

RESTREPIOPSIS, A NEW GENUS IN THE PLEUROTHALLIDINAE
(ORCHIDACEAE)

Carlyle A. Luer*

A new genus is proposed for a small group of closely related species of pleurothallids characterized by four pollinia that are not morphologically accommodated in *Barbosella* Schltr., *Dresslerella* Luer, *Restrepia* HBK, nor *Restrepiella* Garay & Dunsterv.

Restrepiopsis Luer, gen. nov.

Herbae mediocres parvulaeve epiphyticae caespitosae habitu *Restrepiiae* HBK similes. Caules secundarii unifoliati vaginis inflatis imbricantibus obtecti. Folia elliptica ovatae coriacea breviter petiolata. Flores singulares successivi fasciculati pedunculis brevibus, sepalis petalisque membranaceis obtusis vel acutis non clavatis, labello ligulato saepe lobulato, lobis non setiformibus, columna plus minusve tereti, pede brevi, anthera operculata decidua, polliniis quatuor.

Plants small to medium in size, epiphytic, caespitose, similar in habit to *Restrepia* HBK. Secondary stems unifoliate, about as long as or longer than the leaf it bears, concealed by a series of more or less inflated, compressed, oblique, imbricating, ribbed sheaths, often shed with time. Leaf erect, coriaceous, elliptic to ovate, shortly petiolate, the petiole often twisted. Flowers produced on single peduncles, often behind the blade, shorter than the leaf, from near the apex of the secondary stem; sepals and petals membranous, obtuse or acute, not clavate, the lateral sepals free or lightly adherent; lip ligulate, similar to that of *Octomeria* R. Br., lobed near the base, the lobes not setiform, the base hinged to the column-foot; column more or less terete with a short foot, the anther operculate, deciduous, with 4 pollinia.

TYPE: *Restrepiopsis ujaensis* (Rchb. f.) Luer, (*Restrepia ujaensis* Rchb. f.).

ETYMOLOGY: Named for the resemblance of the species to those of the genus *Restrepia*.

Four species of *Restrepiopsis*, two species of *Dresslerella*, and a seventh species designated as the type, were segregated into the genus *Restrepiella* (Venez. Orchids Illustr. 4:266. 1966.). The last mentioned species, *Restrepiella ophiocephala* (Lindl.) Garay & Dunsterv., now representing a monotypic genus, has little in common with the species of *Restrepiopsis*. The two genera share only single, short-pedicellate flowers, a hinged lip, and four pollinia.

Restrepiella ophiocephala seems more closely allied to some species of *Pleurothallis*, but the latter have but two pollinia. *Restrepiella* is characterized by a robust habit, a stout, terete secondary stem with a close-fitting, tubular sheath below the middle, a large, thick leaf, a conspicuous spathe, fleshy, pubescent flowers with ciliate-pubescent petals, and a small, thick, oscillating lip.

Restrepiopsis, vegetatively similar to and most closely allied to *Restrepia*, may be distinguished from the latter by the non-clavate dorsal sepal and petals, by the basal lobes of the lip that are neither fragile nor hair-like, and by the base of the lip that is delicately hinged to the column-foot, not attached by a rigid claw. *Restrepiopsis* may be distinguished from *Restrepiella* by the slender secondary stems enclosed by several imbricating sheaths, a thinly coriaceous

*The Marie Selby Botanical Gardens, 800 S. Palm Ave., Sarasota, Florida 33577, U.S.A.

leaf, the spathe reduced to an inconspicuous bract, and membranous sepals and petals.

Restrepiopsis may be distinguished from *Barbosella* by the well-developed secondary stems and short peduncles, and it may be distinguished from *Dresslerella* by the glabrous leaves and four pollinia of equal size.

As presently conceived, *Restrepiopsis* consists of nine species: six transferred from *Restrepiella*, and three newly described.

Restrepiopsis grandiflora (Garay) Luer, comb. nov.

Restrepiella grandiflora Garay, Orchid Digest 31:39. 1967.

DISTRIBUTION: Ecuador.

Restrepiopsis microptera (Schltr.) Luer, comb. nov.

Pleurothallis microptera Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7:108. 1920.

