

ICONES PLEUROTHALLIDINARUM
(ORCHIDACEAE)
PLEUROTHALLIS OF MEXICO AND CENTRAL AMERICA II

C. A. Luer*

Pleurothallis calyptrastele Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19:23. 1923.

Pleurothallis biflora Schltr., Beih. Bot. Centralbl. 36(2):395. 1918; not Focke. *Pleurothallis geminiflora* Ames, Hub. & Schweinf., Bot. Mus. Leaflet. 3:39. 1934.

Plant epiphytic, minute, repent, the creeping rhizome giving rise to a secondary stem every 2-3 mm; roots comparatively thick, from nodes on the primary stem. Secondary stem clothed by 1-2 thin, tubular sheaths, 1-2 mm long, monophyllous. Leaf very narrowly obovate, 10-16 X 2-3 mm, obtuse to subacute, attenuated indistinctly into a petiole. Inflorescence a 2-3-flowered raceme about 2 cm long; peduncle filiform, from a node on the secondary stem. Flowers small, translucent greenish white; floral bract and pedicel each about 2 mm long; ovary pink, 0.5 mm long; dorsal sepal ovate, acuminate, 5 X 1.5 mm, 3-nerved; lateral sepals similar to the dorsal sepal, each 2-nerved, connate at the base where they form a mentum with the column-foot; petals narrowly obovate-spatulate, acute, 3.5 X 0.75 mm; lip oblong, 2.5 X 1 mm, apex rounded, base truncate, very shortly unguiculate, 3-nerved; column 1.5 mm long with a 1 mm foot.

ETYMOLOGY: From the Greek *calyptra*, "a veil," or "a conical cap," and *stele*, "column," in allusion to a fancied shape of the column or anther-cap.

TYPE: COSTA RICA: San Jeronimo, alt. 1350 m, May 1920, C. Wercklé 148.

DISTRIBUTION: Costa Rica and Panama.

PANAMA: without locality, F L Stevenson 112674-5 (SEL), flowered in cult. Nov. 1974; COCLÉ: hills north of El Valle, 25 July 1964, Dressler 2927 (SEL).

Originally Schlechter described this species in 1918 as *Pleurothallis biflora*, for an obvious reason, but Focke had used this epithet in *Pleurothallis* as early as 1849. Ames et al renamed it *geminiflora*, but in the meantime Schlechter had described it a second time as *P. calyptrastele*. Why he chose this epithet is obscure. There is nothing unusual about the shape of the column or its anther cap to suggest a veil or a conical cap. But then there is nothing extraordinary about the rest of the plant. He describes the clinandrium as being "cucullato-calyptrato."

The species may be recognized by its extremely small creeping habit, minute elongated leaves with two millimeter long secondary stems, and a hair-like flowering stem commonly bearing above the leaves two pale green flowers which seem too large for the plant. The flowers are distinguished by their narrow obovate-spatulate petals, and the lip is oblong and simple. The species is similar to *P. minutalis* Lindl., *P. sertularioides* (Sw.) Spreng., and *P. yucatanensis* Ames & Schweinf.

*The Marie Selby Botanical Gardens

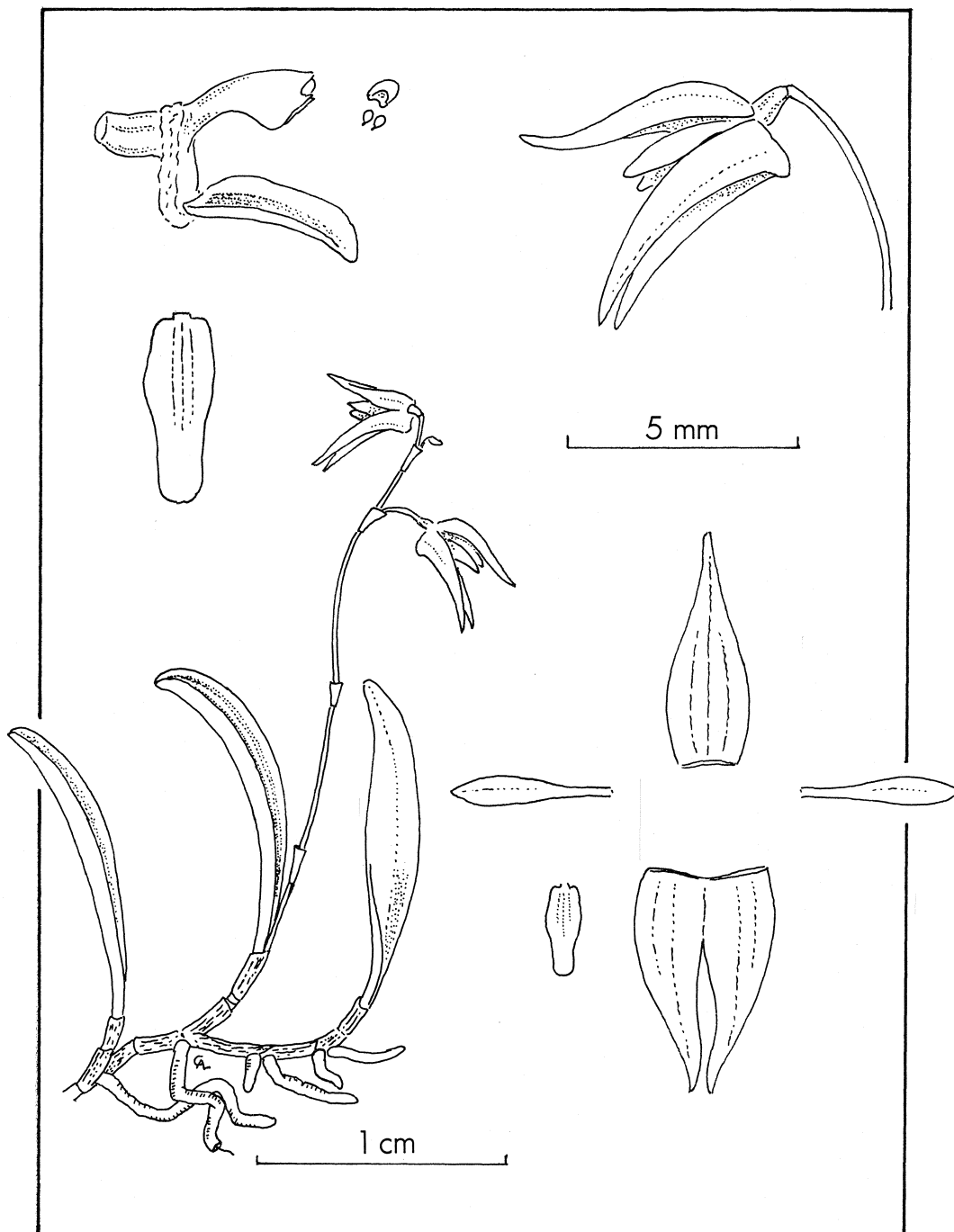


Figure 86. PLEUROTHALLIS CALYPTROSTELE Schltr.

Pleurothallis cobraeformis L.O. Wms., Ann. Missouri Bot. Gard. 27:277. 1940.

Plant epiphytic, small, caespitose; roots slender, flexuous. Secondary stem terete, stout, slightly compressed above, 3-8 cm long, with a basal, scarious, tubular sheath, unifoliate. Leaf coriaceous, narrowly elliptical, obtuse to subacute, base cuneate, conduplicate, sessile, 6-7.5 cm \times 15-17 mm, dark green, suffused with purple. Inflorescence fasciculate, 1-2 single flowers appearing from a spathe 10-13 mm long in the groove in the axil of the leaf; flowers bilabiate, yellow-green marked with purple; floral bract 2-3 mm long; pedicel 4-5 mm long; ovary 4 mm long; dorsal sepal deeply concave, broadly ovate, 8 \times 5 mm, 3-veined, the veins prominent dorsally, strongly spotted with purple; lateral sepals into an ovate synsepal, 7 \times 4 mm, 4-veined, lightly flecked with purple; petals ovate, oblique, acute to acuminate, margins dentate, clawed basally, 5 \times 1.5 mm, 1-veined, maroon; lip fleshy, maroon, broadly ovate-cordate, 2 mm long and 2.5 mm wide, spread out, deflexed near the middle, with rounded basal lobes incurved around the column, apex rounded, apiculate, base concave and shortly unguiculate, disc with a small pair of rounded calli near the middle and with a shallow depression between; column 2 mm long, terete, with an obsolescent foot.

ETYMOLOGY: From the Portugese *cobra* (Latin *colubra*, "snake"), "a hooded snake," and -formis, "in the form of," allusion to the cobra-like appearance of the hooded flowers.

TYPE: PANAMA: COCLÉ: epiphytic, vicinity of El Valle de Antón, alt. 600 m, 19 Dec. 1939, *Allen 2057* (HOLOTYPE: AMES).

DISTRIBUTION: Panama:

PANAMA: COCLÉ: El Valle cloud forest, epiphytic, alt. 600 m, 15 Aug. 1971, *Wiehler & Dressler 71300a* (SEL), flowered in cult. Sept. and Dec. 1974, and May 1975.

