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***PULTENAEA QUADRICOLOR* J. BLACK
IS A SYNONYM OF *P. LAXIFLORA* BENTH.**

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Abstract

Pultenaea quadricolor J. Black is shown to be a synonym of *P. laxiflora* Benth.

Pultenaea quadricolor J. Black has been regarded as a rare species endemic to the Southern Lofty region of South Australia (Leigh et al., 1981; Weber, 1986). However, it has proved difficult to distinguish from the more widespread and variable *P. laxiflora* Benth. in the field.

Black (1931) in the protologue differentiated *P. quadricolor* from *P. elliptica* Smith, *P. trinervis* J. Black and *P. villifera* Sieber ex DC. var. *glabrescens* J. Black, but appears not to have considered its similarity to *P. laxiflora*. Comparison of the descriptions in Black (1948) yielded 5 characters in which his concepts of these species clearly differed (Table 1).

	<i>P. laxiflora</i>	<i>P. quadricolor</i>
Habit	procumbent	erect
Leaves	linear, c. 0.5 mm wide	linear-lanceolate, 1-2 mm wide
Flowers	forming leafy terminal clusters or solitary and axillary	solitary and axillary
Peduncles	spreading or drooping	erect
Bracteoles	subulate, equal to calyx	lanceolate, almost equal to calyx

Table 1. Comparison of *P. quadricolor* with *P. laxiflora* as circumscribed by Black.

Comparison of all specimens at AD previously referred to *P. quadricolor* and South Australian material of *P. laxiflora* revealed continuous variation in each of these characters and no clear correlation between characters.

The range of variation in *P. laxiflora* was recognised by Williamson (1921), who described the erect, relatively hairy plants with very short peduncles at one extreme of the range as var. *pilosa* and procumbent subglabrous specimens close to the type as var. *procumbens*. These varieties intergrade with typical *P. laxiflora* (Corrick, 1977; Weber, 1986). As the holotype of *P. quadricolor* is within this range of variation in all characters observed, this name is here treated as a synonym of *P. laxiflora*.

The supposed difference in inflorescence between *P. laxiflora* and *P. quadricolor* appears to have arisen because their authors examined flowering branchlets at different stages of development. The first flowers are produced from the resting bud in a short raceme with a vegetative apex, each flower being subtended by a caducous brown-scarious bud scale. These scales are the 'short imbricate bracts' mentioned by Bentham (1864). The apex grows out as a leafy shoot which usually bears further flowers in the axils of unmodified foliage leaves (or, at the first 1 or 2 nodes, of leaves reduced to pairs of stipules); this is the condition observed by Black (1931, 1948).