Restrepiella microptera (Schltr.) Garay & Dunsterv., Venez. Orchids Illustr. 4:266. 1966.

DISTRIBUTION: Colombia.

Restrepiopsis norae (Garay & Dunsterv.) Luer, comb. nov.

Restrepiella norae Garay & Dunsterv., Venez. Orchids Illustr. 6:388. 1976.

DISTRIBUTION: Venezuela.

Restrepiopsis tubulosa (Lindl.) Luer, comb. nov.

Pleurothallis tubulosa Lindl., Folia Orchid. Pleuroth. 19. 1859.

Humboldtia tubulosa (Lindl.) Kuntze, Rev. Gen. Pl. 2:668. 1891.

Restrepiella tubulosa (Lindl.) Garay & Dunsterv., Venez. Orchids Illustr. 4:266. 1966.

DISTRIBUTION: Venezuela, Colombia, and Ecuador.

Restrepiopsis ujaensis (Rchb. f.) Luer, comb. nov.

Restrepia ujaensis Rchb. f., Bonplandia 3:225. 1855.

Pleurothallis ujaensis (Rchb. f.) Lindl., Folia Orchid. Pleuroth. 19. 1859.

Humboldtia ujaensis (Rchb. f.) Kuntze, Rev. Gen. Pl. 2:668. 1891.

Restrepiella ujaensis (Rchb. f.) Garay & Dunsterv., Venez. Orchids Illustr. 4:266. 1966.

DISTRIBUTION: Nicaragua, Costa Rica, and Panama.

Restrepiopsis viridula (Lindl.) Luer, comb. nov.

Pleurothallis viridula Lindl., Folia Orchid. Pleuroth. 19. 1859.

Humboldtia viridula (Lindl.) Kuntze, Rev. Gen. Pl. 2:668. 1891.

Pleurothallis caliensis Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7:102. 1920.

Pleurothallis flavescens Schltr., l. c. 19:188. 1923.

Restrepiella viridula (Lindl.) Garay & Dunsterv., Venez. Orchids Illustr. 4:266. 1966.

DISTRIBUTION: Costa Rica, Panama, Colombia, Venezuela, and Ecuador.

KEY TO THE SPECIES OF *RESTREPIOPSIS*

1. Cauline sheaths scabrous *R. norae*
- 1a. Cauline sheaths glabrous.
 2. Lip obtusely triangular with obscure basal lobes *R. ujaensis*
 - 2a. Lip with well-developed basal lobes.
 3. Flowers cleistogamous; lobes of the lip narrowed at the base *R. clausa*
 - 3a. Flowers not cleistogamous; lobes of the lip not narrowed at the base.
 4. Sepals long-acuminate *R. microptera*
 - 4a. Sepals not long-acuminate.
 5. Lip with 2 large, rounded calli. *R. bicallosa*
 - 5a. Lip with comparatively small calli.
 6. Lip deeply sinuate and broadest at the truncate apex *R. powersii*
 - 6a. Lip not deeply sinuate and broadest at the truncate apex.
 7. Blade of the lip much broader than the small basal lobes *R. grandiflora*
 - 7a. Blade of the lip about as broad as the basal lobes.
 8. Flowers often whitish with purple veins; lobes of the lip acute and falcate *R. tubulosa**
 - 8a. Flowers often greenish; lobes of the lip obtuse and oblong *R. viridula**

*These species are very variable in size and color. Numerous intermediate forms occur.

***Restrepiopsis bicallosa* Luer & Escobar, sp. nov.**

Figure 306

Restrepiopsis ujaensis (Rchb. f.) Luer similis, sed sepalo dorsali angustiore, lobis basalibus labelli oblongis obtusis erectis et disco bicalloso crasso differt.

