
Eight New Species of *Masdevallia* (Orchidaceae) from South America

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The following eight species described as new in *Masdevallia* represent three of the five subgenera, in seven different subdivisions (Luer, 1986). *Masdevallia anceps* and *M. sertula* are multiflowered, Ecuadorian species of subgenus *Amanda* sect. *Amandae*, and *M. indecora* is a single-flowered, Colombian species in subgenus *Amanda* sect. *Pygmaeae*; in subgenus *Masdevallia* sect. *Masdevallia* are *M. dudleyi* from Peru in subsection *Masdevallia*, *M. eucharis* from Ecuador in subsection *Caudatae*, and *M. rubeola* from Bolivia in subsection *Oscillantes*; the Colombian *M. zapatae* belongs in section *Reichenbachianae* subsect. *Dentatae*; and *M. ximenae* from Ecuador is a member of the small subgenus *Meleagris*.

Masdevallia anceps Luer & Hirtz, sp. nov. TYPE: Ecuador. Napo: epiphytic in forest above La Bonita, 2,000 m, Feb. 1991, A. Hirtz 5148 (holotype, MO), C. Luer illustration 15272. Figure 1.

Species haec *M. abbreviatae* Reichb. f. affinis, sed habitu multiminore et racemo bifloro floribus perparvis differt.

Plant very small, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 10–14 mm long, enclosed by 2–3 thin, tubular sheaths. Leaf erect, thinly coriaceous, long-petiolate, 2.5–4 cm long including the petiole 1–2 cm long, the blade narrowly elliptical, subacute, 3–4 mm wide, the base narrowly cuneate into the slender petiole. Inflorescence a simultaneously 2-flowered raceme, the flowers 1 cm apart, borne by a slender, erect peduncle 2–2.5 cm long, with a bract above the base, from low on the ramicaul; floral bracts inflated, 2.5–3 mm long; pedicels 1.5–2 mm long; ovary 1.5 mm long, with 6 crests; sepals pale yellow with small, red spots, glabrous, the margins minutely erose, the dorsal sepal obovate, concave, 6 mm long, 4 mm wide expanded, connate to the lateral sepals for 2.5 mm to form a sepaline cup, the apex obtuse, contracted into a straight, stout, forward tail 4 mm long, the lateral sepals elliptical, oblique, 5.5 mm long, 1.6 mm wide, connate 2 mm, the bases forming a round mentum below the column-foot, the apices acute,

contracted into stout tails 4 mm long; petals white, oblong, 2.25 mm long, 1.25 mm wide, the apex tridentate, the margins minutely serrate, with a longitudinal carina within the labellar margin; lip white, suffused with purple toward the base, oblong, arcuate, 3 mm long, 1 mm wide unexpanded, the sides rigidly erect, terminating abruptly as a pair of lamellae on the distal third, apex ovate, acute, with undulate margins, the disc superficially channeled, the base subcordate, hinged beneath; column stout, semiterete, 1.5 mm long, with a stout foot 2 mm long.

Etymology. From the Latin *anceps*, “two-headed,” referring to the two-flowered inflorescence.

This species seems most closely related to *M. abbreviata* of southwestern Ecuador. Except for *M. amanda*, it is the first member of the subgenus *Amanda* to be found on the eastern slopes of the Ecuadorian Andes. All the others are known from the western declivities. *Masdevallia amanda* ranges through all three cordilleras of Colombia, another much larger two-flowered species (*M. alvaroi*) occurs in the Central Cordillera of Colombia, and several others occur in northwestern Peru.

Masdevallia anceps is distinguished from *M. abbreviata* and *M. amanda* by the very small habit, and the tiny, distantly two-flowered inflorescence. The shapes of the petals and lips of all these species are very similar except for the smaller size of those of *M. anceps*.

Masdevallia dudleyi Luer, sp. nov. TYPE: Peru. Dept. of Ayacucho: Prov. La Mar, eastern massif of the Cordillera Central opposing the Cordillera Vilcabamba, epiphytic in hepatic forest, along Inca trail between Huanhuachayo and Punccu, 2,920–3,400 m, 23 Aug. 1968, T. R. Dudley 11975 (holotype, MO; isotype, NA), C. Luer illustration 12984. Figure 2.

Species haec *Masdevalliae affinis* Lindley similis, sed petalis angustioribus cum dente basalibus longioribus, et labello apice tricalloso differt.

Plant medium in size, epiphytic, caespitose; roots coarse. Ramicauls erect, slender, 3–4.5 cm long,

