

Vanda longitepala (Orchidaceae): a new species from BurmaD. L. Roberts¹, L. M. Gardiner^{1,2} & Martin Motes³**Summary.** *Vanda longitepala*, a new species of orchid from northern Burma is described and discussed.**Key Words.** Burma, *Orchidaceae*, *Vanda longitepala*, *Vanda* sect. *Cristatae* Lindl.

Vanda sect. *Cristatae* Lindl. is a section of six species from the Himalayas and South East Asia. Garay (1986) proposed a new genus, *Trudelia*, to accommodate two of the species from the section, *Vanda alpina* (Lindl.) Lindl. and *V. griffithii* Lindl., based on the character combination of ringent tepals and spurless labellum, continuous with the column. In the same paper he also described *T. chlorosantha*. Two further species, which Garay (1986) considered difficult to place, *V. cristata* Wall. ex Lindl. and *V. flavobrunnea* Rchb. f. (syn. *V. pumila* Hook. f. — see Roberts *et al.* (2007) for a discussion on this recent name change), previously considered as part of *Vanda* section *Cristatae* were, however, excluded from *Trudelia*. Senghas (1988), however, disagreed with Garay's concept of *Trudelia* and transferred *V. cristata* and *V. flavobrunnea* to the genus based on their greater floral similarity to the *Trudelia* species than to the rest of *Vanda*; *Trudelia* being typified as having a saccate base of the labellum. Christenson (1992) disagreed with both Garay and Senghas's concepts of *Trudelia* and placed *T. chlorosantha* into Lindley's *Vanda* section *Cristatae*, bringing the total number of species in the section to five. A recent molecular study (Gardiner, unpublished) supports the concept of section *Cristatae* rather than Garay and Senghas's genus *Trudelia*. Here we describe a sixth species belonging to the section.

Vanda longitepala D. L. Roberts, L. M. Gardiner & M. Motes **sp. nov.** *Vandae cristatae* Lindl. affinis sed floribus distinctis tepalis longissimis, petalis linearibus acutis et columna ad basin non constricta differt. Typus: Burma, Myitkyina Distr., near "Black Rock", 1200 – 1500 m asl, *Kermode* 17331 (holotypus K!).

Erect herb, up to 60 cm high. Leaves ligulate, arching, unequally apically acutely bilobed, praemorse, up to 70 mm long, 15 mm wide. Inflorescence short, c. 15 mm long, single-flowered; floral bracts sheathing, ovate, 4 mm long. Flowers yellow-green, ringent; pedicel with ovary 25 – 30 mm long. Dorsal sepal narrowly ovate, apex obtuse, 28 – 32 mm long, 5 – 8.5 mm wide. Lateral sepals, subfalcate, acuminate, 27 – 28 mm long, 6 – 7 mm wide. Petals linear, acuminate, 30 – 31 mm long, 3 mm wide. Labellum dark purple striped with yellow, thick, hypochile bilobed, acuminate, epichile rectangular, trilobed at apex, 20 – 21 mm long, 10 – 13 mm wide. Column oblong, entire, not constricted at base, 4 mm long, 3 mm wide; rostellum triangular; anther-cap cucullate, glabrous, 3.5 mm long, 3.0 mm broad; pollinia 2, hard; viscidium, < 1 mm long. Capsule not seen. Fig. 1.

DISTRIBUTION. Burma.**BURMA.** Myitkyina Distr., near "Black Rock", 1200 – 1500 m asl, 6 May 1938 *Kermode* 17331 (holotype K!).**HABITAT.** Unknown; 1200 – 1500 m asl.**CONSERVATION STATUS.** Data Deficient (DD).**ETYMOLOGY.** The specific epithet *longitepala* refers to the extremely long tepals (sepals and petals) relative to other species of *Vanda* sect. *Cristatae*.**NOTES.** While *Vanda longitepala* is clearly related to *V. cristata*, it differs in the extremely long tepals, slender linear and acuminate lateral petals (length to width ratio of 10 compared with < 6 for *V. cristata*), and the lack of a constricted base to the column. This relationship with *V. cristata* is borne out in a recent morphometric study of sect. *Cristatae* which confirmed that *V. longitepala* was closely related to

