

A NEW SUBGENUS *RHADAMANTHOPSIS* AND TWO NEW SPECIES OF *RHADAMANTHUS*

When plants of the two species described below came into flower in the nursery of the Botanical Research Institute, Pretoria, in 1976–77, it was at first uncertain to which genus they belonged.

The two new species differ from typical *Rhadamanthus* only by the locules of the anther, which open loculicidally instead of by apical pores. When Nordenstam revised the genus [Bot. Notiser 123: 155–182 (1970)], he pointed out that in some species, e.g. *R. fasciatus* B. Nord. and *R. albiflorus* B. Nord., the dehiscence is by “apical slits, which eventually proceed down to below the middle of the thecae”. It was decided to place the two, possibly more primitive, new species, in a new subgenus *Rhadamanthopsis*.

Subgen. *Rhadamanthopsis* Oberm., subgenus novum, *Rhadamantho* subgeneri typico affine, sed thecis antherae longitudinalium dehiscentibus differt.

Type species: *Rhadamanthus namibensis* Oberm.

*Rhadamanthus namibensis* Oberm., sp nov., a *R. karoico* Oberm. affinis, sed foliis erectis longioribus et glaucescentibus differt.

Bulbus ovoideus compactus c. 50 mm in diam. tunicis laevis lucidis succulentis; radices crassae. Folia 2–4, hysteraantha erecta linearia c. 140–240 mm longa at 10–20 mm lata glauca firma. Racemus simplex ad 0,5 m altus multiflorus; pedunculus erectus teres; bractee caudatae minora caducae; pedicelli sub anthesi decurvati c. 8 mm longi postea erecta 12 mm longi. Perianthium campanulatum c. 9 mm longum pallide lilacinum nitidum; lobi c. 5 mm longi marginibus transparentibus; basi interiori atrovinosi. Stamina 6 brevia inclusa conniventia ad basin perianthii affixia; antherae introrsae thecis loculis longitudinaliter dehiscentibus. Ovarium oblongo-globosum; ovulae c. 8 prope basin affixae; stylus teres; stigma obtusum. Capsula oblonga c. 8 mm longa; semen oblongum, 5 mm longum nigrum nitidum.

TYPE.—S.W. Africa, 2716 (Witpütz): Witpütz-Suid 1 km S.E. of Police Station (–DA), *Giess 13781* (PRE, holo.; WIND).

Bulb c. 50 mm in diam. with wide white to pale mauve, fleshy scales topped by the persistent, transversely striped leaf-bases, which become white,



FIG. 4.—*Rhadamanthus namibensis*. 1, raceme,  $\times 0,25$ ; 2, bulb and peduncle,  $\times 0,25$ ; 3, bulb with leaves,  $\times 0,25$ . *Giess 13781*. Plate by R. Weber.

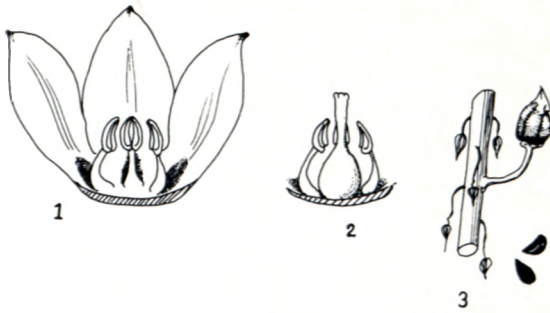


FIG. 5.—*Rhadamanthus namibensis*. 1, 3 perianth lobes and 3 stamens,  $\times 3$ ; 2, gynoecium and 2 stamens,  $\times 3$ ; 3, part of raceme with one capsule, sterile flowers and 2 seeds.

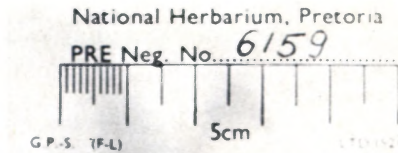


FIG. 6.—*Rhadamanthus karoocicus*. Holotype in leaf. Leg. J. van Zanten sub PRE 45560.

crinkled and dry with age. *Roots* many, swollen. *Leaves* hysteranthous, 2–4 per shoot, erect, linear, c. 150–240 mm long and 15–25 mm broad, canaliculate, firm, glaucous, margin smooth, dying back from the tip. *Raceme* simple, up to 0,70 m tall, many-flowered; peduncle firm, terete, c. 0,4 m long, rhachis about equally long; flowers laxly spaced on rhachis; bracts small, varied, tailed, the lower part pale lilac, somewhat fleshy; pedicels c. 8 mm at anthesis, pendulous in bud, erecto-patent in flower and in fruit, lengthening to 12 mm. *Perianth* campanulate, c. 9 mm long, pale mauve, shiny, with a dark base, the lobes c. 5 mm long with transparent margins. *Stamens* short, erect, connivent around ovary, attached to base of perianth; filaments

1,5 mm long; anthers versatile, dorsifixed near base, introrse, apiculate, the locules opening by longitudinal slits. *Ovary* oblong-globose, 3-locular, placentae basal; ovules c. 8, axile; style terete, shallowly 3-grooved, slightly longer than ovary, gradually thickening towards the obtuse apical stigma, shorter than stamens. *Capsule* narrowly ellipsoid, 5–7 mm long, apiculate, loculicidal; the seed semi-discoid to narrowly obovoid, 4–5 mm long, black, shiny. Figs 4 & 5.