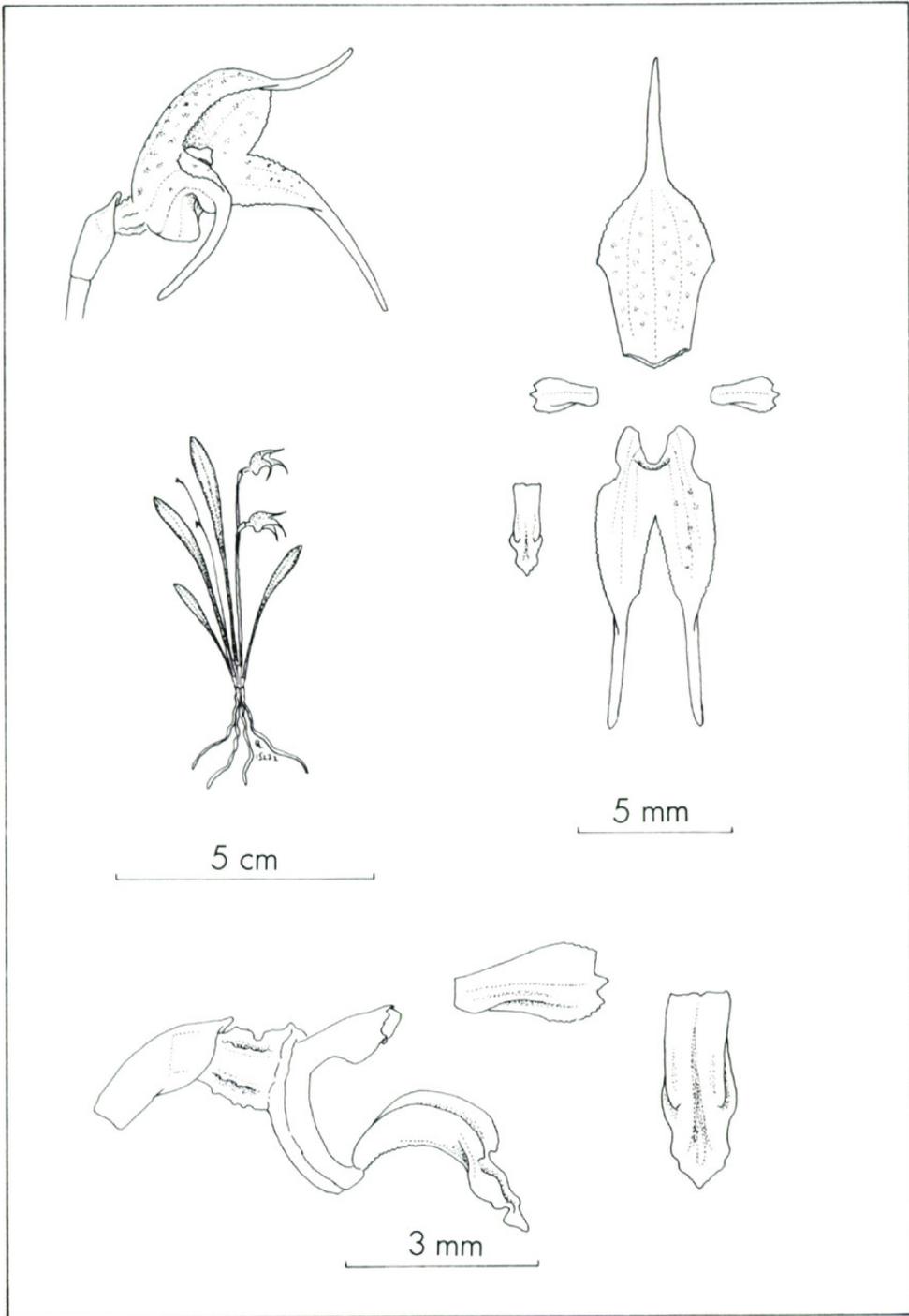


Figure 1. *Masdevallia anceps* Luer & Hirtz.

enclosed by 2–3 inflated, tubular sheaths. Leaf erect, coriaceous, petiolate, 10–17 cm long including the 3–5 cm long petiole, the blade elliptical, acute, 2–2.5 cm wide, cuneate below into the petiole. Inflorescence a solitary showy flower, borne by a slender, erect peduncle 9–11 cm long, with a bract above the base, from low on the ramicaul; floral bract oblique, 10–12 mm long; pedicel 15–20 long; ovary 7 mm long; sepals white, sparsely dotted with purple, suffused with yellow toward the base, pubescent above the middle, the dorsal sepal obovate, concave,

17 mm long, 10 mm wide, connate to the lateral sepals for 11 mm to form a broad, sepaline cup, the apex obtuse, contracted into a slender tail 29–31 mm long, the lateral sepals ovate, oblique, 17 mm long, 10 mm wide, connate 10 mm to create a broad, shallow, secondary mentum and a shallow mentum with the column-foot, the apices obtuse, contracted into slender tails similar to that of the dorsal sepal; petals white, oblong, 8 mm long, 2 mm wide, the apex obtuse, bilobulate, the labellar margin with a narrow callus ending in a retrorse process

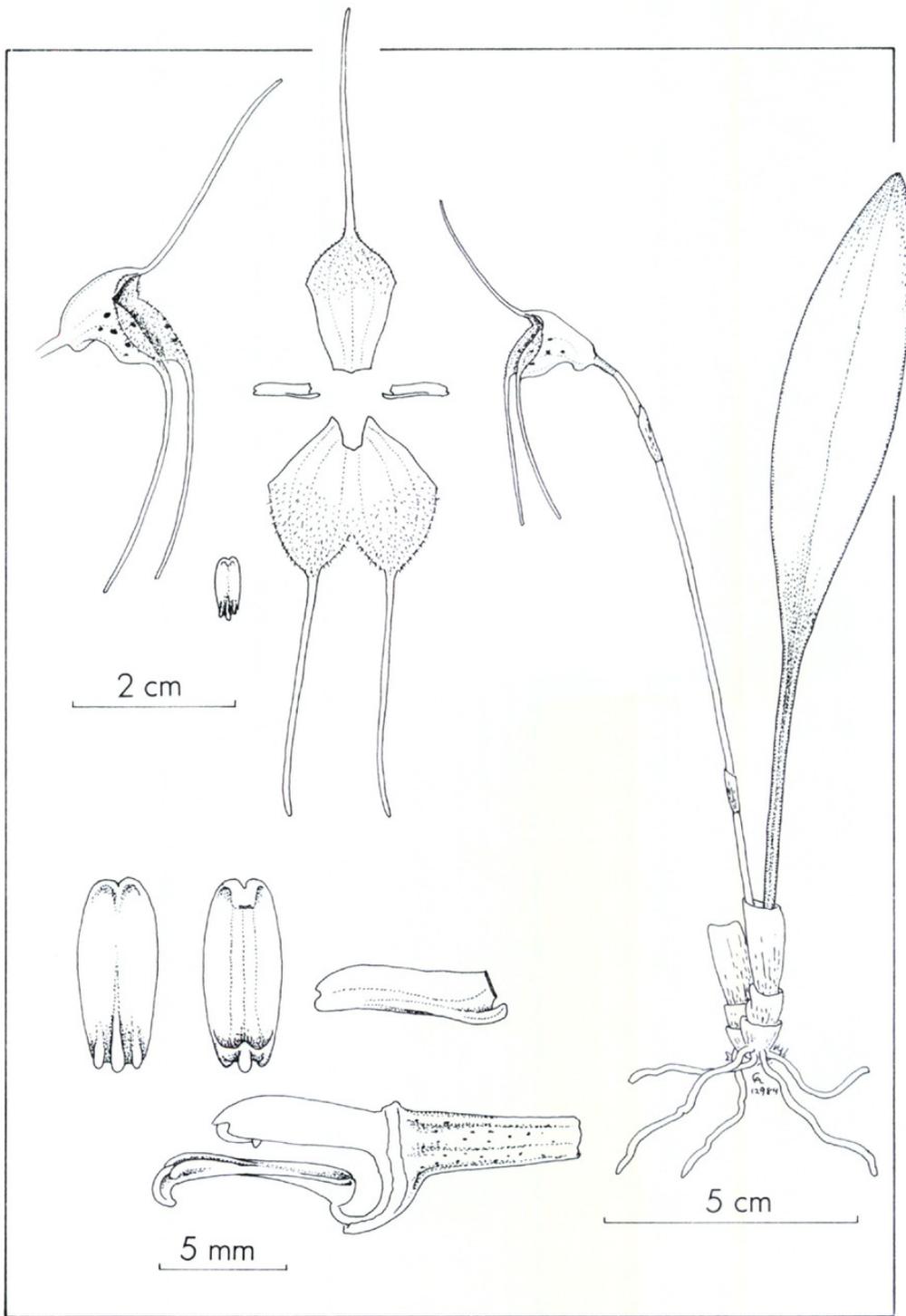


Figure 2. *Masdevallia dudleyi* Luer.

protruding beyond the base; lip oblong, 8 mm long, 3.25 mm wide, the apex broadly rounded, decurved, with three smooth, rounded calli, the disc featureless below the apex, the base subcordate, slightly concave, hinged beneath; column semiterete, 7 mm long, the foot 3.5 mm long, including an incurved extension.

Etymology. Named in honor of T. R. Dudley, who discovered this species.

This species from southern Peru is allied to *M. lepida* Reichb. f. of the Eastern Cordillera of Colombia, and to the widely distributed and variable *M. affinis* from much of the Andes of Colombia and northernmost Ecuador. *Masdevallia affinis* is replaced by prominently purple-striped *M. corde-roana* Lehm. & Kränzlin in Ecuador. The latter has not yet been reported from Peru.

