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).

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


Type: Back Valley near Encounter Bay, J.B. Cleland, 17.xi.1930 (Holotype: 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 962121111); 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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References