

A new species of *Plectranthus* (Lamiaceae) from Madagascar

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ABSTRACT

Plectranthus rosulatus Hedge, a distinct new species from northeast Madagascar, is described and illustrated. It differs from all other Malagasy species of this large genus in the rosulate habit, the thick-textured oblong-spathulate leaves and the terminal scape-like inflorescence. It grows in moss cushions in rain forest, west of Sambava.

KEY WORDS

Lamiaceae,
Plectranthus,
Madagascar,
new species.

RÉSUMÉ

Une nouvelle espèce de Plectranthus (Lamiaceae) de Madagascar.

Une nouvelle espèce, *Plectranthus rosulatus* Hedge, est décrite du nord-est de Madagascar et illustrée. Très peu récoltée jusqu'à présent, elle se distingue dans le genre par ses feuilles oblongues-spatulées et charnues, disposées en rosette basale, ainsi que par son inflorescence en hampe florale terminale. Elle croît dans les coussins de mousses de la forêt de nuages, à l'ouest de Sambava.

MOTS CLÉS

Lamiaceae,
Plectranthus,
Madagascar,
nouvelle espèce.

INTRODUCTION

In the account of *Plectranthus* L'Hér. in *Flore de Madagascar et des Comores* (HEDGE 1998), 52 species were recognised. Thirty-two of them were described as species new to science; a further four taxa were considered as possibly new, but the material was inadequate. *Plectranthus* is by far the largest and most complex Lamiaceae genus in Madagascar. Because so many of its species are represented by few or very few gatherings, their ranges of variation and distribution are inadequately known. Some species clearly fall within complexes; others are distinct and apparently isolated from all other taxa. The species described

here comes within the latter category. Further exploration throughout the island and new collections will certainly yield more information about the genus and, very likely, expose deficiencies in the Flora account.

Plectranthus rosulatus Hedge, sp. nov.

Species sedis dubiae. Herba perennis pilis paucis multicellularis eglandulosis et glandulis sessilibus. Caules floriferi solitarii, simplices, erecti, c. 15 cm alti. Folia pro maxime parte ad basin caulium conferta, aliquantum rosulatum; lamina crassiuscula, c. 10 × 2.5 cm, oblongo-spathulata, viridis vel rubro-purpurea, margine irregulariter lobato-crenata, subtus valde reticulata, nervis elevatis manifestis; petiolus 2-5 cm, rubro-purpureus,

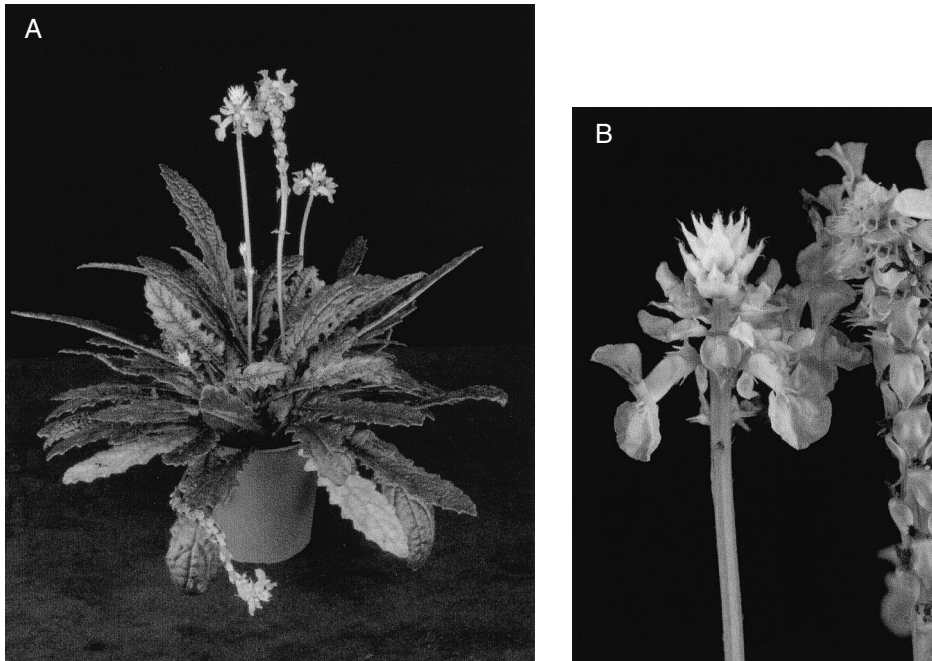


FIG. 1. — *Plectranthus rosulatus* Hedge: **A**, flowering specimen growing at Royal Botanic Garden Edinburgh, spring 2005, leaf lamina c. 8 cm long; **B**, detail of flower head; note on right side the reflexed bracts after flowering, corolla tube c. 6 mm long. Hedge 05/01.

angularis, pilis adpresso-antrorsis praeditus. Inflorescentia terminalis, c. 20-flora. Scapus c. 2 mm crassus viridis glaber 4-angulatus. Bracteeae c. 5 × 4 mm, late ovatae, abrupte acuminatae, plusminusus carnosae, post anthesin reflexae. Verticillastri 4-6-flori. Pedicelli crassi, c. 1 mm. Flores horizontaliter patentes. Calyx florens c. 2 mm longus, glaber vel pilis paucis adpressis, glandulis mellinis sessilibus; labium superius parum decurrens; labium inferius dentibus linearibus c. 1.5 mm. Corolla lilacina, glabra; tubus c. 6 × 2.5 mm, rectus, basi parum gibbosus; labia subaequalia, late patentia; labium inferius late ovatum, c. 7 × 6 mm; labium superius c. 7 × 5 mm maculis atroviolaceis. Stamina breviter exserta; thecae suborbiculares, azurae, initio biloculares. Discus glandulas prominentes ferens. Nuculae ovato-orbiculares.