Florally, *M. dudleyi* is most similar to *M. affinis*. The gaping flowers pubescent within are mostly white

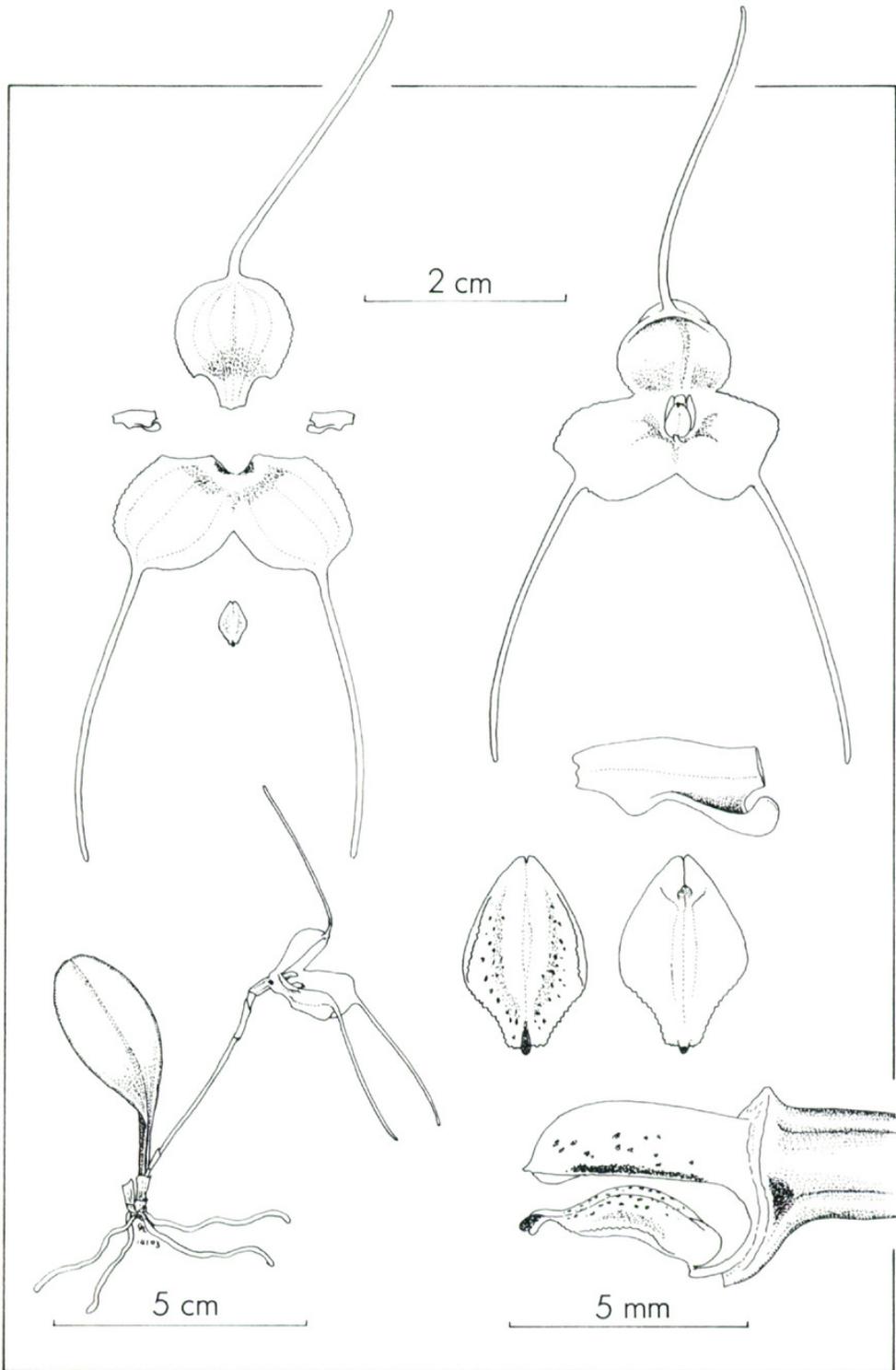


Figure 3. *Masdevallia eucharis* Luer.

with purple dots. From all the above, *M. dudleyi* is distinguished by the narrowly oblong petals with a slender marginal carina terminating in a retrorse process that projects beyond the base of the petal, and the lip that is tricallous at the apex.

Masdevallia eucharis Luer, sp. nov. TYPE: Ecuador. Zamora-Chinchipe: above Yangana, ca.

1,800 m, 1987, obtained from Dennis D'Alessandro, flowered in cultivation at Colomborquídeas, El Retiro, Colombia, 5 Mar. 1989, *C. Luer 14103* (holotype, MO). Figure 3.

Species haec *Masdevalliae bottae* Luer & Andreetta similis, sed sepalis multicoloribus et labello rhombiformi minute eroso differt.

