park, 28 Mar. 1983, *M.E. Ballingall 999* (BRI); Blackdown Tableland, *c.* 32 km SE of Blackwater (campsite on Mimosa Creek), 24 Apr. 1971, *R.J. Henderson 816 et al.* (BRI). Port Curtis District, Dry Creek close to Forcstry Bar-

racks, Kroombit Tops, 64 km SW of Calliope, 16 Dec. 1983, *P.R. Sharpe 3461* (BRI); State Forest 365, 6.5 km SSE of Yarwun, 14 Apr. 1989, *N. Gibson TO1535* (BRI). Burnett District, Mt Margaret, State Forest 28, 28 Apr. 1990, *P.I. Forster 6724* (BRI); 1 km N of Little Morrow Creek crossing, Eidsvold to Cracow road, 9 Apr. 1992, *P.I. Forster 9736 & P. Machin* (BRI). Wide Bay District, Clifton Range, State Forest 676, 11 km N of Brooweena, 3 Apr. 1992, *P.I. Forster 9699* (BRI); Didcot Creek, "Nora Creina", Didcot, 1 Dec. 1981, *P.I. Forster 302B* (BRI). Moreton District, 2 km N of Coolum Beach, 27 Dec. 1975, *P.R. Sharpe 1890* (BRI); Mt Gravatt University Site, Brisbane, 12 Feb. 1968, *R. Henderson H178* (BRI).

*New South Wales* — Eastern spur of Mt Clunie, MacPherson Range, 5 Apr. 1953, *R. Melville 3615 & T. Hunt* (BRI).

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