The nearly animated little flowers of this species appear successively and continuously over extended periods of time. Like hooded faces, they seem to peek around the edge of the leaf. *Pleurothallis cobraeformis* is very distinctive and easily recognized. The thick, dark green elliptical leaf is folded at the bottom and borne on a stout stem of about equal length. The gaping flowers are colorfully spotted with deep purple on a greenish background. Maroon, fringed petals protrude from beneath the deeply concave, hood-like dorsal sepal. The column is surrounded by the broad, basin-like, red-purple lip.

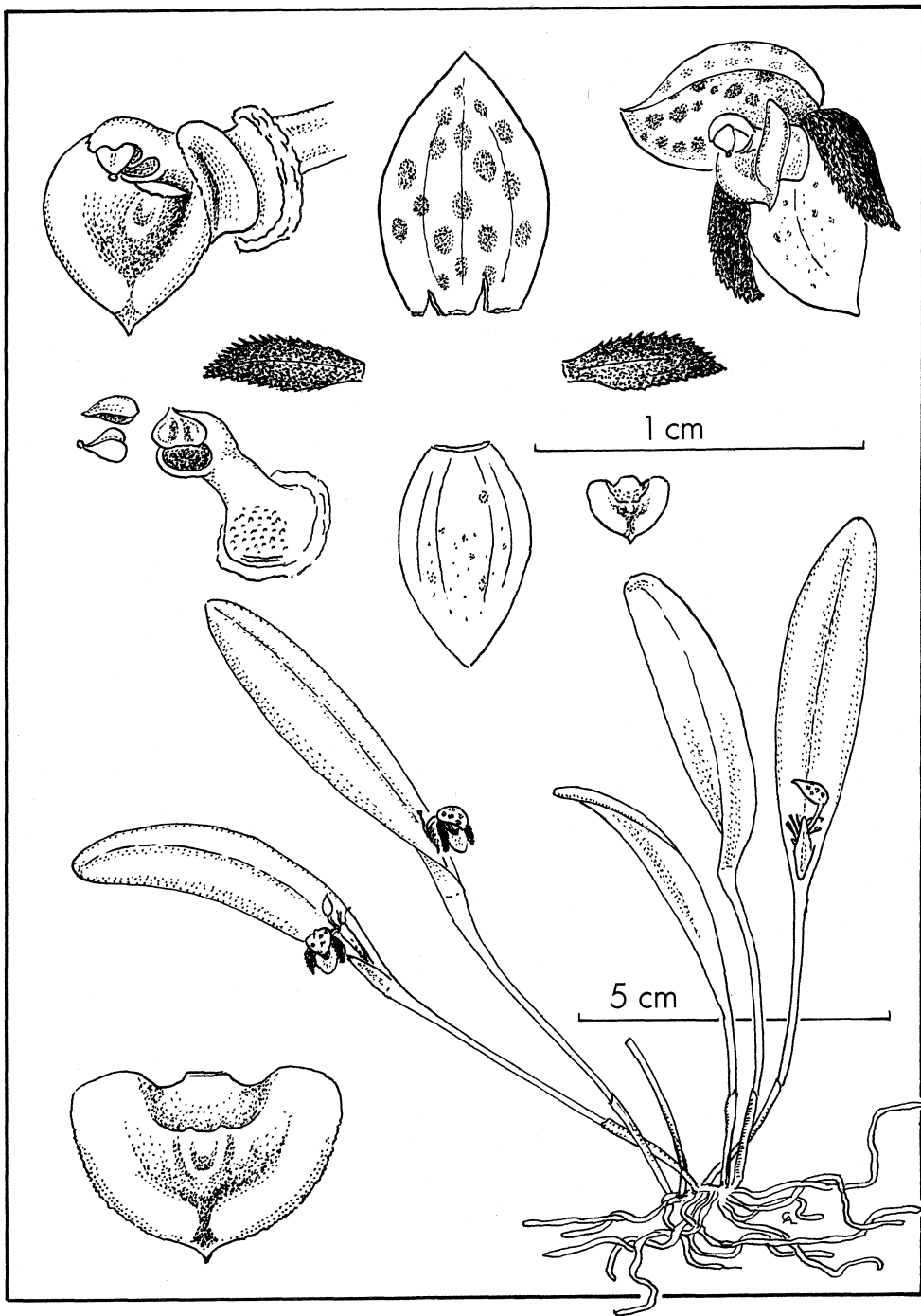


Figure 87. PLEUROTHALLIS COBRAEFORMIS L. O. Wms.

Pleurothallis minutalis Lindl., Folia Orchid. Pleuroth. 40. 1859.

Pleurothallis crassifolia Rchb.f., Linnaea 22:832. 1850; not Focke 1849.

Humboldtia minutalis (Lindl.) O. Ktze., Rev. Gen. Pl. 2:667. 1891.

Pleurothallis oblanceolata L. O. Wms., Bot. Mus. Leaflet. 12:241. 1946.

Plant very small, epiphytic, repent; primary stem creeping, clothed in scabrous sheaths, producing a secondary stem every 2-4 mm; roots stout, flexuous. Secondary stem terete, 2-3 mm long, covered by a tubular sheath, unifoliate. Leaf coriaceous, narrowly obovate, sulcate, apex obtuse to rounded, tridenticulate, base attenuated, narrowly cuneate, gradually petiolate, 10-20 × 4-5 mm. Inflorescence a 1- to 3-flowered raceme, about as long as the leaf; peduncle filiform, 10-15 mm long, from a node on the secondary stem; floral bract infundibular, scaberulous, acute, 2 mm long; pedicel and ovary each about 1 mm long; dorsal sepal long-triangular, acute, cymbiform, 3.5 × 1.25 mm, pale yellow-green, sometimes with a few purple spots along the margin; lateral sepals free to near the base where they form a shallow mentum, long-triangular, slightly oblique, acute, 3 × 1 mm, yellow with an orange apex; petals narrow, ovate, acuminate, acute, 2.5 × 1 mm, apex red and microscopically papillose; lip fleshy, red-purple, narrowly elliptical, acute, 2.5 × 0.75 mm; base delicately hinged to the column-foot, obscurely auricled, disc with a long, longitudinal pair of low elevations, thickened and convex above the middle; column yellow-green, terete, 2 mm long, with a short foot.

ETYMOLOGY: From the Latin *minutus*, "very small," in allusion to the minute size of the plant.

TYPE: MEXICO: Ehrenberg s.n.

DISTRIBUTION: Mexico and Guatemala.

MEXICO: CHIAPAS: epiphytic along Las Rosas road, alt. 2000 m, 8 Dec. 1966, R. McCullough 1776 (SEL), flowered in cult. June 1975.

The earliest description of this species, as *Pleurothallis crassifolia*, was that of Reichenbach in Schlechtendal's Linnaea, dated 1849, but the actual date of publication was May 1850. Since the epithet already had been used the preceding year by Focke for another species, Lindley bestowed upon it the apt name *minutalis*.

This species is closely related to *P. yucatanensis* Ames & Schweinf. from which it may be distinguished by its scabrous bracts, and red fleshy lip without erect margins. It is also very similar to *P. brevipes* Focke, *P. polygonoides* Griseb., and *P. sertularioides* (Sw.) Spreng., but the latter have lateral lobes of the lip. From *P. calypstrostele* Schltr. it is distinguished by narrow obovate spatulate petals. It is so similar to *P. oblanceolata* L. O. Wms. that the two cannot be specifically distinct.

Pleurothallis minutalis may be recognized by its minute creeping habit, abbreviated secondary stems, little, narrowly obovate, thickened leaves, a hair-like peduncle about as long and bearing 1 to 3 yellowish flowers with scabrous bracts. The petals are ovate-acuminate; the lateral sepals are almost totally connate; and the lip is long and narrow without lobes.

