

ICONES PLEUROTHALLIDINARUM
(ORCHIDACEAE)
PLEUROTHALLIS OF MEXICO AND CENTRAL AMERICA

C. A. Luer*

The genus *Pleurothallis* R.Br. is widespread from western Mexico, southernmost Florida and the Antilles to southernmost Brazil and northern Argentina. Perhaps as many as 300 species occur in the northwestern realm from Mexico to Panama. Williams listed 57 species from Mexico; Ames and Correll described 55 species from Guatemala; Heller found 58 species in Nicaragua; Ames (in Standley) listed 136 species for Costa Rica; and Williams (in Woodson & Schery) enumerated 55 species in Panama. Many of the above lists included *Platystele* Schltr. and *Restrepia* HBK.

Pleurothallis circumplexa Lindl., Edward's Bot. Reg. 24:misc. 24. 1838.

Pleurothallis mesophylla A. Rich. & Gal., Ann. Sci. Nat. Bot. 3, 3:16. 1845.

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

Plant epiphytic, rather large, caespitose; roots velamentous, flexuous. Secondary stems stout, 15-18 cm to the base of the leaf, terete below, becoming increasingly compressed, alate and channeled above until about 7 mm deep, dorsally keeled, unifoliate, with 1-2 fugacious sheaths below. Leaf coriaceous, elliptical, apex subacute, bilobed, apiculate, base cuneate, the sides continuous with the wings of the stem, and long-decurrent on the upper part of the stem so that the apex of the stem is deeply surrounded by the blade, 10-13 × 4-4.5 cm. Inflorescence a short distichous raceme (occasionally 2) of 5-10 fleshy, brown, pubescent, bilabiate flowers; peduncle stout, about 15 mm long, from a conduplicate spathe about 1 cm long, at the apex of the secondary stem; floral bract 3 mm long, white, translucent; pedicel 1 mm long; ovary green, pubescent, 1 mm long; dorsal sepal narrowly obovate or subpandurate, contracted below the middle, 6 × 2.25 mm; lateral sepals connate into a suborbicular lamina, retuse, puberulent in the center, 4 × 4 mm, petals obovate, acute, 2.5 × 1 mm, margin finely lacerate above the middle; lip brown, fleshy, ovate, 3 × 2 mm expanded, apex rounded, minutely serrulate, sides obscurely lobed or rounded below the middle, erect in the natural position, disc with a pair of serrulate linear calli from the lateral lobes onto the middle lobe, glabrous, base very shortly hinged and with a pair of small basal auricles; column 2 mm long, with denticulate wings, foot 1 mm long.

ETYMOLOGY: From the Latin *circumplexus* (*circum*, "about" or "surrounding," and *plexus*, "an interwoven arrangement"), "clasping or embracing one another," referring to the position of the inflorescence surrounded by the leaf.

TYPE: Mexico. HOLOTYPE in K.

DISTRIBUTION: Mexico, Guatemala, Nicaragua, and ?Costa Rica.

GUATEMALA: Near Guatemala City, alt. 2500 m. *H. Brown s.n.* SEL 25-74-9, flowered in cult. Dec. 1974.

This species is characterized by its laterally compressed stem and short racemes of brown pubescent flowers which emerge from behind a spathe

*The Marie Selby Botanical Gardens.

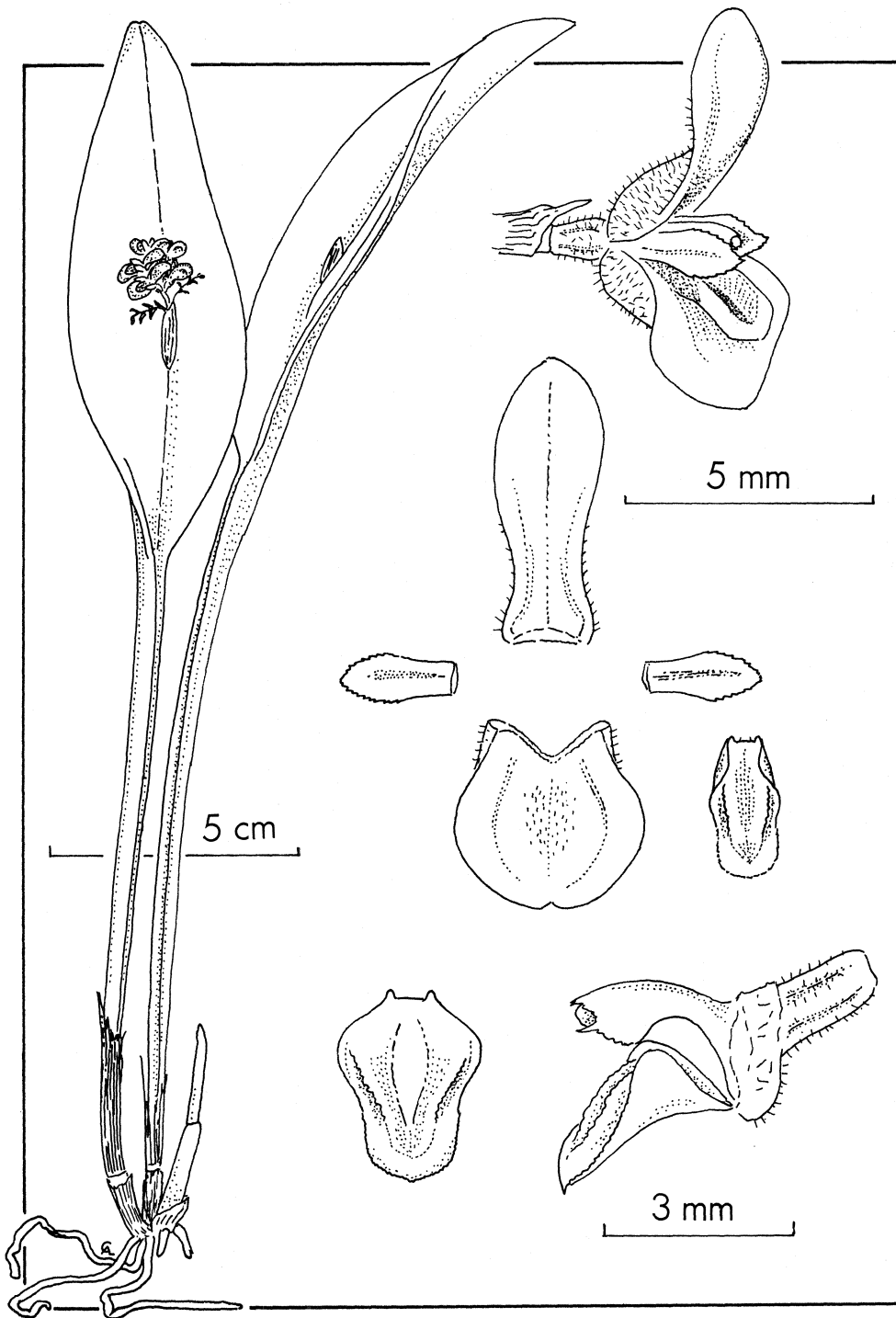


Figure 34. PLEUROTHALLIS CIRCUMPLEXA Lindl.

located near the middle of the leaf. The dorsal sepal is obovate, the synsepal is suborbicular, the petals are finely lacerate, and the lip is essentially entire except for basal auricles and erect submarginal lamellae.

