

MANTISIA WARDII:
A NEW BURMESE SPECIES OF ZINGIBERACEAE

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The genus *Mantisia* was founded by Sims (Bot. Mag. t. 1320: 1810) on living plants which flowered in cultivation in Britain. They had been sent over by W. Roxburgh from Calcutta Botanic Garden, to which he himself had introduced them from Chittagong in 1801. Sims recognized that his new genus was very close to *Globba* but distinguished it by the radically borne inflorescence. Roxburgh was content to include this plant within *Globba* and gave it the name *G. radicalis* in reference to this character.*

Sims' derivation of his name *Mantisia saltatoria* is too vivid to be allowed to fade into oblivion:—

"At the nursery of Messrs. Lee and Kennedy, of Hammersmith, where our drawing was taken in June last, the blossoms have been fancifully compared to dancing opera girls, the yellow nectary making her petticoat, the outer laciniae her blue jacket with lappets, and the filaments with its appendices her arms and neck; the latter to be sure rather disproportionately long. To us it appears to bear some resemblance to the insect called Mantis, whence our name."

The new species now described has the inflorescence borne terminally on a leafy stem. Its inclusion within *Mantisia* does not, however, set a precedent, for both terminal and radical inflorescences occur in other genera of Zingiberaceae, such as *Zingiber*, *Renealmia*, *Costus*, perhaps even in *Globba* itself.

Whether or not *Mantisia* should be upheld is another matter (and one which we do not propose to argue here) for it exhibits but one clear distinction from *Globba*, that is the position and form of the lateral staminodes. Throughout the Zingiberaceae these organs are nearly always present, either as petaloid structures or as small teeth or linear appendages, and have long been regarded as representative of two stamens of the outer whorl. They may be borne on the corolla tube as in *Globba*, adnate to the lip (*Zingiber*), small appendages arising between the base of the lip and filament (*Amomum*, *Alpinia*) or as in *Mantisia* from the filament itself. The latter arrangement is found in at least one other genus, the asiatic *Geocharis*, where the short acuminate staminodes lie just below the anther. This represents the other extreme from *Globba* in which they arise at approximately the same level and are similar in form to the corolla lobes. In *Mantisia* they take the form of either linear-acuminate or spatulate processes arising from the filament above or around the level of the apex of the dorsal petal. We feel therefore that the term 'lateral staminodes', retained here for convenience, should be used with care, but are not in a position to resolve possible problems at present. Both genera are characterised by the extremely long filament—in relation to other parts of the flower—and the manner in

* *Mantisia saltatoria* Sims was published in September 1810. *Globba radicalis* Roxb. (in Asiatick Researches, 11, p. 359) was also published in 1810, but we do not know whether before or after September. Under these circumstances we maintain Sims' name which has always been used for the plant.

which it adheres to the lip. In *Globba*, as described by Holttum (Gard. Bull. Singapore, 13: 21, 1950) and in the few extra-Malayan species we have been able to examine, the labellum and filament are connate for some distance above the point of attachment of the petals thus forming a slender tube. This feature is less pronounced in *Mantisia* where lip, filament and petals become free at approximately the same point.

Horaninov (Monogr. Scit. 1862) and K. Schumann (Pflanzenr. Zingib. 1904) both upheld *Mantisia* on the position of the lateral staminodes and to date only 3 species have been described. *M. spathulata* (Roxb.) Roem. & Schult. (Syst. Veg. Mant. 1: 1822) also cultivated in Calcutta, this time from Silhet, is clearly distinct from the type species in that the staminodes are not narrowly acuminate but spathulate and the lip emarginate rather than distinctly bilobed. In 1931 *M. wengeri* C. E. C. Fischer was described (Kew Bull. 283) from the Lushai Hills of Assam where it grew in association with *M. saltatoria*. Fischer considered it intermediate or possibly a hybrid between *saltatoria* and *spathulata*, florally it resembles the former but the general facies is that of the more elongated *M. spathulata*. *M. wengeri* is described as having an entirely yellow inflorescence, that of the two other species, save for the bright yellow-orange lip is of varying shades of purple.

Apart from the manner in which the inflorescence is borne *M. wardii* is characterised by its auriculate leaves and small awl-shaped anther-appendage which in the 3 other species is reniform.

The species flowered at Edinburgh for the first time in August 1966. It was originally collected by Kingdon Ward in 1956 on his expedition to Mt. Victoria, Burma, and was received by us from Gothenburg Botanic Garden.

***Mantisia wardii* Burt & Smith, species nova** inflorescentia in caule folioso terminali ab speciebus adhuc descriptis distincta. Flore *M. saltatoriae* Sims similis appendiculis antherae subulatis, filamento pallide aurantiaco et staminodiis pallide purpureo-maculatis aureo-apiculatis differt. Fig. 1.

