

A new species of *Pelargonium* (Geraniaceae) from the south-western Cape

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Pelargonium greytonense J.J.A. v.d. Walt is described as a new species and is placed in the section *Pelargonium*. Although well established, it is considered to be a young species which is possibly of hybrid origin. An illustration and distribution map are provided.

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Pelargonium greytonense J.J.A. v.d. Walt word as 'n nuwe spesie beskryf en in die seksie *Pelargonium* geplaas. Alhoewel goed gevestig, word dit as 'n jong spesie beskou wat moontlik deur hibridasie ontstaan het. 'n Illustrasie en verspreidingskaart word voorsien.

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***Pelargonium greytonense* J.J.A. v.d. Walt sp. nov.** characteribus multis floralibus foliaribusque inter hos *P. hermanniifolii* (Berg.) Jacq. et *P. papilionacei* (L.) L'Hérit. interjectis.

Frutex erectus multis ramulis, non aromaticus ad aromaticus. *Lamina* cordiformis, vadosa 3–(5–8) palmatilobata ad palmatipartita, hirtella et pilis longis interspersis. *Pseudo-umbellae* floribus 2–9 unaquaeque. *Flores* albi ad subrosei, petalis tribus anterioribus quam duabis posterioribus multo angustioribus; pedicello relative tenui et quam hypanthio longiore. $2n=22$.

TYPE. — Cape Province, Happy Valley near Greyton, *Esterhuysen* 20755 (BOL, holo.; K; PRE).

An erect, much-branched, non-aromatic to aromatic shrub, up to 1 m high and 0,75 m in diameter. *Stems* herbaceous when young but soon becoming woody, hirtellous and with a few long soft hairs and glandular hairs interspersed, green but becoming greyish-brown with age. *Leaves* hirtellous and with long hairs and many glandular hairs interspersed, green; lamina cordiform in outline, shallowly 3–(5–8) palmatilobate to palmatipartite, conspicuously veined, base cordate, apices of lobes obtuse, margin coarsely dentate, (15)–35–(60) × (20)–40–(70) mm; petiole (20)–50–(80) mm long; stipules cordiform to triangular, apiculate to cuspidate, 4–8 × 4–6 mm. *Inflorescence:* flowering branches with normal and smaller foliar leaves, peduncles 10–70 mm long, hirtellous to hirsute and densely interspersed with glandular hairs; involucre bracts ovate to narrowly ovate, cuspidate, indumentum as on peduncles, 4–8 × 4–5 mm; pseudo-umbels with 2–9 flowers each. *Pedicel* 8–20 mm long, relatively thin, indumentum as on peduncles. *Hypanthium* 3–8 mm long, prominently thickened at the base. *Sepals* 5, lanceolate, cuspidate, indumentum abaxially as on peduncles, green, ca. 12 × 2–4 mm. *Petals* 5, white to pale pink; posterior two spatulate to obovate, apices obtuse, with dark red markings, reflexed at more than 90°, ca. 20 × 8 mm; anterior three narrowly spatulate with short claws, reflexed at less than 90°, ca. 18 × 2–3 mm. *Fertile stamens* 7 (4 long, 1 medium, 2 short), pinkish but becoming progressively paler towards hyaline staminal column; anthers 2,0–2,5 × 1 mm; pollen orange; staminodes 3. *Ovary* ovoid, densely pilose with apically directed hairs, green; style ca. 8 mm long, stigma with 5 recurved branches, purple; mericarps 5, bases 4–5 mm long, tails ca. 20 mm long, plumose (Figure 1).

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Figure 1 *Pelargonium greytonense*. A. Flowering branch; B. Flower without petals; C. Petals; D. Gynoecium; E. Androecium (From Van der Walt 520, cultivated in Stellenbosch).

Diagnostic features: Erect, much-branched, non-aromatic to aromatic shrub. Lamina cordiform, shallowly 3–(5–8) palmatilobate to palmatipartite, hirtellous and with long hairs interspersed. Pseudo-umbels with 2–9 flowers each. Flowers white to pale pink, anterior three petals much narrower than posterior two, pedicel relatively thin and longer than hypanthium. $2n=22$.