TYPUS. — Cultivated plants under glass, Royal Botanic Garden Edinburgh. Caespitose perennial with clustered, hard-textured/fleshy basal leaves; flowers pale lilac, flowering almost throughout the year. Specimen from Munich Botanic Garden, originally grown from seed collected in NW Madagascar, c. 50 km west of Sambava, in moss cushions in rain forest, *Mangelsdorff* HC22. Hedge 05/01 (holo-, E).

NOTE ON TYPIFICATION. — Only nutlet-bearing calyces were collected when the taxon was first

seen by Ralph MANGELSDORFF in Madagascar — the plants were not in flower. The type material is of a cultivated plant originally raised by Josef BOGNER, Munich, from this wild origin seed.

A number of vegetative features set *P. rosulatus* apart from all other Madagascar species of the genus, almost all of which are endemic. In particular, the combination of the rosulate habit and the oblong-spathulate thick-textured leaves with very prominent raised venation on the abaxial surface is most characteristic. This type of habit is unusual or rare in the species-rich, multiform *Plectranthus*. There is one example in Africa: *P. acaulis* Brummitt & Seyani from a small area on the Malawi-Zambia border. In it, the large leaves lie flat on the ground and the stems rise from a thick woody rootstock (BRUMMITT & SEYANI 1987: 695, fig. 3). In Madagascar, there is *P. scaposus* Hedge, an acaulous perennial with large almost circular leaves in a rosette. The leaf indumentum in *P. rosulatus* is almost entirely restricted to the leaf margins and veins on the abaxial surface; the hairs are eglandular, multicellular and adpressed.

The inflorescence of the non-aromatic *P. rosulatus* is rather unusual in that it is scape-like with a short condensed terminal head of relatively few horizontally spreading pale lilac-blue flowers; the slightly fleshy bracts persist after anthesis and are reflexed (Fig. 1). The floral structure is essentially similar to many of the Madagascar species: the corolla tube is basally slightly gibbous and the upper and lower lips are sub-equal and widely divergent. In flower, the ovary has four equal maroon lobes that are surrounded and overtopped by an appreciably larger fleshy reddish disk. Whether or not this latter feature is significant is unknown; it may exist throughout the genus but is only obvious in living flowers.

As is true for numerous Madagascar *Plectranthus*, many of which are known only from few collections, it is difficult to suggest with confidence where the affinities of *P. rosulatus* lie. Possibly, *P. scaposus*, mentioned above, also growing from the same general area, is related. As mentioned above, it also has leaves restricted to the base, but these are completely different in size, shape and indumentum. *Plectranthus scaposus* has appreciably larger bracts than the new species, though also persistent, and the corolla tube lacks a basal gibbosity.

The first collection of the new species was made by Ralph MANGELSDORFF (University of Frankfurt) in March–April 1997 when he collected nutlets of an unknown Lamiaceae in northern Madagascar; he visited the same site in March–April 1998. Nutlets were sent on to Josef BOGNER at Munich Botanic Garden who raised flowering specimens in 2000. He, using the *Flore de Madagascar* (HEDGE 1998) account, first recognised that it was possibly a distinct new species. He contacted me at Edinburgh, sent photographs and cuttings for growing at the Royal Botanic Garden Edinburgh and suggested that it should be formally described. In due course, the plants at Edinburgh established themselves and flowered. It proved to be easy to grow under warm greenhouse conditions and flowered freely over long periods. It is visually attractive with potential as a house-plant because of its neat habit, unusual colourful leaves, long-flowering time and bright lilac-blue flowers.

The following description of the locality where *P. rosulatus* grows is based on information from Dr MANGELSDORFF (*in litt.* 2003). “Most of the primary vegetation between Sambava and Andapa is either destroyed or, if still persisting, very inaccessible. Mounting up the road at *c.* 300–400 m, there was a typical lowland rain forest that thinned out towards the steeper areas. Here a deep moss layer covered the ground and most basal parts of the trees. Many terrestrial orchids, such as the rare *Callanthe millotae*, *Gastrochis pulchra* var. *perrieri*, a new species of *Streptocarpus*, *Cynanchum leucanthemum* subsp. *elongatum* and a possible new *Begonia* grew here. The *Plectranthus* was growing in the moss, sometime on stones or on the steep ground. Visiting this area a year later, it was very difficult to re-locate the habitat because heavy logging had completely altered the environment. But at higher altitudes in stony areas which had been spared, most of the interesting plants could be found again”.

Clearly, in common with so many of Madagascar's endemic and localised taxa, the habitat of *P. rosulatus* appears to be seriously threatened.

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