

ICONES STELIDARUM (ORCHIDACEAE) COLOMBIAE VI¹

CARLYLE A. LUER²

Abstract. Thirty-eight species of the genus *Stelis* (Orchidaceae) from Colombia, or species that can be expected to be found in Colombia, are described, three as new species (*S. dapidis*, *S. nostalgia*, and *S. peregrina*). Thirty-two species are illustrated, thirteen multiple times. Already existing illustrations are cited for six species. A lectotype is selected for *Pleurothallis pristis* and a neotype for *S. guatemalensis*.

Keywords: Colombia, Orchidaceae, Pleurothallidinae, *Stelis*

The following descriptions or illustrations are of known species of *Stelis* Sw. (Orchidaceae) attributed to Colombia that have not been illustrated specifically for this country but that otherwise can be expected to occur in Colombia. Included are those that have been published without an adequate illustration or that are now known to occur with multiple variations.

A large number of collections described by Rudolf Schlechter and Oscar Duque remain obscure. *Stelis paraguasensis* Luer is a frequent and variable taxon that may have a previous, unrecognized description.

Classifying the various types of lip is futile; far too many combinations of the variations of morphological features exist. In all species, the lip is more or less thicker in the basal half, the hypochile, and more or less concave in the forward half, the epichile. The thickened hypochile may be limited to a small callus at the base of a thin lip as in *Stelis tenuilabris* Lindl. The forward margin of the hypochile is commonly distinct and called the “bar” in the descriptions, below which the epichile is usually concave. Rarely, the bar extends beyond the edges to create lateral lobes as in *S. brevilabris* Lindl. The middle of the bar is often traversed by a “glenion,” the central region that varies from a shallow depression to a deep cavity as in *S. triplicata* Lindl. The glenion may be absent, as in *S. eublepharis* Rchb.f., or it may extend into the dorsum as a cleft. The dorsum is often more or less callous. The bar in lips previously referred to as Type C, as in *S. argentata* Lindl., is convex as it extends forward from the base to near a thin apical margin. The bar is occasionally modified into a single, central callus as in *S. major* Rchb.f. The apical margin varies from thin to thick, entire to dentate, truncate to acute, acuminate, or abruptly apicululate as in *S. pardipes* Rchb.f.

Stelis allenii L. O. Williams, Ann. Missouri Bot. Gard. 29: 338. 1942. TYPE: PANAMA. Coclé: *P. Allen* 2952 (Holotype: MO; Isotypes: AMES, K). Illustrated in Luer (2009a: 81, fig. 309).

Plant very large, epiphytic, caespitose; roots slender. Ramicauls erect, stout, 5–17 cm long, enclosed by a loose, tubular sheath near the middle and 2–3 other sheaths at the

base. *Leaf* erect, thickly coriaceous, elliptical, subacute to obtuse, 7–22 cm long, 3–7 cm wide, cuneate below into a sessile subpetiolate base. *Inflorescence* an erect, congested, distichous, many-flowered raceme with many flowers open simultaneously, 15–40 cm long including the peduncle 8–12 cm long, subtended by a spathe 1–2.5 cm long, from a node below the apex of the ramicaul; floral bracts cordate, inflated, acute, 17 mm long below to 5 mm long near the tip; pedicels 4–8 mm long; ovary 2–5 mm long; *sepals* glabrous, green suffused with purple to red-purple, the dorsal sepal erect, ovate, acute, 5–22 mm long, 5–9 mm wide, 5- to 11-veined, connate basally to the synsepal, the lateral sepals connate into a broadly ovate, shallowly concave synsepal, 5–16 mm long, 6–14 mm wide, 8- to 19-veined; *petals* purple, transversely cordate-ovate, 0.75–1 mm long, 1.5–2.5 mm wide, the apex rounded, broadly thickened, the base narrowly concave below a transverse carina; *lip* purple, transversely subquadrate, 1 mm long, 2 mm wide, 1.25 mm deep, the apex thick, broadly rounded with a thick, well-demarcated margin, concave below the bar with a large glenion, the dorsum with a low, obscurely 3-lobed callous, the base truncate, hinged to the base of the column; *column* stout, 1 mm long, 2 mm wide, the anther and the bilobed stigma apical.

Eponymy: named for Paul Hamilton Allen of the Missouri Botanical Garden, who first collected this species in Panama.

Stelis allenii occurs frequently in Panama and western Ecuador, but it has not yet been identified in Colombia. It is a robust, caespitose species with stout ramicauls clad in a large, loose sheath. The leaf is large and leathery with the base sessile or shortly petiolate. The inflorescence is a tall, erect, congested raceme with large, prominent, purple, floral bracts. The size of the deep purple flowers varies on the same raceme from huge below to smaller above. The multi-veined dorsal sepal is triangular and acute, sometimes exceeding 2 cm in length. The synsepal is broad and shallowly concave. The petals are semilunate with a broadly rounded, thick margin. The lip is subquadrate-triangular, shallowly concave with a narrow glenion and with a thick, broadly rounded apex.

The author is grateful to the staff of MO and SEL for making their specimens available for study, to herbaria cited herein that facilitated loans, to S. Dalström for inking the figures presented herein, all based on pencil drawings by the author, and to the generosity of the Pleurothallid Alliance for making the inking possible. Antonio Toscano de Brito reviewed an early version of the text.

¹ Parts I, II, III, IV, and V of this series were published in Luer (2016a,b, 2017a,b, and 2018, respectively).

² 3222 Old Oak Drive, Sarasota, Florida 34239-5019, U.S.A.; cluer@juno.com

Stelis allenii is similar to *S. maxima* Lindl., with which it has been confused. It might exist in herbaria under that name. *Stelis allenii* differs from the latter by a larger, caespitose, non-prolific habit; broader, sessile leaves; and larger, inflated floral bracts. The petals and lip are similar, but with details variable.

Stelis aprica Lindl., Comp. Bot. Mag. 2: 353. 1836. TYPE: BRAZIL. Santa Catharina: without any other locality, *C. F. P. Martius s.n.* (Holotype: K). Illustrated in Luer (2009a: 204, fig. 352).

Synonyms: *Stelis minutiflora* Rchb.f. ex Hoffmanns., Linnaea 16: 237. 1842. TYPE: BRAZIL. Rio de Janeiro: without collector (Holotype: W). Etymology: from the Latin *minutiflorus*, “minutely flowered,” referring to the inflorescence.

Stelis crassifolia Lindl., Edwards’s Bot. Reg. 28: misc. 9. 1842. TYPE: “Imported from the West Indies in Aug 1841 by Sir C. Lemon” (Holotype: not preserved). Etymology: from the Latin *crassifolius*, “thick leaved,” referring to the leaves.

Stelis miersii Lindl., Ann. Mag. Nat. Hist. 14: 397. 1843. TYPE: BRAZIL. Without locality, *J. Miers s.n.* (Holotype: K) Etymology: named for John Miers who collected this species.

Stelis microglossa Rchb.f. Linnaea 22: 821. 1849. TYPE: BRAZIL. Minas Gerais: Caldas, *A. F. Regnell ser. I, 423* (Holotype: W). Etymology: from the Greek *mikroglossa*, “a minute tongue,” referring to the labellum.

