

ICONES PLEUROTHALLIDINARUM  
(ORCHIDACEAE)

PLEUROTHALLIS OF ECUADOR IV

*Carlyle A. Luer\**

**Pleurothallis bivalvis** Lindl., Orchid. Linden. 2. 1846.

*Pleurothallis macrocardia* Rchb. f., Bonplandia 3:72. 1855.

*Humboldtia macrocardia* (Rchb. f.) Kuntze, Rev. Gen. Pl. 2:667. 1891.

*Humboldtia bivalvis* (Lindl.) Kuntze, Rev. Gen. Pl. 2:667. 1891.

Plant epiphytic to terrestrial, caespitose, medium to large; roots numerous, flexuous. Secondary stems slender, terete, 25-35 cm long, with a close fitting sheath below the middle and 2-3 others at the base, unifoliate. Leaf coriaceous, ovate, apex acute to acuminate, tridenticulate, base deeply cordate, sessile, 10-16 × 3-4 cm. Inflorescence fasciculate, flowers large, yellow to brown or orange, single produced 1-3 at a time from a spathe 10-15 mm long at the base of the leaf; floral bract about 8 mm long; pedicel 8-9 mm long; ovary 6 mm long; dorsal sepal broadly ovate, subacute, 17-22 × 9-12 mm, 7-veined; lateral sepals united into an ovate synsepal, subacute, 15-20 × 10 mm, 6-veined; petals linear-oblong, subacute, 10 × 2 mm, 1-veined, the margins smooth to minutely ciliate; lip elliptical-oblong, obtuse, margins minutely denticulate, base shortly reflexed and concave at the attachment to the column-foot, disc smooth, 7 × 4-5 mm; column short, 2 × 2 mm.

ETYMOLOGY: From the Latin *bivalvis*, "two-valved" (*valva*, "valve"), referring to the bilabiate appearance of the flowers.

TYPE: VENEZUELA: MERIDA: "on trees and on the ground, in forests on the Savanna of Chiquará," alt. 2700 m, June, *J. Linden 1480* (HOLOTYPE: K).

DISTRIBUTION: Venezuela, Colombia, and Ecuador.

ECUADOR: PICHINCHA: on rock cliffs near km 25 between Quito and Chiriboga, alt. 2500 m, 14 March 1963 *C. H. Dodson & L. B. Thien 2380* (SEL); terrestrial on road cut about 15 km below the pass between Quito and Santo Domingo, alt. 2500 m, 1 March 1975, *C. A. Luer & R. Kent 266* (SEL); near same area, 15 Aug. 1975, *C. A. Luer, G. M. Luer, & S. Wilhelm 572* (SEL).

Lindley described this species from a plant collected by Linden on his trip to Venezuela, Colombia, and Cuba in 1845. The lip is missing in the specimen and consequently was not included in the description. He suspected that the species was the same as Reichenbach's *Pleurothallis macrocardia* from Ocaña, Norte de Santander, Colombia, which appears to be identical to the plant illustrated here from Ecuador.

*Pleurothallis bivalvis* grows at high elevations in the Andes. It produces one or more large bivalved flowers at a time at the base of a spreading cordate leaf. The flowers vary in color from pure bright yellow to yellow-orange or yellow-brown, or the petals and lip may vary from brown to orange while the sepals remain yellow. The sepals are broad and multi-veined. The margins of the narrowly oblong petals may be finely ciliate to essentially glabrous. The margins of the oblong lip are minutely denticulate.

\*The Marie Selby Botanical Gardens.

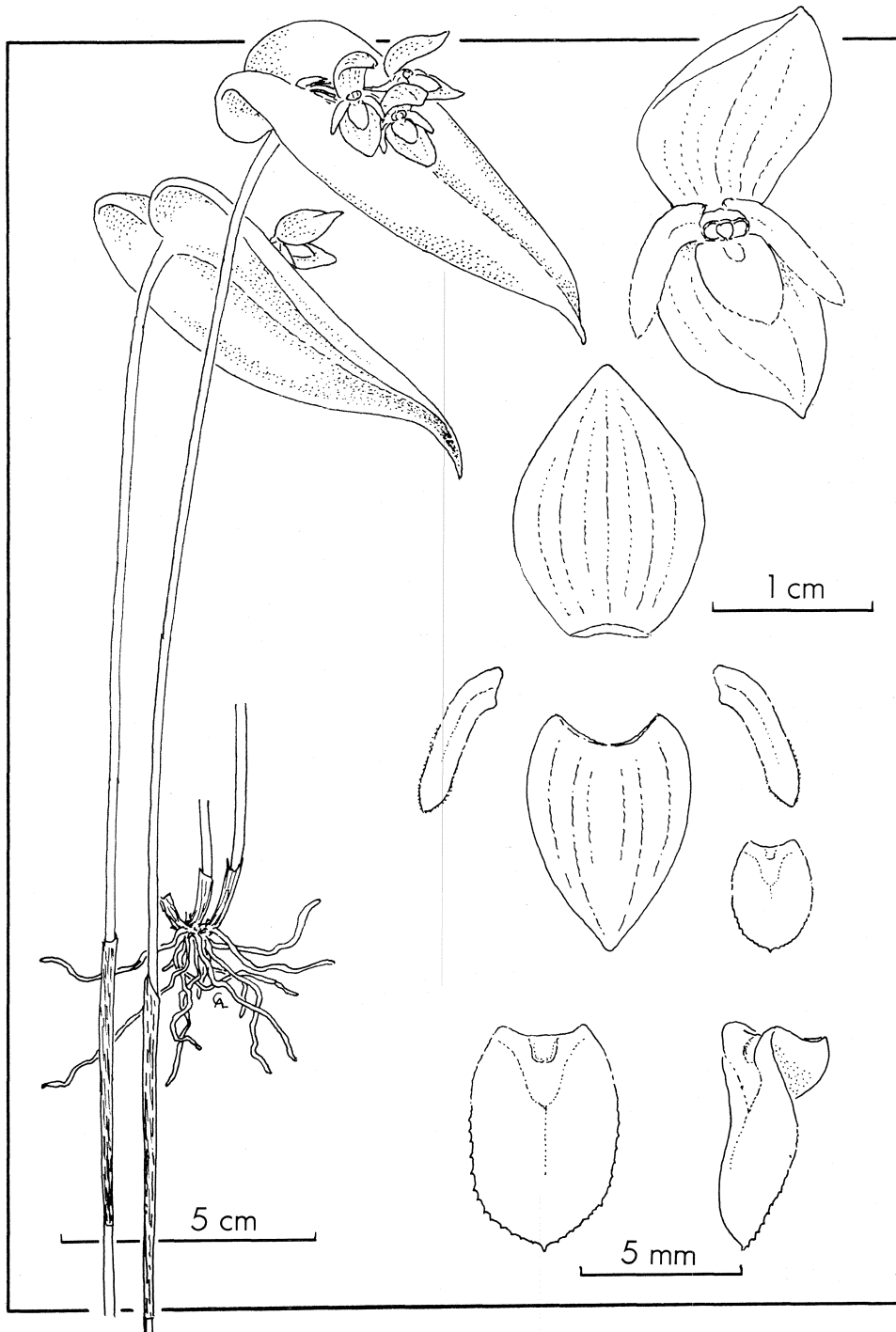


Figure 96. PLEUROTHALLIS BIVALVIS Lindl.