In his original description of this species, Lindley aptly described the lip, but the drawing of the lip on his herbarium sheet, and the subsequent description in his *Folia Orchidaceae* indicate that the lip is tridentate. Certainly a misinterpretation, possibly caused by an artifact, crept into the busy man's work.

The original description is accompanied by a short discussion which includes the following passage: ". . . the peduncle being strictly embraced by the base of the leaf, so as to give the flowers an epiphyllous appearance." This idea has been taken up by subsequent authors.

The inflorescence makes its appearance near the center of the blade, but this is due to an extension of the sides of the base of the leaf down the sides of the upper part of the secondary stem, finally merging with the wings of the stem itself. Therefore, the spathe and the peduncle, which merge from the apex of the secondary stem, are well surrounded by the substance of the leaf. The peduncles are short and wholly free from the leaf. On immature growths the apex of the stem with a spathe is near the base of the leaf. As the growth matures, the sides of the leaf are gradually extended downward along the stem as the stem grows upward.

Pleurothallis circumplexa is very closely allied to several other species. Vegetatively *P. gacayana* Schltr. is smaller, but the flowers are very similar except that the surface of the lip of the latter is verrucose. The flowers of *P. pantasmi* Rchb.f. and *P. pantasmoides* C. Schweinf. are extremely similar, but the leaf is less decurrent on the stem so that the inflorescence emerges from near the base of the leaf. The flowers of *P. rubroviridis* Lindl. and *P. verruculosa* Krzl. indicate a close relationship, but the inflorescences of these species also emerge from near the base of the leaf. The Peruvian *P. decurrens* Poepp. & Endl. and *P. phyllostachys* Schltr are vegetatively similar to *P. circumplexa*, but they are distinguished by large glabrous flowers.

***Pleurothallis eumecocaulon* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19:187. 1923.**

Plant epiphytic, small, shortly creeping to caespitose; roots slender, flexuous. Secondary stem terete to compressed above, slender, 4-11 cm long, with a tubular sheath below the middle and another at the base, unifoliate. Leaf coriaceous, narrowly ovate, acute to acuminate, base broadly cuneate to rounded, sessile, 3-6 cm × 8-15 mm. Inflorescence fasciculate; flowers white, produced singly (1-3) on long-pedicellate ovaries; peduncle capillary, 15-20 mm long, from an evanescent spathe about 5 mm long in the axil of the leaf; floral bract tubular, 5-6 mm long; pedicel 8-20 mm long; ovary about 4 mm long; dorsal sepal ovate, acuminate, obtuse, concave basally, 7 × 3.5 mm; lateral sepals united into an ovate, obtuse synsepal, 6 × 3.5-4.5 mm; petals very narrowly ovate to linear, acuminate, acute, keeled basally to fleshy and microscopically verrucose above the middle, 6 × 1 mm; lip ovate, subpandurate, 3.5 × 1.5 mm, apex pink, thick, fleshy, papillary to verrucose, disc with a purple rounded elevation above the middle and basally with a pair of white rounded elevations, base broadly hinged to the column-foot, indistinctly auricled; column stout, terete, 1 mm long with a abbreviated foot.

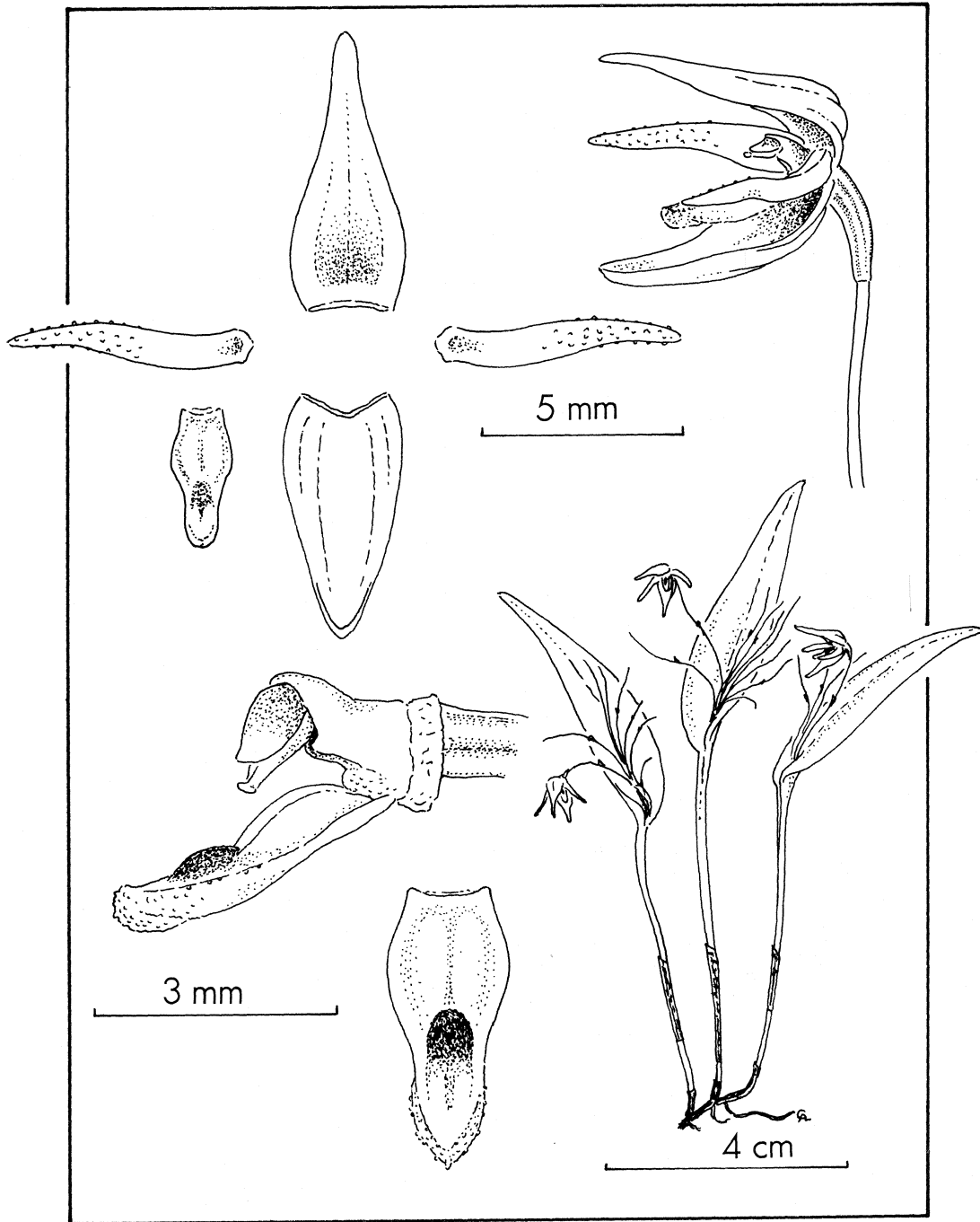


Figure 35. PLEUROTHALLIS EUMECOCAULON Schltr.

ETYMOLOGY: From the Greek *eu-*, "well-," *mekon*, "poppy," and *caulos*, "stem," implying some obscure similarity of the stem to that of a poppy.

TYPE: Costa Rica: "District (Hazienda) Voli de San Ramon, bois, alt. 1270 m." A. M. Brenes 232, Jan. 1922.

DISTRIBUTION: Costa Rica and Panama.