Stelis micrantha Barb.Rodr., Gen. Sp. Orch. Nov. 2: 93. 1881, not Sw., 1799. TYPE: BRAZIL. Rio de Janeiro: “croissant sur les arbres des forêts de Petropolis à Rio de Janeiro. Fleurit en Mai et Juin.” *J. Barbosa Rodrigues s.n.* (Holotype: lost). Etymology: from the Greek *mikrantha*, “a minute flower,” referring to the size of the flower.

Stelis rodriguesii Cogn., Fl. Bras. 3(4): 360. 1896, replaced name for *S. micrantha* Barb. Rodr., not Sw. Etymology: named for J. Barbosa Rodrigues who collected the species.

Plant small to medium in size, epiphytic to lithophytic, caespitose-ascending; roots slender. Ramicauls erect, slender, 4–10 cm long, enclosed by 2–3 thin, tubular sheaths at the base. *Leaf* erect, thickly coriaceous, narrowly linear-elliptic, subacute to acute, 7–10 cm long, 0.5–0.8 cm wide, gradually narrowed below into the subpetiolate base. *Inflorescence* an erect, subclax, distichous, many-flowered raceme with many flowers open simultaneously, 8–10 cm long including the peduncle, with a few bracts, subtended by a spathe 0.5–1 cm long, from a node below the apex of the ramicaul; floral bracts thin, tubular, 1.5–2 mm long; pedicels 1 mm long; ovary 0.75–1 mm long; *sepals* yellow-green, glabrous or diffusely cellular, connate basally, broadly ovate, obtuse, the dorsal sepal 1–1.75 mm long, 1–1.5 mm wide, 3-veined, the lateral sepals 1–1.5 mm long, 1.5 mm wide, 3-veined, more or less antrorse; *petals* membranous,

transversely elliptical, shallowly concave, 0.5–0.7 mm long, 0.5–0.8 mm wide, 1-veined, the apex broadly rounded, with a narrow margin; *lip* green, subquadrate, 0.6 mm long excluding the apiculum, 0.6 mm wide, 0.4 mm deep, concave below a shallowly cleft bar, the apex with an acute, triangular apiculum 0.3 mm long, the dorsum with a flat callus extending to the base from between the halves of the bar, microscopically pubescent toward the base, the base broadly truncate, hinged to the column; *column* stout, 0.6 mm long, 0.6 mm wide, the anther and the bilobed stigma apical.

Etymology: from the Latin *apricus*, “growing in sunshine,” referring to a habitat.

Additional specimens examined: COLOMBIA. Risaralda: Hda. Los Cristales, near Río Cauca, 1110 m, 11 November 2001, *P. Silverstone-Sopkin 8795* (CUVC), *C. Luer* illustr. 21256. Valle del Cauca: Zarzal, *P. Silverstone-Sopkin 5675* (CUVC, SEL), *C. Luer* illustr. 16958.

Additional distribution: Ecuador, Peru, and Bolivia.

Stelis aprica is frequent and widely distributed in southern Brazil. It is unknown from the Andes of Peru, but it is infrequent in Colombia and Ecuador. Collections of other species are often misidentified as *S. aprica*.

Lindley first used the epithet *crassifolia* in the genus *Stelis* in 1842 (see reference above) when he described a plant cultivated by Sir Charles Lemon, an amateur gardener, at Carclew House, Cornwall, England, which was thought to have been imported from the West Indies. No specimen was preserved. In his *Folia Orchidaceae* of *Stelis* in 1859, Lindley described an identical Colombian collection by I. F. Holton, and cultivated by Loddiges, as *S. crassifolia* in his herbarium. With little doubt, it was from the same source.

Stelis aprica is characterized by a small to medium-sized habit with narrowly linear leaves and a many-flowered raceme about as long with tiny flowers. The 3-veined sepals are obtuse and less than 2 mm long. The petals are subcircular and 1-veined. The lip is concave below a bifid bar with a prominent, acute, triangular apiculum, as found in *S. spathulata* Poepp. & Endl.

Stelis argentata Lindl., sensu lato, Bot. Reg. 28: Misc. 64. 1842. TYPE: GUYANA. Without any other locality, *R. H. Schomburgk 427* (Holotype: K). Illustrated in Luer (2009a: 204, fig. 353). Fig. 1; a vegetatively small variation shown in Fig. 2.

Synonyms: *Stelis heylidyana* H. Focke, Tijdschr. Wis-Natuurk. Wetensch. 2: 201. 1849. TYPE: SURINAM. “In arboribus sylvarum Surinamensium passim,” *H. Heylidy s.n.* (Holotype: not located). Etymology: named for Henrici Heylidy, the collector.

Stelis leucopogon Rchb.f., Beitr. Orchid.-K. C. Amer. 95: t. 9, 1866. TYPE: COSTA RICA. Desengaño, *H. Wendland s.n.* (Holotype: W). Etymology: from the Greek *leucopogon*, “a white beard,” referring to the pubescence.

Stelis endresii Rchb.f., Gard. Chron. 1373. 1870. TYPE: COSTA RICA. Without locality, *ex A. R. Endres ex Hort.* Hamburg Botanical Garden

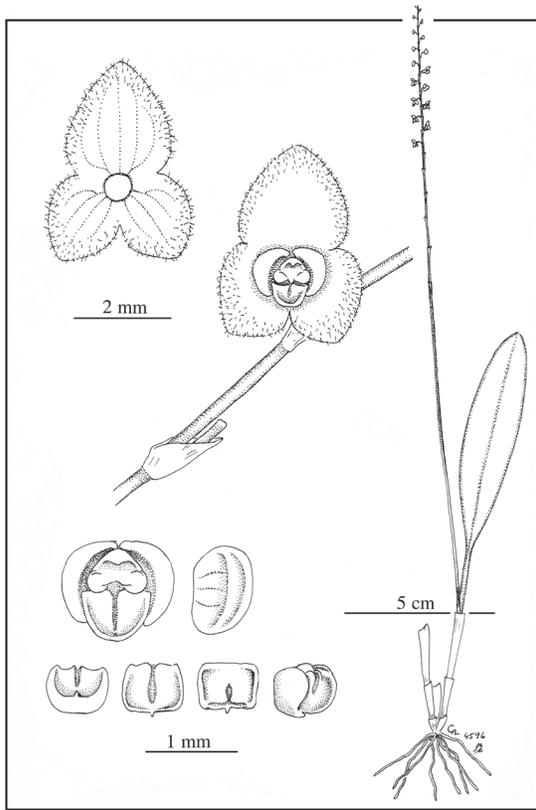


FIGURE 1. *Stelis argentata* Lindl.

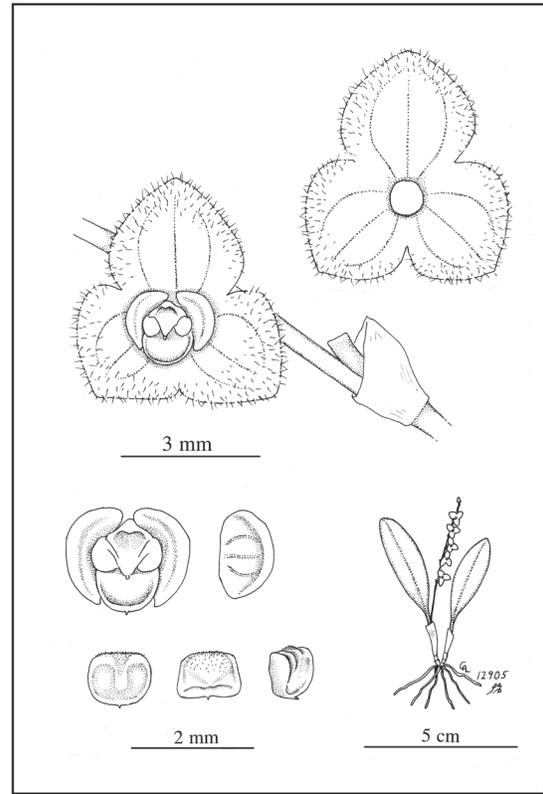


FIGURE 2. *Stelis argentata* Lindl.