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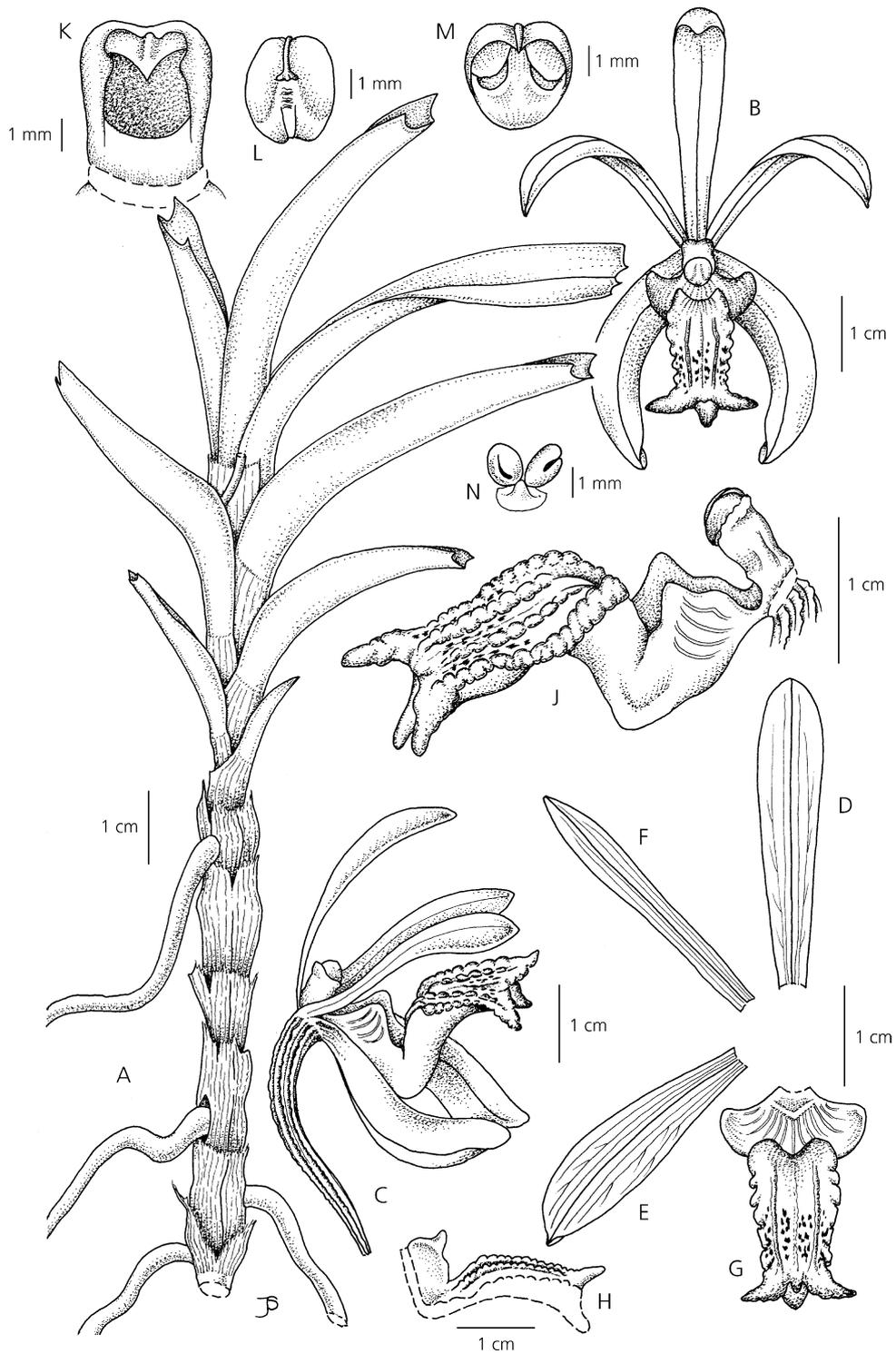


Fig. 1. *Vanda longitepala*. A habit; B flower, front view; C flower, side view; D dorsal sepal; E lateral sepal; F petal; G labellum, view from front; H longitudinal section of labellum; J column and labellum, side view; K column, front view with anther cap removed; L anther cap from above; M anther cap from below; N pollinium. All from the type collection (*Kermode 17331*). DRAWN BY JUDI STONE.

V. cristata (Gardiner *et al.* 2005). Furthermore this study, which examined all six species, recognised three morphometrically distinct species groups based on multiple characters, namely the *V. longitepala/V. cristata* group, the *V. alpina* group containing *V. alpina*, *V. chlomsantha* and *V. griffithii*, and the solitary *V. flavobrunnea*.

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References

- Christenson, E. A. (1992). Notes on Asiatic orchids. *Lindleyana* 7: 88 – 94.
- Garay, L. A. (1986). *Trudelia*, a new name for *Vanda alpina*. *Orchid Digest* 50: 73 – 77.
- Gardiner, L. M., Hawkins, J. A. & Roberts, D. L. (2005). Species delimitation in *Vanda* sect. *Cristatae* Lindl. (*Orchidaceae*): a morphological approach. *Selbyana* 26: 347 – 353.
- Roberts, D. L., Gardiner, L. M. & Motes, M. (2007). *Vanda flavobrunnea*, a new name for *V. pumila*; and two other enigmatic species from the genus *Vanda*. *Orchid Rev.* 116 (1284): 316 – 319.
- Senghas, K. (1988). *Trudelia* Garay. In: R. Schlechter (ed.), *Die Orchideen*, 1 (19 – 20): 1211. Verlag Paul Parey, Berlin & Hamburg.