

*Oreades*, nov. gen.

aff. *Lepanth.*

*Salpistele brunnea* horizontalis  
 s. l. and per fructu transversum truncata ovata  
ovata per fructu per fructu

Costarica

Endr.

*Salpistele brunnea* Dressler. Photocopy of drawings by A. R. Endres of *Endres* 54, 1868, in the Reichenbach Herbarium at the Naturhistorisches Museum in Vienna.  
*Oreades* gen. nov. is proposed.

SYSTEMATICS OF THE GENUS  
*SALPISTELE* (ORCHIDACEAE)

ABSTRACT

A history of *Salpistele* Dressler is given and the genus is described. A key to the species is given. Each species is described and illustrated with a black and white drawing. A distribution map is included for each species.

New taxa:

*Salpistele* subgen. *Andinia* Luer, subgen. nov.

*Salpistele* subgen. *Salpistele*

*Salpistele dressleri* Luer, sp. nov.

*Salpistele parvula* Luer & Dressler, sp. nov.

This genus was first recognized by A. R. Endres, collector and illustrator of innumerable species of orchids from Costa Rica in the last century. In 1868, he sent to Reichenbach numerous herbarium specimens, superb illustrations and detailed descriptions of what is known today as *Salpistele brunnea* with the proposed name *Oreades* for a presumed new genus. Judging by the copious amount of fine material in Reichenbach's herbarium, Endres must certainly have been very interested in this taxon. For unknown reasons, Reichenbach failed to recognize the species in any genus.

Finally in 1975, the genus was recognized independently by Dr. Robert L. Dressler when he became acquainted with several populations of two species of this genus in the adjacent province of Chiriquí in western Panama. He published the genus as *Salpistele*, characterized by the trumpet-shaped column, with the two species in 1979.

Two more or less related Andean species have been included in *Salpistele* (Luer 1986). Similarly, these two species also had been first collected in the last century, one by Dr. William Jameson and the other by Consul F. C. Lehmann, both collections lying unidentified in the herbarium at Kew. Specimens of both species were recollected in the earlier part of this century by Mille, Diels, and Penland and Summers and published in the genus *Lepanthes* by Schlechter, Mansfeld, and L. O. Williams respectively. Today six species are known: four from Panama and Costa Rica, and the two from Ecuador.

Vegetatively the four Central American species are very similar to some species of *Pleurothallis* subgenus *Specklinia* section *Muscariae* with creeping, elongating, successively flowered racemes. The short ramicaul is enclosed by thin, glabrous sheaths. Vegetatively the Andean species are repent forming elongated rhizomes that resemble some species of *Brachionidium*.

Florally the genus *Salpistele* resembles *Lepanthes*. The sepals and petals are membranous, the lateral sepals of the Central American species completely connate into a synsepal. The petals are linear. The lip is three-lobed with the basal lobes embracing the column, and with a variously formed midlobe. The lip is attached to the base of a cylindrical and footless column. The apex of the column is more or less dilated and flattened on the end to form a collar

around the apical anther, rostellum and stigma. The two pollinia are associated with a tiny viscidium.

The genus is divided into two subgenera, the two Andean species being repent with echinate ovaries, lateral sepals free above the middle, abbreviated petals, and auriculate lateral lobes of a lip with a central callus; the four Central American species being caespitose with smooth ovaries, lateral sepals connate into a synsepal, elongate petals, and slender lateral lobes of a lip without a callus. Although the two subgenera have similar floral structures, it is possible that these resemblances are parallelisms.

### **Salpistele Dressler, Orquideología 14: 6, 1979.**

Type: *Salpistele brunnea* Dressler, Orquideología 14: 6, 1979.

Ety.: From the Greek *salpinx*, "a trumpet," and *stela*, "a column," hence a trumpetlike column, referring to the morphology of the column.

**Plants** perennial, very small to medium in size, epiphytic, rarely terrestrial in moss, caespitose to long-repent, erect, or pendent in one species, the rhizome abbreviated or elongated; roots slender to coarse. Ramicauls erect, or descending in one species, slender, non-pseudobulbous, shorter than the leaf, unifoliate, mostly or completely enclosed by 2 more or less imbricating, ribbed, glabrous sheaths, the inflorescence emerging laterally with an annulus from near the apex. **Leaf** erect to suberect in relation to the ramicaul, coriaceous to thickly coriaceous, smooth, green, ovate to elliptical, the apex acute to subacute, shallowly notched with a mucro in the sinus, the base cuneate into a short petiole. **Inflorescence** a successively several-flowered raceme, sometimes 2-3 flowers open simultaneously, the flowers resupinate, variously colored, borne by a slender peduncle that emerges laterally from the ramicaul with an annulus below the apex; floral bracts thin, tubular, acute; pedicels slender, longer or shorter than the floral bract; ovary smooth to densely spiculate, trivalvate; **sepals** conspicuous, membranous, glabrous, sometimes minutely ciliate, variously colored, the apices often contracted into short tails, the dorsal sepal ovate, free from the lateral sepals, the lateral sepals partially to wholly connate; **petals** entire or ciliate, narrowly linear; **lip** membranous, trilobed, with basal lobes embracing the column, and with a variously formed midlobe, the base with a claw attached to the base of the column; **column** terete, non-winged, the apex dilated and flattened around the clinandrium, forming a collarlike margin around the apical anther, rostellum and stigma, the pollinia 2, obovoid, with a microscopic viscidium, the base of the column footless.

### **Salpistele subgen. Andinia Luer, subgen. nov.**

Type: *Lepanthes dielsii* Mansf. = *Salpistele dielsii* (Mansf.) Luer

Ety.: Named for the Andean Mountains where the species of this subgenus are found.

Plantae repentes. Ovarium echinatum. Sepala laterales semiliberibus. Petala abbreviata. Labelli lobi laterales auriculati.

This subgenus is characterized by the repent habit; echinate ovaries; lateral sepals free above the middle; abbreviated petals; large, auriculate lateral lobes of the lip; and a callus on the disc of the lip. The subgenus includes two Andean species.

### **Salpistele subgen. Salpistele**

Type: *Salpistele brunnea* Dressler, Orquideología 14: 6, 1979.

This subgenus is characterized by a caespitose habit; glabrous ovaries; lateral sepals connate into a synsepal; elongated petals; slender lateral lobes of the lip; and the absence of a callus on the disc of the lip. This subgenus includes four Central American species.

## LIST OF ILLUSTRATIONS

Subgenus *Salpistele*

<i>Salpistele brunnea</i> Dressler.....	Plate 1.
<i>Salpistele dressleri</i> Luer .....	Plate 2.
<i>Salpistele lutea</i> Dressler.....	Plate 3.
<i>Salpistele parvula</i> Luer & Dressler.....	Plate 4.

Subgenus *Andinia*

<i>Salpistele dielsii</i> (Mansf.) Luer.....	Plate 5.
<i>Salpistele pensilis</i> (Schltr.) Luer.....	Plate 6.