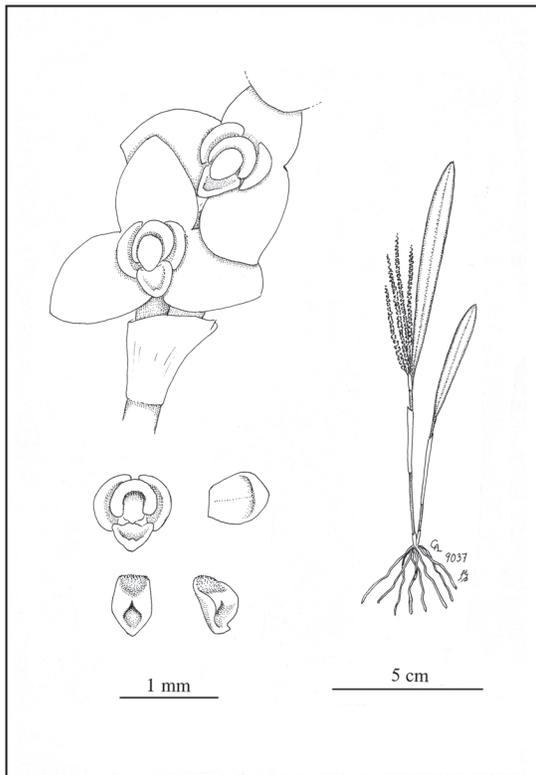


FIGURE 3. *Stelis braccata* Rchb.f. & Warsz.

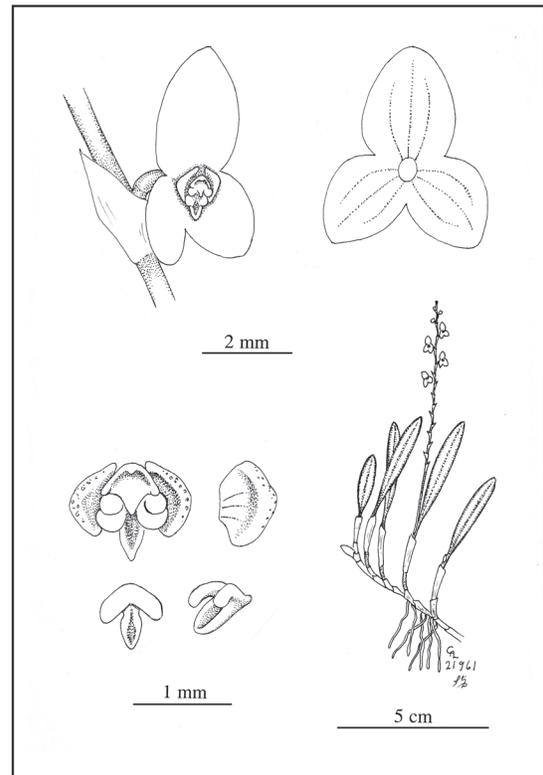


FIGURE 4. *Stelis brevilabris* Lindl.

(Holotype: W). Etymology: named for A. R. Endres who collected this species.

Stelis littoralis Barb. Rodr., Gen. Sp. Orch. Nov. 2: 85. 1882. TYPE: BRAZIL. Minas Gerais: Rio Parahybuna, Juiz de Fora, *J. Barbosa Rodrigues s.n.* (Holotype: lost). Etymology: from the Latin *littoralis*, "coastal," referring to the habitat.

Stelis yauaperyënsis Barb. Rodr., Vellozia ed. 2, 1: 120. 1891. TYPE: BRAZIL. Amazonas: Rio Yauapery, *J. Barbosa Rodrigues s.n.* (Holotype: lost). Etymology: named for Rio Yauapery along which the species was collected.

Stelis parvibracteata Ames, Sched. Orchid. 7: 131. 1922. TYPE: PANAMA. Cana and vicinity, *R. S. Williams 972* (Holotype: AMES 10749). Etymology: from the Latin *parvibracteatus*, "with small bracts," referring to the floral bracts.

Stelis glandulosa Ames, Sched. Orchid. 3: 3. 1923. TYPE: COSTA RICA. Without locality, *ex C. H. Lankester ex Hort. Kewensis* (Holotype: AMES 22860). Etymology: from the Latin *glandulosus*, "glandular," referring to the pubescent sepals.

Stelis praesecta Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 175. 1923. TYPE: COSTA RICA. San Ramón, 1035 m, *A. M. Brenes 189* (Holotype: destroyed at B). Etymology: from the Latin *praesectus*, "cut off," referring to the apex of the lip.

Stelis violascens Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 176. 1923. TYPE: COSTA RICA. San Pedro de San Ramón, 1200 m, *A. M. Brenes 72* (Holotype: destroyed at B). Etymology: from the Latin *violascens*, "becoming violet," referring to the color of the flowers.

Stelis huebneri Schltr., Beih. Bot. Zentralbl. 42(2): 88. 1925. TYPE: BRAZIL. Amazonas, Taracua, *G. Hübner 173* (Holotype: destroyed at B). Etymology: named for George Hübner who collected this species.

Plant small to large, epiphytic, caespitose to ascending; roots slender. Ramicauls erect, stout, 1.5–6 cm long, enclosed by a tubular sheath near the middle and 2–3 others at the base. *Leaf* erect, coriaceous, elliptical, acute, subacute to obtuse, 2–11 cm long including the petiole 1–3 cm long, 1–3 cm wide, cuneate below into the petiole. *Inflorescence* an erect, subdense, distichous, subsecund, many-flowered raceme, 3–26 cm long including the peduncle 1–10 cm long, subtended by a spathe ca. 1 cm long, from an annulus below the apex of the ramicaul; floral bracts oblique, acute, 1.5–2.5 mm long; pedicels ca. 1.5 mm long; ovary 1–2.5 mm long; *sepals* yellow to purple, expanded, glabrous externally, shortly pubescent or cellular-glandular within, connate basally, broadly ovate, obtuse, 2–5 mm long, 3–5 mm wide, 3- to 5-veined; *petals* yellow or purple, transversely cuneate-obovate, shallowly concave, 0.5–1 mm long, 1–1.5 mm wide, 3-veined, the apex broadly rounded with the margin thickened; *lip* yellow or purple, thick, transversely subquadrate, 0.6 mm long, 0.8–1 mm wide, 0.4 mm deep, shallowly concave below a broad, convex bar with a narrow

glenion, the apical margin, thin, with a minute apiculum, the base broadly truncate, hinged to the base of the column; *column* stout, ca. 0.5 mm long, 1 mm wide, the anther and the bilobed stigma apical.

Etymology: from the Latin *argentatus*, "silvered," referring to the crystals in the floral parts.

Additional specimen examined: COLOMBIA. Cauca: La Cajamaria, 1600 m, 11 November 1883, *F.C. Lehmann 3346* (AMES). Antioquia: without data, flowered in cultivation at La Ceja by M. & O. Robledo, 9 Apr. 1988, *C. Luer 13097* (MO). Chocó: Baudo, 400 m, collected and cultivated by A. de Wilde 3876, 15 May 1993, *C. Luer 16850* (MO). Nariño: above Ricaurte, 1600 m, 3 November 1979, *C. Luer, J. Luer & A. Hirtz 4596* (SEL).