COSTA RICA: PUNTARENAS: Monte Verde, alt. 1600 m, 7 Feb. 1968. C. H. Dodson 3500 SEL; La Palma, F L Stevenson 1-2475-2 SEL, flowered in cult. Jan. 1975.

This little species is easily recognized by its very slender stem which supports a narrow leaf. At the base of the leaf it produces solitary white flowers, nearly a centimeter in size, on very long, filiform peduncle-pedicels which may exceed the leaf in length. Usually a large collection of old peduncles with or without their solitary pedicels remains in a fascicle from the axil of the leaf. The dorsal sepal and the synsepal appear similar and the narrow papillose petals protrude from either side. The lip is entire, verrucose and fleshy anteriorly with a prominent purple hump on an otherwise white lip.

Pleurothallis excavata Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19:287. 1923.

Pleurothallis concaviflora C. Schweinf., Bot. Mus. Leaf. 4:114. 1937.

Plant small, epiphytic, caespitose; roots slender, flexuous. Secondary stem horizontal, slender, terete, 2.5-5 cm, with 1-2 basal, tubular sheaths, monophyllous. Leaf coriaceous, broadly ovate, 3-4 × 1.5-2 cm, apex obtuse, tridentate, bases rounded, sessile. Inflorescence a solitary flower from a slender, conduplicate spathe about 1 cm long at the base of the leaf. Flower yellow-green flecked with purple, nonresupinate; floral bract tubular, 4-5 mm long; pedicel about 7 mm long; ovary 4 mm long; middle sepal fleshy, scabrous internally, broadly elliptical, subacute, 4.5 × 3.25 mm, 3-nerved, lightly carinate; lateral sepals united into a deeply concave synsepal, broadly ovate, obtuse, 4 × 4 mm unexpanded; petals fleshy, subcarinate, oblong, apex abruptly acute and incurved, 2 × 0.75 mm; lip deeply concave, 3 × 2 mm, apex abruptly acuminate and curved inward, base broadly affixed to the column-base, with slender lateral auricles surrounding the shaft of the column, disc with a converging pair of smooth lamellae behind the concavity; column stout, cylindrical, 1 mm long, with an indistinct foot.

ETYMOLOGY: From the Latin *excavatus*, "excavated" or "hollowed out," referring to the concave lip.

TYPE: Costa Rica: "Umgebung von San Ramon, in Jahre 1921." Acosta s.n.

DISTRIBUTION: Costa Rica and Panama.

PANAMA: COCLE: El Valle cloud forest, 15 Aug. 1971. Wiehler and Dressler 71297a SEL, flowered in cult. Nov. 1974.

This species was first described by Schlechter in 1923. It was described again from the same region of San Ramon, Costa Rica by Schweinfurth in 1937, basing the new description on a specimen with a longer stem and smaller flower.

Vegetatively the plant is not distinctive. A small, sessile, ovate leaf is borne on a slender stem. The very distinctive yellow, purple-speckled flowers are borne singly and successively, or occasionally doubly, to lie with the

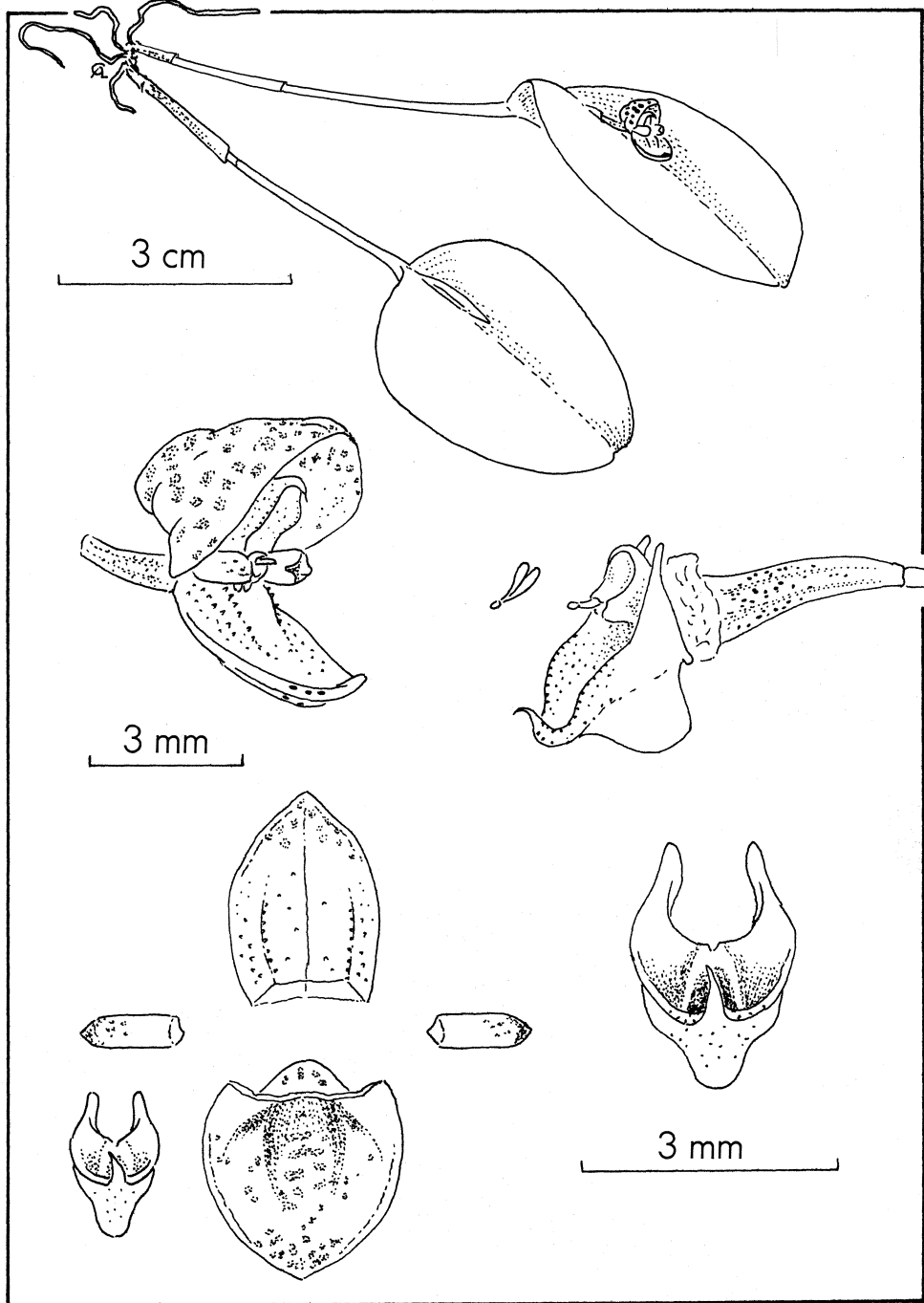


Figure 36. *PLEUROTHALLIS EXCAVATA* Schltr.

lowermost middle sepal upon the horizontal leaf, and with its bonnet-like synsepal above. The equally concave lip with its peaked apex fits within. The basal auricles of the lip engulf the middle of the short column.

Pleurothallis pachyglossa Lindl., Edward's Bot. Reg. 26: misc. 68. 1840.

Pleurothallis conanthera Rchb.f., Xenia Orchid. 3:41, t. 217. 1881.

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

Humboldtia pachyglossa (Lindl.) O. Ktze., l. c. 2:668. 1891.

Pleurothallis formosa Schltr., Repert. Spec. Nov. Regni Veg. 10:291. 1912.