Plant very small, epiphytic, caespitose; roots fine, flexuous. Secondary stems slender, 10-20 mm long, concealed by 2-3 imbricating, slightly dilated, ribbed sheaths, unifoliate. Leaf erect, coriaceous, dark green, mottled with purple beneath, elliptical, the apex subacute to rounded, tridentate, the base cuneate, shortly petiolate, 11-18 mm long including the 1 mm long petiole, 4-6 mm wide. Inflorescence fasciculate, the small flowers produced singly and successively by peduncles 2-3 mm long from near the apex of the secondary stem; floral bract tubular, membranous, 2 mm long; pedicel 2-3 mm long, with a 1 mm long filament; ovary 1.25 mm long; sepals and petals translucent green with purple markings along the veins; dorsal sepal narrowly ovate, acute, 3.5 mm long, 1.5 mm wide; lateral sepals ovate, oblique, acute, connate 1 mm to near the middle, 3 mm long, 1.5 mm wide; petals elliptical, subacute, 2.5 mm long, 1 mm wide; lip light green, thick, ovate, 2 mm long, 1.25 mm wide, 3-lobed, with minutely serrulate margins above the middle, the apex broadly rounded, the disc filled with a pair of smooth, rounded, elliptical calli, the basal lobes oblong, oblique, obtuse, erect; column 1 mm long, with a foot about half as long.

ETYMOLOGY: From the Latin *bi*, "two-," and *callosus*, "bearing a callus," referring to the large pair of calli on the disc of the lip.

TYPE: COLOMBIA: Dept. of ANTIOQUIA: Munic. of Santa Rosa, Central Cordillera, Represa de la Garcia, alt. 2300-2600 m, 1975, S. Restrepo s.n., cult. at El Retiro, flowered in cult. 26 Jan. 1978, C. Luer 2332 (HOLOTYPE: JAUM; ISOTYPE: SEL)

DISTRIBUTION: Colombia.

Vegetatively and florally this very small species is similar to *Restrepiopsis ujaensis*, but it may be distinguished from the latter by the lip which is provided with a well-developed pair of basal lobes and a conspicuous pair of thick, rounded calli on the disc. The dorsal sepal of *R. ujaensis* is deeply concave or cucullate, while that of *R. bicallosa* is merely ovate and shallowly concave.

Restrepiopsis clausa Luer & Escobar, sp. nov.

Figure 307

Restrepiopsis ujaensis (Rchb. f.) Luer similis, sed statura plantae grandiore, floribus cleistogamis, lobis basalibus labelli proportione magnis irregulariter orbicularibus differt.

Plant small, epiphytic, caespitose; roots fine, flexuous. Secondary stems slender, 2-5 cm long, concealed by a series of 6-8 brown, imbricating, ribbed sheaths, unifoliate. Leaf erect, thickly coriaceous, recurved near the middle, elliptical, the subacute apex tridenticulate, the cuneate base shortly petiolate, 18-28 mm long including the 2-3 mm petiole, 10-15 mm wide. Inflorescence fasciculate, the cleistogamous flowers produced singly and successively by peduncles 4-5 mm long with a thin basal sheath, from near the apex of the secondary stem; floral bract thin, tubular, 3-4.5 mm long; pedicel 2-3 mm long, with a 3 mm long filament; ovary 2 mm long, increasing with the age of the bud; sepals translucent light green, lightly adherent to the apices, the dorsal sepal ovate, concave, shortly acuminate, acute, 4 mm long, 2.5 mm wide, the lateral sepals oblong, oblique, acute, 4.5 mm long, 1.5 mm wide; petals translucent yellow, oblong, subacute, 3.5 mm long, 1.75 mm wide; lip greenish white, ovate, 3-lobed, 3.5 mm long, 3.5 mm wide across the basal lobes spread out, the lobes irregularly orbicular, erect, 1.5 mm wide and long, suffused with purple, the apical lobe acute, the margins serrulate, incurved, the disc with low calli extending forward from the basal lobes; column 2.5 mm long, with a foot 1 mm long.

ETYMOLOGY: From the Latin *clausus*, "closed," in reference to the cleistogamous flowers.

TYPE: COLOMBIA: Dept. of ANTIOQUIA: without locality or collector, cultivated at La Ceja by M. & O. Robledo, flowered in cult. 25 Jan. 1978, C. Luer 2330 (HOLOTYPE: JAUM; ISOTYPE: SEL).

DISTRIBUTION: Colombia.