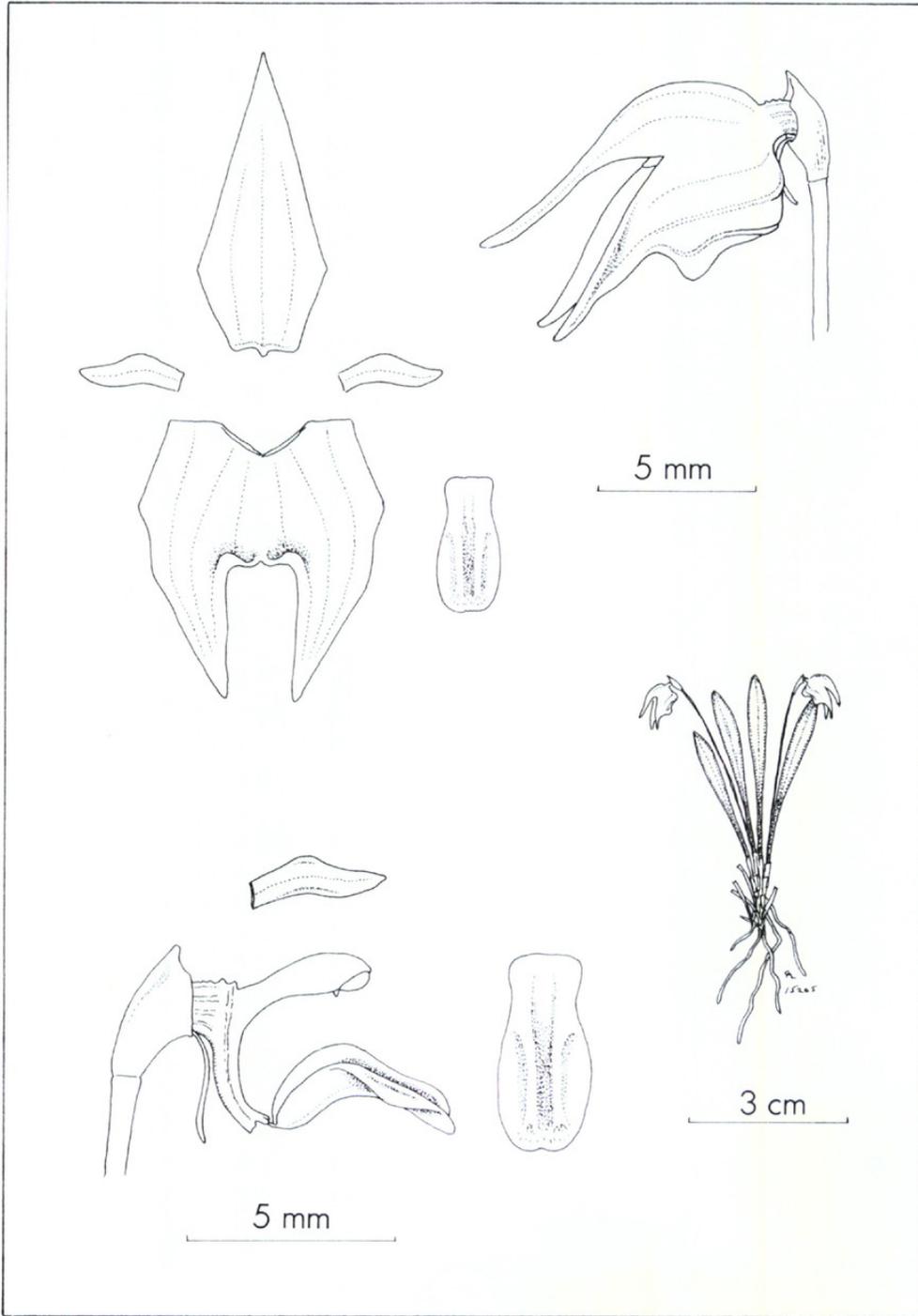


Figure 4. *Masdevallia indecora* Luer & Escobar.

Plant small, epiphytic, caespitose; roots slender. Ramicauls blackish, erect, slender, 1–1.5 cm long, enclosed by 2–3 tubular sheaths. Leaf erect, coriaceous, petiolate, 4–5 cm long including the petiole 1–1.5 cm long, the blade elliptical, obtuse to rounded, 1.7–2.1 cm wide, cuneate below into the petiole. Inflorescence a solitary showy flower, borne by a slender, erect peduncle 25–28 mm long, with a bract above the base, from low on the ramicaul; floral bract tubular, 8 mm long; pedicel 9 mm long; ovary

4 mm long; sepals yellow to peach, suffused below the middle with red-brown, glabrous, the dorsal sepal suborbicular-obovate, concave, 12 mm long, 11 mm wide, connate to the lateral sepals for 5 mm to form a shallow, conical, sepaline cup, the apex rounded, abruptly contracted into a slender tail 29–32 mm long, the lateral sepals suborbicular to broadly ovate, oblique, 14 mm long, 11 mm wide, connate 5 mm to form a transverse lamina, the apices transverse to obtuse, abruptly contracted into slender tails sim-

ilar to that of the dorsal sepal; petals yellow, oblong, 4 mm long, 1.5–2 mm wide, the apex truncate, obscurely trilobulate, the labellar margin with a longitudinal callus with an obtuse angle above the middle, thickened below the middle, ending in a retrorse process protruding beyond the base; lip yellow with purple dots, rhombic, 4 mm long, 2.75 mm wide, with the margins thin, minutely erose, obtusely angled near the middle, the apex narrowly truncate, with a small, red-brown, midline callus, the disc longitudinally thickened centrally, the base narrowly cordate, hinged beneath; column yellow with purple dots and margins, semiterete, 4.5 mm long, the foot 1 mm long, with an incurved extension.

Etymology. From the Greek *eucharis*, “lovely, pleasing,” in allusion to the aspect of the plant.

This species from southern Ecuador is another of the numerous species closely allied to *M. xanthina* Reichb. f. It is closely related to the usually white-flowered *M. bottae*, also from southern Ecuador, but it resembles the Peruvian *M. rufescens* König of subsection *Oscillantes*, which also grows in the area. From the latter two *M. eucharis* is distinguished by the peach and red-brown suffused sepals, and a rhombic lip with thin, minutely erose, obtusely angled margins, and with the disc longitudinally callous. Some clones of *M. bottae*, a species characterized by a subquadrate lip, are similarly colored.

The “diamond-shaped” lip of *M. eucharis* is reminiscent of the lip seen in subsection *Oscillantes*. If it were not for the petals with the thick, incurved, basal process, this species might be considered to belong in subsection *Oscillantes*.

Masdevallia indecora Luer & Escobar, sp. nov.

TYPE: Colombia. Antioquia: Munic. of Jardín, epiphytic in forest near Cinfuentes, 2,600 m, collected by M. Zapata, flowered in cultivation at Colomborquídeas, 24 Mar. 1991, *C. Luer* 15265 (holotype, JAUM; isotype, MO). Figure 4.

Species haec *Masdevalliae anachaetae* Reichb. f. affinis sed ovario minime spiculato, sepalis ecaudatis, petalis sine dente basali et labello alte bicarinato differt.

Plant very small, epiphytic, \pm ascending, caespitose; roots slender. Ramicauls erect, slender, 7–10 mm long, enclosed by 2–3 tubular sheaths. Leaf erect, coriaceous, narrowly elliptical to obovate, acute to subacute, 20–30 mm long, 3–4 mm wide, gradually narrowed below into the subpetiolate base. Inflorescence a single, \pm downward-facing flower borne by a slender, erect peduncle 30–35 mm long, with a bract above the base, from low on the ram-

icaul; floral bract oblique, 3.5 mm long; pedicel 2 mm long, with an equally long filament; ovary 1.5 mm long, carinate, the carinae minimally denticulate; sepals yellow, suffused with red-brown, glabrous, the dorsal sepal ovate, concave, 9.5 mm long, 4.5 mm wide, connate to the lateral sepals for 3 mm to form a broad, cylindrical tube, the apex acute, the lateral sepals ovate, oblique, 10 mm long, 4 mm wide, connate 3.5 mm to create a prominent secondary mentum and a deep primary mentum with the column-foot, the free portions triangular, acute; petals white, membranous, obliquely oblong, 3.5 mm long, 0.8 mm wide, the apex acute, the labellar margin very slightly thickened, the upper margin obtusely angled near the middle; lip yellow-brown, oblong, 4.5 mm long, 2 mm wide, the apex broadly rounded, the disc channeled between a pair of longitudinal carinae, the base subtruncate, hinged beneath; column semiterete, 3.5 mm long, the foot 3 mm long, with a short, incurved extension.

Etymology. From the Latin *indecorus*, “not beautiful,” in allusion to the flower.

This species of section *Pygmaeae* subg. *Amanda* is most closely allied to *M. anachaeta*. In habit it resembles *M. anachaeta* with a small, nodding flower, but the sepals are acute without forming tails. The characteristic tooth at the base of the petals of *M. anachaeta* is lacking, and the lip is tall-bicarinate.

Masdevallia rubeola Luer & Vásquez, sp. nov.