Plant medium in size, epiphytic, caespitose; roots slender, flexuous. Secondary stem erect, terete, about 10 cm long, with 2 close-fitting tubular sheaths, monophyllous. Leaf oblong-elliptical, apex acute, tridenticulate, base cuneate, with a short, slender petiole, 6-10 × 1.5-2 cm including the petiole about 1 cm long. Inflorescence a distantly few-flowered raceme, about twice as long as the leaf; peduncle slender, from a small tubular spathe about 1 cm long, from the base of the leaf-petiole. Flowers dull brownish or purplish to translucent yellowish streaked with reddish brown; floral bract tubular, 3-4 mm long; pedicel slender, about 1 cm long; ovary 4 mm long; dorsal sepal ovate, acuminate, 15 × 5 mm, concave, 3-nerved, slightly carinate dorsally; lateral sepals united into an ovate, concave lamina, 13 × 7 mm, 6-nerved, bidentate, lightly bicarinate externally; petals elliptical, apex rounded with involute margins, 9 × 4.5 mm, 3-nerved, verrucose externally. Lip fleshy-thickened, narrowly ovate, verrucose above the middle and obtuse, 12 × 3 mm, shortly unguiculate, disc with a parallel pair of thin, auriculate lamellae about 2.5 mm long near the base and extending as low longitudinal crests to above the middle, and with a pair of longitudinal papular crests between them; column 3 mm long, apically toothed, with a column-foot about 1.5 mm long.

ETYMOLOGY: From the Greek *pachys*, "thick" and *glossa*, "tongue," referring to the thick, fleshy labellum of the species.

TYPE: Mexico. HOLOTYPE in K.

DISTRIBUTION: Mexico, Guatemala, El Salvador, Nicaragua, and Costa Rica.

MEXICO: *R. McCullough s.n.* SEL.

GUATEMALA: BAJA VERAPAZ: Purulhá cloud forest, alt. ca. 1000 m, 3 Mar. 1975. *Wiehler 7593* SEL, flowered in cult. May 1975.

Lindley described this relatively common species from a plant imported from Mexico by Mr. Barker. At that time Lindley states that it is the largest-flowered of *Pleurothallis* which he has seen. Subsequently he would describe several larger-flowered species.

Pleurothallis pachyglossa is recognized by its medium-sized leaf and slender stem of about equal length. The one- to three-flowered raceme, subtended by a short, snug-fitting spathe, exceeds the leaf. The bilabiate flowers are commonly a dull brown and lightly tricarinate. The externally verruculous petals are wide and rounded apically with involuted margins. The comparatively large, thickened lip fills the concavity of the synsepal. It is verrucose above the middle, and near the base it is provided with a vertical pair of parallel wings. The lip is similar to that of *P. tuerckheimii* which bears a larger number of larger flowers on a raceme subtended by a long, foliaceous spathe.

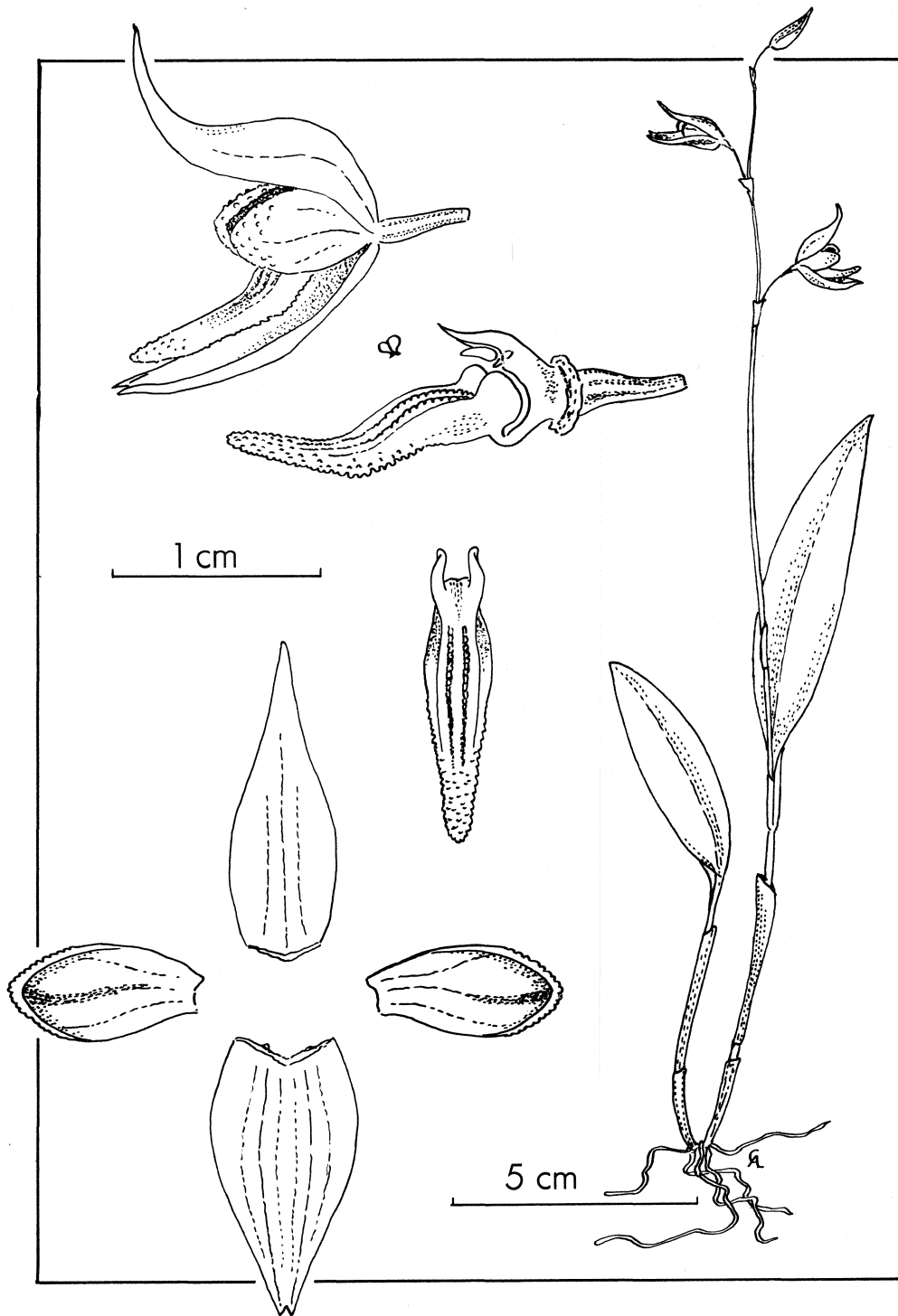


Figure 37. PLEUROTHALLIS PACHYGLOSSA Lindl.

Pleurothallis racemiflora Lindl. ex Lodd., Bot. Cab. 10:t. 949. 1824, not (Sw.) Lindl.

Dendrobium quadrifidum Llave & Lex., Nov. Veg. Descr. 2:40. 1825.

Pleurothallis quadrifida (Llave & Lex.) Lindl., Edward's Bot. Reg. 28:misc. 70. 1842.

Stelis racemiflora (Lindl.) Lodd. ex Baxt. Loud. Hort. Brit. Suppl. 3:643. 1842.

Pleurothallis ghiesbreghtiana Rich. & Gal., Ann. Sci. Nat. Bot. 3, 3:16. 1845.