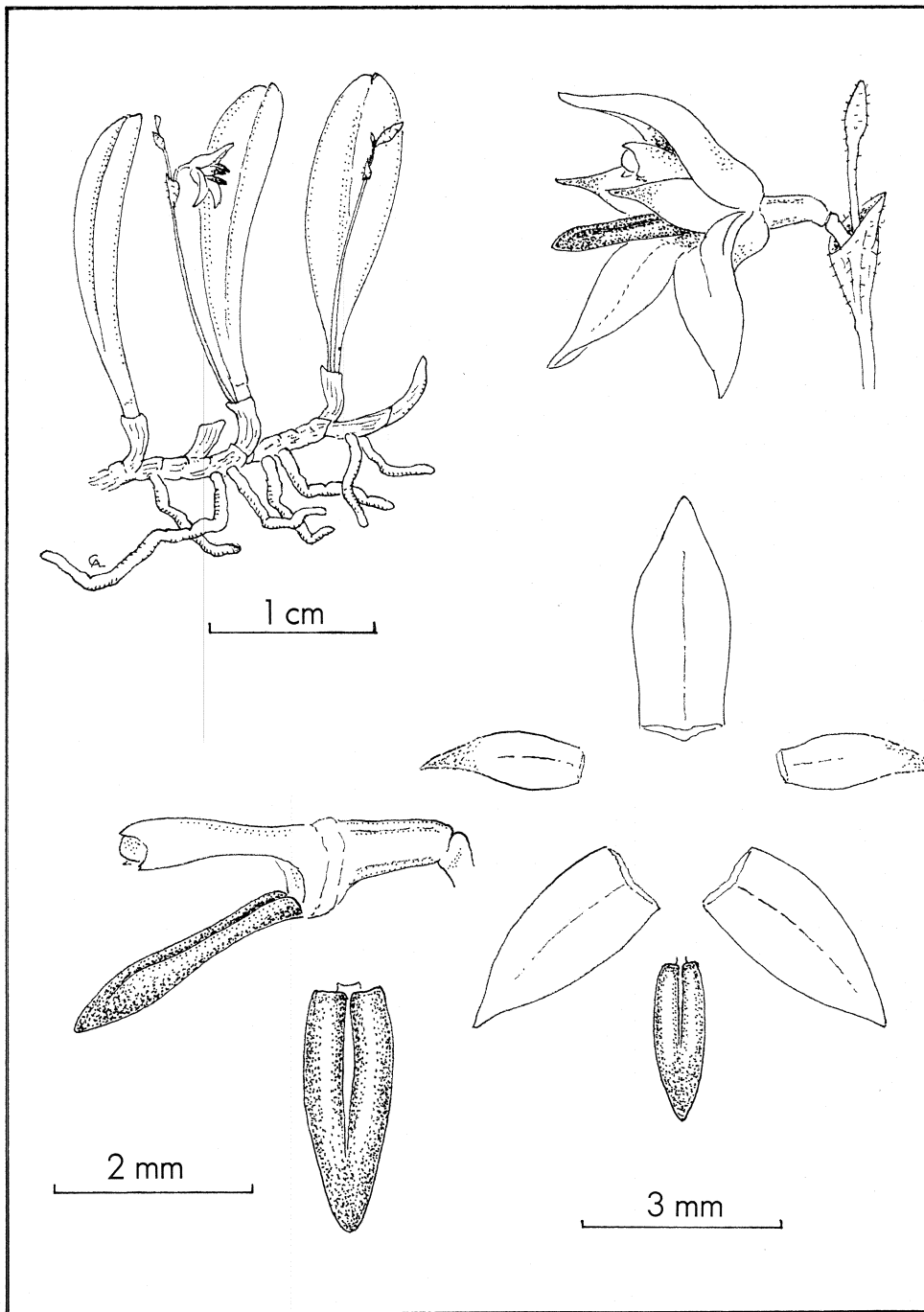


Figure 88. PLEUROTHALLIS MINUTALIS Lindl.

Pleurothallis obscura A. Rich. & Gal., Ann. Sci. Nat. Bot. 3(3):17. 1845.

Pleurothallis bilamellata Rchb. f., Linnaea 22:830. 1849.

Humboldtia bilamellata (Rchb. f.) O. Ktze., Rev. Gen. Pl. 2:667. 1891.

Pleurothallis rufa Rolfe, Kew Bull. 192. 1898.

Plant epiphytic, small, shortly repent to caespitose, the primary stem about 0.5 cm long; roots slender, flexuous. Secondary stem terete with 2-3 tubular sheaths below, shallowly channeled above, 6-10 cm long, monophyllous. Leaf thickened, very narrowly ovate to linear, acute, tridenticulate, sessile, 7-11 cm \times 10-12 mm. Inflorescence a fascicle of a few (2-3), short, 2- to 3-flowered racemes; peduncles stout, about 5 mm long, from the axil of the leaf; spathe about 3 mm long. Flowers small, bilabiate, fleshy, orange, externally sparsely verrucose; floral bract infundibular, 2 mm long; pedicel stout, 2 mm long; ovary minutely verrucose, about 1.5 mm long; dorsal sepal elliptical, obtuse, convex above the middle, concave below the middle, 3.25 \times 1.75 mm; lateral sepals connate into a suborbicular, concave lamina, obtuse, retuse, 3 \times 3.5 mm, bicarinate externally; petals elliptical, upper margin angled, acute, serrulate, 2.5 \times 1 mm, yellow with 3 orange veins; lip ovate, fleshy, dilated below the middle with the margins turned up, apex obtuse to rounded, base cuneate, 2 \times 1.5 mm, disc longitudinally channeled, with a pair of minutely crenulate rounded keels near the middle; column winged, 1.75 mm long, with a short foot.

ETYMOLOGY: From the Latin *obscurus*, "hidden" or "obscure," referring to the very small flowers.

TYPE: *MEXICO*: without locality, *Galeotti s.n.*

DISTRIBUTION: Mexico.

MEXICO: without locality, *A. Embree s.n.*, cult. by *F L Stevenson 61874-11* (SEL), flowered in cult. June 1974 and June 1975.

This species, from the eastern declivity of the central highlands of Mexico, is characterized by a rather stout, channeled stem and a thick but narrow, rigid, sulcate leaf about the same length. A small cluster of orange flowers borne on a few abbreviated racemes appears at the base of the leaf. As in some other species, the flowers appear superficially to be in a single-flower fascicle. With time the very small, fleshy, warty flowers turn cinnamon-red. The lateral sepals are united into a semi-orbicular retuse lamina, the margins of which evert to expose the thickened lip, while the dorsal sepal reflexes above. The sides of the labellum below the middle are erect, and centrally there are a pair of rounded lamellae.

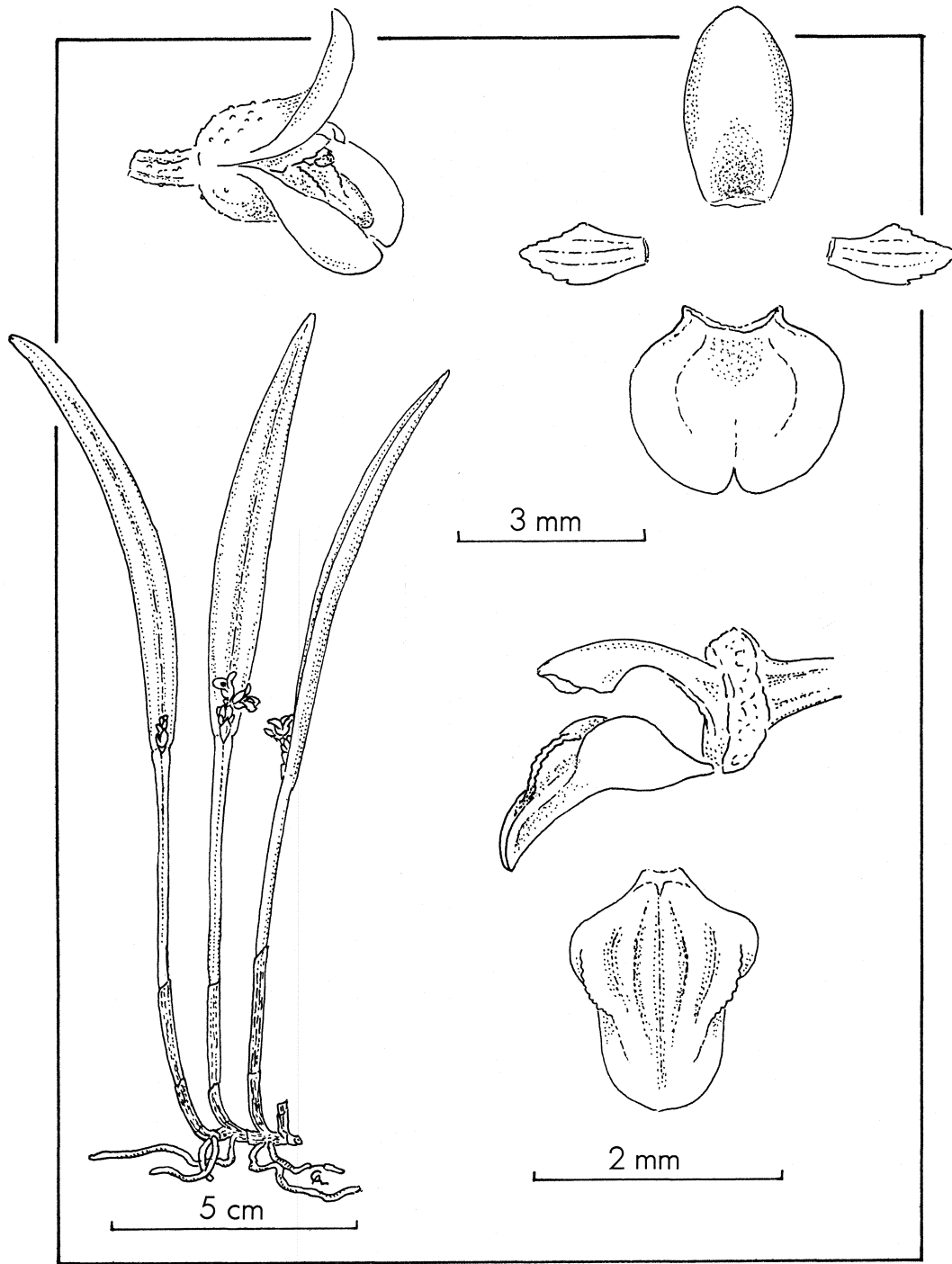


Figure 89. PLEUROTHALLIS OBSCURA A. Rich. & Gal.