Additional distribution: Suriname, French Guyana, Brazil, Venezuela, Panama, Costa Rica, Nicaragua, Guatemala, Mexico, Peru.

This species complex is frequent and variable in its wide distribution through Central America and the Andes. It is allied to *Stelis superbiens* Lindl., differing mostly in a smaller size with more or less variously pubescent sepals. The habit of *S. argentata* sensu lato varies from small to large with an erect, congested inflorescence of widely spread flowers. The color varies from yellow through all shades of purple. The sepals are broadly ovate and either 3-veined or 5-veined. The 3-veined petals are not remarkably different from those commonly seen in the genus.

The lip of all of the species treated in synonymy is basically similar. Instead of a transverse bar that more or less divides the lip into a thick hypochile and a concave epichile, a broadly convex bar extends forward from the base nearly to the broadly rounded or subtruncate apex. A superficial, narrow glenion is commonly present. The apical margin is thin with an apex variable as seen in *S. superbiens* Lindl.

Stelis braccata Rchb.f. & Warsz., Bonplandia 2: 114. 1854. TYPE: COLOMBIA [as New Grenada]. Without locality, *J. von R. Warszewicz s.n.* (Holotype: W; Isotype: AMES). Luer (2009a: illustr. 6176, 205, fig. 355). Fig. 3.

Synonyms: *Stelis minimiflora* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 27: 31. 1924. TYPE: COLOMBIA. Nariño: Volcán Galeras, near Pasto, March 1922, 3500 m, *W. Hopp 171* (Holotype: destroyed at B). Etymology: from the Latin *minimiflorus*, "minute-flowered," referring to the small size of the flowers.

Stelis bracteata Schltr., Repert. Spec. Nov. Regni Veg. Beih., 27: 26. 1924. TYPE: COLOMBIA. Nariño: between Pasto and Mocoa, 3300 m, May 1921, *W. Hopp 68* (Holotype: destroyed at B), *non Stelis bracteata* Schltr., 1923.

Stelis bractescens Garay, Bot. Mus. Leaf. Harvard Univ., 27: 185. 1979, replaced name for *S. bracteata* Schltr., 1924. Etymology: from the Latin *bracteata*, *bractescens*, referring to the prominent floral bracts.

Apatostelis braccata (Rchb.f. & Warsz.) Garay, Bot. Mus. Leaf. 27: 187. 1979.

Apatostelis minimiflora (Schltr.) Garay, Bot. Mus. Leaf. 27: 189. 1979.

Plant small to medium in size, epiphytic, densely caespitose; roots slender, numerous. Ramicauls fascicled, erect, slender, 2–7 cm long, enclosed by a loose, tubular sheath near the middle and 2 sheaths about the base. *Leaf* erect, coriaceous, narrowly elliptical, acute to subacute, 3–7 cm long including an ill-defined petiole ca. 1 cm long, 0.5–0.8 cm wide, narrowly cuneate below into the petiole. *Inflorescence* 1 or 4, 4–5 cm long, racemes erect, congested, distichous, simultaneously several- to many-flowered, the peduncle ca. 2 cm long, from a spathe 5–6 mm long at a node below the apex of the ramicaul; floral bracts oblique, acute, 0.5–1 mm long; pedicels 0.5 mm long; ovary ca. 1 mm long; *sepals* expanded, more or less recurved, yellow, glabrous, broadly ovate, obtuse, connate basally to form a cup to accommodate the central apparatus, the dorsal sepal 1–1.2 mm long, 1 mm wide, 3-veined, the lateral sepals 1 mm long, 0.8 mm wide, 3-veined, occasionally minutely apiculate; *petals* yellow, thin, cuneate, with the apex broadly truncate, slightly thickened on the edge, 0.4–0.5 mm long, 0.5–0.6 mm wide, 1-veined; *lip* yellow, thick, oblong, obtuse, 0.5–0.6 mm long, 0.3 mm wide, 0.2 mm deep, concave below a thick curved bar, cellular-pubescent above the base, the base broadly truncate, hinged to the base of the column; *column* stout, ca. 0.5 mm long and wide, the anther and the stigma apical, the stigma narrowly transverse, or within the sides of the column, the foot obsolescent.

Etymology: from the Latin *braccatus*, “wearing trousers,” could be referring to the cauline sheaths.

Additional specimens examined: COLOMBIA. Antioquia: El Retiro, flowered in cultivation by Padre Sergio, 20 November 1981, *C. Luer 6717* (SEL); Frontino, El Plateado, 2060 m, 5 May 1983, *C. Luer, J. Luer & R. Escobar 9037* (SEL); without collection data, flowered in cultivation in Brussels, 8 November 1912 (BR). Cundinamarca: near San Clemente, 2100 m, 20 April 1982, *C. Luer, J. Luer & R. Escobar 7518* (SEL). Huila: Hacienda Meerenberg, 2300 m, 18 November 1982, *C. Luer & R. Escobar 8484* (SEL).

Additional distribution: Venezuela, Ecuador.

Stelis braccata, widely distributed from coastal Venezuela into Ecuador, is distinguished by slender, densely fascicled ramicauls that are about as long as narrow leaves, and 2–5 slender, congested, several- to many-flowered racemes that vary in length. The sepals are glabrous, minute and broadly ovate, and the petals are 1-veined. The minute lip is about 0.5 mm long with a variable bar and apex.

Stelis brevilabris Lindl., Ann. Mag. Nat. Hist. 15, No. 96: 107. 1845. TYPE: COLOMBIA. Cauca: Páramo de Guanacas, 3300 m [10,000 ft], 1843, *T. Hartweg 1411* (Holotype: K; Isotypes: BR, F, G, LD, LE, W). Illustrated in Luer (2002: 85, fig. 99, as *Stelis serpens* Luer & Hirtz). Fig. 4.

Synonym: *Stelis serpens* Luer & Hirtz, Monogr. Syst. Bot. Missouri Bot Gard. 88: 82, 2002. TYPE: ECUADOR. Loja: army road to TV tower east of Yangana, 2750 m, 22 November 1985, *C. Luer, J. Luer, A. Hirtz & W. Flores 10794* (Holotype: MO). Etymology: from the Latin *serpens*, “crawling,” referring to the elongated rhizome.

Plant small to medium, epiphytic, repent, to 15 cm long or longer, rhizomes stout, 0.5–2 cm long between ramicauls; roots slender. Ramicauls ascending-erect, stout, 1.5–5 cm long, enclosed by a tubular sheath from below the middle and another 1–2 sheaths below and at the base. *Leaf* erect, coriaceous, elliptical, subacute to acute, 3–7 cm long including a petiole 0.5–1.5 cm long, the blade 0.5–1.2 mm wide, cuneate below into the petiole. *Inflorescence* an erect, congested, simultaneously flowered raceme 4–8 cm long, the peduncle 1–2 cm long, from a node below the apex of the ramicaul; floral bracts oblique, acute, 3–4 mm long; pedicels 1–2 mm long; ovary 1 mm long; flowers light yellow; *sepals* glabrous to microscopically pubescent within, the dorsal sepal ovate, obtuse, 2.5–3.25 mm long, 1.6–2 mm wide, 3-veined, connate basally to the lateral sepals, the lateral sepals ovate, obtuse, oblique, 2–2.8 mm long, 1.3–2 mm wide, 3-veined; *petals* transversely ovate, broadly obtuse, shallowly concave, 0.6 mm long, 0.8–1 mm wide, 3-veined, thickened at the apex; *lip* 3-lobed, 0.6–0.8 mm long, 0.5–0.6 mm wide across the lateral lobes, the apical lobe ovate, concave, obtuse, the lateral lobes below the middle, obtuse, antrorse, overlapping the base of the midlobe, the base truncate, hinged to an obsolescent column-foot; *column* stout, ca. 0.5 mm long and wide, with the anther and the bilobed stigma apical.