KEY TO THE SPECIES AND SUBGENERA OF *SALPISTELE*

- 1 Habit repent; ovaries echinate; lateral sepals free above the middle ..... 2  
 1' Habit caespitose; ovaries glabrous; lateral sepals connate to the apex ..... 3

Subgenus *Andinia*

- 2 Habit ascending with an ascending inflorescence; apex of the lip abruptly contracted into a small, concave, apical lobule ..... *S. dielsii*  
 2' Habit pendent with an ascending inflorescence; apex of the lip subacute to obtuse ..... *S. pensilis*

Subgenus *Salpistele*

- 3 Dorsal sepal and synsepal ovate, at least 2 mm wide; lip about as long as the column ..... 4  
 3' Sepals narrowly ovate, about 1.5 mm wide; lip much smaller than the column; apex of the column ovate ..... 5  
 4 Sepals brown, more or less marked with yellow; apex of the column expanded, triangular ..... *S. brunnea*  
 4' Sepals yellow, spotted with brown; apex of the column not expanded, ovate to suborbicular ..... *S. lutea*  
 5 Sepals about 5 mm long; lip half as long as the column ..... *S. dressleri*  
 5' Sepals about 3 mm long; lip nearly as long as the column ..... *S. parvula*

**Salpistele brunnea** Dressler, *Orquideología* 14: 6, 1979.

Ety.: From the Latin *brunneus*, "brown," referring to the color of the flower.

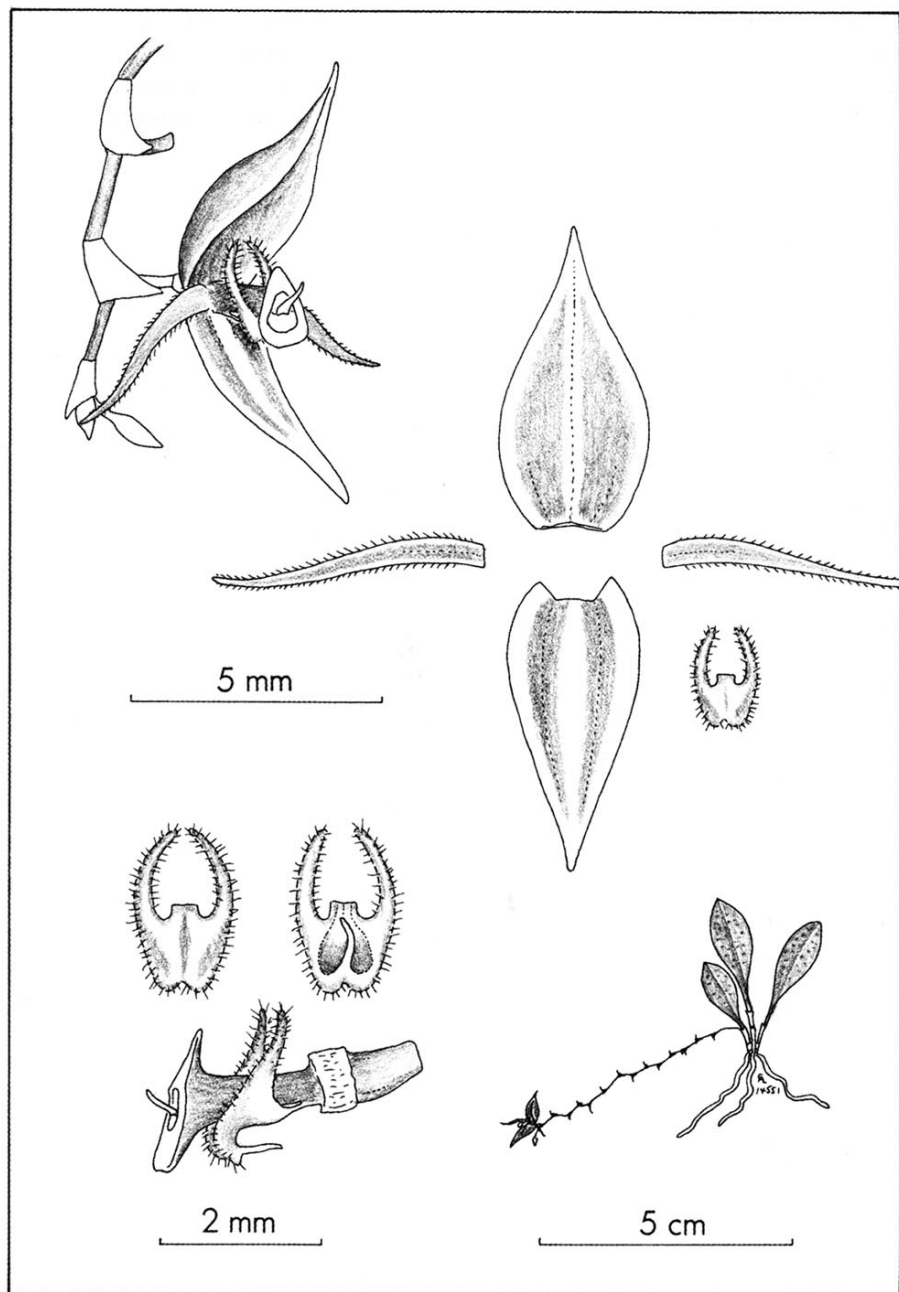
**Plant** small, epiphytic to terrestrial in moss, caespitose; roots slender. Ramicauls slender, erect, 3-15 mm long, enclosed by 2 thin, tubular sheaths. **Leaf** erect, coriaceous, faintly subverrucose on the dorsum, elliptical, petiolate, subacute to obtuse, 8-20 mm long (rarely 45 mm long) including a petiole 2-5 mm long (up to 15 mm long), 4-9 mm wide, the base cuneate into the petiole. **Inflorescence** a successively several-flowered, flexuous raceme up to 6.5 cm long including the peduncle 5-15 mm long, from high on the ramicaul, more or less creeping, the flower resupinate; floral bract oblique, acute, 1.5 mm long; pedicel 1 mm long; ovary 0.5 mm long; **sepals** red-brown or chocolate brown, sometimes with yellow markings and margins, the dorsal sepal ovate, acute, shortly acuminate, concave, 4.5-6.5 mm long, 2.5-3.5 mm wide expanded, 3-veined, the lateral sepals totally connate into an ovate, acute, synsepal, 4.5-6 mm long, 2-3 mm wide expanded, bicarinate; **petals** brown, green toward the apex, minutely ciliate, narrowly linear, acute, 4-6 mm long, 0.4-0.7 mm wide, 1-veined; **lip** brown, long-pubescent, 3-lobed, "U-shaped," 2 mm long, 1.5 mm wide expanded, the lateral lobes narrowly uncinat, surrounding the column, the apex rounded, recurved, abruptly contracted into a slender, reflexed tail, 0.5-1 mm long, the base unguiculate, attached to the base of the column; **column** red, stout, terete, 2-2.5 mm long, dilated at the apex to form a flat, triangular surface 1.5 mm long, 1 mm wide, surrounding the apical anther and stigma.

