

# NEW SPECIES OF *MASDEVALLIA* AND A NEW COMBINATION (ORCHIDACEAE), PART VII

CARLYLE A. LUER

Missouri Botanical Garden, 2345 Tower Grove Avenue, St. Louis, Missouri 63166-0299

## ABSTRACT

The following six species of *Masdevallia* represent three sections of the subgenus *Masdevallia*. *Masdevallia adamsii* is difficult to place, but it probably belongs to section *Minutae* as an exception; *M. pachysepala* is a classical member of section *Coriaceae*; *M. trifurcata* belongs to section *Aphanes*; and the final three species belong to section *Masdevallia*; *M. senghasiana* to subsection *Caudatae*, and *M. phacopsis* and *M. soennemarkii* to subsection *Masdevallia*.

***Masdevallia adamsii*** Luer, *sp. nov.* TYPE. BELIZE. Cayo district: below summit of Baldy Beacon, Mountain-pine Ridge, epiphytic in moist, evergreen forest, alt. 1000 m, 22 Apr. 1979, flowered in cultivation 31 Jan. 1980, B. R. Adams 226 (Holotype: K). Fig. 1

Species haec *Masdevallia minutae* Lindl. persimilis, sed petalorum callis longitudinalibus non acutis et labelli apice obtuso eroso-denticulato encrassato cum callo infra conico lato humile difert.

**Plant** small, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 7-9 mm long, enclosed by 2-3 thin, tubular sheaths. **Leaf** erect, coriaceous, narrowly obovate, subacute, 25-45 mm long, 5-6 mm wide, gradually narrowed below to the narrow, indistinctly petiolate base. **Inflorescence** a solitary flower borne by a slender, erect peduncle 2-2.5 cm long, with a bract above the base, from low on the ramicaul; floral bract 4-5 mm long; pedicel 6-7 mm long; ovary 3 mm long; **sepals** white, glabrous, the dorsal sepal oblong, 11 mm long, 2 mm wide, connate to the lateral sepals for 5 mm to form a cylindrical tube, the free portion broad, narrowed into a thickened, terete tail 5 mm long, pale green at the apex, the lateral sepals connate 5 mm into an oblong, bifid synsepal, 11 mm long, 5 mm wide expanded, the apices broad, narrowed into thick, terete tails 4 mm long; **petals** white, oblong, 3.25 mm long, 1 mm wide, the apex minutely apiculate-tridentate, the labellar half

of the middle third, **lip** light yellow, oblong, subpandurate, 3.5 mm long, 1 mm wide, the disc with a pair of low, longitudinal calli above the middle, concave between, with the shallow concavity extending onto the apex; the apex obtuse, minutely denticulate-erose, thickened beneath with a broad, low, conical callus, the base subcordate, hinged on the end to the column-foot; **column** greenish white, semiterete, 2.5 mm long, the foot 1 mm long, with a short, incurved extension.

**ETYMOLOGY** Named in honor of B. R. Adams, of Ipswich, England, who discovered this species.

In appearance, this small species is indistinguishable from *M. minuta* which is widely distributed in South America at relatively low altitudes from the Guianas and along the Amazonian slopes of the Andes from Venezuela into Bolivia. It is not known from north or west of the Andes.

Similar to *M. minuta*, the small, white flowers of *M. adamsii* are produced singly among small, narrow leaves. The sepals are connate nearly half their lengths into a narrow, cylindrical tube, with the free portions contracted into thickened, terete, slightly recurving tails. The petals are also similar to those of *M. minuta*, but the distinctive, pointed callus between the middle and lower thirds is absent. Instead, a low, longitudinal callus courses along the margin of the middle third. The lip is also similar to the lip of *M. minuta*, but the apex is thickened, shallowly concave above and callous

that seen in *M. attenuata* Rchb.f. The margins of the apex are erose.

The occurrence of a disjunct population of a species far removed from its known distribution is infrequent, but not exceedingly rare. In this instance, the distant isolation of a population would be extreme. Coupled with at least two differing morphological features (the absent, pointed callus of the petal, and the conical callous beneath the apex of the lip), the population found in Belize is recognized here as specifically distinct.

**Masdevallia pachysepala** (Rchb.f.) Luer, *stat. nov.* TYPE: COLOMBIA. Old dept. of Ocaña: alt. 7000-8000 ft., 1846-1852, *L. Schlim 410* (Holotype: W; Isotypes: B, G, K, P). Fig. 2.

