Miscellaneous notes on the genus *Pelargonium*

J. J. A. VANDER WALT* and P. J. VORSTER*

**ABSTRACT**

It is pointed out that the name sect. *Pelargonium DC.* must be replaced by sect. *Pelargonium*, and *Pelargonium cardiophyllum* Harv. (1860) by *P. setulosum* Turcz. (1858); *P. mossambicense* Engl. is reported as a new record for the Transvaal; a new name *P. ternifolium* Vorster is given to *P. trifoliatum* Harv., nom. illeg.; and the typification of *P. multifidum* Harv., *P. plurisepticum* Salter, *P. dolomiticum* Knuth and *P. dasyphyllum* E. Mey. ex Knuth is discussed.

**NOTES DIVERSES SUR LE GENRE PELARGONIUM**


**CORRECT NAME OF THE TYPE SECTION OF THE GENUS PELARGONIUM**

The genus *Pelargonium* L'Hérit. was typified** by Van der Walt in J1 S. Afr. Bot. 45: 377 (1979), who chose *P. cucullatum* (L.) L'Hérit. (*Geranium cucullatum* L.) as the lectotype species. The section containing this species was placed as sect. *Pelargium* DC., Prodr. 1: 658 (1824) and this was followed by Harvey in Fl. Cap. 1: 301 (1860), Knuth in Pflanzenr. 4, 129: 455 (1912) and Van der Walt, *Pelargonium*. According to Art. 22 of the Code, this section, containing the type species, must be referred to as *Pelargonium* L'Hérit. sect. *Pelargonium*.

**PELARGONIUM MOSSAMBICENSE ENG.**, NEW TO THE FLORA OF SOUTHERN AFRICA REGION

*Pelargonium mossambicense* Engl., Pflanzenw. Ost.-Afr. C: 225 (1895) has been known up to now from only a few collections on the Zimbabwe side of the mountains bordering Zimbabwe and Mozambique, and from the type collection made at Gorongosa in Mozambique in 1884-1885. It can now be announced that it also occurs in the Transvaal, having been found ca. 1.6 km east of Pilgrim's Rest on the road to Graskop (*Codex 9797* in K!) and at Pilgrim's Rest (*Rogers 23257* in BOL!). These records extend the known distribution of this species southwards by about 700 km. This distribution pattern, with populations widely separated by the broad Limpopo Valley, with small relic populations in the south, is shared by several species, for example the ferns *Pyrrosia schimperana* (Mett.) Alston [cf. Vorster in Bothalia 11: 287 (1974)] and *Selaginella imbricata* (Forssk.) Spring ex Decne. [op cit. 12: 259 (1977)], *Leucospermum saxosum* S. Moore [cf. Rourke in Flower. Pl. Afr. 41: 1633 (1971)] and


**NEW NAME FOR PELARGONIUM TRIFOLIATUM HAYR.**

*Pelargonium ternifolium* Vorster, nom. nov.

*P. trifoliatum* Harv. in Fl. Cap. 1: 271 (1860); Knuth in Pflanzenr. 4, 129: 351 (1912); non Sweet (1926); nec *P. trifoliatum* (Eckl. & Zeyh.) Steud. (1841). Type: 'Cape, Klein Drakenstein, Stell.' (Stellenbosch), *Dige 7497* (K!, L!, PL!, S!, W!).

*P. cardiophyllum* Harv. was described in Fl. Cap. 1: 284 (1860), based on Ecklon & Zeyher 601 and Zeyher 2084. The name was subsequently wrongly upheld by Knuth in Pflanzenr. 4, 129: 389 (1912), who placed the earlier name, *P. setulosum* Turcz. in Bull. Soc. nat. Moscow 31: 422 (1858), based on Zeyher 2084, in synonymy. The latter is the correct name for this species.


Harvey (i.e.) also described a variety *laciniatum*, having the 'leaves 3-lobed, the lobes laciniate and toothed'. However, both undivided and deeply lobed leaves may occur on the same plant and, with our present knowledge of the species, it does not appear justified to recognize the variety as a separate entity.