TYPE: Bolivia. La Paz: Prov. of Nor Yungas, epiphytic in forest north of Caranavi, 1,550 m, collected 26 Jan. 1988 by R. Vásquez, C. Luer, et al., flowered in cultivation by P. and A. Jesup in Bristol, Connecticut, Aug. 1988, *C. Luer* 15265 (holotype, MO). Figure 5.

Species haec *Masdevalliae ortalis* Luer affinis sed sepalis rufoguttatis, et petalis minutis margine inferiore supra medium dilatato differt.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls blackish, erect, slender, 0.5–1.5 cm long, enclosed by 2–3 tubular sheaths. Leaf erect, coriaceous, dark green, mottled with black beneath, 5–9 cm long including the petiole 2–3 cm long, the blade elliptical-obovate, subacute to acute, 1.5–2 cm wide, cuneate below into the blackish petiole. Inflorescence a single, \pm downward-facing flower, borne by a slender, suberect to subhorizontal peduncle 3–4 cm long, with a bract above the base, from low on the ramicaul; floral bract tubular, 6 mm long; pedicel 11 mm long; ovary 6 mm long; sepals yellow, diffusely dotted with red-brown, glabrous, the dorsal sepal broadly ovate to suborbicular,

concave, 13 mm long, 11 mm wide, connate to the lateral sepals for 3.5 mm to form a shallow, gaping sepaline cup, the apex rounded, abruptly contracted into an acutely reflexed tail 20 mm long, the lateral sepals suborbicular, oblique, 14 mm long, connate 8 mm to create a transverse lamina 20 mm wide, the apices rounded, abruptly contracted into deflexed tails 15 mm long; petals yellow, obliquely oblong-obovate, 2 mm long, 1 mm wide, the apex obtuse, obscurely bilobed, the labellar margin prominently and broadly dilated above the middle, with a minute tooth above the base; lip yellow, dotted with brown, trilobed, 3 mm long, 1.5 mm wide across the middle lobes, narrowed in the distal third with the obtuse apex callous and acutely revolute, the lateral lobes thin, obtuse, expanded at the middle, the basal third narrow, thickened, convex, concave beneath, immovably attached to the column-foot; column semiterete, 3.5 mm long, the foot 1 mm long.

Etymology. From the Latin *rubeola*, "measles," in allusion to the multiple red spots on the sepals.

This species of subsection *Oscillantes* is most closely allied to the Peruvian *M. ortalis* but is also closely allied to *M. rodolfoi* (Braas) Luer. The leaves are dark green, mottled with black on the back surface, and with black stems. The flower, more or less facing downward, is yellow and diffusely dotted with red-brown. The lip is basically similar in all three species, but smaller in *M. rubeola*. The petals of *M. rubeola* are only one-fourth the size (half the dimensions) of the petals of the other two, and the lower margin is widely dilated above the middle instead of with an acute process.

***Masdevallia sertula* Luer & Andreetta, sp. nov.**

TYPE: Ecuador. Cañar: above Molleturo, ca. 2,800 m, collected by A. Andreetta, flowered in cultivation at Paute, *A. Hirtz 5037* (holotype, MO), C. Luer illustration 15271. Figure 6.

Inter species subgeneris *Amandae*, inflorescentia congesta coronanti floribus magnis cum caudis crassis deflexis, petalis maculatis apiculatis serrulatis, et labello parvo oblongo-subpandurato cum lateribus et apice decurvis distinguitur.

Plant medium in size, epiphytic, caespitose; roots coarse. Ramicauls rather stout, erect, 2–2.5 cm long, enclosed by 2–3 thin, tubular sheaths. Leaf erect, coriaceous, petiolate, 10–13 cm long including the petiole 3–4 cm long, the blade elliptical, obtuse, 2 cm wide, the base cuneate into the slender petiole. Inflorescence a congested, simultaneously several-flowered raceme, ca. 1 cm long, borne by

an erect peduncle 14–16 cm long, with 2 bracts spaced along the length, from low on the ramicaul; floral bracts inflated, 6–7 mm long; pedicels 3–4 mm long; ovary 3–4 mm long, with 6 crests; sepals orange with diffuse, minute, purple dots, \pm coalescing into bars below the middle, the margins microscopically erose, with orange hairs within the margins easily shed, becoming glabrous, the dorsal sepal elliptical, concave, 15 mm long, 9 mm wide unexpanded, connate to the lateral sepals for 6 mm to form a nongaping cup, the apex obtuse, contracted into a straight, stout, downward-pointed tail 18–19 mm long, the lateral sepals elliptical, oblique, subacute, 14 mm long, 5 mm wide, connate 4 mm, the bases forming a round mentum below the column-foot, deflexed at the apices where contracted into stout tails 15 mm long; petals white with numerous dark purple dots, oblong, 4 mm long, 1.5 mm wide, the apex truncate, apiculate, the margins minutely serrate, with a longitudinal carina within the labellar margin; lip white, suffused with purple above the middle, oblong-subpandurate, 3.75 mm long, 1.4 mm wide, the apex rounded with deflexed margins of the sides and apex deflexed, the disc superficially channeled between ill-defined marginal folds above the middle, the base subcordate, hinged beneath; column green with purple dots, stout, semiterete, 3.5 mm long, with an equally long, stout column-foot.

Etymology. From the Latin *sertula*, "a little wreath or a crown," referring to the appearance of the inflorescence.

This species is closely related to *M. ova-avis* Luer and *M. tridens* Reichb. f. All three species are characterized by several relatively large flowers borne simultaneously in a congested raceme, the flowers arranged in a more or less circular, horizontal plane. *Masdevallia sertula* is distinguished from them by the orange color of the flowers with minute, purple dots. The dots are similar to those on the bluish sepals of *M. ova-avis*. The flowers of the unspotted *M. tridens* are smaller than those of the other two.

Instead of slender, the sepaline tails of *M. sertula* are thick, the laterals deflexed at their junction with the blades. The petals of all three species are similar in shape, those of *M. ova-avis* and *M. sertula* similarly diffusely dotted. The configuration of the lip of *M. sertula* is similar to that of *M. tridens*, with the margins deflexed, but the lip of the larger-flowered *M. sertula* is proportionately smaller than that of the other two.