At present the plant has only been recorded from the Witpütz District in southern South West Africa/Namibia. It was previously collected by *De Winter* 6304 in the same locality and flowered in the nursery in November 1960. Later two leaves were produced measuring up to 240 mm long and 25 mm wide. The type flowered in October 1977; capsules with ripe seeds were produced in November; the new leaves emerged in January and reached maturity in March 1978.

***Rhadamanthus karoocicus*** Oberm., spec. nov., a *R. namibensi* affinis, sed minoribus; foliis patentibus minoribus et bulbo ad apicem applanato differt.

*Bulbus* oblongus applanatus, c. 30 mm latus tunicae viridae ad apicem asperatae et siccae; radices tenuiores. *Folia* 4–6 hysteranthia patentia c. 6, tenuiter oblonga c. 40 mm longa et 7 mm brevi atroviridia. *Racemus* simplex c. 0,2 m altus; flores c. 30 cernuis. *Perianthium* campanulatum inflatum c. 6 mm longum pallide lilacinum nitidum. *Stamina* 6 brevia inclusa conniventes ad basin perianthii affixia; antherae introrsae thecis longitudinaliter dehiscentibus. *Ovarium* oblongo-globosum; ovulae c. 8 prope basin affixiae; stylus teres stigma minora. *Capsula* ignota. Figs 6 & 7.

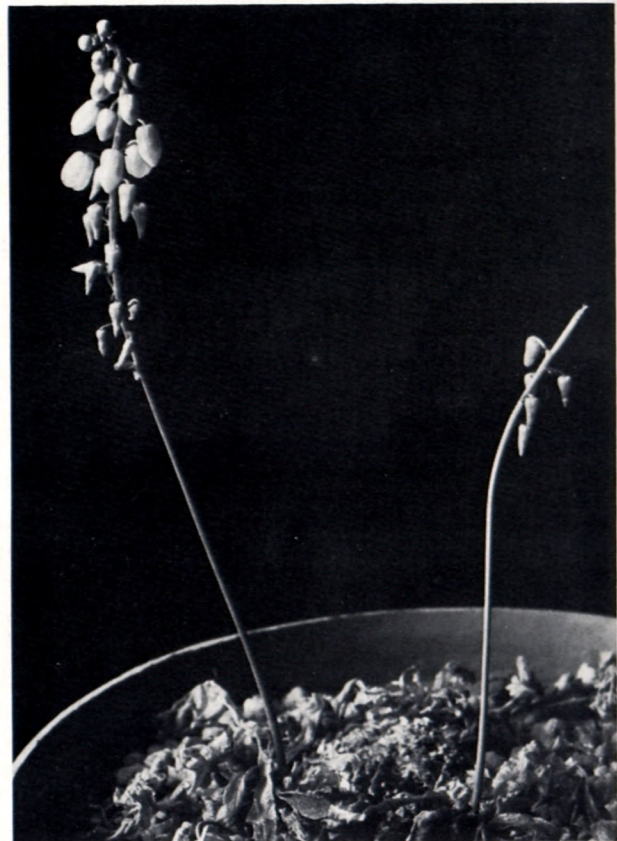


FIG. 7.—*Rhadamanthus karoocicus*. Holotype flowering. Leg. J. van Zanten sub PRE 45560.

TYPE.—Cape, 3320 (Montagu): Laingsburg, Farm Keurfontein (-BB), *J. van Zanten* sub *PRE* 45560 (holo.)

Bulbs forming colonies, oblong, broad and flat above, up to c. 30 mm broad; tunics rough and dry at the apex. smooth and green below; roots fairly thin. *Leaves* spreading, up to 6, arranged in 2-3 opposing pairs, spreading, narrowly oblong, up to 40 mm long, 7 mm broad, glabrous, shiny, dark green. *Raceme* simple, c. 0,2 m tall, erect, bearing c. 30 pendulous flowers; bracts small, caudate, membranous, vinaceous, early caducous; pedicels patent, filiform c. 3-8 mm long. *Perianth* campanulate, c. 6 mm long, swollen, pale lilac, shiny

with a faint green keel. *Stamens* 6, included, connivent, attached to base of perianth; anthers c. 1 mm long, orange, dehiscing introrsely by longitudinal slits. *Ovary* ovoid, pale green, style cylindrical, stigma apical, exserted above stamens but included. *Capsule* unknown.

So far this is the only collection that could be studied both in flower and in leaf. It did not set seed.

A specimen collected by *Bayliss* 6327 at Kaboega in the Somerset East District on 1974-01-06 may belong here, but the flowers were described as pale yellow with an indigo streak. Leaves unknown. Noted to be fairly common.

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