**Plant** large, epiphytic, caespitose; roots coarse. Ramicauls erect, stout, 3-5 cm long, enclosed by 2-3 loose, tubular sheaths. **Leaf** erect, thickly coriaceous, up to 28 cm long including the petiole 3-5 cm long, the blade oblong, obtuse, up to 4 cm wide, narrowed below into the channeled petiole.

**Inflorescence** a huge, solitary, fleshy flower borne by a stout, erect to suberect peduncle, 8 cm long, with a bract near the base, from low on the ramicaul; floral bract loose, tubular, 3 cm long; pedicel flecked with maroon, stout, 7 cm long; ovary 12 mm long; **sepals** rigidly fleshy, minutely verrucose within, the dorsal sepal pale brown with rose veins, the blade broadly ovate, ca. 30 mm long, 20 mm wide, connate to the lateral sepals for 16 mm into a broad, cylindrical, sepaline tube, the free portion triangular, with the broadly acute apex contracted into a thick, erect, yellow tail ca. 9 cm long, the lateral sepals light brown, suffused with reddish black below the middle but above the base, connate 30 mm into a deeply bifid lamina 35 mm wide, each sepal ovate, oblique, 110 mm long, 15 mm wide at the bifurcation, acute, gradually attenuated to the tip, connate at the base ca. 10 mm to the column-foot to form a mentum; **petals** white with a purple midvein, cartilaginous, elliptical-oblong, subacute, 11 mm long, 5 mm wide, longitudinally thickened on both halves; **lip** dark purple, thick, rigid, oblong-obovate, 14 mm long, 8 mm wide, the disc sulcate, diffusely verrucose, the apex rounded, minutely denticulate, the base subcordate with obscure, nectariferous recesses, hinged on the end; **column** pale yellow with purple margins, semiterete, 9 mm long, the foot thick, equally long, with a short, stout, incurved extension.

BASIONYM. *Masdevallia elephanticeps* var. *pachysepala* Rchb.f., *Bonplandia* 2: 283, 1854.

ETYMOLOGY From Greek *pachysepalon*, "with thick sepals," referring to the fleshy sepals.

Other collections seen: COLOMBIA. Pericos, alt. 7000 ft., *J. Warszewicz s.n.* (W). VENEZUELA. Edo. Táchira: around La Fundacion, Río Quinimari, alt. 1700 m, 16 May 1951, *J. Renz 7022* (personal herbarium of J. Renz); Páramo de Tamá, headwaters of Río Táchira, alt. 2400-2500 m, May 1967, *G. C. K. Dunsterville 57* (SEL).

This huge-flowered species first came to Reichenbach's attention from the preserved flower and painting Reichenbach had received from Wager in 1854, but without a locality. Although obviously related to *M. elephanticeps*, it differed in the broad tails of the lateral sepals that were not deeply connate into a broad synsepal. Reichenbach described it as *M. elephanticeps* var. *pachysepala*, and cited *Schlim 410*, a specimen from Ocaña in the Eastern Cordillera of Colombia as the type.

This species has been confused with *M. elephanticeps* since its discovery *Schlim 410*, the type of var. *pachysepala*, has been identified as *M. elephanticeps* in several herbaria. *Masdevallia pachysepala* occurs rarely in the páramo of westernmost Venezuela and the adjoining páramo of Colombia. Dunsterville's illustration was erroneously identified as *M. mooreana* Rchb.f. in *Venezuelan Orchids Illustrated*.

*Masdevallia pachysepala* is distinguished from *M. elephanticeps* by the deeply bifid synsepal that terminates with broad, long-tapering tails. The free portions are considerably longer than the connate portions. The synsepal of *M. elephanticeps* is deeply connate into a broad, conspicuous lamina that terminates in narrower, shorter tails. The free portions of the lateral sepals are shorter than the connate portions.

**Masdevallia phacopsis** Luer & Dalström, *sp. nov.* TYPE: BOLIVIA. Dept. of Santa Cruz: epiphytic in moist forest near Karahuasi, alt. 2250 m, flowered in cultivation by Sönnemark in Halmstad, Sweden, 13 Aug. 1994, *C. Luer 17237* (Holotype: MO). Fig. 3.

Planta parva caespitosa, pedunculis quam foliis longipetiolatis brevioribus, flore solitari parvo, sepalis gutturalis crassicaudatis, petalis acutis et labello rigido arcuato.

**Plant** small, epiphytic, caespitose; roots slen-