**Pleurothallis cedralensis** Ames, Sched. Orchid. 4:18. May 1923.

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

Plant small, 5-8 cm tall, epiphytic or terrestrial, repent, branching; roots filamentous, flexuous. Secondary stems proliferative, producing elongating branches, each secondary stem about 1 cm long, concealed by 1-3 close-fitting, ribbed sheaths with a dilated, oblique apex, scabridous to minutely ciliated, unifoliate, but the superposed branches bearing more than one leaf. Leaf elliptical, subacute, tridenticulate, base cuneate, shortly petiolate, 10-15 × 4-5 mm. Inflorescence a few-flowered (2-5) raceme about as long as or a little longer than the leaf; peduncle filiform, from near the apex of a secondary stem; flowers ringent, pale yellow-green; floral bract 0.5-1 mm long; pedicel 1.5-2.5 mm long; ovary 0.5 mm long; dorsal sepal ovate, long-acuminate, apex acute and thickened, 6-7.5 × 2.5 mm, 3-veined, uncarinate; lateral sepals linear triangular, apices thickened, 7 × 1.25 mm, carinate, united near the base to form a shallow mentum; petals oblong, slightly oblique, obtuse, 3.5 × 1 mm, 1-veined, translucent white; lip ovate, oblong above the middle, apex yellow, thickened, convex, rounded, dilated below the middle into broadly rounded lateral lobes, curved up in the natural position, short unguiculate, 4 × 1.5 mm; column 2 mm long with a foot 1.5 mm long.

ETYMOLOGY: Named for Cedral, Costa Rica.

TYPE: COSTA RICA: ALAJUELA: Cedral, alt. 1700 m, 28 July 1919, C. H. Lankester 352 (HOLOTYPE: K).

DISTRIBUTION: Costa Rica, Venezuela, and Ecuador.

ECUADOR: PASTAZA: terrestrial along the roadside between Rio Negro and Puyo, alt. 1500 m, 18 Feb. 1963, C. H. Dodson & L. B. Thien 2276 (SEL); ZAMORA-CHINCHIPE: epiphytic east of Zamora, alt. 500 m, Jan. 1975, F L Stevenson 1-476-9 (SEL), flowered in cult. 6 Jan. 1976; MORONA SANTIAGO: epiphytic 30 km south of Gualaquiza, alt. 500 m, 6 Aug. 1975, C. A. Luer, G M. Luer & S. Wilhelm 699 (SEL).

About a century ago Endres sent specimens and accurate drawings of this species to Reichenbach from Costa Rica, but it was not described. Over fifty years ago Ames and Schlechter described it from Costa Rica independently and nearly simultaneously, Ames' report appearing six months before that of Schlechter. Although rather common, *Pleurothallis cedralensis* was thought to be endemic. It was next reported from several different areas in Venezuela in 1966 by Dunsterville and Garay. The present report is the first for this species from Ecuador where it was collected by Dodson and Thien in 1963, and again twice more in 1975. Most likely it will eventually be discovered in the intervening regions. Its minute stature and its similarity to other species (e.g. *P. foliata* Griseb. and *P. multicuspidata* Rchb. f.) possibly play roles in its apparant elusiveness.

This small species may be identified by its proliferating, branching stems which appear to bear several leaves. Each secondary stem, however, is unifoliate, short, and concealed by a few lepanthiform sheaths. The plant resembles a minute *P. arbuscula* Lindley. The small, pale yellow flowers with attenuate sepals and a blunt lip dilated below the middle are borne on short racemes usually only a little longer than the leaf from the base of which they originate.

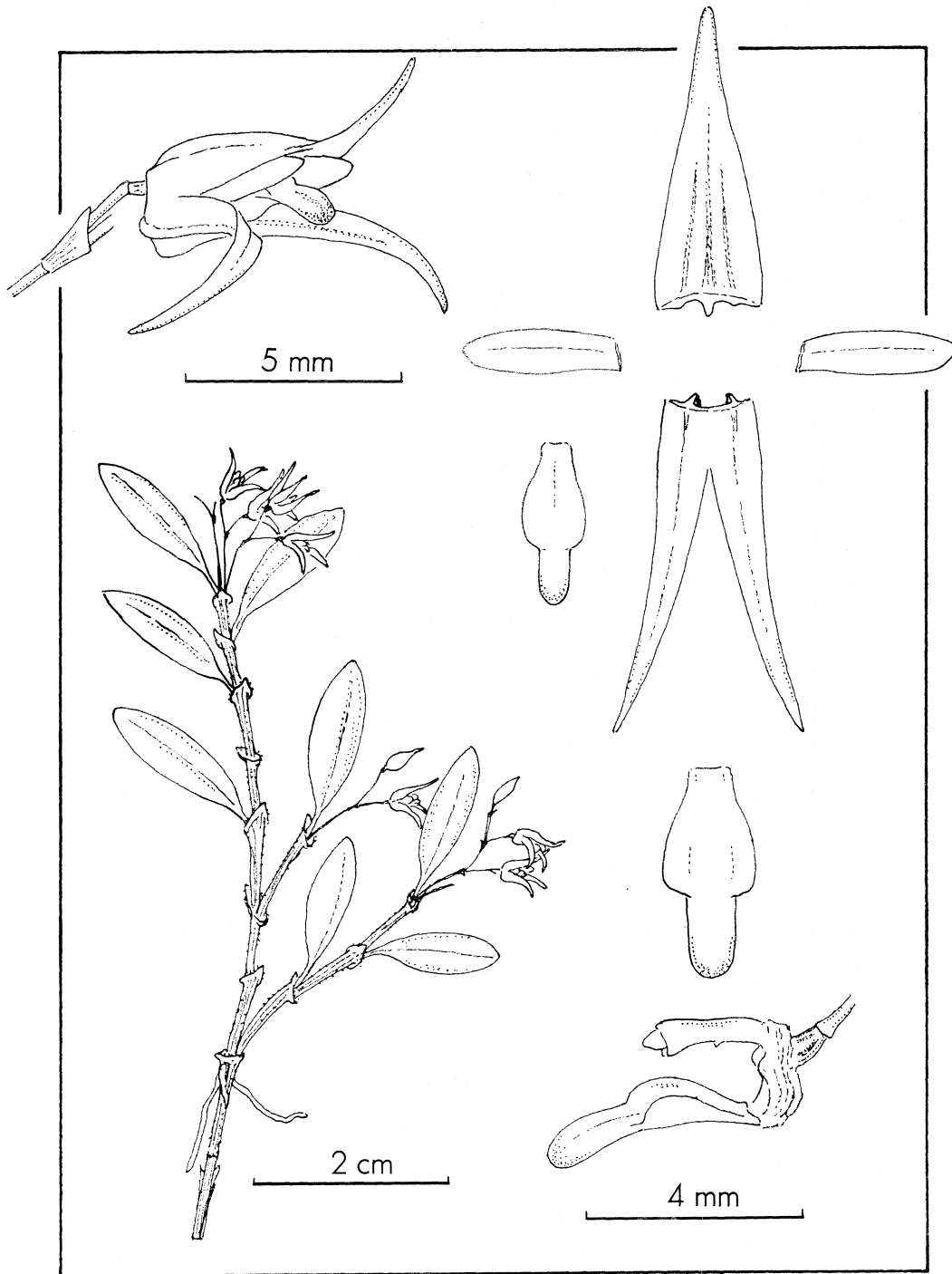


Figure 97. PLEUROTHALLIS CEDRAENSIS Ames

**Pleurothallis dura** Lindl., Folia Orchid. Pleuroth. 32, 1859.

*Humboldtia dura* (Lindl.) Kuntze, Rev. Gen. Pl. 2:667. 1891.