**PELARGONIUM SETULOSUM TURCZ.**

*P. cardiophyllum* Harv. was described in Fl. Cap. 1: 284 (1860), based on Ecklon & Zeyher 601 and Zeyher 2084. The name was subsequently wrongly upheld by Knuth in Pflanzenr. 4, 129: 389 (1912), who placed the earlier name, *P. setulosum* Turcz. in Bull. Soc. nat. Moscow 31: 422 (1858), based on Zeyher 2084, in synonymy. The latter is the correct name for this species.

*Pelargonium setulosum* Turcz. in Bull. Soc. nat. Moscow 31: 422 (1858). Type: Cape, Klein Drakenstein, Stell.' (Stellenbosch), *Dige 7497* (K!, L!, PL!, S!, W!, WU!, Z!).


*P. cardiophyllum* Harv. in Fl. Cap. 1: 284 (1860); Knuth in Pflanzenr. 4, 129: 389 (1912), syn. nov. Synotypes: Cape, 'Rocky mountain sides, above the Baths, and Baviansberg, Gnadenthal', *Ecklon & Zeyher 601* (S!; SAM!); 'River Zonderende', *Zeyher 2084* (G!; K!; PRE, 2 sheets!; S!; W!; WU!; Z!).

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**Hanks & Small, N. Amer Fl. 25: 23 (1907) also designated a lectotype species for the genus *Pelargonium*, but for reasons explained elsewhere (in press) this is not acceptable.
which has five petals not longer than ca. 9 mm, (with which *P. dolomiticum* is otherwise likely to be confused). In fact, even Knuth in *Pflanzenr.* 4, 129: 401–402 (1912) cited under *P. senecioideae* a number of specimens which undoubtedly are *P. dolomiticum* (*Dinter 976 (SAM!); 662; Fleck 488a; 571a; 821 (all in Z)!).

THE DELIMITATION AND TYPE COLLECTION OF *PELARGONIUM DASYPHYLLUM* E. MEY. EX KNUTH

The name *Pelargonium dasyphyllum* first appeared as a nomen nudum in *Drège's* Zwei pflanzengeographische Dokumente, pp. 60, 90, 91 and 209 (1843). *Harv.* in *Fl. Cap.* 1: 279 (1860) listed the synonymy of *P. crithmifolium* J. E. Sm. Knuth, in *Pflanzenr.* 4, 129: 373 (1912) acknowledged it as a separate entity and validated the name by providing a description and indicating *Drège* 3245 as a type. In addition to the type, Knuth cited several other collections.

Of the material cited by Knuth, we have only been able to trace *Rehmann* 2776 and 2823 (both in Z) and two type sheets. The Rehmann specimens are very poor fragments impossible to identify positively, and were collected in the Hex River Valley, which is far outside the distribution area of *P. dasyphyllum* as indicated by other collections. Of the type sheets, the first, in P, consists of a fragment which appears to be the upper portion of a branch which branched rather profusely, with a dense mass of leaves and a single unbranched peduncle with a three-flowered pseudo-umbel. The second sheet, in PRE, consists of a single short, branched inflorescence branch, and came originally from P. It is not evident that it is a fragment of the specimen in P, so that it must be considered to be a duplicate. While these two fragments are hardly sufficient to provide an image of the species, Knuth's description could have been compiled from them, except for the fruit which is not evident on either of the sheets.

During our investigations of live material, both in the field and in cultivation, we separated a number of specimens of what we consider to be a separate species from *P. alternans* Wendl. These specimens seem to match the description and type of *P. dasyphyllum*.

According to our observations, *P. dasyphyllum* at first glance is morphologically very similar to *P. alternans* and only remotely resembles *P. crithmifolium*. It is, however, readily distinguishable from *P. alternans*, to such an extent that we have no hesitation in recognizing it as a separate species, as set out in Table 1. The branched inflorescence branches are nevertheless reminiscent of *P. crithmifolium*, and probably signify a close relationship to that species.