Pleurothallis incompta Rchb.f., Bonplandia 2:24. 1854.

Pleurothallis longissima Lindl., Fol. Orch. Pleuroth. 31. 1859.

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

Humboldtia longissima (Lindl.) O. Ktze., l. c. 2:667. 1891.

Humboldtia quadrifida (Llave & Lex.) O. Ktze., l. c. 2:668. 1891.

Humboldtia racemiflora (Lindl.) O. Ktze., l. c. 2:668. 1891.

Pleurothallis lyroglossa Schltr., Repert. Spec. Nov. Regni Veg. 8:566. 1910.

Pleurothallis niederleinii Schltr., Beih. Bot. Centralbl. 36, 2:396. 1918.

Plant epiphytic, medium-sized, caespitose; roots slender, flexuous. Secondary stem terete, 5-15 cm. long, with 2-3 tight-fitting tubular sheaths, monophyllous. Leaf coriaceous, oblong-elliptic to narrowly obovate, obtuse, retuse, base cuneate, sessile, 5-12 X 2-3 cm. Inflorescence a slender, many-flowered, secund raceme as long as to 3 times as long as the leaf, peduncle from a slender conduplicate spathe about 2 cm long at the base of the leaf. Flowers yellow, gaping; floral bract about 3 mm long; pedicel and ovary each about 4 mm long; dorsal sepal ovate, acute, 9 X 4 mm, 3-nerved; lateral sepals connate, except for the apex, into a broadly ovate, concave synsepal, obtuse, 8 X 5 mm, 4-nerved; petals elliptical to oblong, abruptly acute, 6 X 3 mm.; lip oblong-pandurate, arcuate, 5 X 3 mm, the portion above the central constriction dilated, suborbicular, margin minutely erose, the portion below the constriction fleshy, suborbicular, the sides turned up in the natural position, very shortly unguiculate; column terete, 3 mm long, column-foot very short.

ETYMOLOGY: From the Latin *racemus*, "a raceme," and *-flora*, "*-flowered*," referring to the racemose inflorescence.

TYPE: Jamaica, HOLOTYPE in K.

DISTRIBUTION: Mexico, Guatemala, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, and Jamaica.

HONDURAS: COPAN. *Fred Fuchs, Jr. s.n.* SEL. 26-74-104, flowered in cult. Nov. 1974; *F. Mathews s.n.* SEL, flowered in cult. March 1975.

The nomenclature of this common yellow-flowered species has been thoroughly confused with that of a purple-flowered species from Cuba and Jamaica, and from which it is morphologically distinct. The purple-flowered species was first described in Swartz in 1788 as *Epidendrum racemiflorum*, and next by Lindley in 1836, as *Pleurothallis oblongifolia*.

The yellow-flowered species was first described as *P. racemiflora* in 1824 by Lindley with a picture in Loddiges' Botanical Cabinet. It was also pictured the following year in Hooker's Exotic Flora. It was described in 1825 as *Dendrobium quadrifidum* by La Llave & Lexarza, and again by Richard & Galeotti in 1845 as *P. ghiesbreghtiana*.

In his *Folia Orchidaceae* of 1859, Lindley transferred Swartz's *E. racemi-*

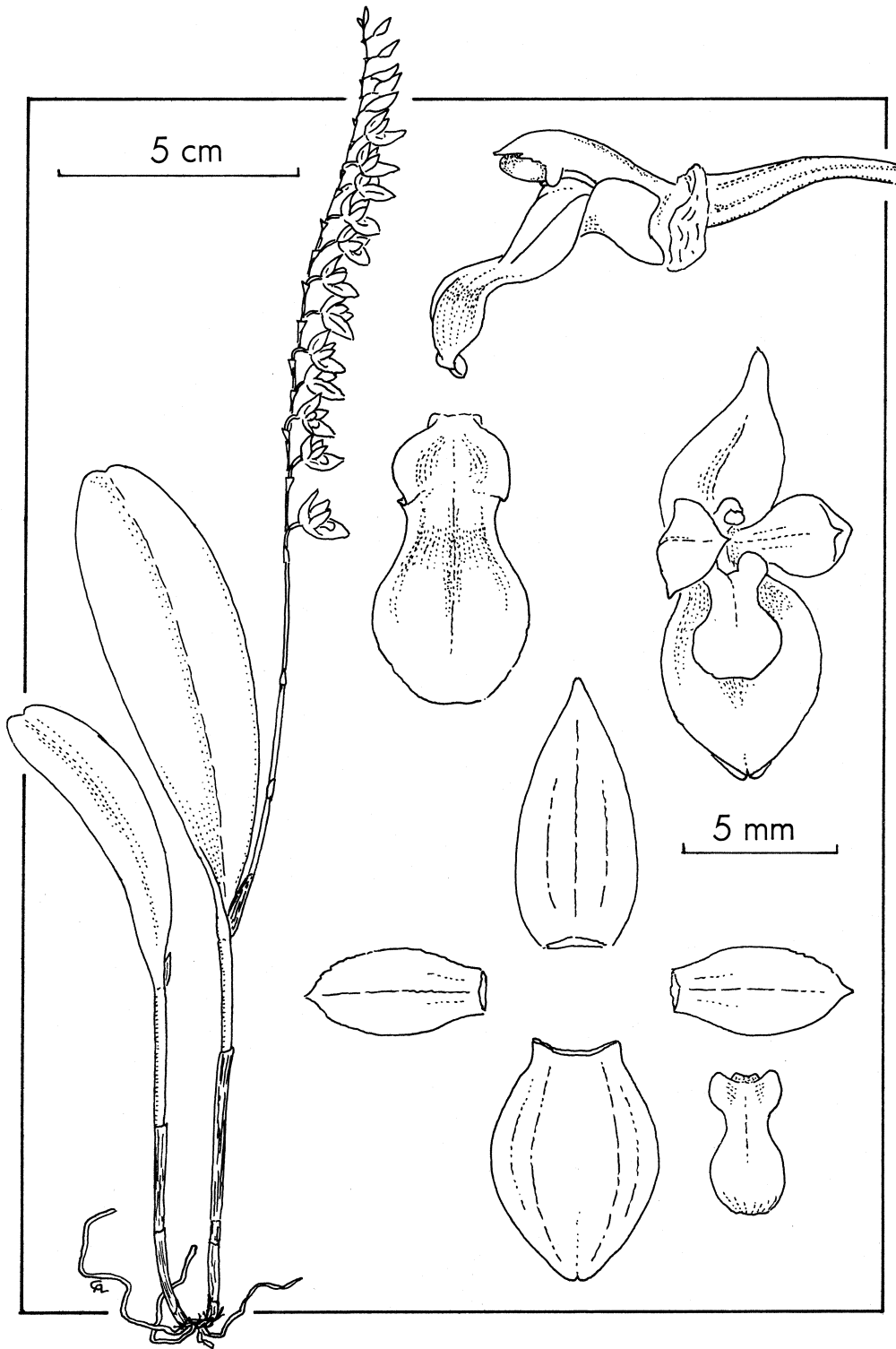


Figure 38. PLEUROTHALLIS RACEMIFLORA Lindl. ex. Lodd.

florum to *Pleurothallis* as *P. racemiflora* (Sw.). In the same publication he listed the yellow-flowered species (his *P. racemiflora*) as *P. longissima* presumably in deference to the older name and transferred *D. quadrifidum* to *Pleurothallis*, and he suspected that it was the same as his *P. longissima*.