This small species is most similar to *Restrepiopsis ujaensis* or *R. bicallosa*, but *R. clausa* is about twice as large. The secondary stems are considerably longer than the little, thick leaves that recurve near the middle. Buds, flowers and capsules in all stages of maturity occur simultaneously. The sepals apparently never part spontaneously, but they may be separated with ease. The lip is remarkable in the proportionately large, suborbicular basal

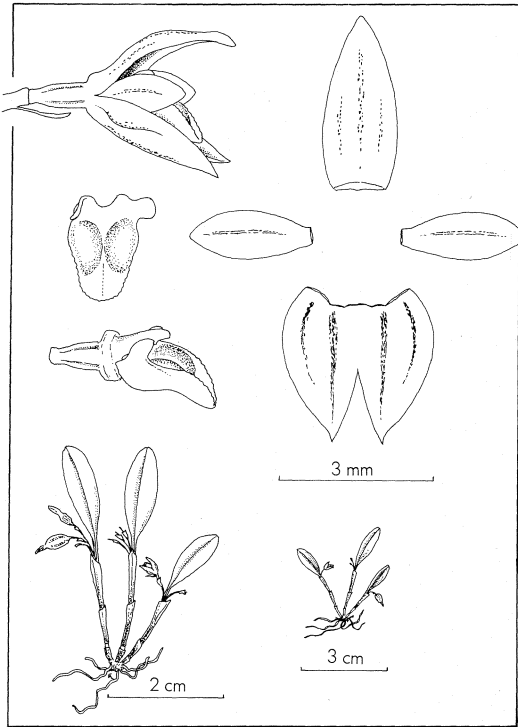


Figure 306. RESTREPIOPSIS BICALLOSA

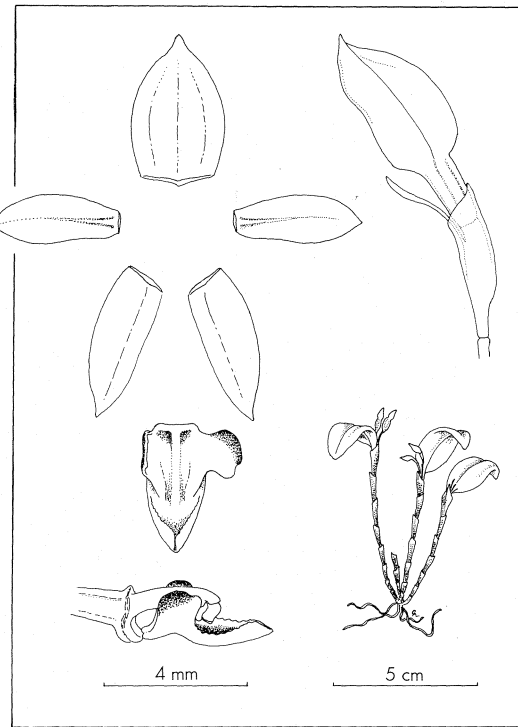


Figure 307. RESTREPIOPSIS CLAUSA

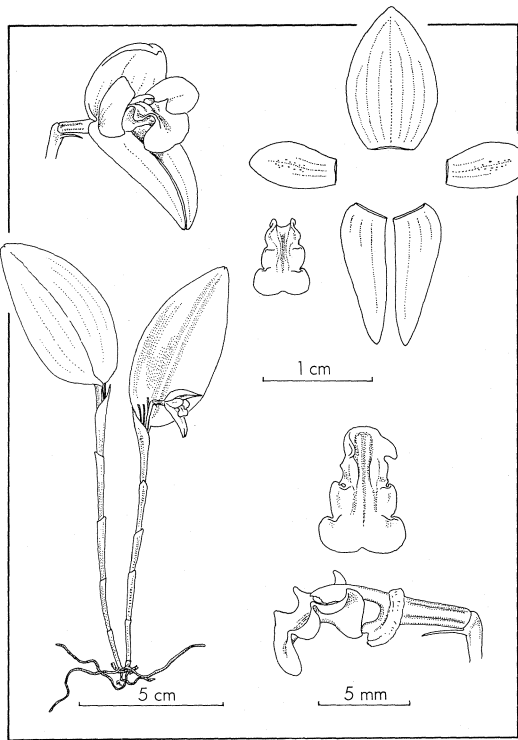


Figure 308. RESTREPIOPSIS POWERSII

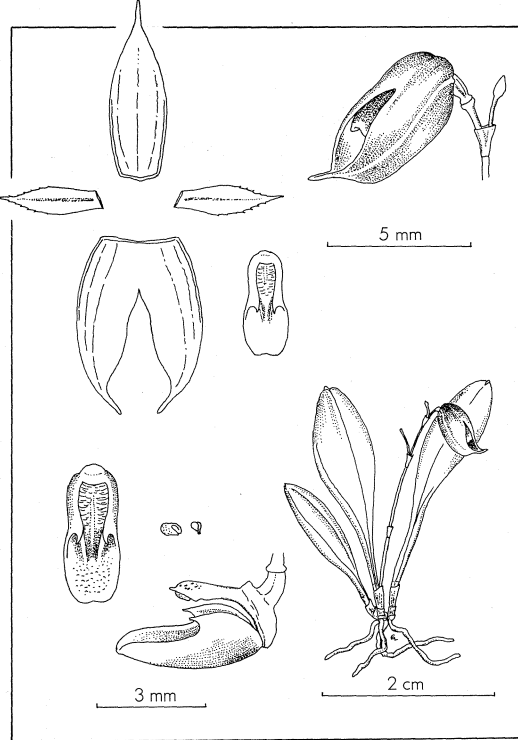


Figure 309. ANDREETTAEA OCELLUS

lobes tinged with purple. The margins of the lip are folded up in the cramped quarters of the closed flower.

***Restrepiopsis powersii* Luer, sp. nov.**

Figure 308

Restrepiopsis viridulae (Lindl.) Luer affinis sed floribus grandioribus, marginibus labelli profunde sinuatis et apice latissimo transverse oblongo truncato notabilis.

Plant medium in size to large for the genus, epiphytic, caespitose; roots slender, flexuous. Secondary stems slender, 7-11 cm long, concealed by a series of 3-6 brown, imbricating, ribbed sheaths, unifoliate. Leaf erect, coriaceous, elliptical, 5-6 cm long, 2.5-3 cm wide, the subacute apex tridenticulate, the base rounded, abruptly short-petiolate, the petiole ca. 5 mm long. Inflorescence fasciculate, the large flowers produced singly and successively by peduncles ca. 1 cm long, from the apex of the secondary stem; floral bract tubular, 3-4 mm long; pedicel 8-9 mm