P. greytonense flowers between September and January with a peak in October and November.

The epithet *greytonense* refers to the village of Greyton where the species is plentiful.

P. greytonense is apparently confined to the one-degree square which includes the village of Caledon in the south-western Cape. It is common on the southern slopes of the Riviersonderend Mountains where it is often found in ravines. The distribution area receives rain predominantly during the winter months and is frost free owing to its close proximity to the coast. High temperatures are experienced during the dry summer months. Although it has a restricted distribution area, it occurs locally in very large numbers (Figure 2).

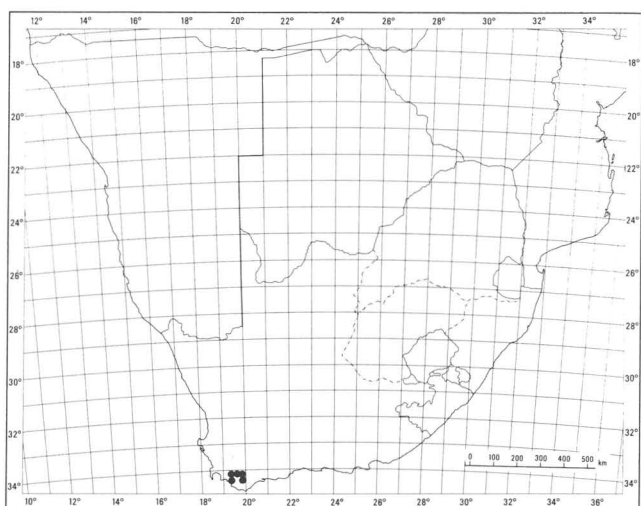


Figure 2 Geographical distribution of *Pelargonium greytonense*.

P. greytonense exhibits considerable morphologic variation, especially of leaf characteristics, leaving the impression of a relatively young species. It is, however, already a well established species producing large quantities of viable seed and it is probably just a matter of time before its dis-

tribution range is expanded.

P. greytonense is probably of hybrid origin with the sympatric *P. hermanniifolium* (Berg.) Jacq. and *P. papilionaceum* (L.) L'Hérit. as possible parent species. Many characters of *P. greytonense*, such as the shape and indumentum of the leaves, are intermediate between these two species. There is also evidence of backcrossing between *P. greytonense* and *P. hermanniifolium*. The habitat requirements of *P. greytonense* are also inbetween those of the two putative parent species: *P. papilionaceum* growing in a rather moist, semi-shaded habitat and *P. hermanniifolium* in drier situations with direct sunlight.

It should be noted that a cytogenetic study did not readily confirm the proposed hybrid origin of *P. greytonense*. *P. hermanniifolium* is a diploid species ($2n=22$) and *P. papilionaceum* a tetraploid species ($2n=44$). One would expect *P. greytonense* to be a triploid species, but it is in fact also a diploid species ($2n=22$) with no meiotic aberrations. This could be explained by the assumption that an original diploid form of *P. papilionaceum* had been involved.

Some herbarium specimens of *P. greytonense* have been determined as *P. semitrilobum* Jacq. No type specimen of *P. semitrilobum* could be traced and the drawing in Jacq., Hort. Schoenbr. 2: t. 130 (1797) should be considered as the iconotype of this species. The shape of the leaves as depicted in the drawing show some resemblance to those of *P. greytonense*. However, the indumentum of the leaves and the shape of the posterior petals in the drawing differ completely from those of *P. greytonense*. I am of the opinion that *P. semitrilobum* is a hybrid, most probably an artificial one.

CAPE PROVINCE. — 3419 (Caledon): Swartberg, Caledon (–AB), Zeyher 2091 (MEL; W); Steenbok River (–AD), Schlechter 9780 (Z); Greyton (–BA), Esterhuysen 20755 (BOL;K;PRE), Van der Walt 708, 801, 1318, 1319 (PRE; STEU); Genadendal (–BA), Van der Walt 1099 (PRE; STEU); Olifantsboskloof near Tygerhoek (–BB), Van der Walt 520 (PRE; STEU); Riviersonderend Mountains (–BB), Leighton s.n. (BOL), Stokoe s.n. (SAM); near Oubos (–BD), Van der Walt 710, 711 (PRE; STEU).

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