Subsequent authors have continued to use *P. racemiflora* (Sw.) Lindl. for the purple-flowered species, and the yellow-flowered species has been treated variously as *P. ghiesbreghtiana*, *P. longissima*, and *P. quadrifida*. According to the rules of priority, the correct name for the yellow-flowered species is *P. racemiflora* Lindl., and the correct name for the purple-flowered species should be *P. oblongifolia* Lindl. because of prior use of the epithet *racemiflora* in *Pleurothallis*.

This species is recognized by its narrowly obovate, obtuse, leathery leaves supported by stems about as long, and a one-sided raceme of many clear-yellow flowers each about a centimeter in size. The petals are comparatively large and entire, and the lip is panduriform with a dilated, more or less rounded apex.

Pleurothallis segregatifolia Ames & Schweinf., Sched. Orch. 8:33. 1925.

Pleurothallis calyptrorsepala L. O. Wms., Amer. Orchid Soc. Bull. 11:65. 1942.

Plant minute, epiphytic, caespitose; roots filamentous, flexuous. Secondary stems 2-5 mm long, concealed by 1-2 tubular sheaths, monophyllous. Leaf dark green, under surface often suffused with purple, obovate, obtuse to rounded, marginate, tridenticulate-apiculate, base cuneate into a channeled petiole, 10-20 mm long including the petiole and 4-6 mm wide. Inflorescence a flaccid, loose raceme, up to 8 cm long, much surpassing the leaf, producing up to 18 deep purple-red flowers, 1-3 simultaneously; peduncle capillary, from a node on the secondary stem; floral bract about 1 mm long; pedicel 2-3 mm long; ovary about 1 mm long; dorsal sepal oblong, 3-4 × 1.5 mm, apex narrowly obtuse, thickened, cucullate to calyptriform, 3-nerved, lightly carinate dorsally; lateral sepals ovate, acute to narrowly obtuse, connate to near the middle, forming a distinct mentum below the column-foot, 3-4.5 × 2-3 mm, lightly bicarinate externally; petals linear, slightly falcate, obtuse, 2 × 0.5 mm, 1-nerved; lip fleshy, oblong-obovate, 2.5 × 1 mm, 3 lobed above the middle, mid-lobe obovate or suborbicular, recurved, microscopically papillose, lateral lobes broad, obtuse to acute, oblique, each with a low linear lamella, base cuneate-unguiculate; column 2 mm long with a short foot.

ETYMOLOGY: From the Latin *segregatus* and *folium*, implying "segregated-leaved," but exactly what cryptic meaning Ames intended to convey remains obscure.

TYPE: Costa Rica, La Fuente, Peralta on trunks of tree ferns, 24 June 1924.

C. H. Lankester 914, HOLOTYPE in AMES.

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

NICARAGUA: JINOTEGA. *Fred Fuchs, Jr. s.n.* SEL 26-74-92, flowered in cult. Nov. 1974; *F L Stevenson 61874-9* SEL, flowered in cult. June 1974.

PANAMA: *F L Stevenson 61874* SEL, flowered in cult. June 1974.

This species may be easily recognized by its clump of minute, short-stemmed, obovate leaves far surpassed by the fine, hair-like racemes which bear an untidy array of tiny maroon flowers. The flowers are produced slowly

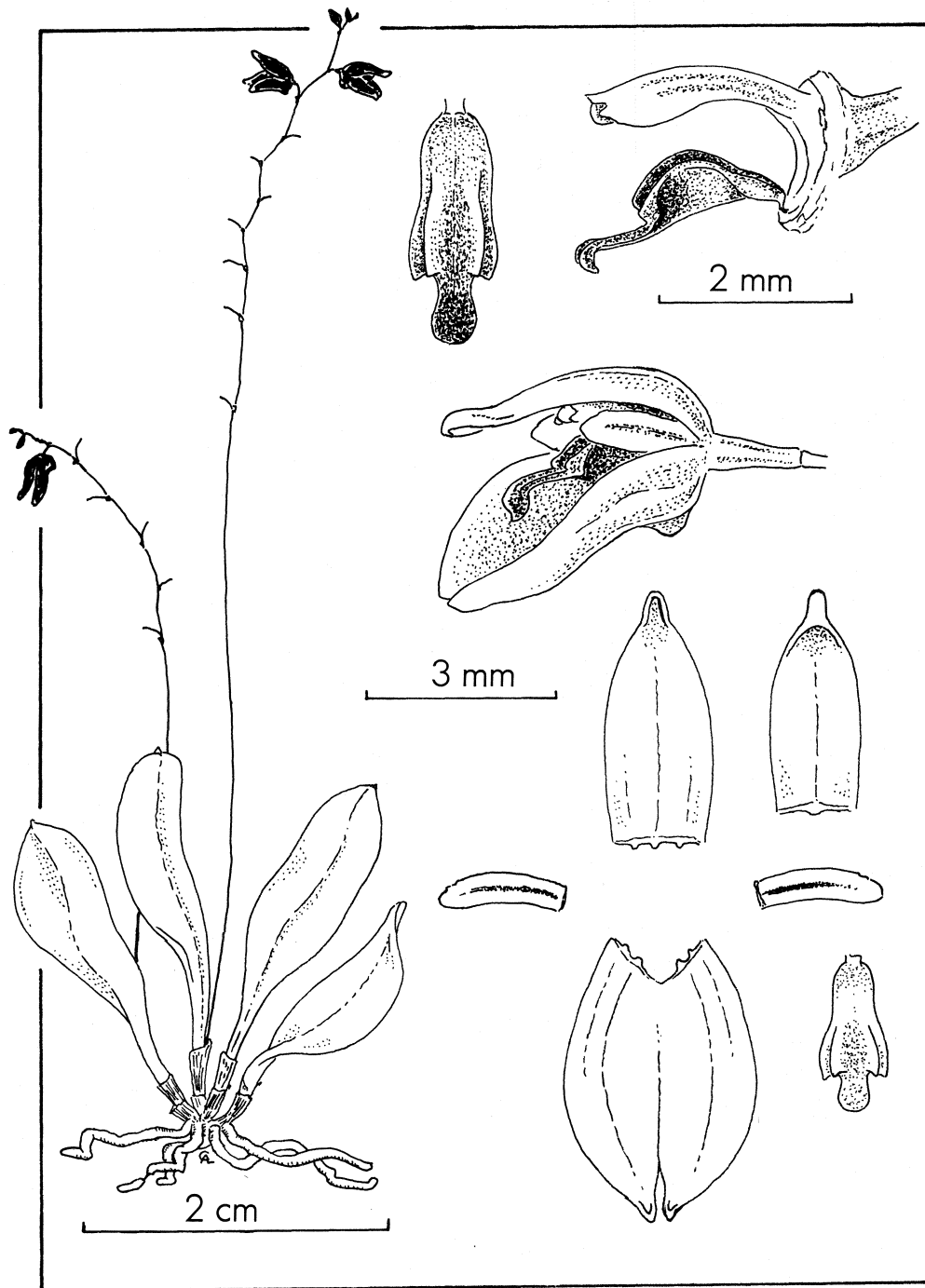


Figure 39. *PLEUROTHALLIS SEGREGATIFOLIA* Ames & Schweinf.

and successively over a long period of time, the plant persisting in flower nearly all year.