Pleurothallis octomerioides Lindl., Companion Bot. Mag. 2:354. 1836.

Humboldtia octomerioides (Lindl.) O. Ktze., Rev. Gen. Pl. 2:668. 1891, as *H. octomerioides*.

Pleurothallis octomeriae Schltr., Repert. Spec. Nov, Regni Veg. Beih. 17:21. 1922.

Pleurothallis cerea Ames, Sched. Orchid. 4:19. 1923.

Plant large to medium in size, epiphytic; rhizome stout, producing thickenings with secondary stems every 1 to 10 mm; roots flexuous. Secondary stem erect, terete, about 12-15 cm long, concealed by 3 or 4 snug-fitting, tubular, scabrous, papery sheaths, the uppermost somewhat loose, unifoliate. Leaf narrowly elliptical, commonly 12 × 2 cm, acute, cuneate, sessile, coriaceous. Inflorescence a few- to many-flowered fascicle of solitary, pale yellow, fleshy flowers, from a cluster of nodes at the axil of the leaf; floral bract infundibular, ciliate, 3 mm long, sheathing the pedicel, also 3 mm long; ovary 4 mm long; dorsal sepal narrowly obovate, obtuse, 7 × 2 mm; lateral sepals free except at their bases where they form a shallow mentum with the column-foot, elliptical, oblique, obtuse, 6 × 2 mm; petals narrowly elliptical, 6 × 1.5 mm, subacute, thickened above the middle; lip oblong, 2.75 × 1 mm, subacute, short-unguiculate, with a parallel pair of red, verrucose, marginal crests which disappear above the middle, the surface between them yellow and verrucose; column 1.5 mm long, with parallel wings, toothed apically, with a 1 mm column-foot.

ETYMOLOGY: Named for the similarity of the species to the genus *Octomeria*.

Octomeria from the Greek *octo*, "eight," and *meros*, "part," referring to the eight pollinia, and *-oides*, "resembling."

TYPE: MEXICO: *Henchman s.n.*

DISTRIBUTION: Mexico, Nicaragua, Costa Rica, and Panama.

NICARAGUA: JINOTEGA: *Fred Fuchs, Jr. s.n.* (SEL), greenhouse acc. no. 26-74-65, flowered in cult. Sept. 1974.

When Lindley described *Pleurothallis octomerioides* from Mexico, he compared its external appearance to *Octomeria baueri* Lindl. Schlechter was struck by the similarity of the plant to an *Octomeria* when he described it from Panama as *P. octomeriae*. Ames described it from Costa Rica as *P. cerea*, in allusion to its waxy flowers. Heller found it common in Nicaragua, but apparently it is local elsewhere.

The plant is easily recognized by its narrowly elliptical leaf supported by a terete stem usually a little longer, and its fascicle of single, pale yellow flowers, each gaping widely to expose the reddish purple markings on the lingulate lip. The anther is often yellow, but it is also often red, at which time it is most conspicuous. The petals are essentially the same size as the sepals, a feature commonly seen in *Octomeria*. All the flower parts are more or less blunt and waxy.

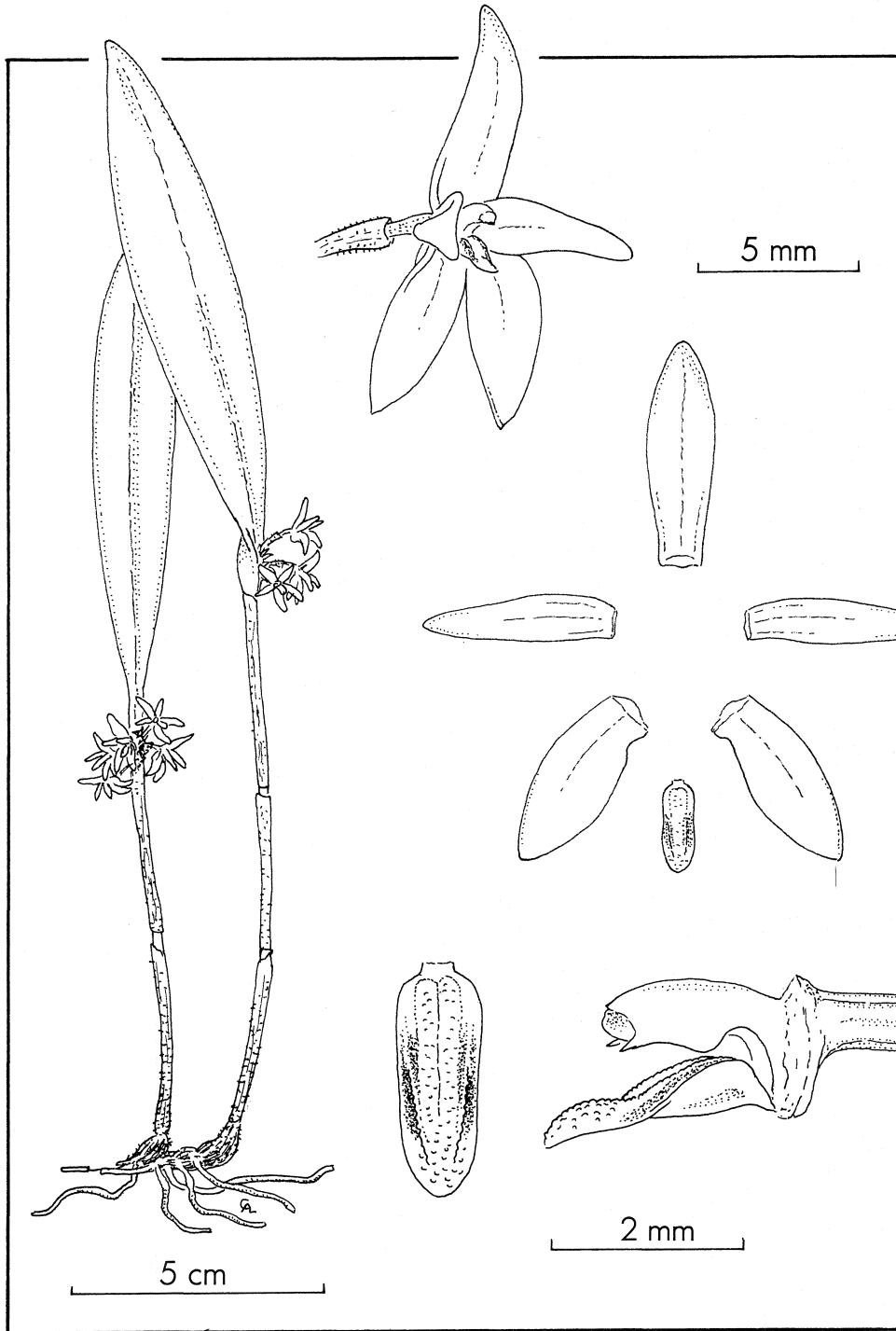


Figure 90. PLEUROTHALLIS OCTOMERIOIDES Lindl.

Pleurothallis pantasmi Rchb. f., *Bonplandia* 3:224. 1855.

Humboldtia pantasmi (Rchb.f.) O. Ktze., *Rev. Gen. Pl.* 2:668. 1891.

Plant small, epiphytic, caespitose; roots slender, flexuous. Secondary stem laterally compressed, narrow to semi-terete below to tripterous, sulcate, and 5-6 mm deep above, 10-15 cm long, with 1-2 short sheaths near the base, unifoliate. Leaf light green, narrowly ovate, subacute, tridentate, base cuneate, sessile, the margins merging with the wings of the secondary stem, 6-8 × 1-1.3 cm. Inflorescence a short, few-flowered (2-3) raceme (1-2); peduncle about 5 mm long from a spathe about 5 mm long in the axil of the leaf; flowers bilabiate, dark redbrown, pubescent externally, fleshy; floral bract acute, tubular, 2 mm long; pedicel 1.5 mm long; ovary sparsely pubescent, 2 mm long; dorsal sepal obovate, obtuse, 6.5 × 2.25 mm, inner surface pusticulate; lateral sepals united into a suborbicular synsepal, pusticulate within, apex rounded, bifid a short distance, 5 × 4 mm; petals orange brown, narrowly rhomboid, acute, 2.75 × 1 mm, margins erose above the middle, 3-nerved; lip oblong, 3-lobed, 2 × 1.2 mm, red-brown, thick and fleshy, middle lobe ovate, margins thin and erose, lateral lobes below the middle, semi-orbicular, erect in the natural position, cannot be spread without breaking the lip, base truncate, shortly unguiculate, with a pair of minute auricles, disc with a thick pair of rounded lamellae with erose margins; column 2 mm long, terete, winged apically, with a short foot.