***Masdevallia ximenae* Luer & Hirtz, sp. nov.**

TYPE: Ecuador. Bolívar: epiphytic in wet for-

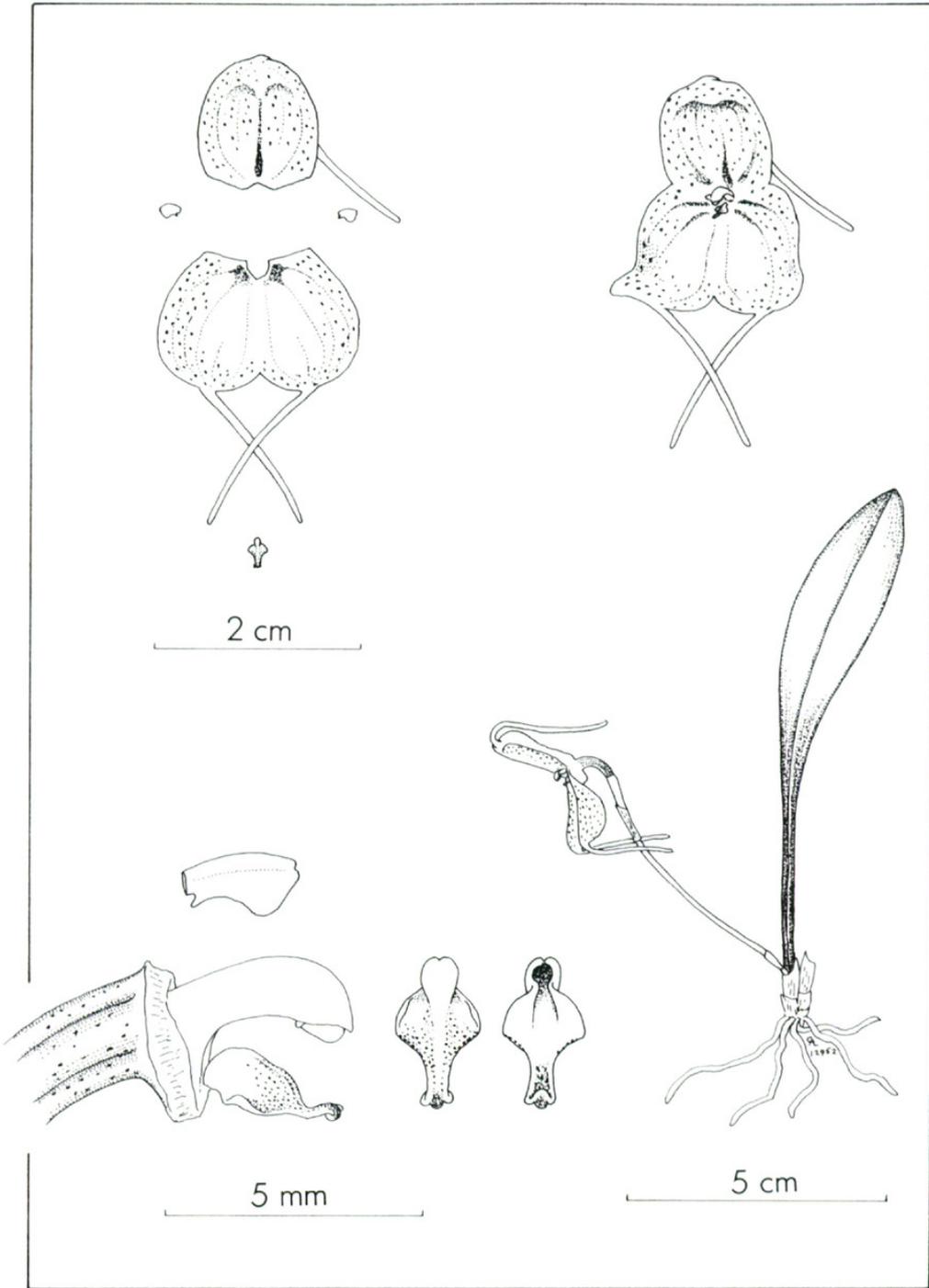


Figure 5. *Masdevallia rubeola* Luer & Vásquez.

est, 1,250 m, W of Salinas and La Palma, 10 Mar. 1991, C. Luer, J. Luer, A. Hirtz, X. Hirtz, J. del Hierro, M. Evans, M. & F. Navarro 14970 (holotype, MO; isotypes, K, QCNE). Figure 7.

Inter species subgeneris *Meleagridis*, sepalo dorsali ovato concavo glabro cum maculis latis transversis marginalibus et petalis cum callo basali rotundato distinguitur.

Plant small, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 1–1.5 cm long, enclosed

by 2–3 thin, tubular sheaths. Leaf erect, thinly coriaceous, petiolate, 4–9 cm long including the petiole 1.5–3 cm long, the blade elliptical, acute, 1–2 cm wide, the base cuneate into the slender, channeled petiole. Inflorescence a congested, successively few-flowered raceme, borne by a slender, erect peduncle 5–9 cm long, with a bract near the middle, embraced below by the conduplicate base of the leaf, from low on the ramicaul; floral bracts thin, tubular, imbricating, 5–6 mm long; pedicel 7 mm long; ovary 1.5–2 mm long; sepals glabrous,