*Pleurothallis moschata* Rchb. f., Xenia Orchid. 3:42, t. 217. 1900.

Plant small, epiphytic, caespitose to scandent; roots filiform, flexuous. Secondary stems terete, 2-5 cm long, concealed by 1-5 imbricating, costate, ciliate, flaring sheaths, prolific, unifoliate. Leaf elliptical-oblong, subacute to acute, base cuneate, shortly petiolate, 1-2.5 cm long including the petiole (1-4 mm long) and 5-10 mm wide, coriaceous, green, often with 3 purple stripes. Inflorescence racemose (1-2), laxly few- to many-flowered, more or less fractiflex, to 10 cm long; flowers yellow, ringent, long-pedicellate; peduncle filiform, from a node high on the secondary stem, often along with a prolific stem; floral bract 1.5 mm long; pedicel 4-5 mm long; ovary cuneate, 0.5 mm long; dorsal sepal ovate, concave, acuminate, acute, 5-7 × 2-3 mm, tricarinate; lateral sepals ovate, oblique, acuminate, acute, united at the base to form a mentum with the column-foot, 5-7 × 1.5-2 mm, unicarinate; petals oblong to obovate, subacute to rounded, 1-2.75 × 1.25 mm, 1-veined; lip yellow, flushed with red-brown, oblong, apex rounded to obtuse, base shortly hinged to the column-foot, sides slightly dilated and erect below the middle, 2-3 × 1-1.5 mm, disc with a pair of longitudinal calli; column 1.75 long, broadly winged, with a column-foot about 1 mm long.

ETYMOLOGY: From the Latin *durus*, "hard, tough," in allusion to a quality Lindley saw in the leaves of the plant.

TYPE: *ECUADOR*: PICHINCHA: "forests of the Andes," Jameson s.n. (HOLOTYPE: K).

DISTRIBUTION: Costa Rica, Ecuador, and Peru.

*ECUADOR*: CAÑAR: epiphytic near km 94 between Ruran and Tambo, alt. 1000 m, 2 July 1962, C. H. Dodson 121 (SEL); PICHINCHA: terrestrial on road embankment near Guayumo between Quito and Nanegal, alt. 2000 m, 26 Oct. 1961, C. H. Dodson & L. B. Thien 1105 (SEL); epiphytic west of Tandapi between Quito and Santo Domingo, alt. 1500 m, 16 Aug. 1975, C. A. Luer, G. M. Luer, & S. Wilhelm 531 (SEL); epiphytic near km 85 between Quito and Santo Domingo, alt. 1500 m, 17 Aug. 1975, C. A. Luer, G. M. Luer, & S. Wilhelm 570 (SEL).

In his description of *Pleurothallis dura*, Lindley states that "the stem is not proliferous," but prolific stems exist on his type specimen. The little lepanthiform stems of this species commonly grow in dense, caespitose masses, but they also may climb among the branches of the host tree. The small leaves are oblong and commonly striped with three purple lines. When in flower, the numerous racemes of little yellow flowers produced by a large clump arch in all directions and seem to double or triple the size of the plant. The flowers vary in size and also in the configuration of the sepals. From a concave lamina the apices are acuminate, but the degree is variable. The plant from Costa Rica described by Reichenbach as *P. moschata* has slightly longer apices, but otherwise it seems to be the same. The petals are obtuse, the lip is oblong and slightly arcuate in the natural position, and the column is winged.

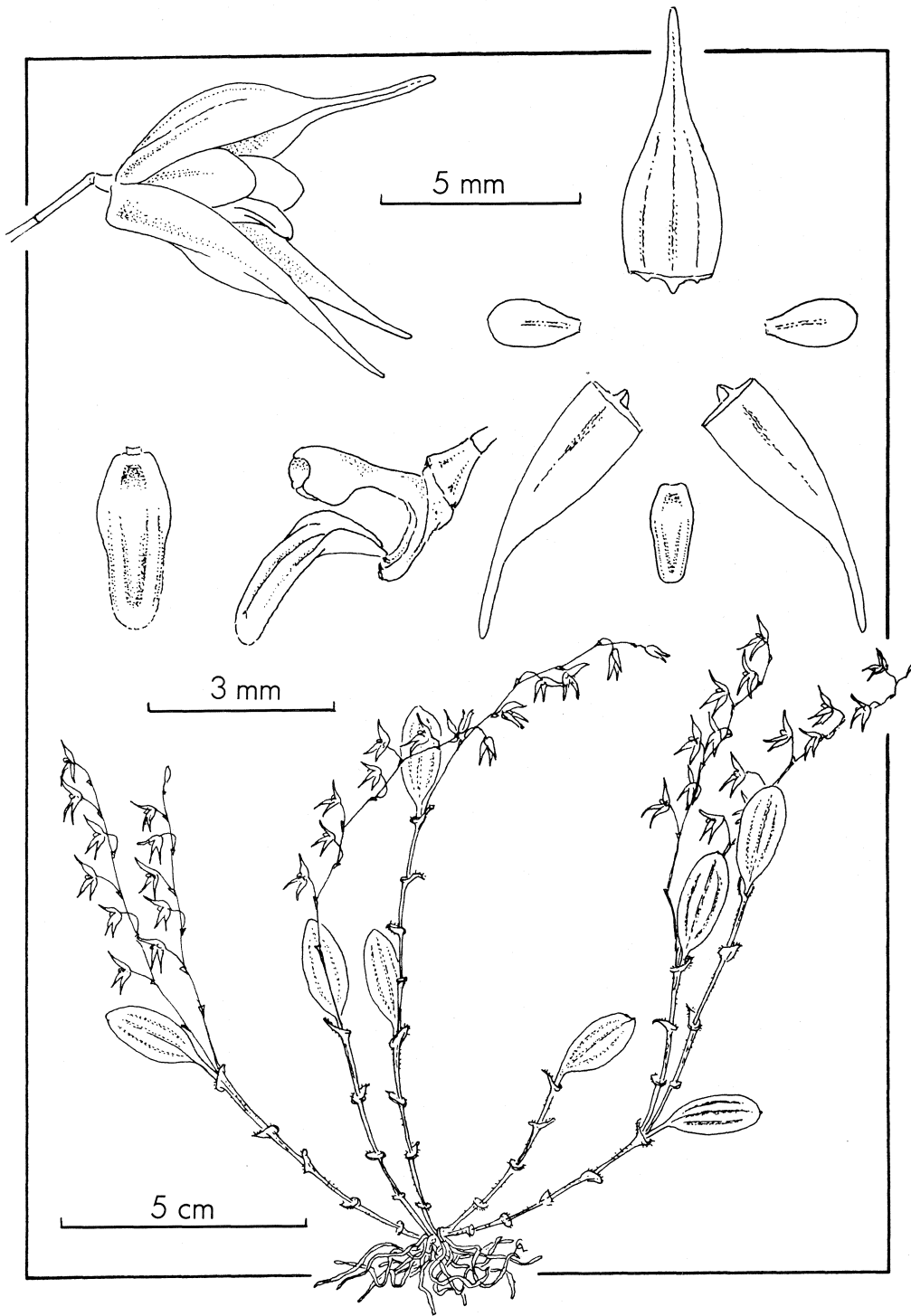


Figure 98. PLEUROTHALLIS DURA Lindl.