PANAMA: Prov. of Chiriquí: Cerro Colorado, about 50 Km north of San Felix, alt. ca. 1300 m, 19 Aug. 1975, R. L. Dressler 5124 (Holotype: US; Isotype: PMA), flowered in cultivation, C. Luer illustr. 14551; same locality, alt. 1300-1450 m, 15-16 February 1977, R. L. Dressler 5617 (MO, SEL); San Ramón, headwaters of Río Caldera, alt. 2000 m, 22 Oct. 1967, R. L. Dressler 3123 (MO; FLAS); near the pass over Cerro Fortuna, alt. ca. 1400 m, 16 Aug. 1976, R. L. Dressler 5423 (PMA); Fortuna, March 1985, A. Maduro 14-M (MO), C. Luer illustr. 14554. Prov. of Coclé: near Aserradero El Copé, alt. 800-900 m, 10 Apr. 1977, R. L. Dressler 5645 (PMA, SEL). Prov. of Veraguas: "Buenos Aires," east of Cerro Tute, northwest of Santa Fe, alt. ca. 950 m, 24 Dec. 1976, R. L. Dressler 5544 (PMA, SEL). COSTA RICA: Prov. of Alajuela: above San Ramón, 1868, A. R. Endres 54 (MO, W).



More than a century ago, Endres sent Reichenbach long, detailed, handwritten descriptions of this species from Costa Rica, as well as 13 different sets of beautiful, minutely detailed and accurate illustrations of the habit, frontal and oblique views of the flower, and numerous views of the floral parts including the column, anther, pollinia and stigma. A very serviceable microscope must have been at Endres' disposal. Twenty-nine generous herbarium specimens collected by Endres now mounted on seven sheets were discovered without identification among the unidentified collections of *Pleurothallis* at W (Vienna). Why Reichenbach failed to publish this species is a mystery.

This species was eventually described by R. L. Dressler from a collection he made on Cerro Colorado in western Panama. He had first found plants in 1967. Subsequently *S. brunnea* has been found to be local but relatively frequent in all the mountains of western Panama. It grows among deep moss, often in mats low on the trunks of large trees in wet, virgin forests. The moss

Plate 1. *Salpistele brunnea* Dressler

obscures the creeping inflorescence that bears the flower some distance from the little, caespitose plant.

Among the Central American species of the genus, *S. brunnea* is distinguished by brown sepals sometimes marked with yellow-green or with yellow-green margins; a deeply concave dorsal sepal; a slender, acutely reflexed midlobe of the lip; and a comparatively large or expanded, triangular surface of the apex of the column.

### ***Salpistele dressleri* Luer, sp. nov.**

Ety.: Named in honor of Dr. Robert L. Dressler, formerly of the Smithsonian Tropical Research Institute, Balboa, Canal Zone, Panama, who described the genus, and who collected this species.

Species haec *S. brunneae* Dressler affinis, sed sepalis angustioribus, labello minore, et columna graciliore longioreque differt.

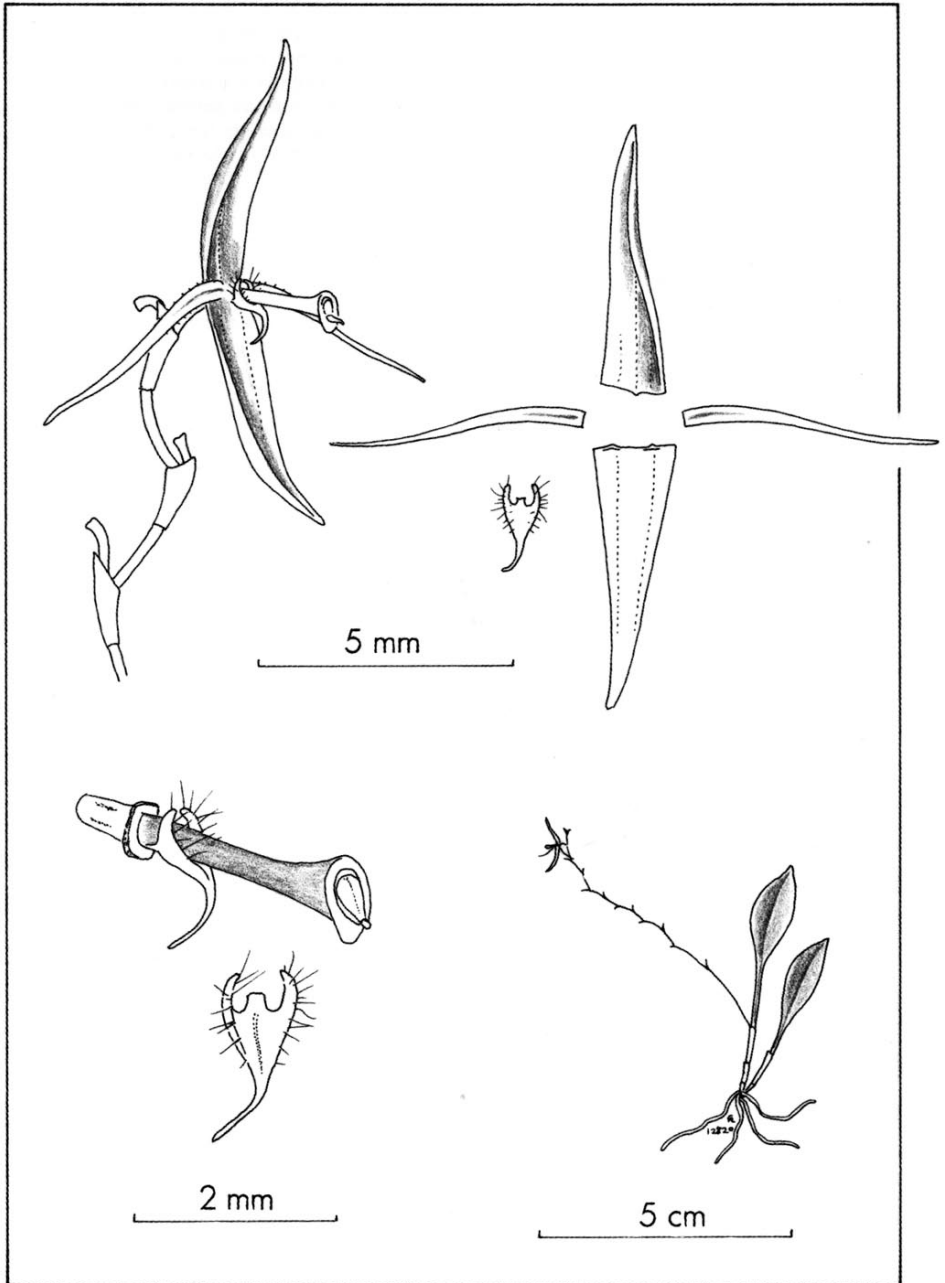
**Plant** small, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 12-15 mm long, enclosed by 2 thin, tubular sheaths. **Leaf** erect, coriaceous, elliptical, petiolate, acute to subacute, 20-28 mm long including a petiole 5-7 mm long, 6-8 mm wide, the base cuneate into the petiole. **Inflorescence** a successively several-flowered, flexuous raceme up to 6 cm long including the peduncle 1.5 cm long, from high on the ramicaul, more or less creeping; floral bract oblique, acute, 2 mm long; pedicel 2-3 mm long; ovary 0.5 mm long; sepals yellow-brown, the dorsal sepal narrowly ovate, acute, concave, 5 mm long, 1.5 mm wide expanded, 3-veined, the lateral sepals totally connate into a narrowly ovate-triangular, acute, concave synsepal, 5 mm long, 1.5 mm wide expanded, bicarinate; petals yellow-brown, sparsely ciliate, narrowly linear, acute, 5 mm long, 0.4 mm wide, 1-veined; lip yellow, sparsely long-pubescent, 3-lobed, 1.5 mm long, 1 mm wide expanded, "Y-shaped," the lateral lobes narrowly uncinat, surrounding the column, the middle lobe slender, descending, 0.5 mm long, the base unguiculate, attached to the base of the column; column yellow, slender, terete, 3 mm long, dilated at the apex to form a flat, elliptical surface 1 mm long, 0.5 mm wide, surrounding the apical anther and stigma.