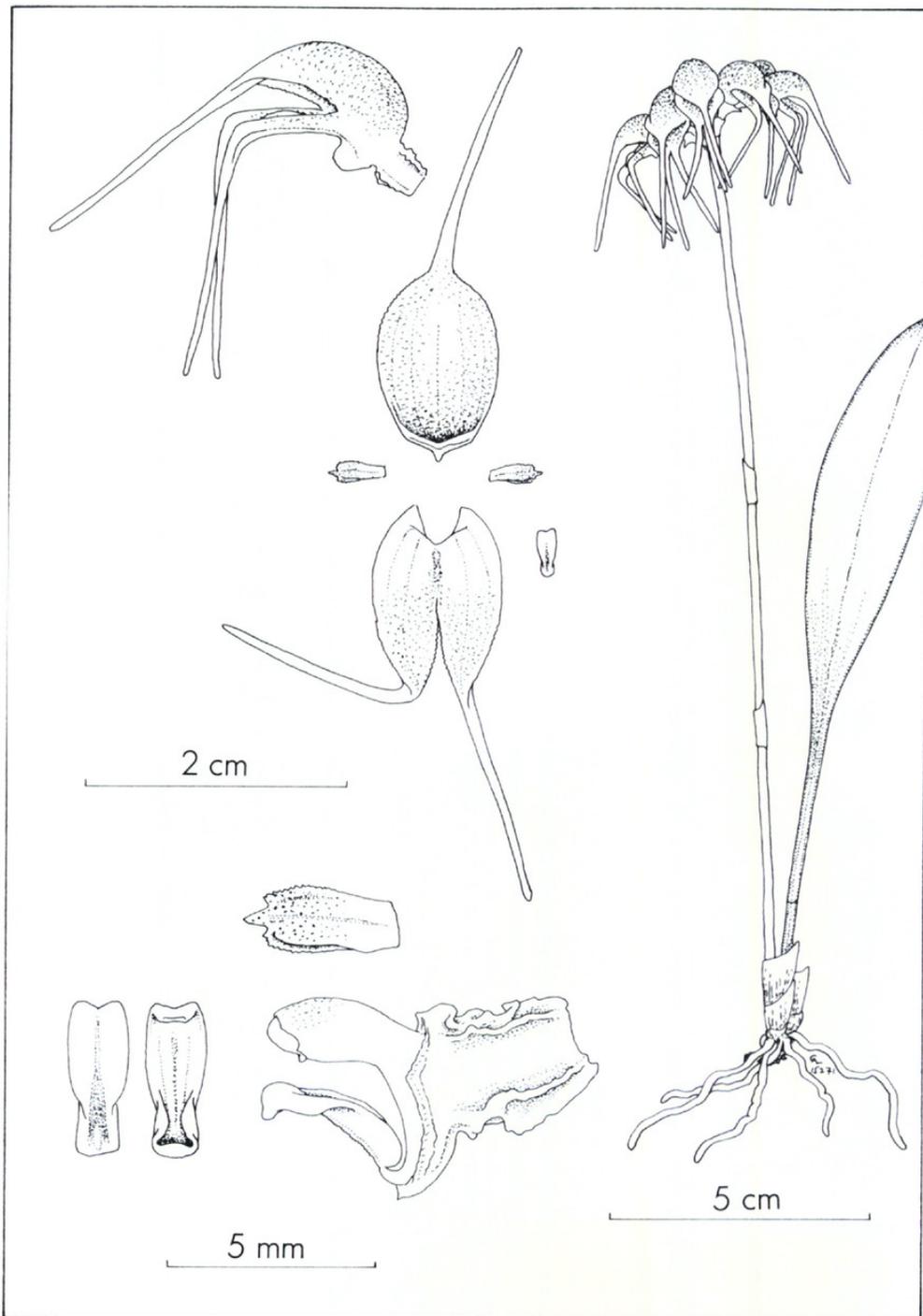


Figure 6. *Masdevallia sertula* Luer & Andreetta.

the dorsal sepal yellow with brown, marginal bars, ovate, concave, 7 mm long, 5.5 mm wide, connate to the lateral sepals for 1 mm to form a gaping, shallow cup, the apex obtuse, contracted into a slender (slightly thickened in the middle portion), reflexed, brown-spotted tail ca. 12 mm long, the lateral sepals red-brown with obscure brown, marginal bars, oblong, 9 mm long, 3 mm wide, essentially free but connate to the column-foot to form a round mentum, then deflexed, the apices subacute, contracted into slender, brown-spotted tails ca. 11 mm long; petals

orange with a few red dots, oblong, 3.5 mm long, 1.25 mm wide, the apex shortly apiculate, the labellar margin with a longitudinal carina ending in a rounded callus at the base; lip red, flecked with darker red, oblong-subpandurate, arcuate, 3.5 mm long, 2 mm wide, the apex rounded, reflexed, the disc with a low, midline callus ending at the apex, the base subcordate, thinly hinged beneath the thickened base to the under margin of the apex of the column-foot; column yellow, semiterete, 3 mm long, with an equally long, curved column-foot.

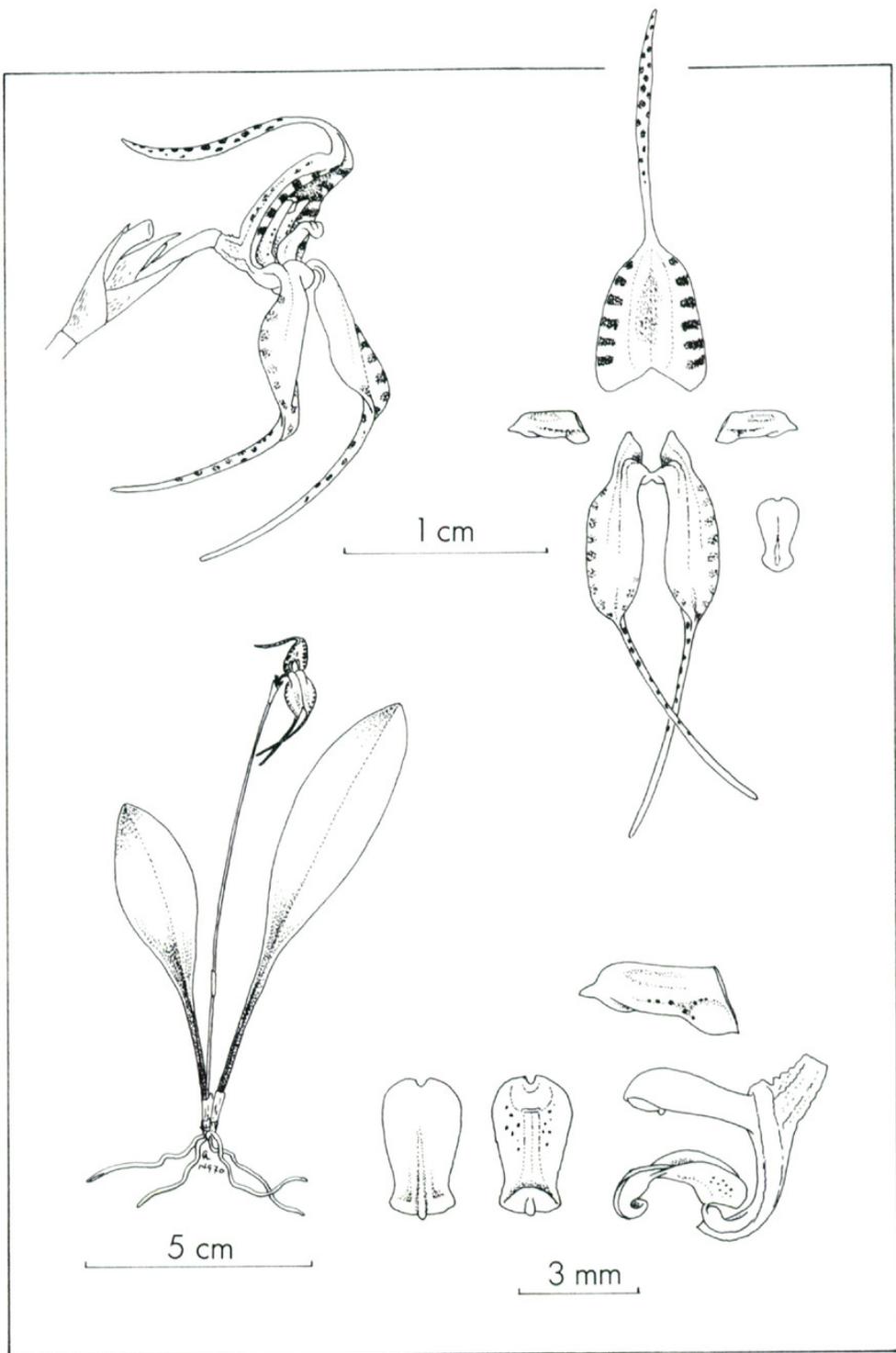


Figure 7. *Masdevallia ximenesae* Luer & Hirtz.

Etymology. Named in honor of Ximena de Hirtz, codiscoverer of this species.

This species closely resembles *M. parvula* Schltr. and *M. alexandri* Luer, but it seems most closely related to the Colombian *M. planadensis* Luer & Escobar, with which it grows in Ecuador. From *M. parvula* it is distinguished by the glabrous sepals marked with large, marginal bars instead of small, random spots. The petals are similar to those of *M.*

planadensis with a rounded callus at the base. *Masdevallia parvula* occurs at altitudes over 2,600 m above sea level; *M. ximenesae* is found at an altitude less than half as high.

From *M. alexandri* it is distinguished by the much shorter sepaline tails; sepals with broad, marginal bars instead of minute, random dots; and an ovate instead of an orbicular dorsal sepal.