Etymology: from the Latin *brevilabris*, “with short lip,” referring to the labellum.

Additional specimens examined: COLOMBIA. Cundinamarca: Páramo de Chipaque 3100–3200 m, 26 September 1941, *R. E. Schultes 1042* (AMES, MO, SEL), *C. Luer* illustr. 21954; Zipaquirá, La Caldera, 3000 m, 19 June 1942, *G. Huertas G. 10* (AMES). Valle del Cauca: El Cerrito, between Tenerife and Páramo de Azúcar, 3450 m, 2 April 1993, *P. A. Silverstone-Sopkin 6542* (CUVC, MO). Putumayo: Laguna La Cocha, Ciudadela, near Páramo Bordoncillo, 2800–3000 m, 27 May 1940 *R. E. Schultes & M. Villarreal* (AMES); between La Cocha and Sibundoy, *L. A. Garay II* (AMES), *C. Luer* illustr. 21961.

Stelis brevilabris was collected in the Páramo de Guanacas by T. Hartweg with his collection number 1411. It must have been abundant, because duplicate specimens were distributed among many herbaria. A single specimen of a different species, declared to be “scarce” and with the same collection data, was described by Lindley as *S. parvilabris* (1845: 385). Confusion arose. The single collection, *S. parvilabris*, is small and caespitose with loose racemes not longer than the leaves, while the abundant one, *S. brevilabris*, is larger and repent with racemes much longer than the leaves.

This species, widely distributed from the Eastern Cordillera of Colombia to Ecuador, is characterized by a long-repent habit, elliptical leaves about as long as the ramicauls, and a congested raceme longer than the leaf. The sepals are obtuse and 3-veined; the petals are 3-veined; and the lip is 3-lobed with a pair of obtuse lateral lobes overhanging the base of a concave, ovate, middle lobe. The lateral lobes appear to be modifications of the transverse bar.

A similar 3-lobed lip occurs in *Stelis inversa* Schltr. from Peru, but it differs florally and vegetatively. It is twice the size of collections from Colombia and Ecuador.

Stelis cochlearis Garay, *Canad. J. Bot.*, 34: 352. 1956. TYPE: COLOMBIA. Antioquia: Sonsón, lithophytic, Balkerón de Sonsón, 2700 m, 20 August 1948, *W. Johnson & F. A. Barkley 18C804* (Holotype: US; Isotypes: AMES, MEDEL). Illustrated in Luer (2016a: 82, fig. 40, as *Stelis pinguis* Luer & R. Escobar) and Luer (2016b: 216, fig. 39, as *Stelis prionota* Luer & R. Escobar). Fig. 5.

Synonyms: *Stelis pinguis* Luer & R. Escobar, *Harvard Pap. Bot.* 21(1): 82, 2016. TYPE: COLOMBIA. Antioquia: road to Boquerón NW of Medellín, 2380 m, 22 April 1983, *C. Luer, J. Luer & R. Escobar 8747* (Holotype: SEL). Etymology: from the Latin *pinguis*, “fat, plump,” referring to the leaves.

Stelis prionota Luer & R. Escobar, *Harvard Pap. Bot.* 21(2): 216. 2016. TYPE: COLOMBIA. Antioquia: Cerro Padre Amaya, 2400 m, coll. by E. Acevedo, flowered in cultivation at Colomborquídeas. 5 May 1993, *C. Luer 16696* (Holotype: MO). Etymology: from the Greek *prionotos*, “jagged like a saw,” referring to the floral bracts in the raceme.

Plant medium in size to large, epiphytic, densely caespitose. Ramicauls erect, terete, stout, 3–5 mm thick, 3–9 cm long, with a tubular sheath from below the middle, and 1–2 other sheaths below. *Leaf* erect, thickly coriaceous, linear, subacute to obtuse, sessile, 7–13 cm long, the blade 1.5–1.7 cm wide, 0.3–0.5 cm thick, narrowed below into the ramicaul. *Inflorescence* 1–2 erect; 8–18 cm long, the racemes congested, distichous, many-flowered, large-bracted, with many flowers partially open simultaneously, the peduncle ca. 1 cm long, subtended by a spathe 0.8–1 cm long, from a node at the apex of the ramicaul; floral bracts oblique, conduplicate, acute, 8 mm long low in the raceme to 3 mm long above; pedicels 1.5 mm long; ovary 1 mm long; *sepals* dull rosy brown to yellow-green, thick, rigid, glabrous externally, pubescent within, concave, connate to near the middle, often spreading above, the dorsal sepal obovate, obtuse, 3.5 mm long, 2.5 mm wide, 3-veined, the lateral sepals ovate, oblique, obtuse, 3.25 mm long, 2.5 mm wide, 3-veined; *petals* thin, transversely ovate, broadly obtuse, slightly thickened on the margin, shallowly concave, without a transverse carina, 1.25 mm long, 1.5 mm wide, 3-veined; *lip* subhemispherical, 1.5 mm long, 1.5 mm wide, 1 mm deep, deeply concave below a thin bar with a broad cleft to a rounded callus on the dorsum, the apex obtuse, concave, the base broadly truncate, fixed to the base of the column; *column* stout, ca. 1.5 mm long and wide, the anther and the stigmatic lobes apical.

Etymology: from the Latin *cochlearis*, “curved like a shell, or a spoon,” referring to the lip.

Additional specimens examined: COLOMBIA. Tolima: Alto de Pozo, W of Ibagué, 2800 m, 20 April 1982, *C. Luer, J. Luer & R. Escobar 7474* (SEL). Putumayo: Valley of Sibundoy, Sibundoy, 2225–2300 m, 29 May 1946, *R. E. Schultes & M. Villarreal 7685* (AMES, SEL), *C. Luer* illustr. 21958.

This variable species is remarkable for thick, caespitose ramicauls and narrowly linear, succulent leaves that are surpassed by one or two, many-flowered racemes with large,

conspicuous floral bracts, the flowers protruding from the margins. The sepals are fleshy, obtuse, 3-veined and connate to near the middle to form a cup for the central apparatus, and more or less spreading above the middle. The petals are thin and 3-veined. The lip is deeply concave below a thin, broadly cleft bar.

The flowers of the plant described as *Stelis cochlearis* were probably in very poor condition, because the published description and illustration are misleading, which led to its being redescribed more than once.

Stelis concinna Lindl., *J. Bot. (Hooker)*, 1: 11. 1834. TYPE: ECUADOR. Los Ríos: *Col. F. Hall s.n.* (Holotype: K). Illustrated in Luer (2009a: 207, fig. 67ab). Fig. 6.