***Pleurothallis ephelis* C. A. Luer, sp. nov.**

Planta mediocris epiphytica caespitosa, caulibus secundariis erectis gracilibus unifoliatis vaginis pubescentibus, foliis anguste oblongis acutis basi cuneatis sessilibus, floribus singularibus fasciculatis, sepalis cinnamomeis lentiginosis ovatis obtusis, petalis infra medium ovatis maculosis serrulatis, supra medium crassis anguste linearibus obtusis, labello rubro ovato trilobato, lobo antico ovato obtuso denticulato, lobis lateralibus late ovatis obliquis marginibus anticis erosis, disco canaliculato bilamellato, base columnae bicalloso.

Plant medium in size, caespitose, epiphytic; roots filiform, flexuous. Secondary stems slender, terete, 6-18 cm long, clothed by 5-6 reddish purple, tubular, hispid sheaths, monophyllous. Leaf linear-oblong, acute, tridenticulate, base cuneate, sessile, 5-9 cm  $\times$  6-9 mm. Inflorescence fasciculate, few-, single-flowered, from bundles of old peduncles at the base of the leaf; peduncle about 2 mm long; floral bract with brown pubescence, 2-3 mm long; pedicel 2 mm long; ovary brown, 1 mm long; sepals glabrous, pale pinkish brown, flecked lightly with brown; the margins more or less revolute; dorsal sepal ovate, obtuse, 5  $\times$  2 mm; lateral sepals ovate, slightly oblique, subacute, 4  $\times$  2 mm, united basally and forming a mentum with the column-foot; petals 6 mm long, ovate below the middle and 3 mm wide, translucent yellow-green with reddish spots and irregular margins, abruptly contracted into a narrow, linear, thickened, yellow portion above the middle, obtuse, 3 mm long, 0.5 mm wide; lip rose-red, ovate, 3-lobed, 3  $\times$  2.5 mm spread out, anterior lobe ovate, obtuse, denticulate, lateral lobes broadly ovate, oblique, erose along the front margins, base shortly unguiculate, with a pair of rounded teeth on the base of the disc, becoming a pair of red lamellae which extend onto the apical lobe, sharply channeled between; column rose, winged, apex denticulate, 2.5 mm long, foot 1.5 cm long, with a pair of sticky hemispherical callosities.

ETYMOLOGY: From the Greek *ephelis*, "freckle," in reference to the sepals and petals which are lightly flecked with brown and red.

TYPE: *ECUADOR*: PASTAZA: epiphytic, 20 km east of Puyo, alt. 500 m, 28 July 1975, C. A. Luer, G. M. Luer, & S. Wilhelm 479 (HOLOTYPE: SEL).

DISTRIBUTION: Ecuador.

*Pleurothallis ephelis* is probably endemic in the rain forests at low elevations of the eastern slopes of the Andes of Ecuador. It may be identified by the coarsely pubescent sheaths of the stems, the small, narrow leaf, and the few, fasciculate, glabrous, pale pinkish brown flowers flecked with brown. The sepals are not acuminate, but the apical halves of the petals are long and narrow. The red, three-lobed lip is obtuse and denticulate with a central pair of lamellae separated by a central channel. The short foot of the column is provided with a pair of sticky, rounded glands.

This species is allied to several others characterized by hirsute, cauline sheaths. *Pleurothallis furfuracea* Lehm. & Krzl. is a larger plant with pubescent, acuminate sepals. *Pleurothallis hirsuticaulis* Ames & Schweinf. has larger, purple-red flowers with a fimbriate-margined lip.