From the Colombian *M. planadensis*, found for

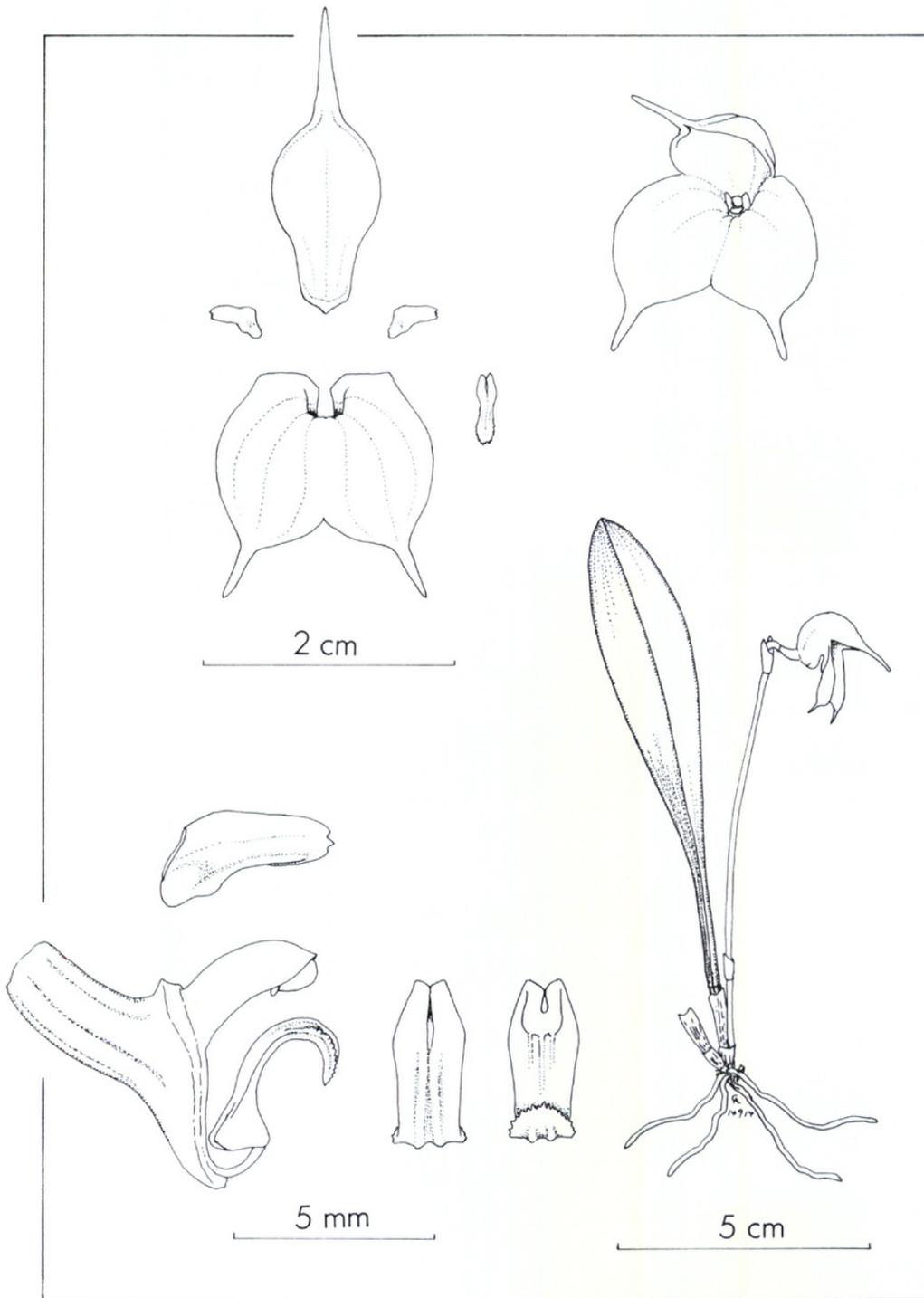


Figure 8. *Masdevallia zapatae* Luer & Escobar.

the first time in Ecuador and growing with *M. ximena*, it is distinguished by smaller flowers prominently marked with red and purple.

Masdevallia zapatae Luer & Escobar, sp. nov.
TYPE: Colombia. Antioquia: Munic. of Urrao, "El Llvero," 1,400–1,600 m, collected by M. Zapata in Nov. 1989, flowered in cultivation at Colomborquídeas, 4 Nov. 1990, *R. Escobar*

4054 (holotype, JAUM; isotype, MO). Figure 8.

Species haec *M. macrogeniae* (Arango) Luer & Escobar affinis, sed sepalo dorsali et sepalis lateralibus non profunde connatis, sepalorum caudis brevibus anguste triangularibus, et petalis labelloque minoribus differt.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls erect, slender, 1–1.5 cm long, enclosed by 2–3 tubular sheaths. Leaf erect, cori-

aceous, 8–9.5 cm long including a petiole 1.5–2 cm long, the blade narrowly obovate, subacute to obtuse, 1.6–1.8 cm wide, narrowed below into the petiole. Inflorescence a congested, successively few-flowered raceme borne by a slender, erect peduncle 6–7 cm long, round in cross section, with a bract above the base, from low on the ramicaul; floral bract tubular, 6 mm long; pedicel 7–8 mm long; ovary 3–4 mm long; sepals red with purple spots, glabrous, the dorsal sepal obovate, concave, 14 mm long, 9 mm wide unexpanded, connate to the lateral sepals for 6 mm to form a short, cylindrical tube, the apex rounded, contracted into a yellow, forwardly directed, narrowly triangular, acute tail 8 mm long, the lateral sepals broadly ovate, 14 mm long, 10 mm wide, connate 10 mm over a transverse, 180° fold, the free portions rounded, contracted into narrowly triangular, descending tails 4 mm long; petals pink, spotted with purple, obliquely oblong, 4 mm long, 1 mm wide, 2.5 mm wide at the base, the apex obtuse, tridentate, the labellar margin with a longitudinal callus ending in a broad, thick rounded process at the base; lip spotted with purple, oblong, 6 mm long, 1.8 mm wide, the apex recurved, obtuse with a denticulate margin, the disc

shallowly channeled between a low, longitudinal pair of calli, the base thickened, deeply cleft, hinged beneath; column suffused with purple, semiterete, 3 mm long, the foot thick, 5 mm long, with a slender, incurved extension.

Etymology. Named in honor of Manuel Zapata, who discovered this species.

This species is the third of a closely related group within subsection *Dentatae* of section *Reichenbachianae* that includes *M. dryada* and *M. macrogenia*. *Masdevallia zapatae* is readily recognized by the sepaline tails that are the shortest in the group. The tails are narrowly triangular, those of the laterals only 4 mm long. From *M. macrogenia*, which it resembles most, it is distinguished by the less deeply connate dorsal sepal, that is, connate to the lateral sepals for less than half its length. The dorsal sepal of *M. macrogenia* is connate to the lateral sepals for far more than half the length.

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