Synonyms: *Stelis flexuosa* Lindl., *Ann. Mag. Nat. Hist.* 12: 397. 1843. TYPE: PERU. Without locality, *A. Mathews 1910* (Holotype: K). Etymology: from the Latin *flexuosus*, “flexuous,” referring to the zigzag rachis.

Stelis capillipes Rchb.f., *Bonplandia* 3: 240. 1855. TYPE: ECUADOR. “Valle de Lloa,” *W. Jameson 265* (Holotype: W). Etymology: from the Latin *capillipes*, “capillary-footed,” referring to the hair-like peduncle and rachis.

Stelis longihirta Luer & Hirtz, *Monogr. Syst. Bot. Missouri Bot. Gard.* 88: 51, 2002. TYPE: ECUADOR. Morona-Santiago: cloud forest N of the pass N of Gualaquiza, 1700 m, *C. Luer, J. Luer, A. Hirtz, W. Flores & A. Embree 11878* (Holotype: MO). Etymology: from the Latin *longihirtus*, “long-hairy,” referring to the sepals.

Plant small, epiphytic, densely caespitose, roots slender. Ramicauls erect, slender, 5–20 mm long, with a close, tubular sheath above the middle and another sheath below at the base. *Leaf* erect, coriaceous, elliptical to narrowly elliptical, acute, petiolate, 1–5 cm long including a petiole 2–10 mm long, the blade 3–7 mm wide in dry state, cuneate below into the petiole. *Inflorescence* 1–3; 4–30 cm long, the raceme flexuous, lax, distichous, successively many-flowered, with 2–8 flowers open simultaneously, the peduncle 1–5 cm long, from a node near the apex of the ramicaul; floral bracts oblique, acute, 0.6–1.5 mm long; pedicels 0.6–1.5 mm long; ovary 0.5 mm long; sepals purple with white or rose pubescence, *sepals* expanded, pubescent within, ovate, subacute, 3-veined, connate basally, 1.3–1.5 mm long, 1–1.3 mm wide; *petals* purple, subcircular, concave, thickened on the rounded apex, 0.5 mm long, 0.8 mm wide, 1- to 3-veined; *lip* purple, subquadrate, 0.4–0.5 mm long, 0.4–0.5 mm wide, 0.3–0.5 mm deep, concave below a shallowly sulcate bar, the apex rounded, the dorsum slightly convex, the base truncate, hinged to the base of the column; *column* clavate, ca. 0.5 mm wide and long, the anther and the bilobed stigma apical.

Etymology: from the Latin *concinus*, “neat, elegant,” referring to the plant.

Additional specimens examined: COLOMBIA. Antioquia: Urrao, Pabón, collected by M. Zapata, flowered

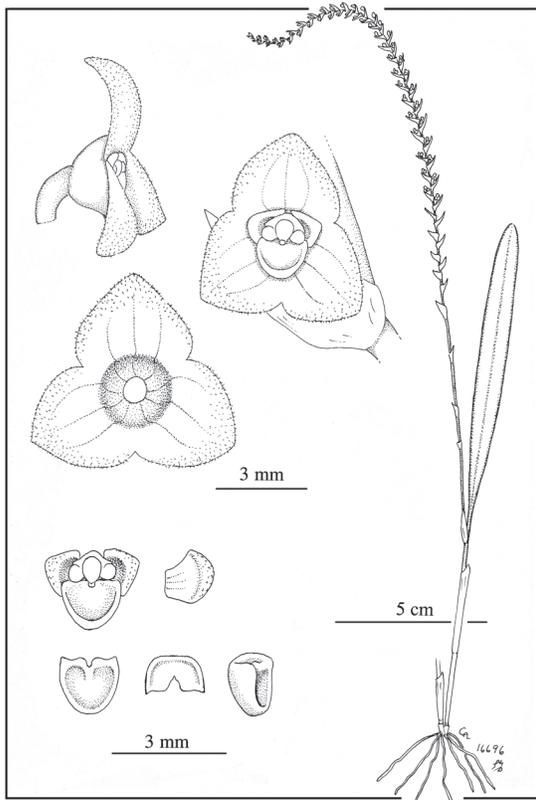


FIGURE 5. *Stelis cochlearis* Garay

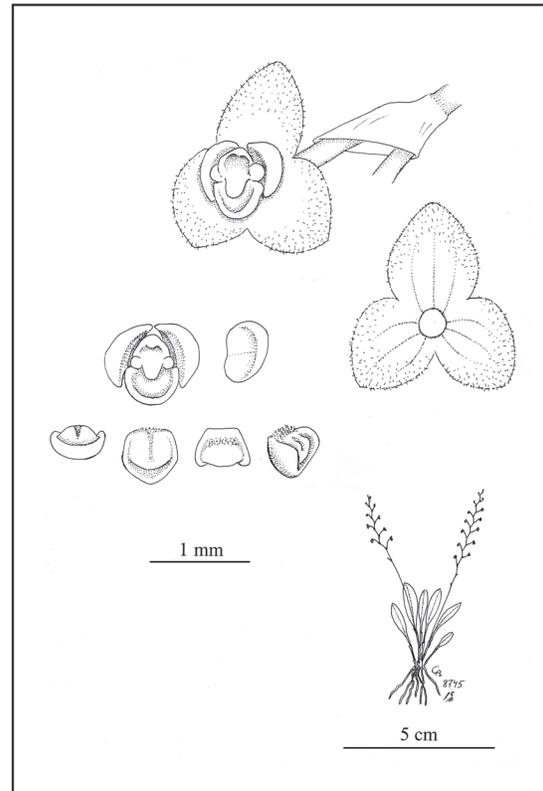


FIGURE 6. *Stelis concinna* Lindl.

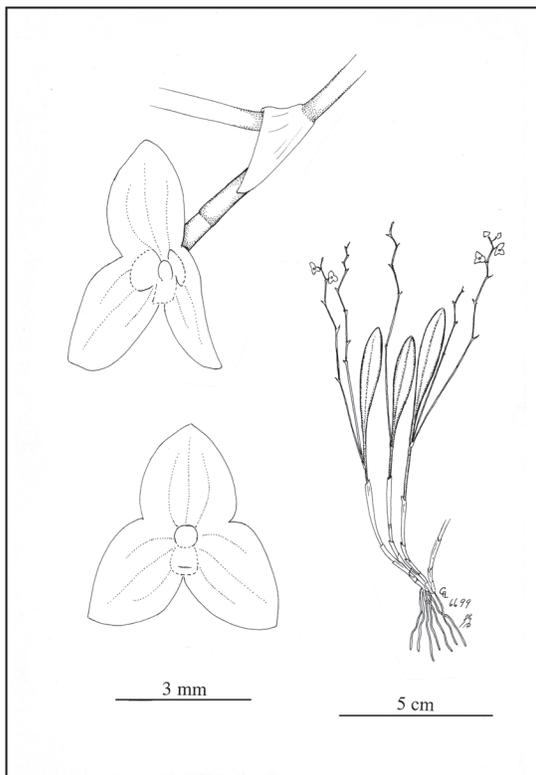


FIGURE 7. *Stelis dapidis* Luer & Escobar

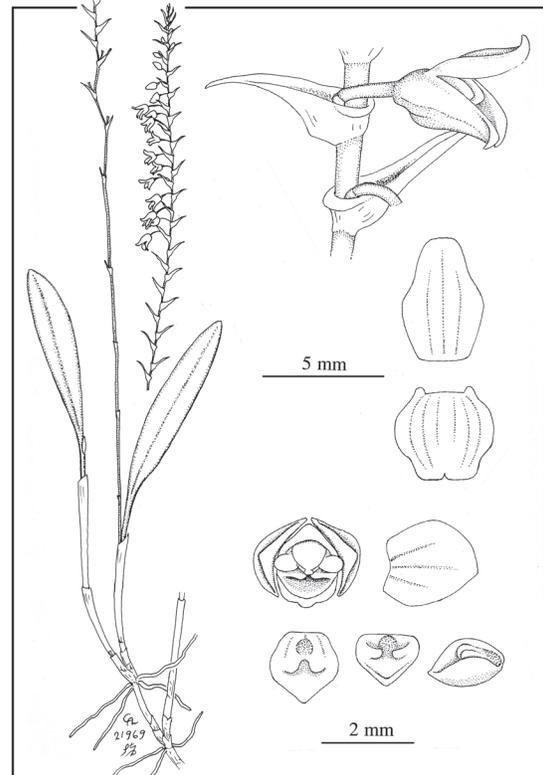


FIGURE 8. *Stelis dialissa* Rchb.f.