ETYMOLOGY: Named for the Pantasmi Mountains of Nicaragua where the species was first discovered.

TYPE: NICARAGUA: JINOTEGA: Pantasmi Mountains, Jan. 1848, *Oersted s.n.*

DISTRIBUTION: Nicaragua and Costa Rica.

COSTA RICA: SAN JOSE: Dominical Ridge, June 1973, *R. McDermott s.n.* (SEL), flowered in cult. June 1975.

The conspicuously flattened secondary stems of this species are pale green and almost succulent, very similar in texture to the pale green narrow leaves they bear. The three-sided stem, about twice as long as the leaf, is deeply channeled in its upper portion with two sharp-edged wings on either side and a sharp-edged carina behind. The wings merge into the margins of the leaf.

The plant is very similar to that of *Pleurothallis rubroviridis* Lindl. The sepals of both species are pubescent without and pusticulate within, but the petals of the latter are truncate and the lip lacks the distinct, rounded lateral lobes. The plant is also similar to that of *P. gacayana* Schltr. in which the blade is decurrent on the stem so that the short racemes appear near the center of the leaf. *Pleurothallis circumplexa* Lindl. is also allied. The little fleshy flowers of all these species are somewhat similar.

The flowers of *P. pantasmi* may be distinguished by the "cobblestoned" inner surface of the sepals, probably best described as pusticulate, the sub-orbicular synsepal, the acute petals, and the lip with erect lateral lobes, thick rounded lamellae, and a non-verrucose middle lobe.

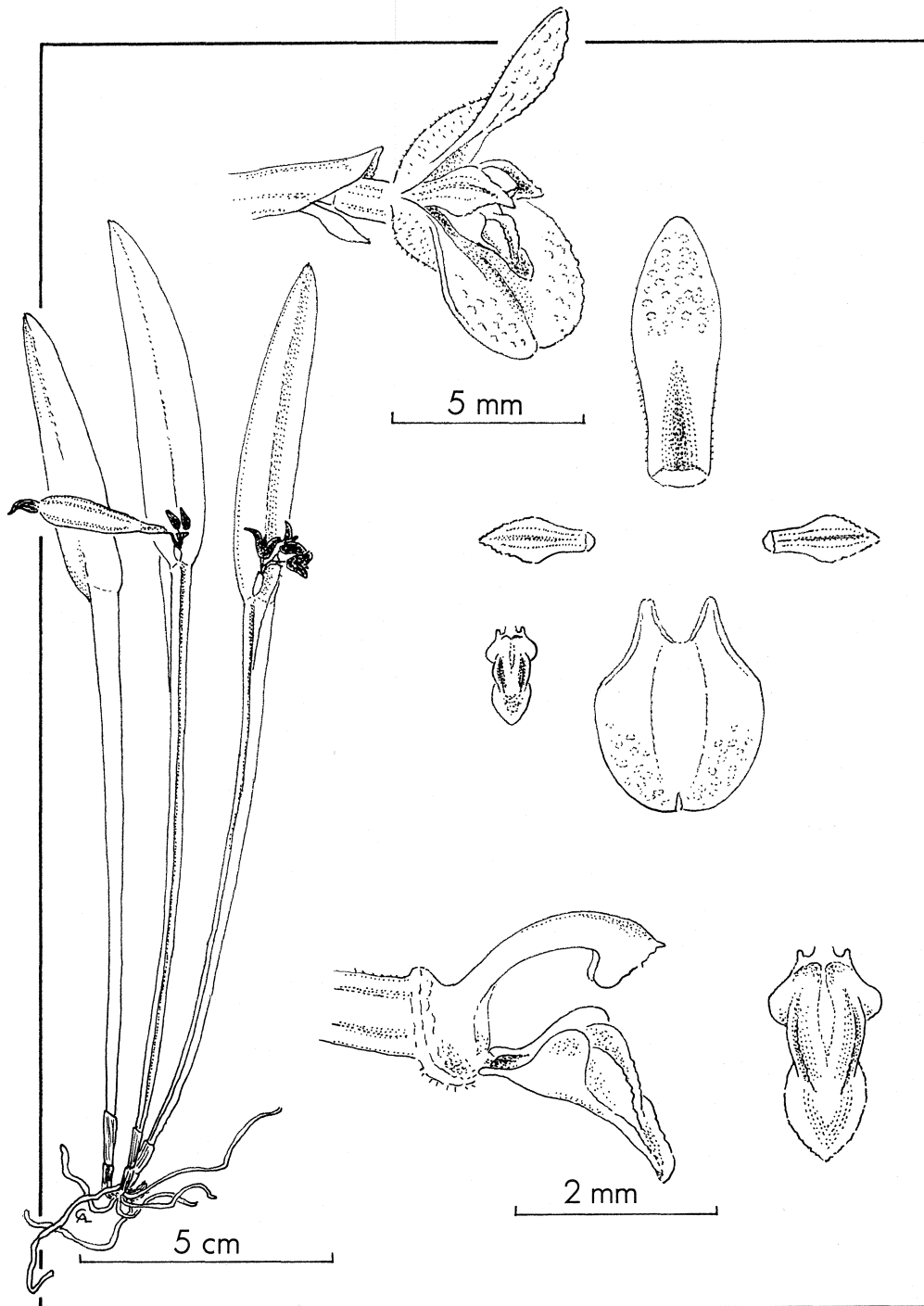


Figure 91. PLEUROTHALLIS PANTASMI Rchb. f.

Pleurothallis pergrata Ames, Sched. Orch. 4:24. 1923.

Plant epiphytic, small, caespitose; roots numerous, flexuous. Secondary stems erect, concealed by 5-7 imbricating, infundibuliform, hispid sheaths, 3-6 cm long, monophyllous. Leaf elliptical, rounded, tridenticulate, marginate, base broadly cuneate and abruptly narrowed into a short petiole. Flowers maroon, fasciculate, appearing singly from within the uppermost cauline sheath; peduncle about 1.5 mm long; floral bract 1 mm long; pedicel 0.75 and the ovary about 0.5 mm long; dorsal sepal ovate below and carinate externally, apex long-attenuate, filiform, 20 × 3 mm, lateral sepals united basally for about 3 mm, similar to the dorsal sepal, forming a mentum with the column-foot, 18 × 3 mm together; petals obovate, obtuse, margins minutely erose above the middle, glabrous internally, short glandular pubescent externally, 4 × 1.5 mm; lip ovate-oblong, obtuse, 4.5 × 2 mm, dilated, the sides curved up in the natural position, disc with a pair of low, parallel, rounded elevations; column slender, 2.5 mm long with a short foot.

ETYMOLOGY: From the Latin *pergratus*, "very acceptable" or "well pleasing," apparently implying Ames' personal opinion of the species.

TYPE: Costa Rica, Cartago, La Estrella, alt. 5000 feet, *C. H. Lankester and Alfredo Sancho 436*. (HOLOTYPE: AMES).

DISTRIBUTION: Costa Rica, Panama, and Colombia.

PANAMA: COCLÉ: El Valle, *F L Stevenson 61874-3 SEL*, flowered in cult. June 1974 and Jan. 1975.

COLOMBIA: ANTIOQUIA: *Janet Kuhn s.n.* (SEL), flowered in cult. 28 Oct. 1975.

This species is a member of the group characterized by lepanthiform sheaths concealing the secondary stem. Without flowers, the plant resembles very much all the others of the group, but it may be distinguished by the small leaf and lack of old elongated peduncles. This is the first report of *Pleurothallis pergrata* from Panama where it was collected by F L Stevenson several years ago. The plant has thrived in cultivation. Janet Kuhn has collected and cultivated a yellow-flowered form from Colombia; this is the first report of this species from South America.

The maroon flowers, produced singly and successively over a long period of time, are very distinctive. Although the flowers are borne on short pedicels from the base of the small elliptical leaf, they far surpass the leaf in length. The apices of the sepals are drawn out into filiform processes about two centimeters long which commonly twist and bend as they expand. The petals are obovate and erose, and the ligulate lip is simple with incurved margins of the basal half and slightly recurved margins of the apical half.

The pedicels commonly produce a filamentous process which is seen frequently in other species of *Pleurothallis* as well as its allies (e.g. *Restrepia*). This process, which occurs on the pedicels of some single-flowered species or on the pedicel of some terminal flowers of a raceme, probably represents a vestigial remnant of a next higher flower.