Herba breviter rhizomatosa, radicibus numerosis interdum tuberosis saepe multo ramosis. *Caulis* ad 40 cm altus. *Folia* exteriora vaginas tantum formantia, sursum laminas gradatim majores gerentia; vaginae foliorum superiorum glabrae multicostatae; ligulae semicirculares, 0.5 mm altae, marginibus breviter ciliatis; laminae sessiles, 8-12 × 3-4 cm, apicibus caudato-acuminatis, basibus auriculatis, superne praecipue ad margines parce scabrosae, subtus glabrae pallidiores. *Inflorescentia* caule folioso terminalis; pedunculus in vivo translucens, viridi-purpureus, carnosus, glaber, 2.5-4 cm supra folium supremum exsertus, ramulos floriferos (cincinnos) 12 vel plures bractea suffultos gerens. *Bractae primariae* elliptico-acuminatae, pallide purpureae, carnosulae, 1.5 × 0.5 cm, superiores minores. *Ramuli floriferi* (cincinnati) albi purpureo-suffusi primum c. 4 cm longi demum elongati, flores ad 5. *Bractae secundariae* (floribus oppositae) primariis similes sed minores. *Calyx* tubulosus, pallide purpureus, glaber c. 1 cm longus (ovario infero incluso), apice in lobos 3 subaequales late triangulares (2 × 3 mm) divisus. *Corolla* tubo 1.6-2 cm longo c. 1 mm lato triente superiore gradatim ampliata rubro-purpureo, extra breviter albo-pubescente intus circum orem pubescente e calyce longe exserto et abrupte sursum flexo;

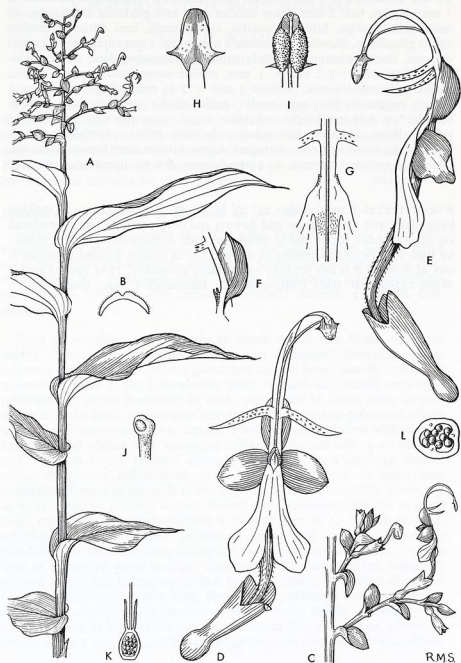


FIG. 1. *Mantisia wardii* Burt & Smith.

A. habit $\times \frac{1}{2}$; B. ligule $\times 4$; C. part of inflorescence $\times 1$; D, E, flower $\times 3$; F. dorsal petal $\times 3$; G. top of corolla tube, dissected; H. anther, posterior view $\times 4$; I. anther, anterior view $\times 4$; J. stigma $\times 9$; K. ovary in L. S. $\times 3$; L. ovary in T. S. $\times 6$.

segmenta lateralialia vinacea, late triangularia, $4\text{--}5 \times 3\text{--}4$ mm; segmentum dorsale naviculare $5\text{--}6$ mm longum basin filamenti amplectens. *Labellum* c. 1 cm longum, basi 2 mm latum sursum ad 6 mm gradatim ampliatur, ad medium bilobatum, lobis rotundatis, aurantiacum, basi auriculis duobus rubris praeditum. *Staminodia lateralialia* 8 mm longa, 3 mm supra basi filamenti orientia, lineari-acuminata, pallide rubro-purpureo-maculata, aureo-apiculata. *Filamentum* $1\cdot5\text{--}2$ cm \times 1 mm, pallide aurantiacum apicem versus pallide purpureo-tinctum. *Anthera* 3 mm \times $2\cdot25$ mm, ad apicem obtusum leviter angustata, purpurea medio pallidi-viridi; appendiculae utrinque singulae*, c. $0\cdot75$ mm longae, subulatae, angulo recto patentem, fere basales; pollen album. *Ovarium* uniloculare, placentis tribus parietalibus pluri-ovulatis. *Stylus* ad antheram attingens; stigma circum orem breviter ciliatum. *Glandulae epigynae* lineares, c. 4 mm longae. *Fructus* immaturus globosus 6–8 mm diam.

BURMA. Erakan-Ranchi Ridge, $21^{\circ} 20' \text{ N}$, $93^{\circ} 57' \text{ E}$, 1800–2100 m; a striking little plant with violet bracts and flowers and deep orange stamen; scattered on open wooded banks and in meadows, with *Hedychium*; does not extend so high as *Hedychium* ceasing at about 2100 m (unless I failed to notice it out of flower); it is not yet fully open; fairly abundant; 17 vi 1956, *Kingdon Ward* 22356 (GB, BM). Cult. in R.B.G. Edinburgh C. 5401 (holo—E).

* In una planta in hort. bot. reg. Kewensi culta appendiculae (teste J. Lewis et J. R. Sealy) absunt.