The flowers do not open widely. The color is deep wine-red, but the apices of the sepals are sometimes green or yellow. The apex of the dorsal sepal is fleshy with rolled-in margins, forming a minute hood. Sometimes this character is exaggerated so that the margins of the apex actually unite to form a saccate tube. This condition, which is mentioned by Ames in the original description as a "hollow obtuse horn," led L. O. Williams to describe the plant from Chiapas as *Pleurothallis calyptrorsepala*. The same calyptriform apex may occur in plants from the opposite end of its range in Panama. The maroon lip is 3-lobed above the middle; the apical lobe is rounded and recurved in the natural position; and the lateral lobes are reinforced with parallel lamellae.

Pleurothallis sertularioides (Sw.) Spreng., Syst. Veg. 3:721. 1826.

Epidendrum sertularioides Sw., Prodr. 122. 1788.

Dendrobium sertularioides (Sw.) Sw., Fl. Ind. Occ. 3:1541, 1806.

Specklinia sertularioides (Sw.) Lindl., Gen. Sp. Orch. 8. 1830.

Humboldtia sertularioides (Sw.) O. Ktze., Rev. Gen. Pl. 2:668. 1891.

Pleurothallis tenuissima Rchb.f., Linnaea 18:399. 1844.

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

Plant epiphytic, minute, repent, the rhizome producing a secondary stem every 4-8 mm; roots fleshy, nearly as thick as the primary stem. Secondary stem short, 2-3 mm long, clothed by a scarious tubular sheath, unifoliate. Leaf thick, light green, glaucous, narrowly obovate, obtuse to subacute, tridenticulate, base narrowly cuneate, acuminate, 2-3 cm long and 4 mm wide. Inflorescence a solitary yellow-green flower borne on a filiform pedicel nearly as long as the leaf, from a node on the secondary stem, with a tubular basal sheath; floral bract infundibular, about 1.5 mm long; pedicel 2.5-3 mm; ovary 1.5 mm; sepals narrowly triangular, acute to acuminate, 5 × 1 mm, 1-nerved, lowly carinate externally, yellow and somewhat fleshy apically, lateral sepals free, adhering basally into a short mentum, oblique; petals linear, acuminate, falcate, 4 × 0.8 mm; lip oblong, 2.5 × 0.8 mm, apex green, fleshy-thickened and narrowed, obtuse, with a pair of short, blunt, broadly triangular lateral lobes or teeth just below the middle, base shortly unguiculate, with a pair of minute, incurved, puberulent teeth on top; column terete, 2 mm long, with a short foot.

ETYMOLOGY: Presumably named for the superficial similarity of the blanket of little leaves to a colony of hydroids in the genus *Sertularia*. From the Latin *sertula* (dim. of *sertum*, "a garland"), "a clover," from *sero*, *serere*, "to entwine," in allusion to the mass of little polyps.

TYPE: Jamaica.

DISTRIBUTION: Mexico, Guatemala, Honduras, Nicaragua, Cuba, and Jamaica.

JAMAICA: *H. Brown s.n.* SEL 25-74-10, flowered in cult. Nov. 1974; *Fred Fuchs, Jr. s.n.* SEL 26-74-60, flowered in cult. Nov. 1974.

This dwarf species is easily recognized by its little, thickened and narrow, obtuse leaves produced from very short stems along a creeping and branching rhizome. Great plush, carpet-like masses are often accrued as the

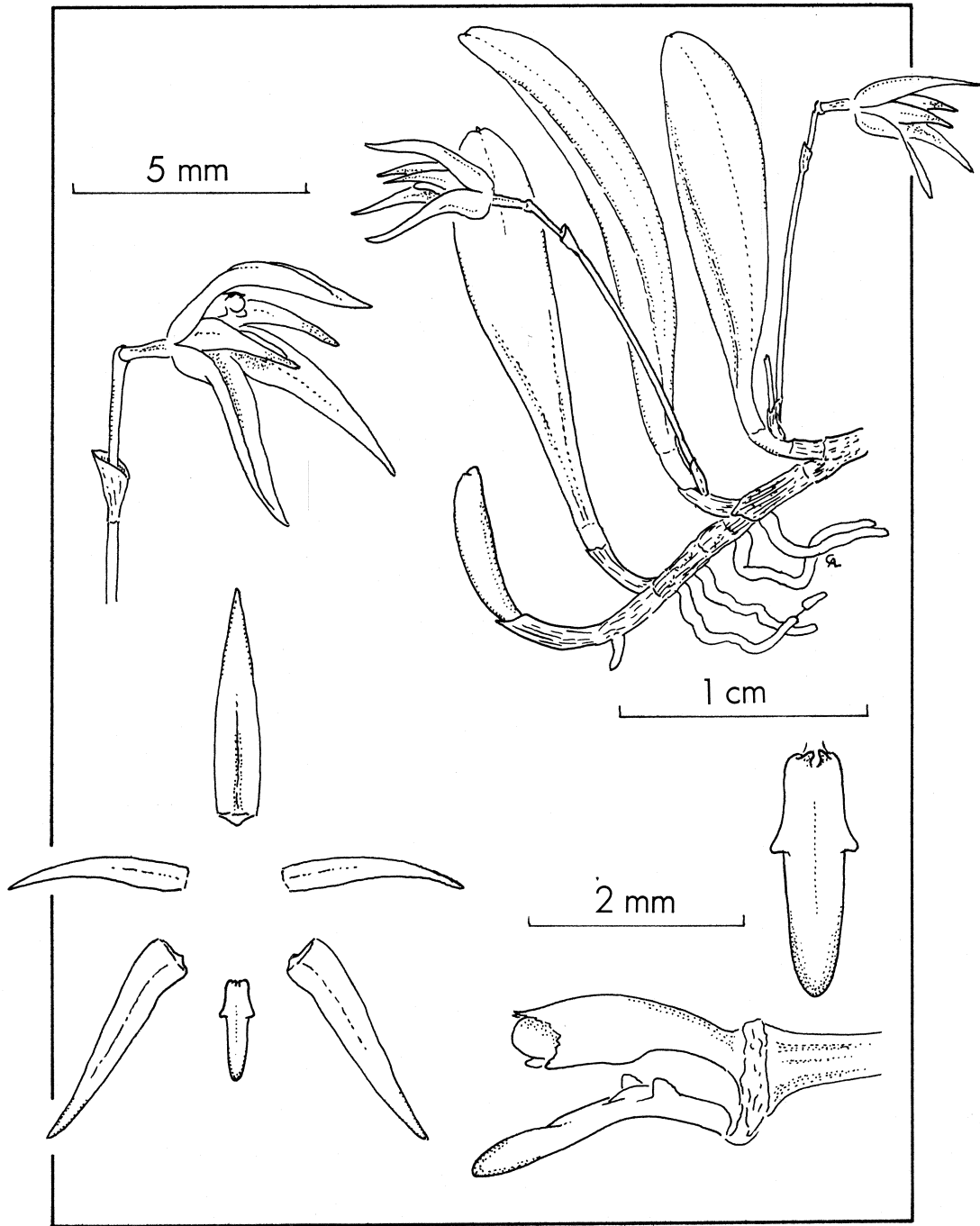


Figure 40. *PLEUROTHALLIS SERTULARIOIDES* (Sw.) Spreng.

rhizomes spread out over a surface of the host tree. The little yellow-green flowers which are borne singly, protrude up among the tops of the leaves. The floral parts are acute, and the lip is distinguished by its minute lateral lobes and a pair of curved teeth at the base.