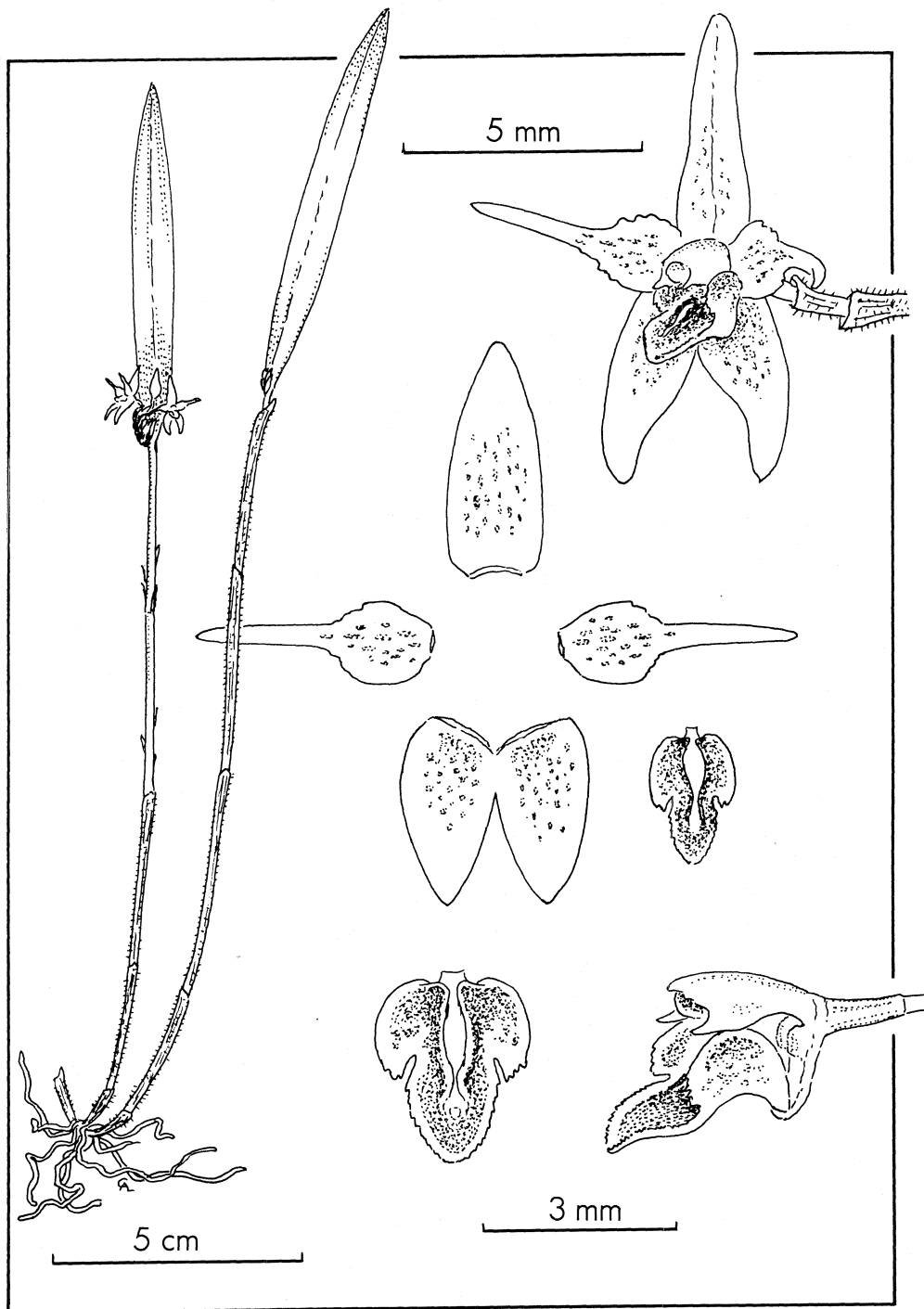


Figure 99. PLEUROTHALLIS EPHELIS C. A. Luer



**Pleurothallis helleri** Hawkes, *Phytologia* 14:12. 1966.

Plant epiphytic, caespitose, medium to large; roots slender, flexuous. Secondary stems slender, terete, 5-20 cm tall, with a close-fitting tubular sheath below the middle and 1-2 others at the base, unifoliate. Leaf broadly ovate, acuminate, acute, tridenticulate, base cuneate, petiolate, 8-18 × 3-6 cm, the petiole, 1.5-2 cm long, channeled, the blade indistinctly ribbed longitudinally. Inflorescence racemose, loosely few-, to several-flowered, 5-10 cm long, 2-4 racemes produced on slender peduncles from a spathe about 0.5 cm long at the apex of the stem; flowers bilabiate, yellow-green; floral bract about 1 mm long; pedicel 2.5-3 mm long; ovary 2 mm long; dorsal sepal ovate, slightly acuminate, narrowly obtuse, concave, 6 × 2.5 mm, 3-veined; lateral sepals united to the apex into an ovate, slightly acuminate, retuse synsepal, 6 × 2.75 mm, 4-veined; petals narrowly linear, the apices thickened, semi-terete, 5 × 0.5 mm; lip thick and fleshy, oblong, 1.6 × 1 mm, apex rounded, verrucose, base broadly and deeply concave to accommodate the column-foot, the sides thickened and elevated below the middle with an adjacent pair of thickened calli on the disc, yellow-green with the lateral margins of the lip and the calli purple; column stout, 1.5 mm long, with a large, bulbous foot

ETYMOLOGY: Named in honor of A. H. Heller who first discovered the species in Nicaragua.

TYPE: NICARAGUA: CHONTALES: Cordillera Amerrisque, epiphytic, alt. 900 m, Dec. 1962, A. H. Heller 3784 (HOLOTYPE: F).

DISTRIBUTION: Nicaragua and Ecuador.

ECUADOR: Los Rios: epiphytic in tall trees on the Rio Palenque Biological Station, alt. 220 m, March 1973, C. H. Dodson 5407 (SEL), cultivated at the Marie Selby Botanical Gardens, greenhouse acc. no. 1-73-22, flowered in cult. Jan. 1975.

Heller discovered this species in two localities in the Chontales Province of southeastern Nicaragua in 1962 and 1963. Dodson has been aware of the species from one location in Ecuador for many years, but without a name. The curious disjunct, isolated stations of this species are not readily explained. The population in Ecuador differs slightly from that in Nicaragua by its smaller flowers without the red dots on the lip described by Heller.

The species may be recognized by its slender stems and a rather large, thin, broadly elliptical, distinctly petiolate leaf with longitudinal veins converging toward the acuminate apex. Several loose, untidy racemes, shorter than the leaf, appear from a small spathe. The narrowed, concave dorsal sepal of the gaping, yellow-green flowers is similar to the synsepal below, the slender petals spread widely, and the thick, little lip is rounded in front. The entire base of the lip is deeply concave where it articulates with a bulbous column-foot.

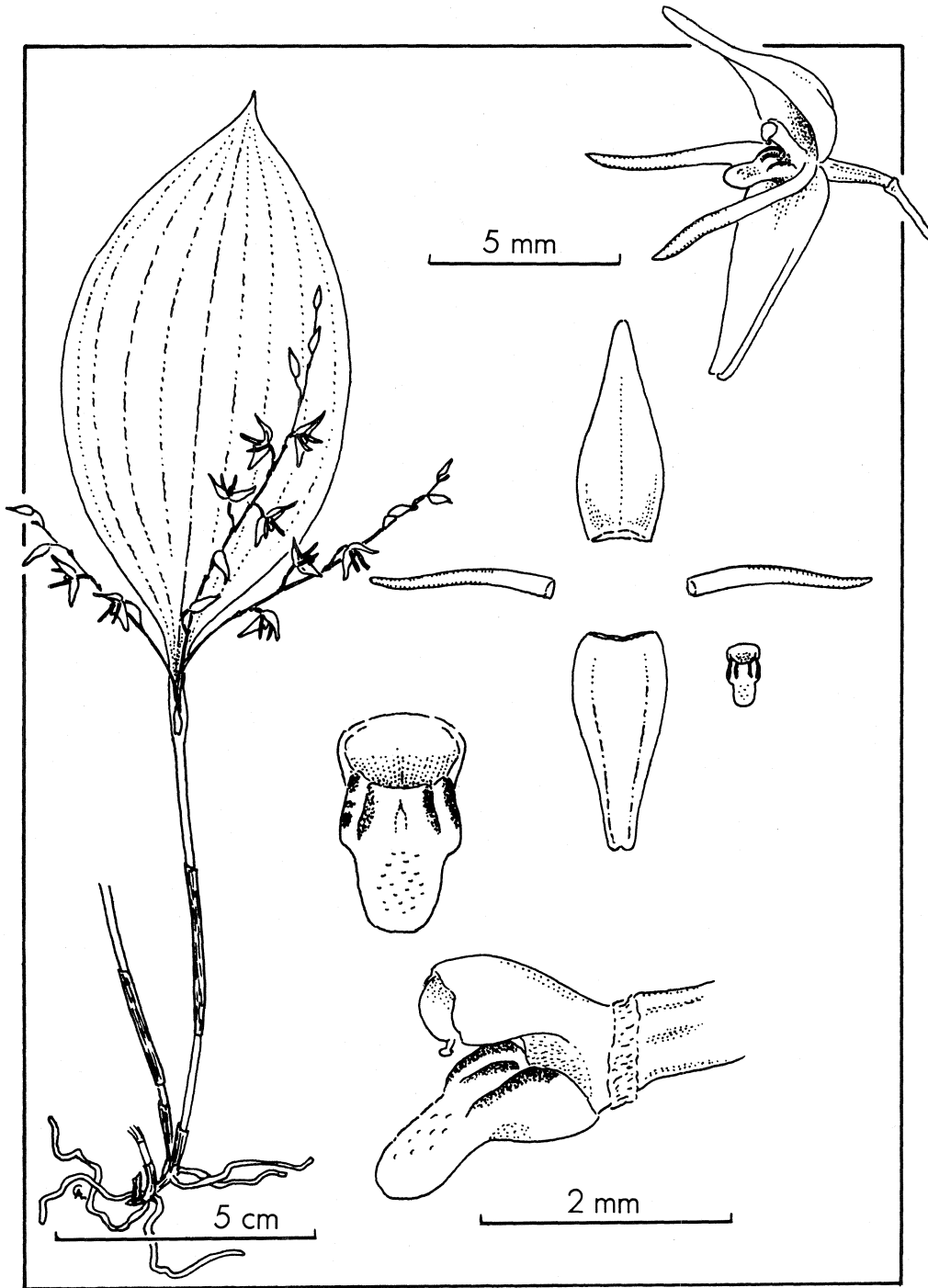


Figure 100. PLEUROTHALLIS HELLERI Hawkes

***Pleurothallis nivalis* C. A. Luer, sp. nov.**

Planta grandis caespitosa, caulibus secundariis crassis teretibus vaginis laxae amplexicaulibus, foliis coriaceis ellipticis subacutis basi cuneatis breviter petiolatis, pauciracemis longissimis multifloris, spathe foliacea, floribus niveis purpureo-punctulatis, sepalis libris ovatis subacutis pilosis interius, petalis obovatis obtusis trinervis, labello trilobata, lobo antico rhomboideo subacuto, lobis lateralibus rotundatis erectis inter eos concavis, pede columnae bulboso.