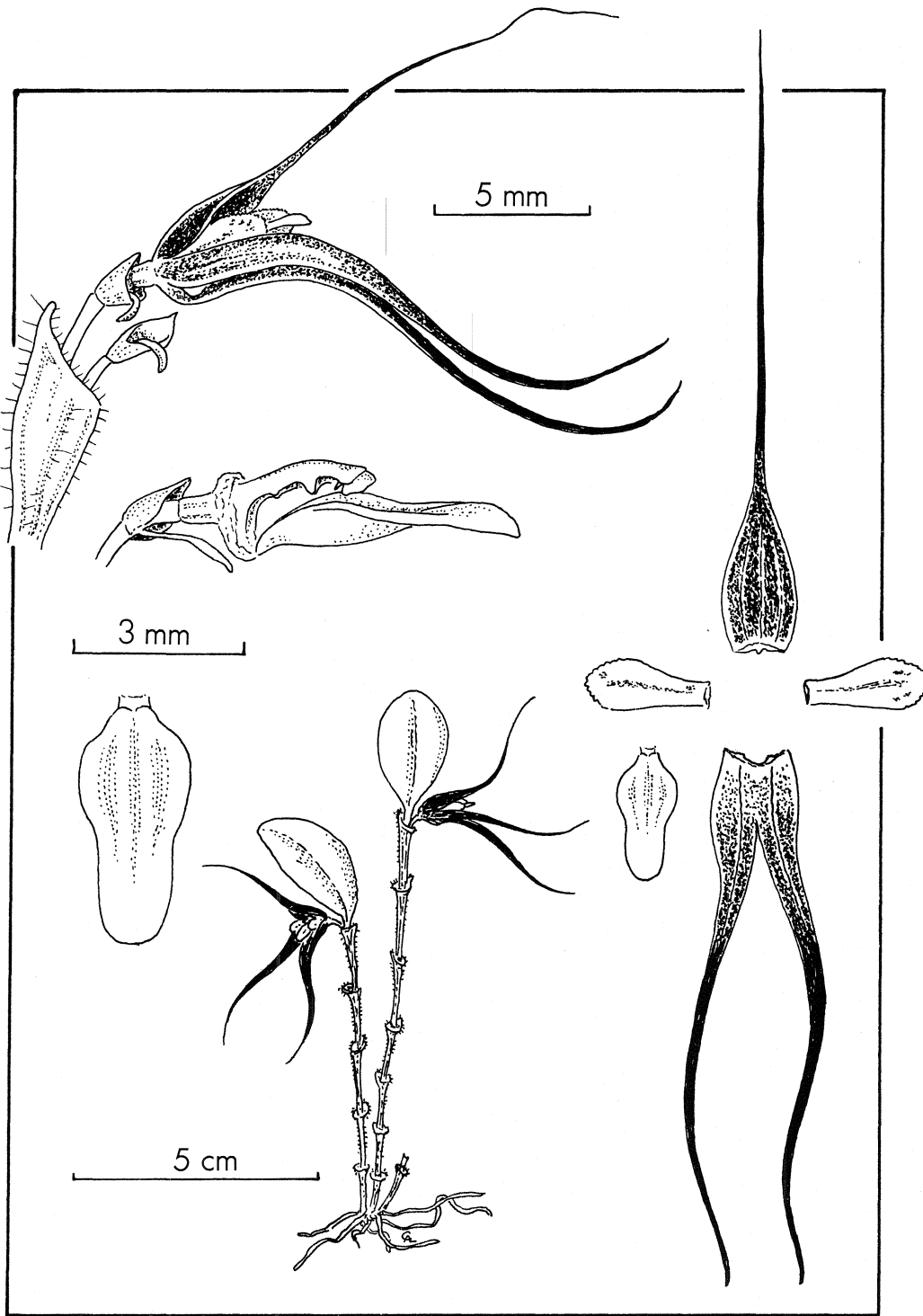


Figure 92. PLEUROTHALLIS PERGRATA Ames.

Pleurothallis platystylis Schltr., Repert. Spec. Nov. Regni Veg. 10:395. 1912.
Pleurothallis bernoulii Schltr., Repert. Spec. Nov. Regni Veg. 15:204. 1918.

Plant epiphytic, medium in size, caespitose; roots slender, flexuous. Secondary stems erect, terete, 5-12 cm long, with a close fitting tubular sheath near the middle and 1-2 others basally, unifoliate. Leaf coriaceous, oblong, apex rounded to retuse, base cuneate, sessile, or obscurely petiolate, 5-10 × 1.75-3 cm. Inflorescence a solitary (occasionally 2), many-flowered secund raceme much exceeding the leaf; peduncle from a spathe 8-11 mm long at the base of the leaf; flowers yellow, spreading; floral bract tubular, 2-3 mm long; pedicel 3-4 mm long; ovary about 2 mm long; sepals revolute, oblong-elliptic, acute to acuminate, microscopically pubescent internally, 3-nerved, dorsal sepal 6-8 × 2 mm, lateral sepals 6-8 × 1.75 mm, slightly falcate, connate basally or to near the middle, forming a mentum below the column-foot; petals obovate, rounded and slightly crenulate to retuse, 4 × 1.5 mm, apex rounded, crenulate, base prominently unguiculate and delicately hinged to the column-foot, disc with a flat, fleshy elevation edged in purple or brown; column 2 mm long, clinandrium denticulate, anther cap pubescent and beaked, column-foot 1.5 mm long.

ETYMOLOGY: From the Green *platys*, "broad" or "flat," and *stylis*, "style" or "column," apparently in reference to a none-too-obvious feature of the column.

TYPE: Guatemala: "Epiphytisch auf der Höhe zwischen Tactic und Coban, c. 2000 m ü. d. M., blühend im Dezember 1906." *H. v. Türckheim II*, 1600.

DISTRIBUTION: Mexico, Guatemala, Honduras, and Nicaragua.

HONDURAS: Siguatepeque. *F. Mathews s.n.* SEL 20-74-419, flowered in cult. Jan. 1975.

NICARAGUA: Jinotega grade. *F L Stevenson 112674-1* SEL, flowered in cult. Nov. 1974.

This species is recognized by its terete stem; oblong, sessile leaf with a rounded, retuse apex; and a long, more or less single-row raceme of yellow flowers about a centimeter in size. The sepals spread and recurve, the petals are obovate, and the lip is elliptical, obtuse, unguiculate, with upturned lateral margins. The anther cap is glandular-pubescent and conical with a hooked apex.

This is the first report of this species from Nicaragua where it has been found by Heller and Stevenson.

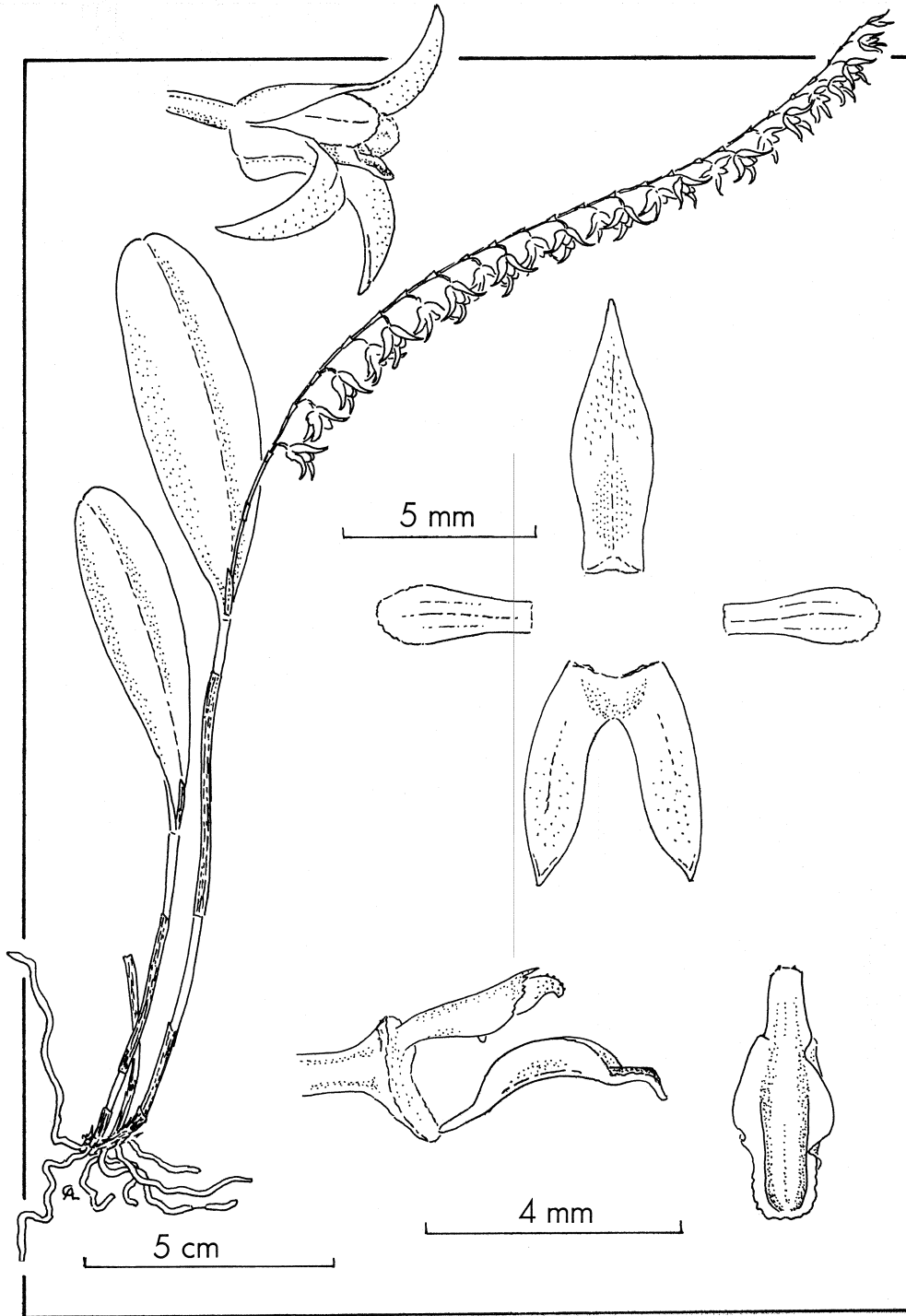


Figure 93. PLEUROTHALLIS PLATYSTYLIS Schltr.

