

The genus *Drimia* Jacq. comprises over 100 species of mainly deciduous geophytes distributed through Africa into the Mediterranean and Asia, with a marked centre of diversity in southern Africa (Manning *et al.* 2004). It is characterized in the family Hyacinthaceae by its short-lived, caducous flowers, mostly rather inconspicuously coloured dull cream, grey or brownish (Manning *et al.* 2002). The genus is well represented in the southern African winter rainfall zone (Goldblatt & Manning 2000), where the species typically have hysteroanthous leaves, and several new species have been described from the region in recent years (Müller-Doblies *et al.* 2001; Tang & Weiglin 2001; Manning & Goldblatt 2003, 2007).

Within *Drimia* the small group of ± 12 species previously recognized as the genus *Rhadamanthus* Salisb. (Nordenstam 1970; Obermeyer 1980; Snijman *et al.* 1999) is distinguished by their mostly campanulate to urceolate flowers, stamens with very short filaments up to 2.5 mm long, anthers \pm connivent over the ovary and often dehiscing incompletely by apical pores or short slits, and the frequent presence of longitudinal lines of short pubescence on the lower part of the peduncle (Manning *et al.* 2002). Most of the species in the group are endemic to the winter rainfall region of southwestern South Africa and southern Namibia. Sterile plants collected several years ago by botanists Ted and Inge Oliver and which later flowered in cultivation, represent the third species in the group known from southern Namibia. The taxon had been independently collected, again only in leaf, more than a decade earlier by Swedish botanist Bertil Nordenstam, who had recognized it as distinct at the time under the manuscript name *Rhadamanthus monophyllus*, but the plants failed to produce flowers. The distinctive foliage combined with relatively unspecialized flowers are diagnostic for the species, which is named for the Olivers in recognition of their interest in the genus.

***Drimia oliverorum* J.C.Manning, sp. nov.**

Herba bulbosa decidua. *Folium* proteranthum, unicum, \pm patens, ellipticum ad ovatum, longitudine striatum, 15–20 \times 7–10 mm, adaxialiter dense velutinum. *Inflor-escens* erecta scapo basaliter longitudinaliter papillato; racemus laxe 4-florigenus; bracteae calcaratae. *Flores* paulum nutantes, vadosae campanulatae, roseo-albidi costa

atrorosea, inodori; tepala obovata, $\pm 5.0 \times 2.5$ mm, basaliter ± 1 mm connata. *Stamina* perigono ± 0.5 mm adnata, filamenta incurva, laevia, subteretia, 1 mm longa; antherae conniventes, ab apice ad dimidium rimis longitudinalibus dehiscentes, thecae basaliter rotundatae glabraeque, 1.8 mm longae. *Ovarium* ovoideum, 1.8 mm longum; stylus columnaris, 1.8 mm longus.

TYPE.—Namibia, 2716 (Witputz): Huib Hoch Plateau, Zebrasfontein, (–DB), 1 200 m, 29 June 1989 [in leaf only], *E.G.H. Oliver & I.M. Oliver 9164* (NBG, holo.).

Deciduous, bulbous herb. *Bulb* solitary, subglobose, ± 15 mm diam.; outer tunics pale brown, thinly leathery. *Leaf* dry and withered at flowering, solitary, spreading, leathery or subsucculent, base amplexicaul; blade elliptic to ovate, 15–20 \times 7–10 mm, with 2 solitary or paired, depressed longitudinal striations, apically notched or toothed, dark green, densely velutinous adaxially. *Inflor-escens* erect; scape up to 80 mm long, with minute papillae arranged in vertical lines basally; raceme ± 20 mm long, laxly 4-flowered; bracts spurred, 1.5–2.0 mm long, spur 0.5–1.0 mm long. *Flowers* slightly nodding, shallowly campanulate, 1 or 2 open at a time, pinkish white with darker midrib, unscented; tepals obovate, apically penicillate, $\pm 5.0 \times 2.5$ mm, fused basally for ± 1 mm; pedicels patent, 5–7 mm long. *Stamens* adnate to perigone for ± 0.5 mm; filaments incurved, smooth, subterete, 1 mm long; anthers connivent, arching inward and covering ovary, dehiscing by longitudinal slits from apex to halfway, thecae rounded and glabrous basally, 1.8 mm long. *Ovary* ovoid, 1.8 mm long; style columnar, 1.8 mm long. *Capsule and seeds* unknown. *Flowering time*: not recorded, probably October–November. Figure 6.