in cultivation at Colomborquídeas, 23 May 1995, *C. Luer 17593* (MO); Sonsón, Quebrada Oscura, between La Ceja and Sonsón, 2250 m, 29 April 1983, *C. Luer, J. Luer & R. Escobar 8906* (SEL); Frontino, above Nutibara, Alto de Cuevas, 2050 m, 4 May 1983, *C. Luer, J. Luer & R. Escobar 9000* (SEL); Cocorná, El Viaha, along Río Cocorná, 1900 m, 24 April 1983 m, *C. Luer, J. Luer & R. Escobar 8818* (SEL); NE of Santa Rosa, above the Miraflores Dam, 13 May 1985, 2050 m. *C. Luer & R. Escobar 11375* (MO); near Medellín, collected by Ernst Zeller, 1980, flowered in cultivation near Ulm, Germany, 20 September 1981, *C. Luer 6505* (SEL). Norte de Santander: Páramo de Jurisdicciones, 2600 m, 10 May 1982, *C. Luer, J. Luer & R. Escobar 10218* (MO); Páramo de Jurisdicciones, 2600 m, coll. May 1982, flowered in cultivation at Colomborquídeas, 21 Apr. 1983, *C. Luer 8745* (SEL); Páramo de Jurisdicciones, 2570 m, 30 April 1982, *C. Luer, J. Luer & R. Escobar 7653* (SEL); Páramo de Jurisdicciones, 2670 m, 10 November 1981, *C. Luer, J. Luer & R. Escobar 6641* (SEL); Alto de Santa Inez, 2150 m, 13 May 1984, *C. Luer, J. Luer & R. Escobar 10353, 10354* (MO); at the pass N of Villacaro, 2850 m, collected 11 May 1984 by C. Luer, R. Escobar & D. Portillo, flowered in cultivation at Colomborquídeas, 11 May 1985, *C. Luer 11327* (MO). Nariño: above Ricaurte, 1859 m, 2 November 1979, *C. Luer, J. Luer & A. Hirtz 4548* (SEL). Putumayo: Laguna La Cocha, road to Sibundoy, near Páramo de Bordoncillo, 2800–3000 m, 27 May 1946, *R. E. Schultes & M. Villaarreal 7593* (AMES, SEL). C. Luer illustr. 21956. Cundinamarca: Las Gaques, Páramo de Guasca, 3250 m, 12 March 1939, *E.P. Killip 34080* (AMES, CO).

Additional distribution: Venezuela, Ecuador, Peru, Bolivia.

Stelis concinna is variable and relatively frequent in the Andes from Venezuela to Bolivia. Lindley first described it as *S. concinna* from a fragment collected by Hall, who was known to have collected around Quito. Reichenbach described *S. capillipes* from a collection near Quito by Jameson. It was identified by Lindley as the same as his *S. flexuosa*, which he had described from a Peruvian collection by Andrew Mathews. Lindley had both Mathews's collections and the Ecuadorian collection by Jameson mounted on the same sheet.

One to three delicate, hair-like, flexible, flexuous racemes of tiny flowers are produced slowly and successively in many-flowered racemes with several flowers open simultaneously toward the tip. Great lengths accumulate in long-cultivated plants. The sepals are ovate, 3-veined, and purple with a variable white pubescence that is sometimes long-pubescent at the apex. The petals are subcircular, thin and 1-veined. The bar of the lip is variable, especially in the Eastern Cordillera of Colombia, where the usually entire callus is sometimes depressed centrally to resemble a horseshoe-shaped callus.

Stelis dapidis Luer & R. Escobar, *sp. nov.* TYPE: COLOMBIA. Norte de Santander: between Cucutilla and Pamplona, 2800 m, 13 November 1981, *C. Luer, J. Luer & R. Escobar 6699* (Holotype: SEL). Fig. 7.

This small species with densely fascicled ramicauls is unique with small, long-pedicellate flowers produced in flexuous, exceedingly lax, several-flowered inflorescences.

Plant small, epiphytic, ascending, roots slender. Ramicaul slender, densely fascicled, 3–4 cm long, with a close, tubular sheath from below the middle and another 1–2 sheaths below and about the base. *Leaf* erect, coriaceous, elliptical, acute, 4–5.5 cm long including a petiole ca. 1.5 cm long, the blade 0.5–0.7 cm wide in the dry state, acuminate below into the petiole. *Inflorescence* 1–2; 5–8 cm long, the raceme erect, flexuous, distantly few-flowered, 1–1.5 long cm between flowers, but 0.5 cm long near the tip, the peduncle ca. 3 cm long, from near the apex of the ramicaul; floral bracts oblique, acute, 1.5–2 mm long; pedicels 2.5–3 mm long; ovary 1 mm long; *sepals* light rose, expanded, similar, glabrous, ovate to subacute, 2.5 mm long, 2 mm wide, 3-veined, connate below the middle; *petals* white, 3-veined at the base; *lip* missing, but had been attached to a 3-veined column-foot, noted to have been white; *column* missing.

Etymology: from the Latin *dapis*, *dapidis*, “of a feast, or banquet” referring to the petals and lip that have been devoured by an uninvited guest.

The distinctive inflorescence of this small species is like no other known today. One or two weak, flexuous, distantly and successively flowered racemes of 5 or 6 small, long-pedicellate flowers are produced. Unfortunately, most of the petals, and all of the lip and column, except for a 3-veined column-foot, appear to have been eaten by a selective intruder. In spite of the missing information, this species from a remote locality is being given a specific name, for another collection that will be recognized in the future.

Stelis dialissa Rchb.f., Bonplandia 3: 71. 1855. TYPE: COLOMBIA. Cauca: Páramo de Guanacas above Popayán, 10,500 ft, *T. Hartweg 1413* (Holotype: W; Isotypes: BM, BR, G, K, LD, LE). Illustrated in Luer (2009a: 83, fig. 314). Fig. 8.

Synonyms: *Dialissa pulchella* Lindl., Ann. Mag. Nat. Hist. 15: 107. 1845, not *Stelis pulchella* Kunth. TYPE: COLOMBIA. Cauca: Páramo de Guanacas above Popayán, 10500 ft, 1843, *T. Hartweg 1413* (Holotype: W; Isotypes: BM, BR, G, K, LD, LE). Etymology: from the Latin *pulchellus*, “beautiful,” referring to the plant.