Pleurothallis tribuloides (Sw.) Lindl., Gen. Sp. Orch. 6. 1830.

Epidendrum tribuloides Sw., Prodr. 123. 1788.

Dendrobium tribuloides (Sw.) Sw., Nov. Act. Upsal. 6:83. 1799.

Cymbidium tribuloides (Sw.) Spreng., Syst. Veg. 3:721. 1826.

Pleurothallis spathulata Rich. & Gal., Ann. Sci. Nat. 3, 3:17. 1845.

Pleurothallis fallax Rchb.f., Bonplandia 3:224. 1855.

Humboldtia tribuloides (Sw.) O. Ktze. Rev. Gen. Pl. 2:668. 1891, as *H. tribulodes*.

Cryptophoranthus acaulis Krzl., Repert, Spec. Nov. Regni Veg. Beih. 34:232. 1925.

Plant epiphytic, small, caespitose; roots slender, flexuous. Secondary stem up to 11 mm long, clothed by 2-3 scariosus sheaths, unifoliate. Leaf narrowly obovate, apex obtuse, minutely retuse and apiculate, base attenuated, indistinctly long-petiolate, 3-6 cm long (including the petiole), and 7-12 mm wide. Inflorescence a short (up to 1.5 cm) few-flowered (1-3) raceme of stiff, cinnabar-red flowers; floral bract and pedicel each 2-3 mm long; ovary muricate, about 1 mm long; sepals fleshy, externally sparsely tuberculate, and carinate along the nerves, internally tuberculate above the middle; dorsal sepal oblong, 7 × 2 mm, slightly constricted and concave below the middle, apex acute, held down to the apex of the synsepal; lateral sepals fused into an oblong-obovate concave lamina, acute, 7 × 3 mm; petals obovate, oblique, acute, 3 × 1.25, fleshy, carinate; lip ovate, sulcate, 2.75 × 1.25 mm, margins papillose, apex rounded, erose, base cuneate, very shortly unguiculate; column semi-terete, 2 mm long with a short foot.

ETYMOLOGY: Presumably named for the fancied resemblance of the species to a *Tribulus*, a subtropical genus of the bean-caper family. *Tribulus* from the Greek *tribulos*, "3-pointed" (*tri*-, "three," and *belos*, "a dart"), and *-oides*, "resembling," in reference to the three pointed fruit.

TYPE: JAMAICA: "Habitat in sylvis interioribus Jamaicae; parasiticum arborum," Swartz, *s.n.*

DISTRIBUTION: Mexico, Guatemala, Belize, Honduras, Nicaragua, Costa Rica, Panama, Cuba, and Jamaica.

GUATEMALA: without specific location, Sept. 1957, C. Luer *s.n.* (SEL), flowered in cult. June 1974.

This little species is relatively common and widespread in northern tropical America, and it is hardy and frequent in cultivation. It is characterized by its cluster of leaning, narrowly obovate leaves, and its little warty, brick-red flowers borne on the abbreviated stem. The flowers are long-lasting and like cardboard in consistency. In all the specimens examined, the tips of the dorsal sepals are tucked down into a minute depression or cup at the apex of the synsepal, thus forming windows at either side of the flower, presumably to accommodate a pollinator. A similar condition is the most distinctive characteristic of the genus *Cryptophoranthus*. As the flower ages, the dorsal sepal may become disengaged and slightly elevated. It is often disengaged in herbarium specimens, and frequently no mention of this association or disassociation is made in descriptions. The petals are acute and the apex of the ovate lip is rounded and erose.

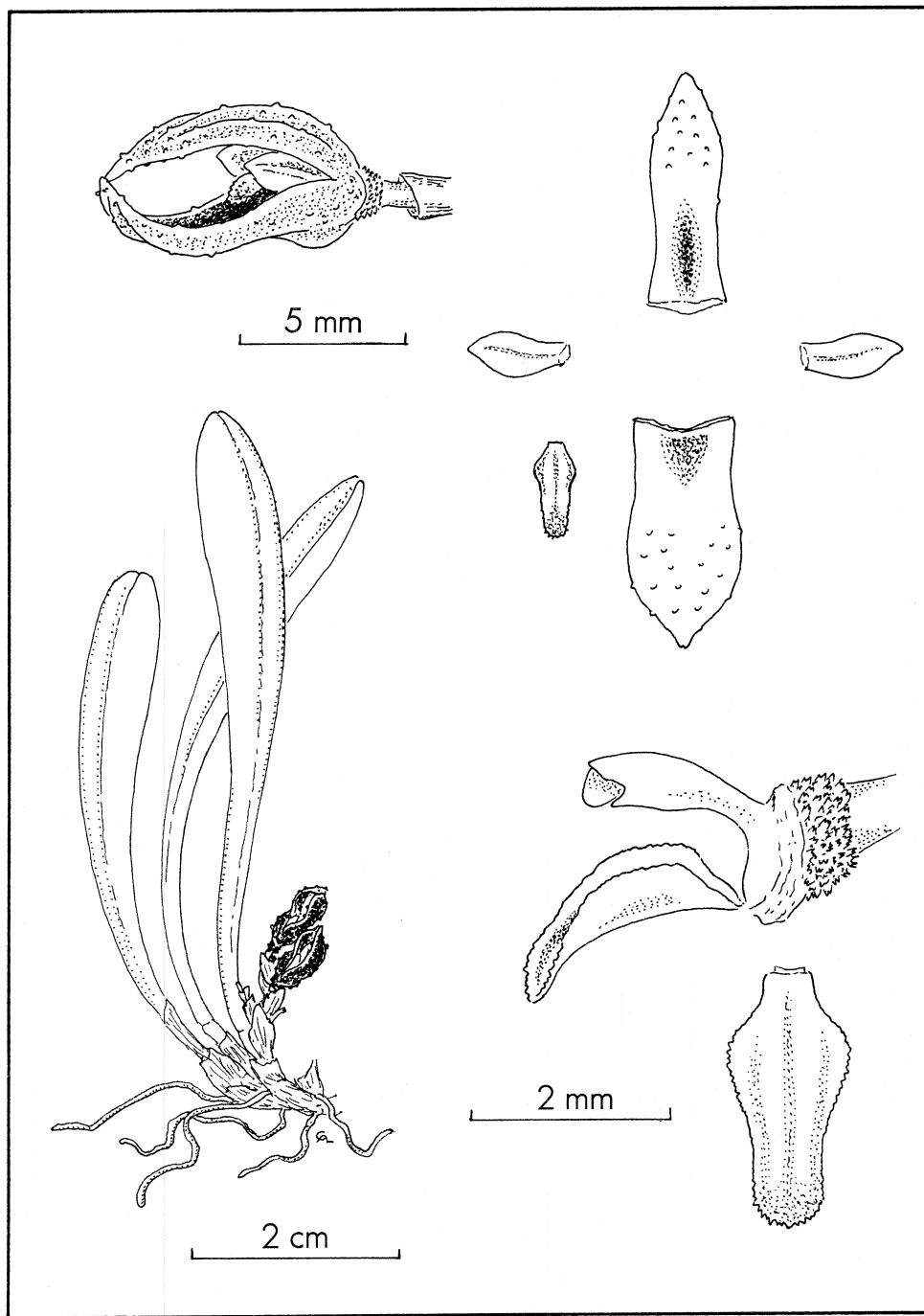


Figure 94. PLEUROTHALLIS TRIBULOIDES (Sw.) Lindl.

Pleurothallis tuerckheimii Schltr., Repert. Spec. Nov. Regni Veg. 10:292. 1912.

Pleurothallis megachlamys Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19:108. 1923.

Masdevallia jalapensis Krzl., l. c. 34:117. 1925.