Plant large, terrestrial, caespitose; roots slender, flexuous. Secondary stems stout, terete, 15-30 cm long, unifoliate, fasciculate, largely concealed by 3-4 loose, tubular sheaths. Leaf coriaceous, elliptical, subacute, tridentate, base cuneate, shortly petiolate, 10-15 × 3.5-6 cm. Inflorescence racemose (1-4), densely many-flowered, to 35 cm long; peduncle from a spathe, 2.5-3.5 cm long, from the apex of the stem; floral bract infundibular, 4 mm long; pedicel 2 mm long; ovary green, flecked with purple, 2.5-3 mm long; sepals white with a few minute purple spots, ovate, subacute, 8 × 3.5-4.5 mm, 3-veined, the veins prominent externally, glabrous externally, pilose above the middle internally, lateral sepals united only at the base; petals white with purple spots, obovate, obtuse, 5 × 3 mm, 3-veined, the veins prominent externally; lip white, marked with purple, yellow centrally, ovate, 3-lobed, 4 × 3 mm, apical lobe rhomboid, subacute, lateral lobes below the middle, broad, rounded, erect, the base concave to accommodate the column-foot, the concavity extending to between the lateral lobes which continue into thickened calli on the disc of the apical lobe; column white, terete, 3 mm long, with a bulbous foot 2 mm long.

ETYMOLOGY: From the Latin *nivalis*, "snowy, or frosty," in allusion to the snow-white flowers and the frigid, mountainous habitat.

TYPE: *ECUADOR*: COTOPAXI: terrestrial near the paramo between Pilalo and Lactacunga, alt. 3500 m, 5 March 1975, C. A. Luer & R. Kent 290 (HOLOTYPE: SEL); same area, 14 Feb. 1963, C. H. Dodson & L. B. Thien 2259 (SEL).

DISTRIBUTION: Ecuador.

The fascicled secondary stems of *Pleurothallis nivalis* often mass into huge clumps among the alpine grasses. When they are topped by the numerous long racemes of snow-white flowers, they are beautiful to behold in the misty, bone-chilling cold of the high mountain pass. They might remind one of tiny flurries of snow. At this altitude there exist only a few scrubby trees which might harbor this species epiphytically.

The secondary stems are closely spaced, often sheathed together. The erect leaf is short-petiolate, and at the base a large spathe surrounds the origin of the few long racemes. The white flowers are pubescent within, and a few flecks of purple are present, mostly on the obovate petals and lip. The lateral lobes of the three-lobed lip are rounded and erect, and separated by a concavity extending from the base. The lateral lobes are continuous with thickenings on the apical lobe.

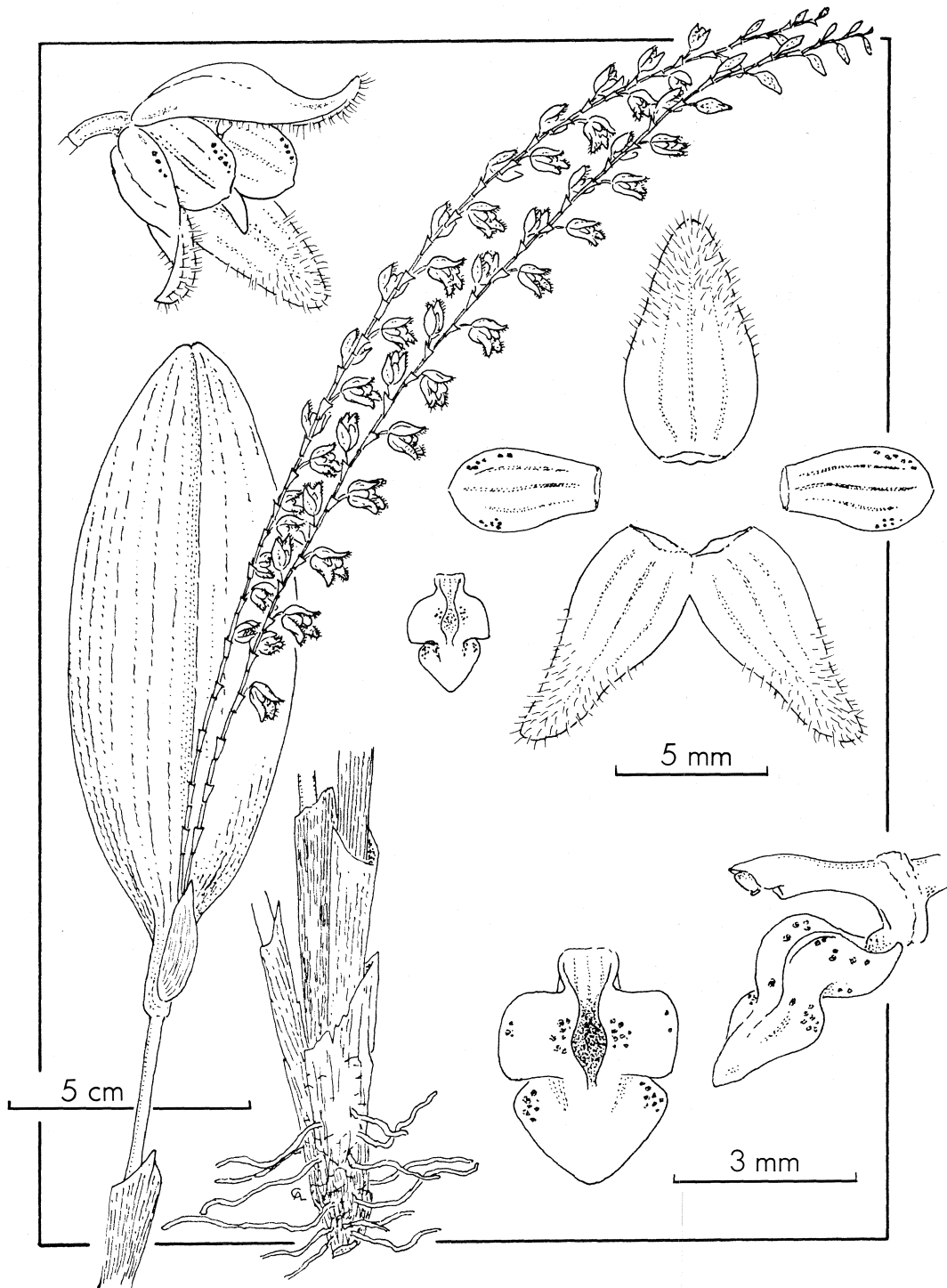


Figure 101. PLEUROTHALLIS NIVALIS C. A. Luer

**Pleurothallis sarcodactylae** C. A. Luer, sp. nov.

Herba mediocris epiphytica caespitosa, caulibus secundariis gracilibus teretibus unifoliatis vaginibus pubescentibus, foliis anguste ovatis acutis basi cuneatis breviter petiolatis, inflorescentia pauciflora fasciculata, floribus luteolis carnosis pubescentibus, sepalo dorsali oblongo apice rotundato, sepalis lateralibus ellipticis obliquis obtusis, petalis subpanduriformibus infra medium ovatis supra medium sulphureis carnosis subteretibus obtusis, labello brevissimo oblongo apice rotundato eroso, lobis lateribus infra medium parvis obtusis erosis, columna denticulata labello majore.