The length of the pedicel and the hairiness of the leaves are characters which do not locally hold good, but these cannot be used exclusively to distinguish the two species. *P. alternans* occasionally resembles *P. dasyphyllum* in respect of these characters and it is recommended that a combination of characters be used for this purpose.

The type locality of *P. dasyphyllum* was stated by Knuth (*l.c.*) to be 'near the Copper Mountains'. However, neither of the two sheets of the type collection which we have seen, bears that inscription. The sheet in P is labelled 'Camdeboosberg' on a label different from that bearing the number. This is probably wrong, as Camdeboosberg is far outside the
TABLE 1.—Comparison of diagnostic characters of *Pelargonium dasyphyllum* and *P. alternans*

<table>
<thead>
<tr>
<th>Character</th>
<th><em>P. dasyphyllum</em></th>
<th><em>P. alternans</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaves</td>
<td>Lamina setose, petiole microscopically setose</td>
<td>Both lamina and petiole conspicuously hirsute</td>
</tr>
<tr>
<td>Inflorescence</td>
<td>A thin, non-succulent, branched flowering stem, clearly differentiated from the succulent vegetative branches, with a few reduced leaves, flowering stem persistent for some time</td>
<td>A succulent, unbranched peduncle, not clearly differentiated from vegetative branches, not persistent.</td>
</tr>
<tr>
<td>Pedicel</td>
<td>Conspicuous, ( \frac{1}{2} - 4x ) the length of the hypanthium</td>
<td>Inconspicuously short in relation to hypanthium</td>
</tr>
<tr>
<td>Petals</td>
<td>Reflexed at base</td>
<td>Reflexed in middle, especially 2 posterior ones</td>
</tr>
<tr>
<td>Geographical distribution</td>
<td>North-western Cape</td>
<td>Western and inland southern Cape</td>
</tr>
</tbody>
</table>

known geographical range of *P. dasyphyllum*. The sheet in PRE is labelled ‘Zilverfontein’, which is well within the known distribution range of this species. Drege (op. cit.) cited three localities for *P. dasyphyllum*:

1. ‘Camdeboosberg’ (p. 60), which, as explained above, could not have been this species. The numbers cited also did not include the type number.
2. ‘Zilverfontein’ (p. 90) This is well within the known geographical range of this species, but again the cited numbers did not include the type number.
3. ‘Zwischen Zilverfontein, Kooperbergen und Kaus’ (p. 91). No collection numbers were cited, but the description of the locality is not dissimilar to that given by Knuth (l.c.). We therefore conclude that, despite the labels on the type sheets, the correct type locality is probably ‘Between Silverveertfin, Copper Mountain and Kaus’ (about 29½°S, 18°E). We can only guess whether Knuth (l.c.) obtained his information from a now-lost sheet of Drege 3245 or deduced it from Drege (op. cit.).

Attention is drawn to a sheet in S which has the words ‘Zwischen Zilverfontein, Kooperbergen and Kaus’ typed on the label, and the name *Pelargon. dasyphyllum* written on in Meyer’s handwriting. This may well be a duplicate of the type collection, but it lacks the number cited by Knuth. The specimen is a small fragment of poor quality.

ACKNOWLEDGEMENTS

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UITTREKSEL

Daar word op gewys dat die naam seksie Pelargon *DC.* vervang moet word deur seksie Pelargon *en Pelargonium cardiophyllum* Harv. (1860) deur P. setulosum Turcz. (1858); P. mossambicense Engl. word gemeld as ‘n nuwe rekord vir die Transvaal; ‘n nuwe naam *P. ternifolium* Vorster word gegee aan *P. trifoliatum* Harv., nom. illeg.; en die tipififikasie van *P. multifidum* Harv., *P. plurisectum* Salter, *P. dolomiticum* Knuth en *P. dasyphyllum* E. Mey. ex Knuth word bespreek.