Plant large, epiphytic, caespitose; roots long, slender, flexuous. Secondary stem erect, terete, length 5-25 cm or more, monophyllous, clothed by 2 large, loosely fitting, dry, tubular sheaths. Leaf coriaceous, elliptical, 10-20 × 4-6 cm, apex obtuse, base broadly cuneate into a short or obscure petiole. Inflorescence a solitary (occasionally 2) loosely many-flowered, distichous, arcuate raceme, slightly longer than to twice as long as the leaf; peduncle slender, from a large conduplicate spathe up to 7 cm long, from the axil of the leaf. Flowers dark red, large, pendant, bilabiate; floral bract tubular, 7 mm long; pedicel slender, 10-12 mm long; ovary 3 mm long; dorsal sepal narrowly ovate, acute to acuminate, 25 × 6 mm, 3-nerved, margins involute and ciliate; lateral sepals united into a narrowly ovate, cymbiform synsepal, bidentate, acute, 26 × 8 mm, 6-nerved, minutely flecked with purple, margins involute; petals broadly elliptical, apex rounded and cucullate, 8 × 4 mm, 3-nerved, white marked with purple, papillose-puberulent externally; lip fleshy-thickened, narrowly ovate, obtuse, 9 × 3 mm, shortly unguiculate, disc with a parallel pair of high, thin, auriculate lamellae, about 2.5 mm long near the base and extending as low longitudinal crests to above the middle; column 4 mm long, toothed apically, with a column-foot 2 mm long.

ETYMOLOGY: Named in honor of its discoverer, Hans von Türckheim, who collected extensively in Central America.

TYPE: Guatemala: "Epiphytisch im Hochwald bei Coban, c. 1600 m ü. d. M." Nov. 1907, *H. von Türckheim II*. 1966.

DISTRIBUTION: Mexico (Chiapas), Guatemala, Honduras, Nicaragua, Costa Rica, and Panama.

MEXICO: CHIAPAS. *G. Kennedy s.n.* SEL 16-74-7 and 20-74-192, flowered in cult. Nov. 1974.

COSTA RICA: *F L Stevenson* 103-74-1 SEL, flowered in cult. Oct. 1974.

Pleurothallis tuerckheimii is one of the largest-flowered species of the genus. It is closely allied to the smaller *P. pachyglossa* Lindl.

The plant consists of a sturdy, loosely sheathed stem surmounted by a large leathery blade. The inflorescence arises from a long, conspicuous spathe at the bases of young and old leaves alike. Sometimes the short petiole of the leaf is twisted so that the spathe and inflorescence are directed up the back of the leaf. The inflorescence, which usually exceeds the leaf by a considerable distance, bends with its weight of numerous large, slender, maroon flowers. The margins of the long sepals roll inward to create a tube-like effect. The puberulent edge of the petal is also involute. The fleshy lip, which is much shorter than the boat-shaped synsepal, is solid and rigid, and furnished at the base with a pair of upright, rounded fins.

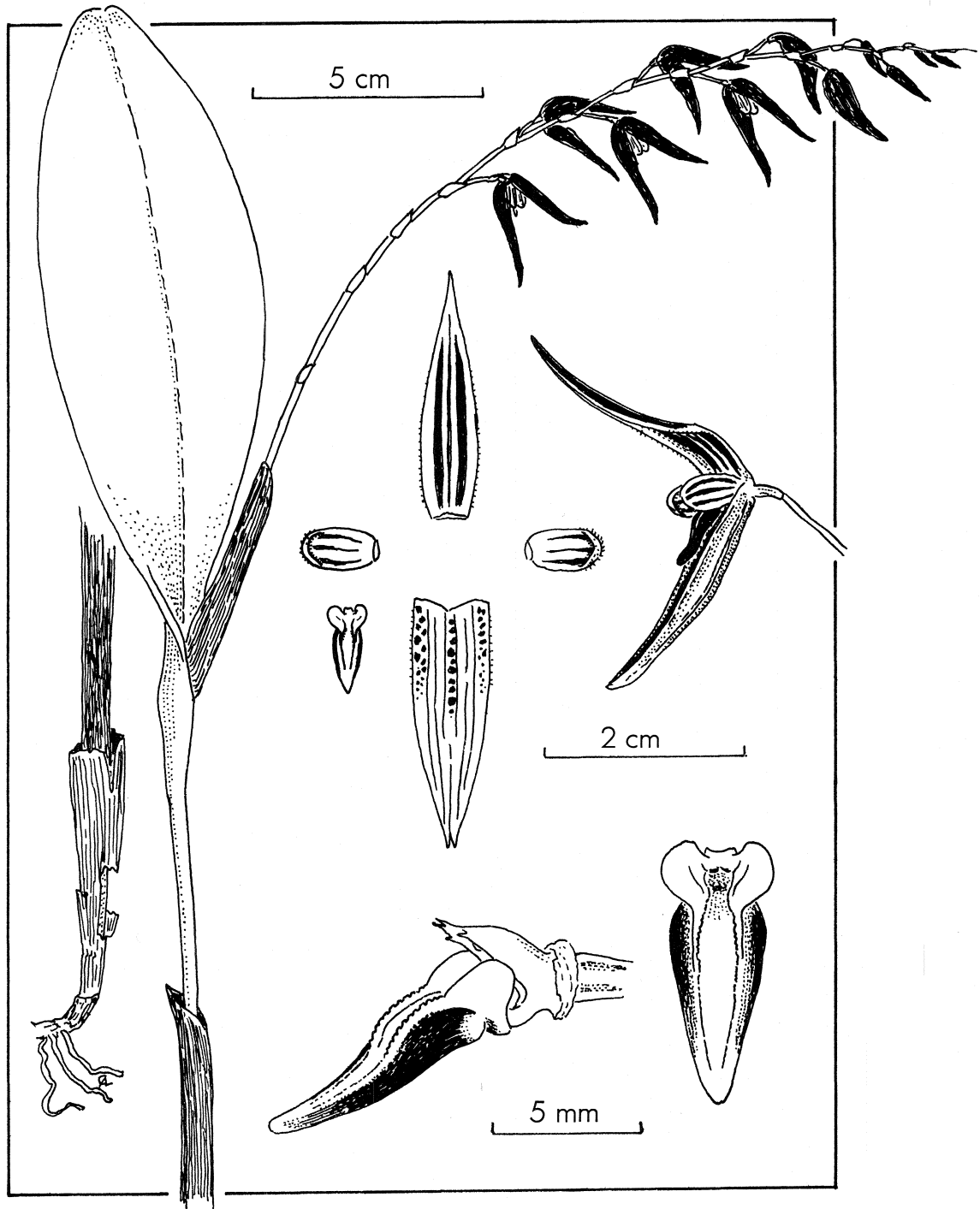


Figure 95. *PLEUROTHALLIS TUERCKHEIMII* Schltr.

ICONES PLEUROTHALLIDINAE
ADDENDA ET CORRIGENDA

- Page 60. Remove from synonymy: *Pleurothallis involuta* L. O. Wms. and *Pleurothallis nubensis* Foldats.
- Page 78. There was a little doubt about the identity of this species. It is now apparent that the drawing of the lip of the larger plant described by Lindley as *P. incurva* does not apply to the plant illustrated. Garay states that the plant illustrated is undescribed (pers. comm.). See page 303 for a new description.
- Page 79. The title of figure 11 should read PLEUROTHALLIS TRYSSA Luer.
- Page 82. Additional collections: LOS RIOS: epiphytic in old cacao trees, rare, near Buena Fe, 21 km north of Quevedo, alt. 150 m, 6 Aug. 1975, *Dodson 5971* (SEL); epiphytic in old cacao trees, common, near Moraspungo, 8 km southeast of Quevedo, alt. 150 m, 5 Aug. 1975, *Dodson 5972* (SEL).
- Page 172. Remove from synonymy: *Pleurothallis helenae* Fawc. & Rendle.
- Page 178. Additional collection: LOJA: terrestrial on road cut between El Progreso and Saraguro, alt. 3000 m, 4 Aug. 1975, *C. Luer, G. Luer & Wilhelm 409* (SEL).
- Page 182. Additional collection: NAPO: epiphytic 14 km north of Archidona, alt. 600 m, 27 July 1975, *C. Luer, G. Luer & Wilhelm 510* (SEL).
- Page 188. Additional collection: PASTAZA: epiphytic 20 km east of Puyo, alt. 500 m, 28 July 1975, *C. Luer, G. Luer & Wilhelm 475* (SEL).
- Page 192. There was also some doubt about the identity of this species which Garay believes is undescribed (pers. comm.). The longer rhizome, the pubescent petals, and the lack of basal lobes of the lip of *P. lasioglossa*, even in the condition of an advanced state of fructification, do not apply to the plant illustrated. See page 302 for a new description.
- Page 193. The title of figure 32 should read PLEUROTHALLIS PACHYPHYTA Luer.
- Page 202. Add to synonymy:
Pleurothallis papillifera Rolfe, Kew Bull. 77. 1916.
- Page 204. Add to synonymy:
Pleurothallis nicaraguensis Rchb.f., Walpers Ann. Bot., Syst. 6:171. 1861.
Humboldtia nicaraguensis (Rchb.f.) O. Ktze., Rev. Gen. Pl. 2:668. 1891.
- Page 212. The name should read *Pleurothallis otopetalum* Schltr.