PANAMA: Prov. of Chiriquí: Fortuna, collected by R. L. Dressler, sent to J & L Orchids, Easton, CT, ca. 1979, flowered in cultivation, 25 Apr. 1987, *C. Luer 12820* (Holotype: MO).

About 1979, a plant of this species was collected by R. L. Dressler near Fortuna in the Chiriquí province of western Panama. Because it was not in flower, he dispatched it to J & L Orchids in Connecticut for cultivation. Today it continues to grow and flower well. A photograph of this species, identified as *S. lutea*, was included on page 15 in the article in which the genus *Salpistele* was described (*Orquideología*, vol. 14, No. 1).

Among the Central American species of the genus, *S. dressleri* is distinguished by narrow, yellow-brown sepals; a slender but deeply concave or boat-shaped dorsal sepal and synsepal; slender, linear petals; a much smaller lip with slender, sparsely long-ciliate lateral lobes and descending midlobe; and a comparatively small, elliptical surface of the apex of the column.



Plate 2. *Salpistele dressleri* Luer



**Salpistele lutea** Dressler, *Orquideología* 14: 8, 1979.

Ety.: From the Latin *luteus*, "yellow," referring to the color of the flower.

**Plant** small, epiphytic to terrestrial in moss, caespitose; roots slender. Ramicauls slender, erect, 5-10 mm long, enclosed by 2 thin, tubular sheaths. **Leaf** erect, coriaceous, faintly subverrucose on the dorsum, elliptical, petiolate, subacute to acute, slightly acuminate, 8-20 mm long including a petiole 2 mm long, 4-6 mm wide, the base cuneate into the petiole. **Inflorescence** a successively several-flowered, flexuous raceme up to 4 cm long including the peduncle 5-10 mm long, from high on the ramicaul, more or less creeping; floral bract oblique, acute, 1.5-2 mm long; pedicel 2 mm long; ovary 1 mm long; **sepals** yellow with a few, brown spots, the dorsal sepal narrowly ovate, acute, shortly acuminate, slightly concave, 5-8 mm long, 2-3 mm wide, 3-veined, the lateral sepals totally connate into a narrowly ovate, acute, synsepal, 5-8 mm long, 2-2.5 mm wide, bicarinate; **petals** yellow marked with brown, sparsely ciliate, narrowly linear, acute, 4-8 mm long, 0.25 mm wide, 1-veined; **lip** brown, long-pubescent, 3-lobed, 3 mm long, 1.5 mm wide expanded, "U-shaped," the lateral lobes broadly ovate, oblique, with narrowly uncinuate processes surrounding the column, the apex shortly acuminate, antrorse, the base unguiculate, attached to the base of the column; **column** red, stout, terete, 3 mm long, dilated at the apex to form a narrow margin surrounding the apical anther and stigma.

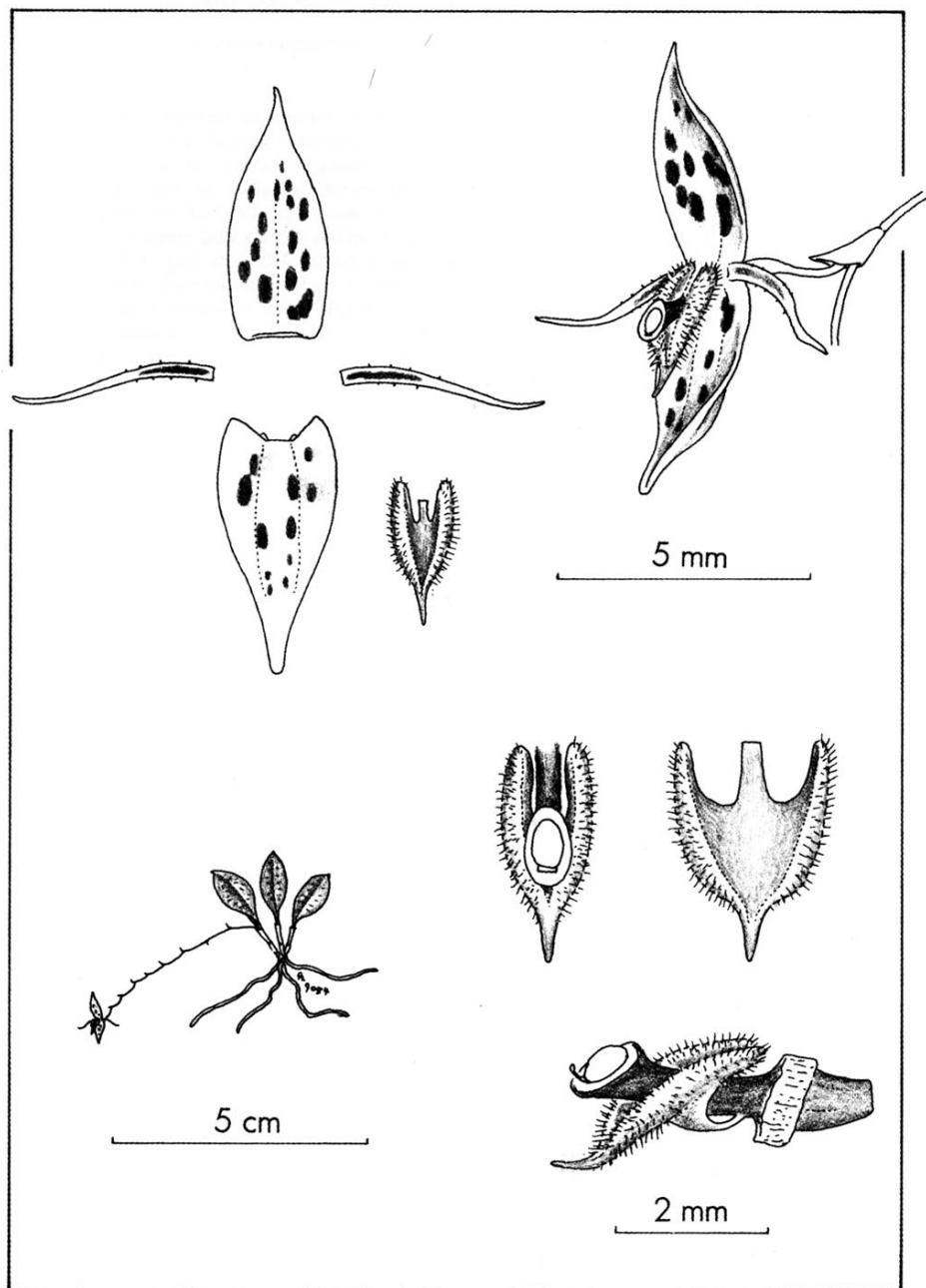
PANAMA: Prov. of Chiriquí: Cerro Colorado, about 50 Km north of San Felix, alt. ca. 1300 m, 19 Aug. 1975, R. L. Dressler 5125 (Holotype: US), flowered in cultivation, C. Luer illustr. 14552. Prov. of Coclé: El Copé, collected by N. Williams, flowered in cultivation 2 July 1983, C. Luer 9084 (SEL).