long, with a well-developed filament; ovary 3.5 mm long; sepals membranous, clear yellow, the dorsal sepal elliptical, concave, subacute, 13 mm long, 8 mm wide, with 5 major veins, the lateral sepals ovate, oblique, lightly adherent, 12 mm long, 4 mm wide, 3-veined; petals yellow flecked with red, elliptical, obtuse, 8 mm long, 4.25 mm wide, 3-veined; lip yellow, veined in brown, oblong-cuneate, 3-lobed, 7 mm long, 5 mm wide at the apex, the basal lobes erect, oblique, subacute, the blade deeply sinuate with 2 marked folds on either side, the apex transversely oblong, truncate, the disc with a pair of low calli from the basal lobes; column greenish white, terete, 4 mm long, with a foot 2 mm long.

ETYMOLOGY: Named in honor of Maurice E. Powers of Olympia, Washington, who discovered the species and submitted it to the Orchid Identification Center of the American Orchid Society at the Marie Selby Botanical Gardens.

TYPE: COLOMBIA: Dept. of ANTIOQUIA: near Medellin, without specific locality, April 1972 following the Seventh World Orchid Conference, *M. E. Powers s.n.*, flowered in cult. 16 June 1977, OIC-1630 (HOLOTYPE: SEL).

This species seems most closely allied to *Restrepiopsis viridula*, but the former is distinguished not only by its size, but also by the large, clear yellow flowers. The broad petals are minutely flecked with red-purple. Most remarkable is the large lip with two deeply sinuate folds on either margin. Above the oblique, subacute, basal lobes, the sides are markedly undulate, more or less dividing the blade into three portions. The apical portion is much the widest, the lip terminating in a transversely oblong or truncate lobe.