

Descriptions

Crassula quadrifaria N.H.G.Jacobsen, sp. nov.

Diagnosis: Differs from *Crassula capitella* in size and habit, the distinct 4-ranked imbricate leaves and pyramidal habit, short internodes, the leaves gradually decreasing in size upwards, with dichasia in the leaf axils, the smaller petal appendage and larger stigma characterising the species.

Description: *Plants* rosulate, biennial to perennial, arising from one or more rosettes up to a height of 35 cm. *Leaves* congested and 4-ranked along the stem (Figure 8), ovate to almost round, flat at the base but horizontal to curved upwards along the stem, flat to slightly canaliculate above and flat to convex below, decreasing gradually in length upwards, imbricate but with internodes becoming visible with age and onset of flowering, glabrous, with hydathodes on both upper and lower surface, apex acute to obtuse, margins with recurved cilia. *Inflorescence* an elongate thyrs, with sessile dichasia subtended by leaves along the upper two-thirds of the stem. *Flowers* 3–7 per cymule, 2.5–3.0 mm long, sessile to pedicillate, tubular but opening slightly on maturity (Figure 9). *Calyx* a third to half the length of flower, lobes triangular to lanceolate, acute, glabrous to sparsely papillose, margins coarsely to sparsely toothed, terminating in 2 or 3 elongate teeth apically. *Petals* translucent to white, green at base and papillose mesially on

underside, erect, oblong with incurved beak and a low casque-like terminal appendage. *Squamae* square to oblong, slightly cuneate and emarginate, translucent yellow to orange-brown. *Carpels* pyriform, styles absent and stigma large to very large, dorsolateral.

Holotype: South Africa, Eastern Cape Prov., farm Kraanvoëlkuil No. 50, Pearston (3225CA), Jacobsen 6624 (PRE).

Distribution and habitat: Occurs on red loamy to clayey soils derived from shale and sandstone within vegetation types AT6, Sundays Thicket, and Nkl 2, Eastern Lower Karoo (Mucina & Rutherford 2006), from Airedale to Pearston. Plants have been recorded in full sun along a road verge with a sparse vegetation cover as well as on rocky slopes in scrub. At Pearston, plants were relatively common, growing within low karroid shrubs. Flowered in cultivation January to February.

Etymology: Named for the 4-ranked leaves typical of the species.

Comments: Two forms appear to be present, one from Airedale (Jacobsen 6715) and the other from Pearston (Jacobsen 6624, holotype). In cultivation, the former plant retained its 4-ranked leaf arrangement for longer than the one from Pearston and developed small branches in the leaf axils. Plants of the latter locality could be confused with *Crassula capitella* subsp. *nodulosa* by the short internodes but differ in the 4-ranked leaf arrangement, in the

glabrous stems and bracts subtending the cymules, and in the small petal appendages.

Crassula quadrifaria is similar in habit to plants from Limpopo Province formerly regarded as a distinct species, *C. enantiophylla* Baker f., which is currently incorporated in the synonymy of *C. capitella* subsp. *nodulosa* (Toelken 1985). However, such plants are geographically separated from those found at Pearston and occupy a different habitat.

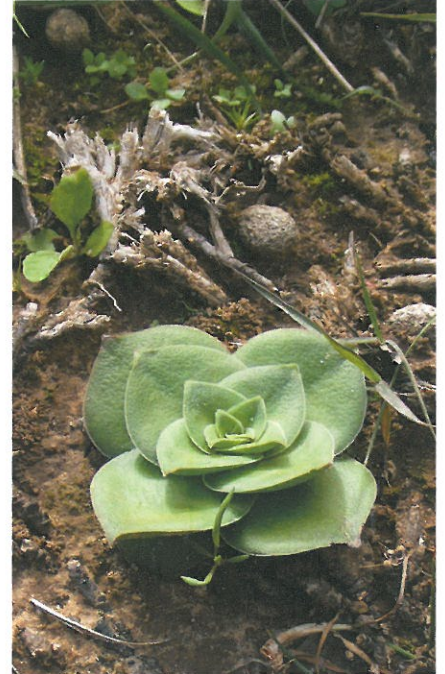


Figure 7. Juvenile plant of *Crassula quadrifaria* from Airedale, Port Elizabeth.



Figure 8. *Crassula quadrifaria* subsp. *quadrifaria* on the farm Kraanvoëlkuil No. 50, Pearston, showing the typical growth form with 4-ranked leaves.

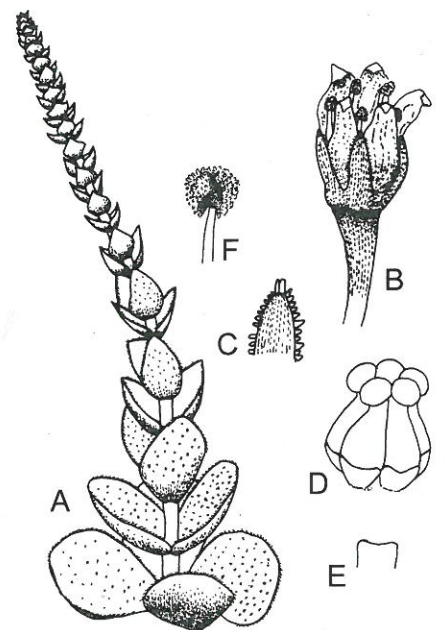


Figure 9. *Crassula quadrifaria* subsp. *quadrifaria* from the farm Kraanvoëlkuil No. 50, Pearston. A. Habit. B. Flower. C. Sepal apex. D. Carpel. E. Nectary. F. Anther. Voucher specimen: Jacobsen 6624.