This species and *S. brunnea* were described by R. L. Dressler from simultaneous collections he made from moss on the same tree on Cerro Colorado in western Panama. The trees at the type-locality subsequently have been cut, so that neither species can any longer be found there. *Salpistele lutea* is apparently much less frequent than *S. brunnea*. It is known from only one subsequent collection by Norris Williams.

Like *S. brunnea*, *S. lutea* grows in deep moss, often low on the trunks of large trees in wet, virgin forests. The moss obscures the creeping inflorescence that bears the flower a short distance from the plant.

Among the Central American species of the genus, *S. lutea* is distinguished by yellow-green sepals with a few brown spots; a shallowly concave dorsal sepal; a midlobe of the lip that may or may not be retrorse; and a comparatively small, ovate or suborbicular surface of the apex of the column. A photograph in color graces the cover of *Orquideología* Vol. 14, No. 1.



Plate 3. *Salpistele lutea* Dressler

**Salpistele parvula** Luer & Dressler, sp. nov.

Ety.: From the Latin *parvulus*, "very small," referring to the habit and flowers.

Species haec *S. brunneae* Dressler affinis, sed habitu floribusque minoribus et labello longivilloso anguste sagittato differt.

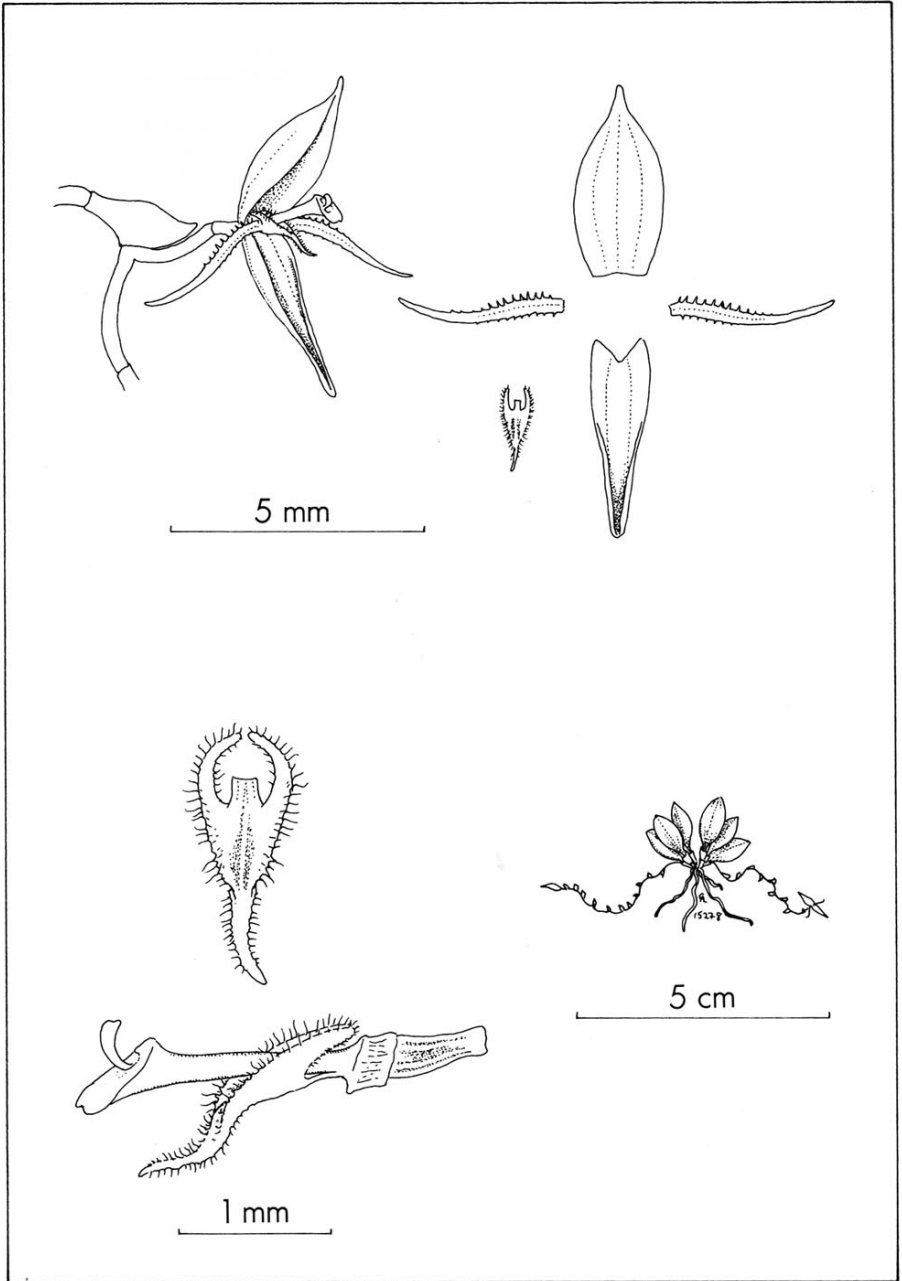
**Plant** very small, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 3-4 mm long, enclosed by 2 thin, tubular sheaths. **Leaf** erect, coriaceous, elliptical, subacute, 8-12 mm long including a petiole 1-1.5 mm long, 3-5 mm wide, the base cuneate into the petiole. **Inflorescence** a creeping, successively several-flowered, flexuous raceme up to 3 cm long including the peduncle 4-5 mm long, from the ramicaul; floral bract inflated, oblique, 1.25 mm long; pedicel 1.5 mm long; ovary 0.75 mm long; **sepals** red-brown with yellow streaks and margins, the dorsal sepal narrowly elliptical, acute, lightly short-acuminate, concave, 3.75 mm long, 1.75 mm wide expanded, 3-veined, the lateral sepals totally connate into a bicarinate, narrowly ovate-triangular, cymbiform, acute synsepal, 4 mm long, 1 mm wide; **petals** ciliate-denticulate, narrowly linear, acute, 3.25 mm long, 0.25 mm wide, 1-veined; **lip** long-villous-pubescent, sagittate, 3-lobed, 1.75 mm long, 0.5 mm wide, "Y-shaped," the basal lobes narrowly uncinat, surrounding the column, the middle lobe slender, narrowly acute, descending, the base unguiculate, attached to the base of the column; **column** slender, terete, 1.8 mm long, dilated at the apex to form a flat, ovate-triangular surface, 0.4 mm wide, surrounding the apical anther and stigma.