Pleurothallis yucatanensis Ames & Schweinf., Bot. Mus. Leafl. 1(2):4. 1932.

Plant epiphytic, very small, with a short, creeping rhizome which produces a secondary stem about every 2-3 mm; roots comparatively fleshy. Secondary stem abbreviated, about 2 mm long, concealed by 1-2 short, scarios sheaths, unifoliate. Leaf narrowly obovate, obtuse, minutely tridenticulate, base narrowly cuneate to acuminate, about 10-18 × 4-5 mm. Inflorescence a 2-4-flowered, loose raceme longer than the leaf, 2-3 cm long, peduncle filiform, from a fugacious sheath at a node on the secondary stem. Flowers small, yellow green; floral bract and pedicel each about 1.5 mm long; ovary 0.75 mm long; sepals narrowly triangular, acute, 3-3.5 × 1 mm, 1-nerved, slightly carinate externally; lateral sepals oblique and free to the base where they form a small mentum; petals narrowly ovate, oblique, acute to attenuate, 2.5 × 0.5 mm; lip yellow, oblong, obtuse, 1.5 × 0.3 mm, fleshy below the middle with upturned margins, base obscurely auricled, shortly unguiculate; column 1 mm long with a short foot.

ETYMOLOGY: Named for the Yucatan Peninsula where the species was first collected.

TYPE: Mexico: Yucatan, Campeche, Tuxpeña, 8 Nov. 1931. *C. L. Lundell 912*, HOLOTYPE in AMES.

DISTRIBUTION: Mexico, Guatemala, Belize, and Nicaragua.

BELIZE: South of Orange Walk. *Fred Fuchs, Jr. s.n.* SEL 26-74-82, flowered in cult. Nov. 1974.

When Ames and Schweinfurth described this dwarf species, they compared it to *Pleurothallis sertularioides* (Sw.) Spreng., distinguishing it by the few-flowered raceme (instead of a solitary flower) and a simple lip (instead of being minutely lobed near the middle and at the base).

Pleurothallis yucatanensis is similar to *P. calypstrostele* Schltr. which is distinguished by its narrow obovate petals. It is also similar to *P. minutalis* Lindl. which has scabrous bracts, and a narrow fleshy lip without erect margins below the middle.

Pleurothallis yucatanensis differs from *P. grobyi* Batem. in having attenuate petals (instead of obtuse), free, diverging lateral sepals (instead of united), and most remarkably by the column-foot which is free of tubercles (instead of bearing the characteristic pair near the center of the column-foot).

This very small species may be identified by its shortly creeping habit, narrowly obovate leaves with obsolescent stems, a somewhat longer-than-the-leaf raceme of 2 to 5 yellow flowers with free lateral sepals, pointed petals, oblong lip, and the absence of microscopic tubercles on the column-foot.

LITERATURE CITED

- Ames, O. 1937. In Standley, Flora of Costa Rica, Orchidaceae. Publ. Field Mus. Nat. Hist., Bot. Ser. 18, Pt. 1:197-306.
 _____ & D. S. Correll 1953. Orchids of Guatemala. Fieldiana, Botany 26:205-262.
 Heller, A. H. Unpublished manuscript.
 Williams, L. O. 1946. In Woodson & Schery, Flora of Panama, part 3. Ann. Missouri Bot. Gard. 33:85-128.
 _____ 1951. Orchidaceae of Mexico, Ceiba 2:83-98.

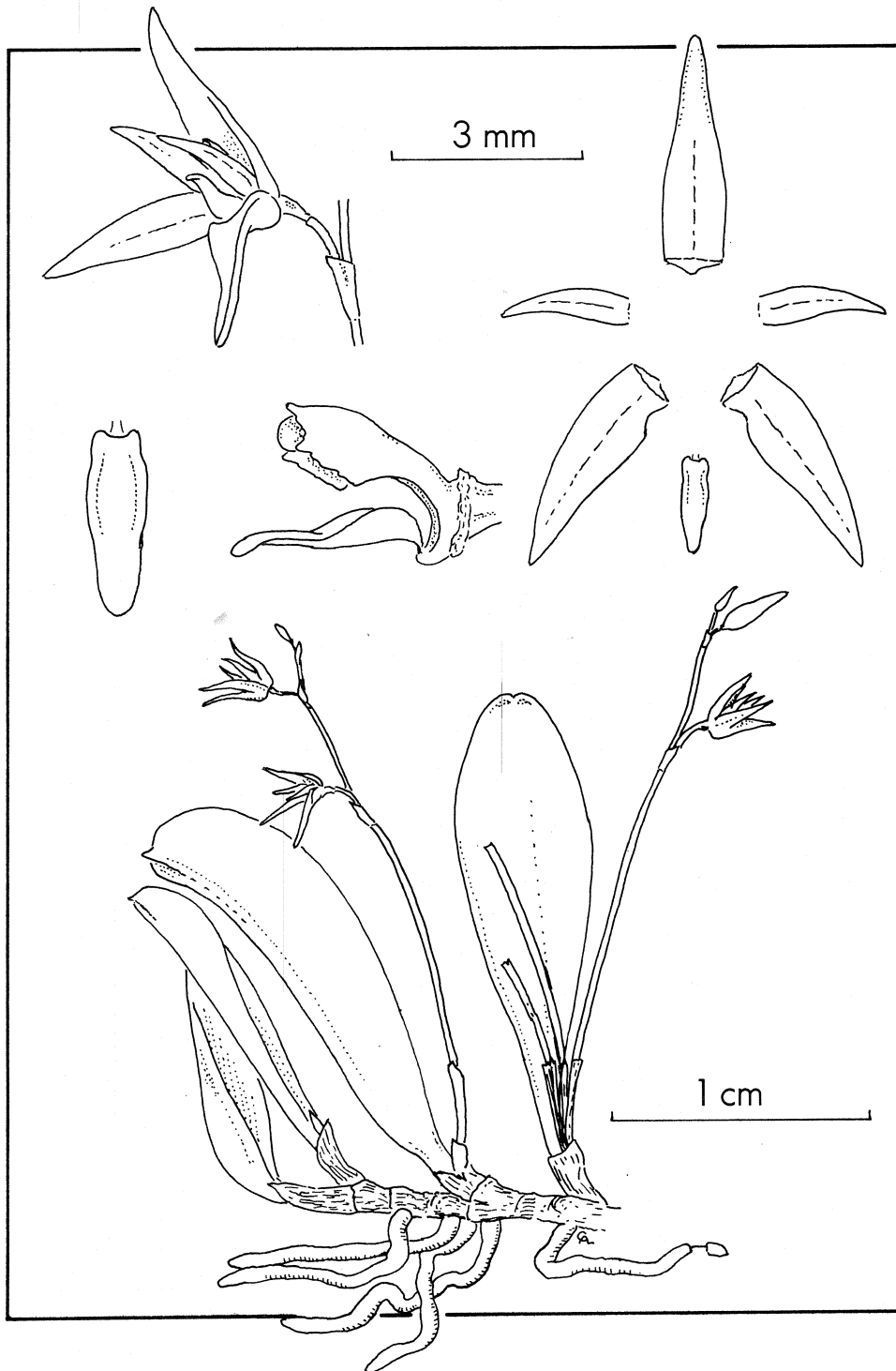


Figure 41. *PLEUROTHALLIS YUCATANENSIS* Ames & Schweinf.