Distribution and ecology: known from two collections in extreme southern Namibia (Figure 7). At the type locality on the Huib Hoch Plateau, a few, very localized leafing plants were seen growing on loamy flats among numerous dark brown stones in sparse, short, karroid scrub. At the time there were indications of sheep having grazed in the area. On a subsequent visit to the precise locality in July 2006, a thorough search revealed no plants even though the area had received good summer rains with a few areas nearby showing fine patches of flowering annuals and with no signs of grazing having occurred. A plant that subsequently flowered

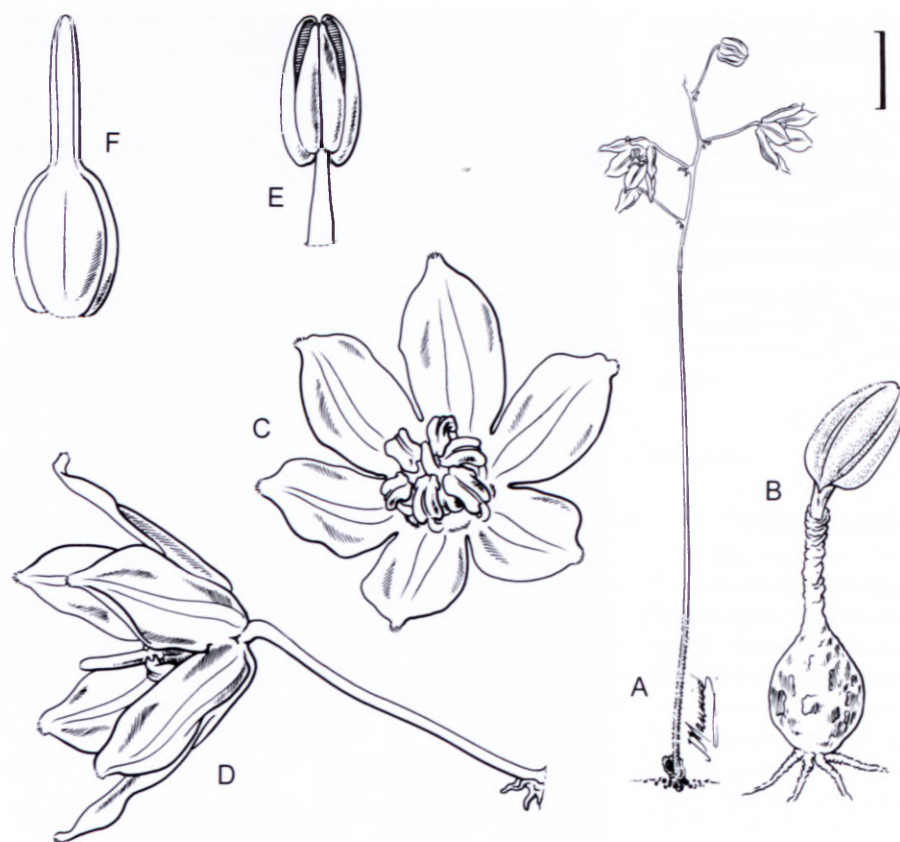


FIGURE 6.—*Drimia oliverorum*, Oliver & Oliver 9164 (NBG). A, inflorescence; B, vegetative plant. C, D, flower: C, front view; D, side view. E, stamen; F, gynoecium. Scale bar: A, B, 10 mm; C, D, 3 mm; E, F, 1 mm. Artist: John Manning.

in cultivation allowed the description and illustrations to be prepared. The second known locality is some 70 km to the west at a somewhat lower altitude near Ai-Ais, where plants were found in gravelly patches on a quartzite ridge.