PANAMA: Prov. of Coclé: hills north of El Valle de Antón, alt. ca. 900 m, 3 Dec. 1978, R. L. Dressler 5832 (Holotype: MO; Isotype: FLAS).

Although the size of the plants of the other Central American species of *Salpistele* varies considerably, none produces plants as small as those of this species collected by Dressler in the hills above El Valle de Antón. Here this species grows abundantly on the trunks of large trees, but it has not yet been found elsewhere.

*Salpistele parvula* is distinguished by the tiny, caespitose habit. The successively flowered racemes creep amid the surrounding vegetative debris as is seen in the related, larger species. The resupinate, gaping flowers are very small, the sepals measuring less than four millimeters in length. The petals are very slender and ciliate. The tiny lip is sagittate and long-villous. Although similar in size and shape to that of *S. dressleri*, the lip is nearly as long as the cylindrical column. The lip of *S. dressleri* is much smaller than the column.



Plate 4. *Salpistele parvula* Luer & Dressler

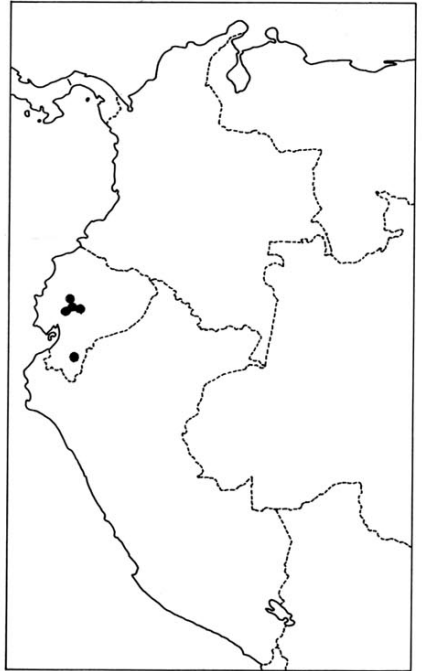
**Salpistele dielsii** (Mansf.) Luer, Monogr. Syst. Bot. 15: 57, 1986.Bas.: *Lepanthes dielsii* Mansf., Biblioth. Bot. 29(116): 72, 1937.

Ety.: Named in honor of Prof. Dr. Ludwig Diels of Stuttgart, Germany, who collected this species.

Syn.: *Lepanthes echinocarpa* L. O. Wms., Bot. Mus. Leaflet. 9: 1, 1940.Ety.: From the Greek *echinocarpus*, "spiny fruit," referring to the echinate capsules.

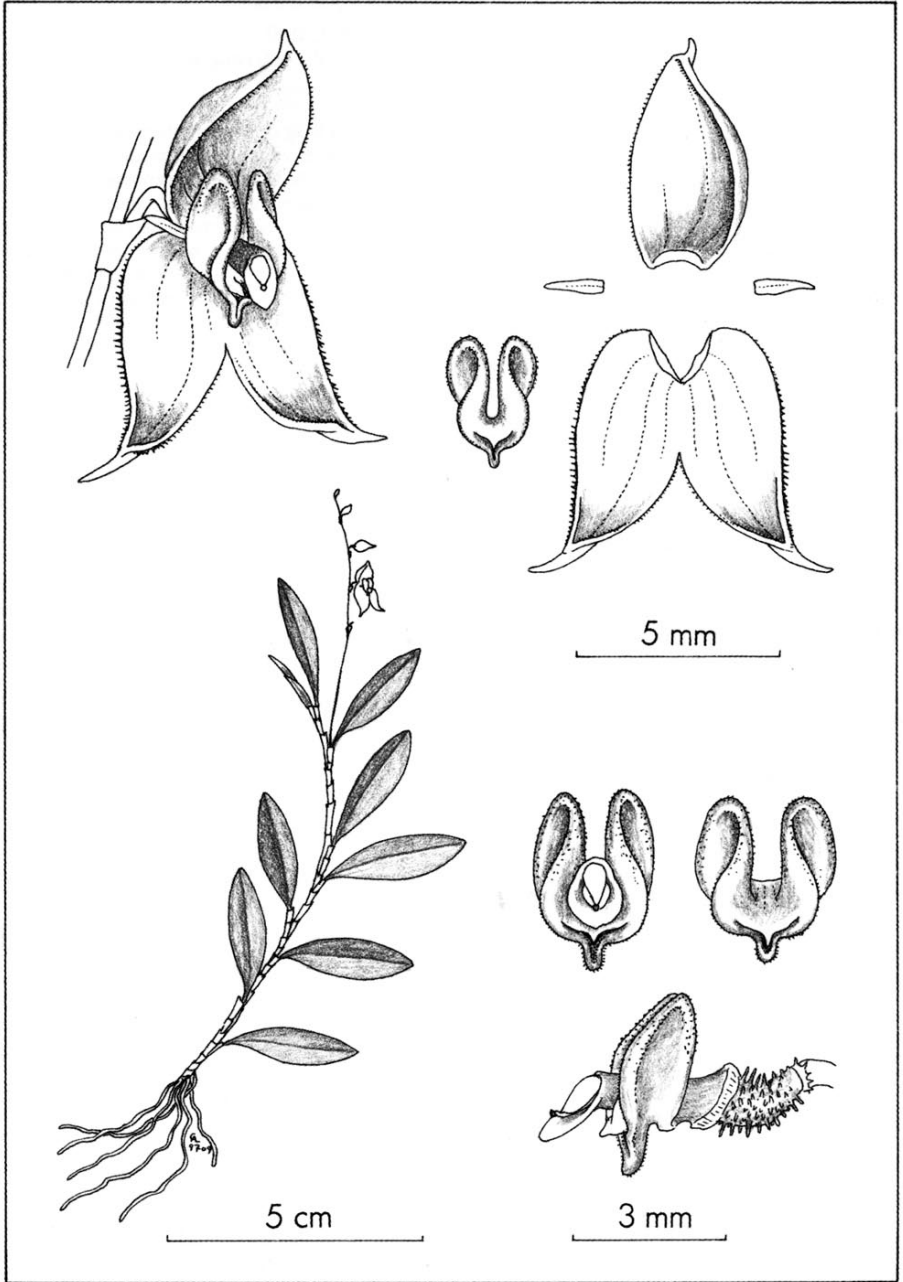
**Plant** medium in size, epiphytic, repent, to 20 cm long or longer; rhizome ascending, 5-20 mm long between ramicauls, enclosed by 2-3 tubular, ribbed sheaths, occasionally branching; roots slender, mostly arising near the base of the rhizome. Ramicauls slender, erect, 5-12 mm long, enclosed by 2 thin, tubular sheaths. **Leaf** erect, coriaceous, elliptical, shortly petiolate, acute to subacute, 10-30 mm long including a petiole 1-2 mm long, 5-10 mm wide, the base cuneate into the petiole. **Inflorescence** a loose, successively several-flowered, suberect raceme up to 7 cm long including the peduncle 2-3 cm long, from high on the ramicaul, floral bract oblique, acute, 2-2.5 mm long; pedicel 2-3 mm long; ovary 1 mm long, spiculate; **sepals** yellow, orange, red-brown to dark purple, with minutely ciliate margins, carinate, apiculate, the dorsal sepal ovate, acute, concave, 4-6 mm long, 2.5-3 mm wide expanded, 3-veined, the lateral sepals connate about 1 mm at the base, ovate, oblique, concave, 4-6 mm long, 2.5 mm wide; **petals** colored as the sepals, narrowly linear, acute, 1-1.25 mm long, 0.4 mm wide, 1-veined; **lip** colored as the sepals, cellular-glandular, 3-lobed, 3 mm long, 3 mm wide expanded, the lateral lobes auricular-ovate, surrounding the column, the middle lobe broadly rounded, contracted into a small, concave lobule, the disc with a triangular callus in the center, the base attached to the base of the column; **column** terete, 2 mm long, dilated at the apex to form a flat, elliptical surface 1-1.5 mm long, 1 mm wide, surrounding the apical anther and stigma.