Plant medium in size, epiphytic, caespitose to shortly creeping, roots filiform, fasciculate. Secondary stems erect, slender, terete, 3-11 cm long, with 5-6 fugacious sheaths, the lower ones pubescent, unifoliate. Leaf coriaceous, narrowly ovate, acute, tridenticulate, base cuneate, shortly petiolate, 8-12 (including the petiole up to 1 cm long)  $\times$  2-3 cm. Inflorescence a few-, single-flowered fascicle from the apex of the stem; spathe brown, pubescent, 2 mm long; floral bract green, pubescent, 2 mm long; pedicel finely pubescent, 3 mm long; ovary pubescent, 1 mm long; flowers fleshy, pale yellow-green, not wide-spreading; dorsal sepal oblong, obtuse to rounded, 7  $\times$  3.5 mm, 5-veined, pubescent externally; lateral sepals free to near the base where they form a shallow mentum, elliptical, oblique, obtuse, 6-7  $\times$  3 mm, 2-veined, pubescent externally; petals obscurely pandurate, 6  $\times$  2 mm, ovate below the middle and 3-veined, above the middle yellow, fleshy, subterete, obtuse to rounded, with a few sparse hairs; lip white with a few purple spots, very small, oblong, 2  $\times$  1 mm spread out, apex obtuse to rounded, erose, with a small pair of erect, broadly triangular, obtuse, erose, lateral lobes just below the middle, the base truncate, obscurely auricled and shortly unguiculate, disc with a pair of denticulate lamellae near the middle; column stout, larger than the lip, 2  $\times$  1.5 mm, clinandrium denticulate, the foot concave.

ETYMOLOGY: From the Greek *sarx*, *sarkos*, "flesh," and *dactylos*, "finger," hence "fleshy fingers," an allusion to the appearance of the flowers.

TYPE: *ECUADOR*: NAPO: epiphytic 15 km west of Tena, alt. 600 m, 26 July 1975, C. A. Luer, G. M. Luer, & S. Wilhelm 621 (HOLOTYPE: SEL), flowered in cult. 3 Dec. 1975.

DISTRIBUTION: Ecuador.

This species is closely related to the larger *Pleurothallis affinis* Lindl. from which it may be distinguished by its smaller habit and fewer flowers with shorter, thicker, and wider floral parts. The incurved, thick, terete petals are glossy and glabrous save for a rare hair along the margin. The flowers do not open completely, all five segments curving forward as the five fingers of a hand. A flowering plant superficially resembles an *Octomeria*.

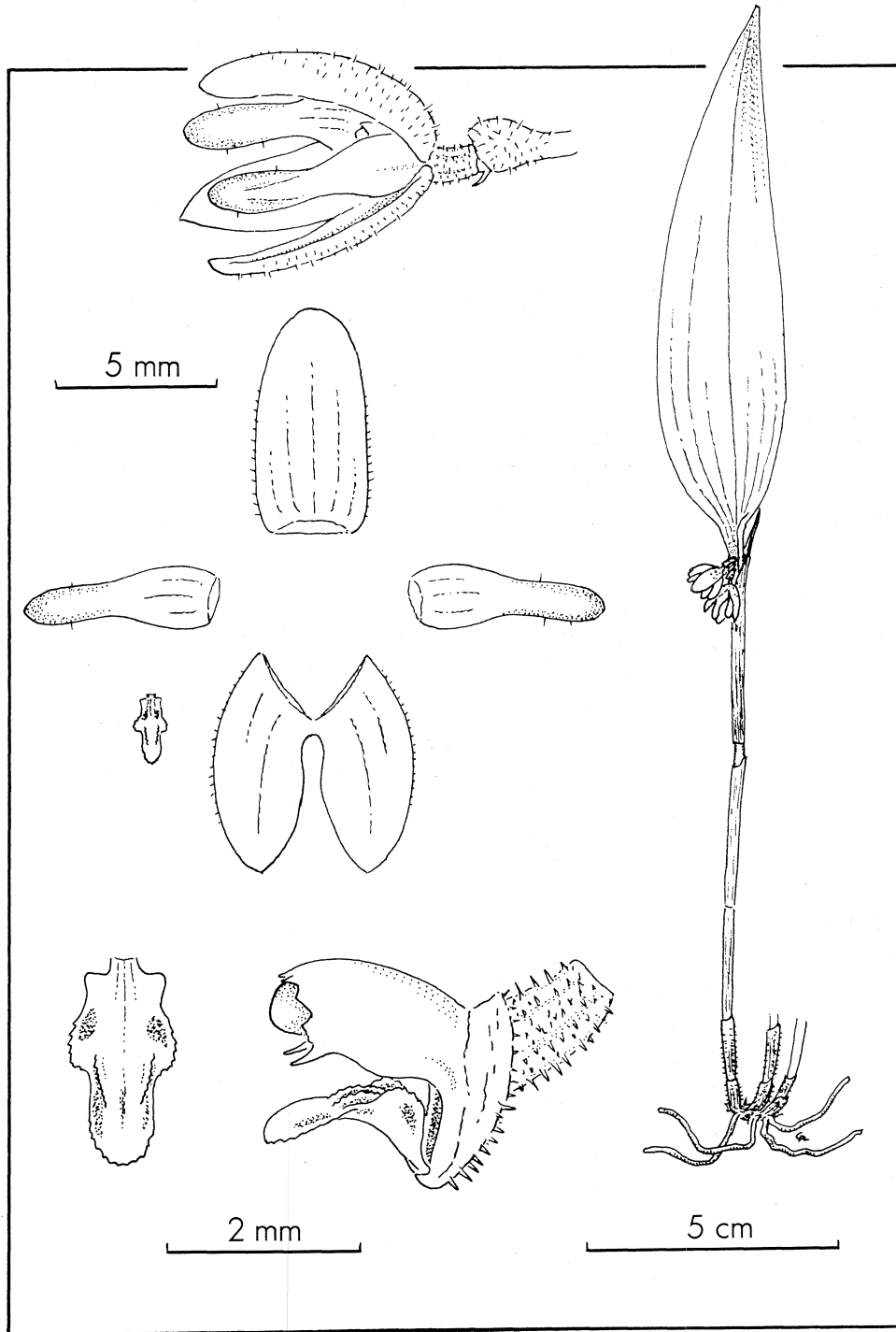


Figure 102. *PLEUROTHALLIS SARCODACTYLAE* C. A. Luer

***Pleurothallis scalpricaulis* C. A. Luer, sp. nov.**

Planta mediocris epiphytica caespitosa, caulibus secundariis erectis rigidis valde compressis triquetris canaliculatis unifoliatis, folio erecto coriaceo elliptico subacuto cuneato sessili, racemo brevissimo pauciflora, floribus carnosus brunneis rectibus, sepalo dorsali obovato apiculato, sepalis lateralibus late lunatis apiculatis, petalis spatulatis serrulatis apiculatis, labello ovato subacuto basi truncato biauriculato.