The Huib Hoch plateau and adjacent highlands in southern Namibia have been identified as the Gariiep Centre of endemism for the Namibian flora (Craven & Vorster 2006). More than 40 species in various families have been recorded as endemic to the centre, including several species of Hyacinthaceae, especially in the genera *Albuca*, *Lachenalia*, *Massonia* and *Ornithogalum*.

Diagnosis and relationships: the \pm nodding, campanulate flowers with very short filaments and connivent anthers dehiscing incompletely from an apical slit, place *Drimia oliverorum* firmly among the *Rhadamanthus* group of *Drimia* (Manning *et al.* 2002). Although unremarkable within the alliance in its flowers, the unusual prostrate leaf with ovate-elliptical, velutinous blade bearing depressed, longitudinal striations, is shared only with *D. platyphylla* (B.Nord.) J.C.Manning & Goldblatt, suggesting a close relationship between the two. *D. platyphylla* is widespread through the western half of South Africa and has also been recorded from central Namibia (Nordenstam 1970). It differs from *D. oliverorum* in its mostly paired leaves, distinctly nodding, urceolate flowers with papillate-puberulous filaments and sagittate anthers with basally diverging thecae barbellate at the base, and in the very short style, distinctly shorter than the ovary. The leaf in *D. oliverorum* is invariably solitary, and the shallowly campanulate flowers are scarcely nodding, with anther thecae parallel and unadorned at the base, and style subequal to the ovary in length.

Specimens of *Drimia platyphylla* with the diagnostic stamens of the species have been recorded through-

out Namaqualand as far north as the Richtersveld but thus far not from southern Namibia. However, all non-flowering plants from the Richtersveld and southern Namibia with the distinctive leaves of this species should be carefully examined in the light of the discovery of the vegetatively similar *D. oliverorum* from southern Namibia.

Additional material examined

Drimia oliverorum

NAMIBIA.—2717 (Chamaite): Warmbad Dist., road junction to Ai-Ais, 11 km from Ai-Ais, (–DC), quartzite ridge with gravel and stones, 27 June 1974, Nordenstam & Lundgren 180 (NBG, S).

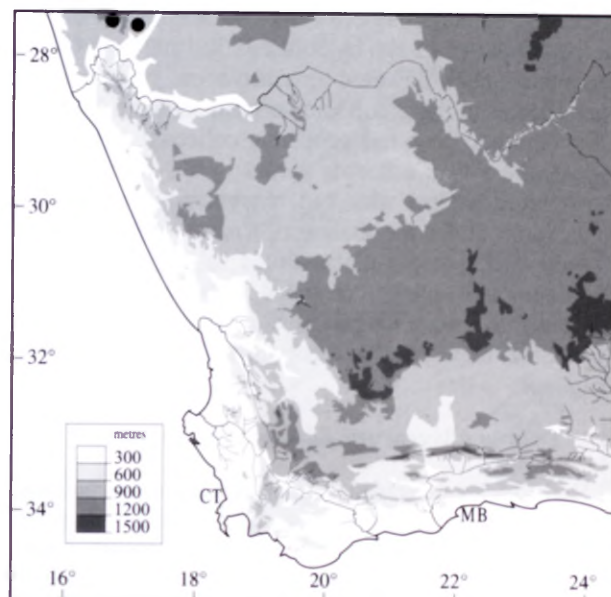


FIGURE 7.—Known distribution of *Drimia oliverorum*.

Drimia platyphylla

NORTHERN CAPE.—2817 (Vioolsdrif): Richtersveld, Dolomite Peaks, (–CA), 10 August 1979, *Perry 1140* (NBG); Richtersveld, Karachabpoort, (–CC), 9 March 1979, *Perry 912* (NBG). 3017 (Hondeklipbaai): 16 miles [25.6 km] SW of Garies, (–DB), 19 August 1970 [cult. January 1972], *H. Hall 3764* (NBG).

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MS. received: 2008–11–10.