ECUADOR: Prov. of Chimborazo: epiphytic in forest of interandean highlands, Tipococha, 13 Aug. 1933, *L. Diels* 554 (Holotype presumably destroyed at B); Prov. of Azuay: cloud forest remnant north of Cuenca, alt. 2900 m, 8 Feb. 1987, *C. Luer, J. Luer & A. Hirtz* 12732 (K, MO). Prov. of Bolívar: Hda. Talahua, alt. 2600 m, 2 May 1939, *C. W. Penland & R. H. Summers* 611 (AMES, holotype of *Lepanthes echinocarpa*); epiphytic in cloud forest north of Guaranda toward Facundo Vela, alt. 2800 m, 24 Mar. 1984, *C. Luer, S. Dalström, T. Höijer, J. Kuijt & A. Hirtz* 9678, 9687 (MO); pass north of Chillanes, alt. 2650 m, 25 Mar. 1984, *C. Luer, S. Dalström, T. Höijer, J. Kuijt & A. Hirtz* 9707, 9709, 9711, 9736, 9745 various sizes and colors (MO); La Palma, alt. 3400 m, Mar. 1984, *A. Hirtz* 1626 (MO). Prov. of Loja: pass north of Loja, alt. 3100 m, 20 Sept. 1980, *C. Luer, J. Luer & A. Hirtz* 5514 (SEL); above Yangana north of the pass, alt. 2400 m, 23 Mar. 1985, *C. Luer, J. Luer, A. Hirtz & W. Flores* 10891 (MO). Without locality or date, *W. Jameson* s.n. (K).



This species was first collected in the last century by Dr. Jameson, probably somewhere near Quito, Ecuador, but the specimen lay unidentified at Kew. It was collected again by Ludwig Diels in 1933 and described in *Lepanthes* by Mansfeld.

*Salpistele dielsii* is recognized by the ascending, repent habit with a short, successively flowered raceme. The color of the flowers varies through all shades and combinations of yellow, orange, red, brown and purple. The sepals are carinate, concave, apiculate and minutely ciliate. The petals are vestigial. The auriculate lateral lobes of the lip embrace the footless column, and the apex is contracted into a small, concave lobule. Above, and below the column, is a small, protruding, triangular callus that is variously developed.

Plate 5. *Salpistele dielsii* (Mansf.) Luer

**Salpistele pensilis** (Schltr.) Luer, *Monogr. Syst. Bot.* 15: 57, 1986.

Bas.: *Lepanthes pensilis* Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 8: 55, 1921.

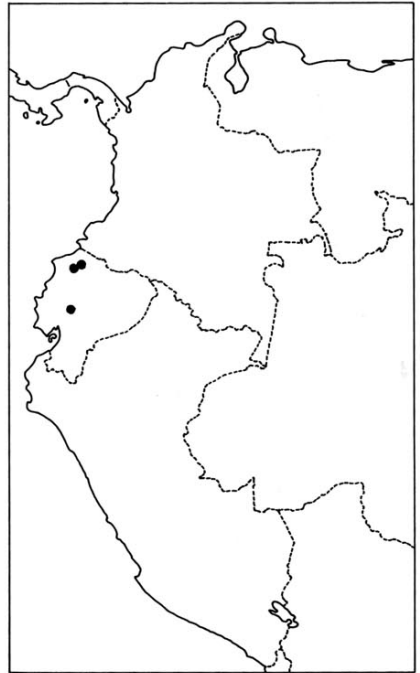
Ety.: From the Latin *pensilis*, "hanging, pendent," referring to the habit.

Syn.: *Lepanthes lancipetala* L. O. Wms., *Bot. Mus. Leaflet* 9: 1, 1940.

Ety.: From the Latin *lancipetalus*, "with lance-shaped petal," referring to the entire petal, unusual for the genus *Lepanthes*.