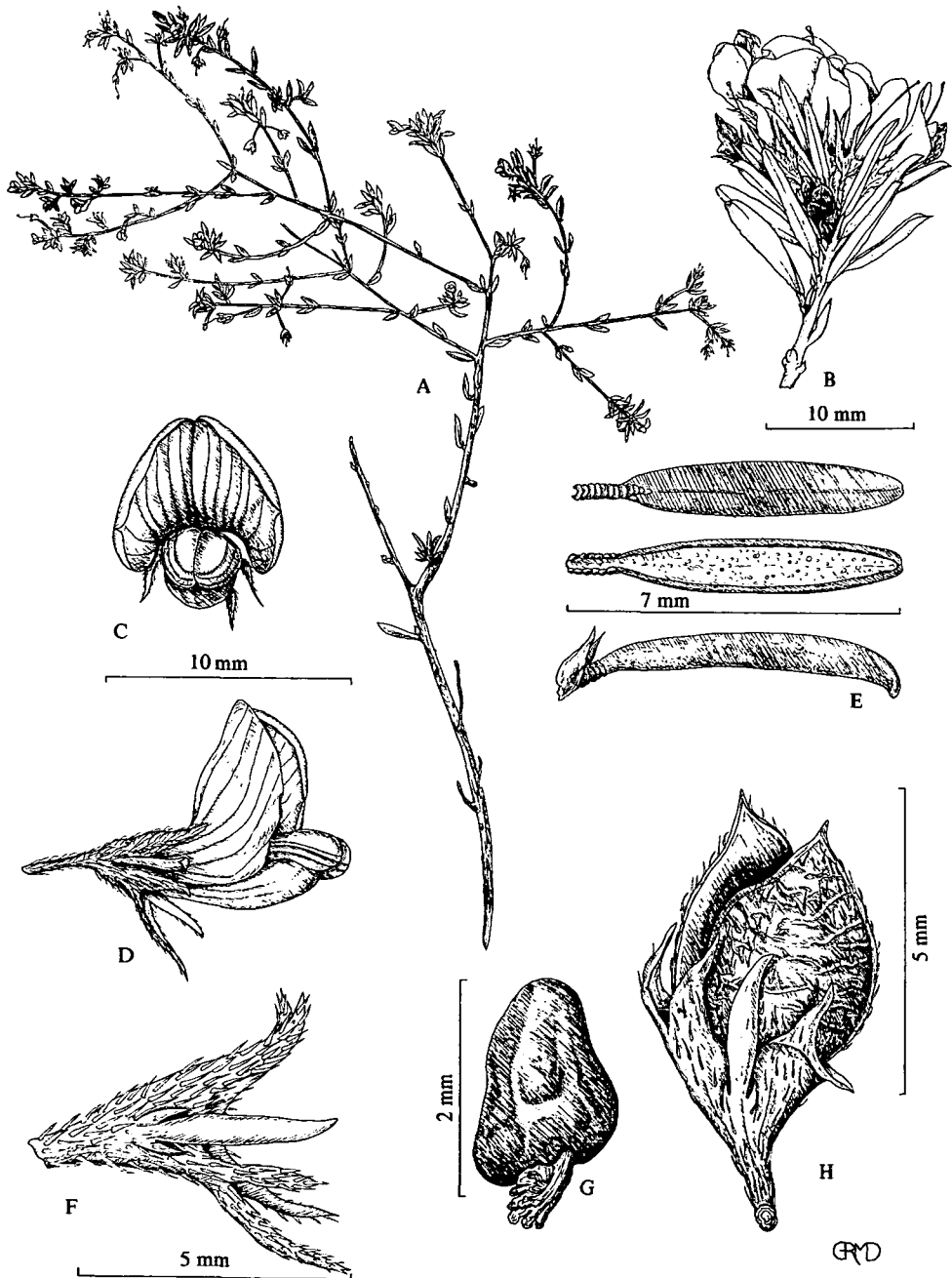


Fig. 1. *Pultenaea laxiflora* Benth. A, habit; B, young inflorescence; C, flower in distal view; D, flower in lateral view; E, leaf in adaxial, abaxial and lateral views; F, flowering calyx with bracteole; G, seed; H, legume with calyx. A, C-H drawn from *R. Davies* s.n. (AD 98421079); B from *Ising* s.n. (AD 96150313).

***Pultenaea laxiflora* Benth., *Fl. Aust.* 2:133 (1864).**

Syntypes: Victoria, near western frontier, *Robertson* (n.v.); Grampians, *F. Mueller* (n.v.); Encounter Bay, *F. Mueller* (n.v.); Onkaparinga River, *F. Mueller* (K, photo!).

Tax. syn.: *Pultenaea quadricolor* J. Black, *Trans. R. Soc. S. Aust.* 55:139 et fig.8 (1931).

Type: Back Valley near Encounter Bay, *J.B. Cleland*, 17.xi.1930 (Holo.: AD 97428180!)

Selected specimens examined (Collections seen: 35)

SOUTH AUSTRALIA: Upper Willow Creek, Waitpinga, *J.B. Cleland s.n.*, 6.i.1940 (AD 966060616); Mylor, *N.N. Donner* 433, 9.xii.1961 (AD 96212111); Upper Sturt Road c. 5 km SW of Mt Lofty, *R. Hill* 1230, 11.xii.1963 (AD 96529160); Glen Shera Swamp, *A.G. Spooner* 6847, 16.xii.1979 (AD 98027177).

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