

## Discovery of a New *Cryptopus* (Orchidaceae) Species in Madagascar

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**Abstract:** A new *Cryptopus* species has been discovered in Madagascar. The species is morphologically distinct from the other four species currently placed within the genus *Cryptopus*; as described by Cavestro (2005). The new species is currently known from only one adult plant in Madagascar. Due to its extreme rarity the species can not be officially named at this time. A herbarium collection could not be made since ethically it would threaten the species with extinction therefore there is no type specimen. It is possible that the species occurs elsewhere in Madagascar but has not been found at any other location at this date. Many tiny seedlings are now in cultivation in vitro in cooperation with the Madagascar government and will be officially classified taxonomically when one or more of the seedlings reach sufficient size.

### Description of the genus

Members of the *Cryptopus* genus belong to the subfamily Epidendroideae, tribe Vandae and subtribe Angraecinae orchids, according to Dressler's classification (1993). This small genus, endemic to Madagascar and the Mascarene Islands, was established by John Lindley in 1824. Prior to this discovery there were only 4 species described for the genus. The name is derived from the Greek word *kryptos*, meaning hidden. The flower's stipe and the viscidium are concealed. The *Cryptopus* flower's lip is on the front portion of the opening to the nectar spur. The sepals and petals differ in shape and the spur is short.

*Cryptopus* species are monopodial epiphytes. The stems are either simple or branched, with distichous leaves that are ranked and coriaceous. Inflorescences have one to many flowers, and are racemous or paniculate. The flowers are white, with some of the species displaying red or yellow markings on the lip. The column is green or yellow. Sepals are free. Petals are free and lobed or divided at the apex, somewhat similar to the lip in shape. The lip is three, four or five-lobed. Spurs are short and conical or cylindrical. Column is short and fleshy; rostellum three-lobed; with two pollinia and stipes.

### The new species (fig. 1)

The new species is an endemic epiphyte known from one adult specimen and one possible juvenile in the southeastern rainforest region of Madagascar. The species has up to 13 leaves with long, pendent stems, short internodes up to 1.7cm, roots up to 18cm long, growing lightly attached to the tree trunk. The raceme combined with the roots and leaves forms a pendent plant 60 cm overall in length. Leaves are 2.5-3.0cm

wide by 8.0-9.0cm in length, distichous, coriaceous, entire, retuse, with a bidentate tip. The inflorescence is up to 20cm in length, paniculate, branched and up to 10-flowered. Flowers are in a raceme, individual flowers held on a rachis up to 1.6cm in length with a 2mm bract at the base, tri-lobed lip is white, with greenish-white sepals. Dorsal sepal 1.6cm x 4mm, obovate, spatulate, narrowed at the base; lateral sepals similar but slightly shorter, 1.2cm x 9mm. Petals dolabriform, narrow, linear, 2.2cm long x 7mm wide, slightly reflexed. Lateral sepals are 9mm long, spatulate and green in color. The tri-lobed lip narrows at the base with the lateral lobes at 1.5cm x 6mm much larger than the mid-lobe which is 1.0cm x 4mm wide, the column is hidden, and the anther cap is greenish-white. Spur is 9mm long, directly behind the middle lobe of the labellum and reflexed sharply back. Roots are up to 18 cm long and ageotropic; growing upward and clinging to the moss-covered bark of a *Nuxia* sp. tree. Roots arise from the stem at right angles between the leaves.

### References

- Cavestro, W. 2005. *Oeonia*, *Cryptopus* and *Neobathia*: three angraecoid genera. *Orchid Review* **113**(1261): 34-38.
- Dressler, R. 1993. *Phylogeny and classification of the Orchid Family*. Dioscorides press, Portland, Oregon.



**Fig. 1.** The new *Cryptopus* species