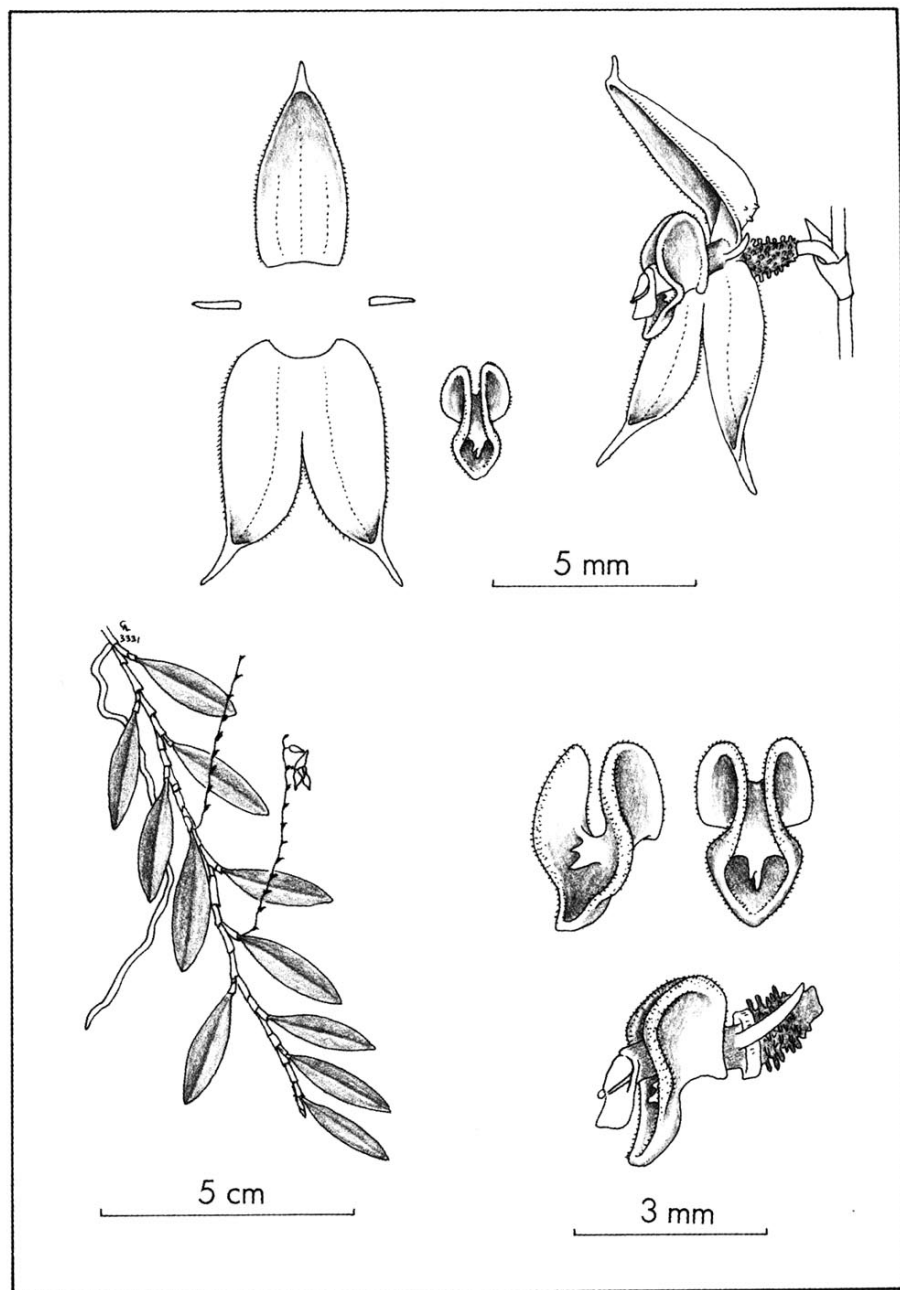
**Plant** medium in size, epiphytic, repent, pendent, to 40 cm long or longer; rhizome descending, 5-15 mm long between ramicauls, enclosed by 2-3 tubular, ribbed sheaths, occasionally branching; roots coarse, from nodes along the rhizome. Ramicauls slender, descending, 2-7 mm long, enclosed by 2 thin, tubular sheaths. **Leaf** descending, coriaceous, elliptical, shortly petiolate, acute, 10-35 mm long including a petiole 1-2 mm long, 5-10 mm wide, the base cuneate into the petiole. **Inflorescence** a loose, successively several-flowered, ascending raceme up to 7 cm long including the peduncle 1-2 cm long, from high on the ramicaul, floral bract oblique, acute, 2-2.5 mm long; pedicel 2 mm long; ovary 1 mm long, spiculate; **sepals** yellow to red, with minutely ciliate margins, carinate, apiculate, the dorsal sepal ovate, acute, concave, 4-5 mm long, 2.5 mm wide expanded, 3-veined, the lateral sepals connate about 1 mm at the base, ovate, oblique, concave, 4-6 mm long, 2 mm wide; **petals** colored as the sepals, narrowly linear, acute, 1 mm long, 0.2 mm wide, 1-veined; **lip** colored as the sepals, cellular-glandular, 3-lobed, 3 mm long, 3 mm wide expanded, the lateral lobes auricular-ovate, surrounding the column, the middle lobe broadly ovate, subacute, concave, the disc with a small, 2-pronged callus in the center, the base attached to the base of the column; **column** terete, 2 mm long, dilated at the apex to form a flat, elliptical surface 1 mm long, 0.75 mm wide, surrounding the apical anther and stigma.

ECUADOR: Prov. of Chimborazo: in mountains above Riobamba, *A. Mille s.n.* (Holotype: B?). Prov. of Imbabura: Lake Cuicocha, alt. 3300 m, 2 June 1939, *C. W. Penland & R. H. Summers* 835 (AMES, holotype of *Lepanthes lancipetala*); margin of paramo between Atuntaqui and Hda. Pinon, alt. 11,300 ft., 20 June 1944, *I. L. Wiggins* 10327 (US); wet rainforest, Cerro Muenala, above Río Asabi, alt. 9500 ft., 3 Dec. 1943, *W. B. Drew E-46* (AMES); west of Otavalo, alt. 2800 m, 24 Aug. 1978, *C. Luer, J. Luer & A. Hirtz* 3331, 3332 (SEL); Mojanda, alt. 3000 m, Nov. 1983, *A. Hirtz* 1354 (MO); Mojanda, alt. 3400 m, Apr. 1984, *A. Hirtz* 1683, 1684 (MO) Mojanda, alt. 3400 m, 29 Sept. 1984, *A. Hirtz* 1935 (MO); Selva Alegre, alt. 3000 m, 29 Sept. 1984, *A. Hirtz* 1928 (MO). Without locality or date, *F. C. Lehmann B.T. 1316* (K).



This species was first collected by Consul Lehmann, probably in the latter part of the last century, but the specimen lay at Kew undescribed. It was collected again in this century about 1913 by Father Mille and described as a *Lepanthes* by Schlechter.

It is recognized by the long-pendent habit with only the racemes ascending. The color of the flowers varies from yellow to red. The sepals are carinate, concave, apiculate and minutely ciliate, and the petals are vestigial, all very similar to those of *S. dielsii*. The auriculate lateral lobes of the lip also embrace the footless column. The apex, however, is simply obtuse. Above is a two-pointed callus, one point above the other. This callus varies in size and distinctness. Sometimes the upper point is barely present or even absent.

Plate 6. *Salpistele pensilis* (Schltr.) Luer



## ACKNOWLEDGMENT

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