Plant medium to large, epiphytic, caespitose; roots slender, flexuous. Secondary stems erect, rigid, terete only at the base, soon becoming compressed, widened, canaliculate, with 3 sharp edges (a posterior carina and 2 in front to either side of the sulcus), 11-18 cm long, and 6 mm wide and 8 mm deep near the leaf, unifoliate, with 1-2 fugacious sheaths at the base. Leaf erect, coriaceous, elliptical, subacute, tridentate, base cuneate, sessile, 10-13 × 4-4.7 cm. Inflorescence a short, congested, few-flowered (5) raceme from the base of the leaf; flowers brown, fleshy, gaping; peduncle stout, 1.5 cm long; floral bract thin, tubular, greenish white, about 3 mm long; pedicel 2-3 mm long and ovary 3-4 mm long, both green and minutely pubescent; dorsal sepal obovate, acute, apiculate, 10-11 × 3.5 mm, finely and shortly pubescent externally, very faintly pusticulate within; lateral sepals widely luneate, acute, apiculate, united basally and lightly adherent to near the apices, each 7 × 3.5 mm, similar to the dorsal sepal; petals spatulate, obtuse, apiculate, the margins serrulate, the claw curved, thick, yellow-brown, 6 × 2 mm; lip olive brown, fleshy, ovate, apex subacute, base truncate and biauriculate, the sides curved up, channeled centrally and fleshly-thickened to either side; column 5 mm long, broadly winged, with a short foot.

ETYMOLOGY: From the Latin *scalprum*, "a chisel, or knife," and *caulis*, "stem," in alusion to the sharp, chisel-like qualities of the stem.

TYPE: ECUADOR: MORONA-SANTIAGO: epiphytic about 30 km south of Gualaquiza, alt. 500 m, 6 Aug. 1975, flowered in cult. 30 Nov. 1975, C. A. Luer, G. M. Luer, & S. Wilhelm 619 (HOLOTYPE: SEL).

DISTRIBUTION: Ecuador.

This species is most closely related to the Peruvian *Pleurothallis pantasmoides* C. Schweinf., but it differs in the spatulate, apiculate petals (instead of truncate), and in the position of the apex of the stem at the base of the leaf (instead of above the base). The most distinctive character of *P. scalpricaulis* is its rigid, flattened, sharp-edged secondary stem with a central groove, resembling very much a double-bladed chisel. The blade of the leaf is not decurrent on the stem as is the case in several other related species, e.g. *P. pantasmi* Rchb. f.

A single but large plant of this species was discovered among the branches of a tree felled for its lumber. The whole plant was a sickly yellow from excessive exposure to the sun. With care in the "cool" house of the Marie Selby Botanical Gardens, it regained its green color and flowered. The color of the thick, glossy flowers is close to that of butter-scotch.

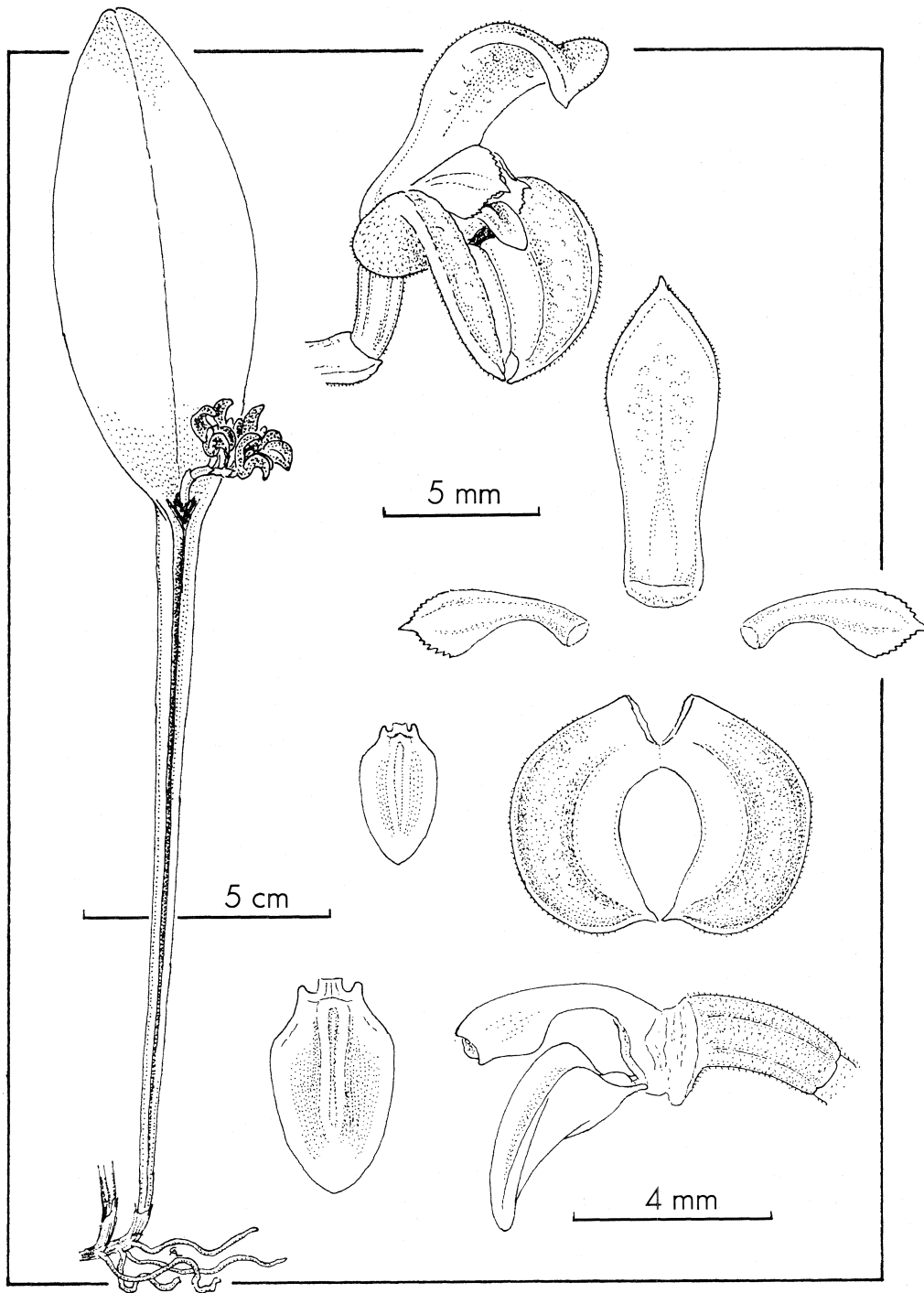


Figure 103. *PLEUROTHALLIS SCALPRICAULIS* C. A. Luer