Pleurothallis pristis F. Lehm. & Kraenzl., Bot. Jahrb. Syst. 26: 443. 1899. TYPE: COLOMBIA. Cauca: Páramo de Guanacas, 2900–3000 m, January 1886, *F. C. Lehmann 6032* (Holotype: destroyed at B; Lectotype here designated: AMES 14772). Etymology: from the Greek *pristis*, “a sawfish,” referring to the appearance of the inflorescence.

Plant medium to large in size, epiphytic, scandent, long-repent, the rhizome 2.5–7 cm long between ramicauls, with 2 tubular sheaths; roots slender. Ramicauls ascending, slender, 4–7 cm long, enclosed by 2 loose, tubular sheaths. *Leaf* erect, coriaceous, narrowly elliptical, petiolate, acute, 5–9 cm long including the petiole 0.5–1.5 cm long, 1–2.5 cm

wide, narrowly cuneate below into the petiole. *Inflorescence* an erect, subdense, distichous, many-flowered raceme with several to many flowers open simultaneously, 15–35 cm long including the peduncle 8–15 cm long, borne below the apex of the ramicaul; floral bracts acute, acuminate, 5–7 mm long; pedicels 2–2.5 mm long; ovary 3–4 mm long; *sepals* glabrous, variously purple, the dorsal sepal ovate, obtuse, convex, 4.5–5 mm long, 3 mm wide, 3-veined, connate 1.5–2 mm to the synsepal, the lateral sepals connate into a broadly ovate, concave, bifid synsepal, with obtuse, recurved apices, 3.5–4 mm long, 3.5–4 mm wide unexpanded, connate 3 mm, 6-veined; *petals* yellow, edged in purple, broadly obovate, obtuse, 2 mm long, 1.75–2 mm wide, 3-veined, the apex slightly thickened, shallowly concave; *lip* orange, ovate, obtuse, 1.6 mm long, 1.5 mm wide, 1 mm deep, concave below the bar, the bar prominent to either side of a central cleft, the dorsum with a low, rounded, cellular-pubescent callus toward the base, the base truncate, hinged to the tip of a short, thick column-foot; *column* stout, 1 mm long, 1.5 mm wide across the stigmatic lobes, the anther and the bilobed stigma apical.

Etymology: named for the unispecific genus *Dialissa*, from *Dialis*, pertaining to Dis (Dieus, Jupiter).

Additional specimens examined: COLOMBIA. Cauca: Páramo de Guanacas, *H. Karsten s.n.* (W); same area, *F. C. Lehmann s.n.* (W); above Pitayó, 3000 m, 29 October 1882, *F. C. Lehmann* (G); Páramo de Las Papas, laguna de Cusiyaco, 3375 m, 13 October 1958, *H. G. Barclay & P. Juajibioy 6068* (AMES, COL). Tolima: Mariquita, 10,000–11,000 ft, January 1843, *J. Linden 1275* (G, W). Nariño: between Ipiales and La Victoria, 3300 m, 4 November 1979, *C. Luer, J. Luer & A. Hirtz 4638* (SEL). Putumayo: Páramo de San Antonio del Bordoncillo, 3250 m, 4 January 1941, *J. Cuatrecasas* (AMES, COL); Valle de Sibundoy, 2800 m, 30 June 1953, *R. E. Schultes & I. Cabrera 20084* (AMES, COL), *C. Luer* Illustr. 21969.

Additional distribution: Ecuador.

Lindley described a Colombian collection by Hartweg in 1845 in a unispecific genus as *Dialissa pulchella*. At the same place and time, collections were also made that Lindley described as *Stelis brevilabris* and *S. parvilabris*. Ten years later, Reichenbach.f. transferred *Dialissa pulchella* to *Stelis* as *Stelis dialissa*, the specific epithet *pulchella* having been applied to a different species, *S. pulchella* by Kunth.

This species is one of the few pleurothallids that can be recognized dead or alive. It is a large species with a scandent, prolific habit and acute, petiolate leaves. The distinctive, long, many-flowered racemes with two opposing rows of long, pointed, floral bracts reminded Kränzlin of a sawfish, hence *Pleurothallis pristis* F. Lehm. & Kraenzl.

The unexpanded sepals are obtuse and connate below the middle. The petals are simple, 3-veined and broadly obovate. The lip is concave below a bilobed bar.

Stelis dispar C. Schweinf., Fieldiana 28: 177. 1951. TYPE: VENEZUELA. Mérida: near summit of Cerro San Isidro, above La Carbonera, 2430–2745 m, 22 April 1944, *J. A. Steyermark 56034* (Holotype: AMES; Isotype: F). Illustrated in Luer (2017a: 34, fig. 13). Fig. 9–10.

Synonym: *Stelis dendrophila* Luer & R. Escobar, TYPE: COLOMBIA. Santander: Bucaramanga, between Bucaramanga and Berlin, 2600 m, 28 April 1982, *C. Luer & R. Escobar 7619* (Holotype: SEL).

Plant medium in size, epiphytic, shortly repent with caespitose components, the rhizome slender, 0–10 mm between ramicauls; roots slender. Ramicauls erect, slender, 5–10 cm long, enclosed by a close, tubular sheath from below the middle and another 1–2 sheaths below and at the base. *Leaf* erect, coriaceous, elliptical, acute, 5–9 cm long, including a petiole 1–2 cm long, the blade 0.5–1.8 cm wide in the dry state, cuneate below into the petiole. *Inflorescence* 1–3; 5–12 cm long, the racemes erect, strict, distichous; floral bracts oblique, subacute, 2–3 mm long, 2 mm wide; pedicels 1.5 mm long; ovary 1 mm long; the peduncle 1–2 cm long, from a node below the apex of the ramicaul, with a spathe 5–8 mm long; *sepals* purple to green suffused with purple, glabrous, broadly ovate, obtuse, 3-veined, the dorsal sepal 2.5–3.5 mm long, 2.75–3.5 mm wide, the lateral sepals oblique, 2–2.5 mm long, 2.5–3 mm wide; *petals* transversely semilunate, 0.6 mm long, 1 mm wide, concave below the thick margin of the rounded apex, and concave below a thick transverse carina, 3-veined; *lip* subquadrate, 0.6–1 long, 0.6 mm wide, 0.5–0.6 mm deep, concave below a thick bar with a slightly notched bar, the apex rounded, the dorsum slightly convex, the base truncate, attached to the base of the column; *column* stout, ca. 1 mm long and wide, the anther and the stigmatic lobes apical.

Etymology: from the Latin *dispar*, “unequal,” referring to the sizes of the dorsal and lateral sepals.

Additional specimens examined: COLOMBIA. Norte de Santander: Alto de Santa Inéz, 2100 m, 13 May 1984, *C. Luer, J. Luer & R. Escobar 10305, 10306* (SEL).

This variable, medium-sized species is characterized by either a caespitose habit with fasciculated ramicauls, or a repent habit with ramicauls borne along a slender rhizome with only occasionally caespitose components. One or two racemes of medium-sized flowers surpass the tips of the leaves. The sepals are obtuse and 3-veined, the dorsal sepal being larger than the lateral sepals; the petals are thick and 3-veined; and the lip is concave below the bar.

Stelis eublepharis Rchb.f., Bonplandia 3: 240. 1855. TYPE: ECUADOR. Pichincha: Pululagua, *W. Jameson 264* (Holotype: K; Isotypes: AMES, BR, G, LE, W). Illustrated in Luer (2009a: 209, fig. 368). Fig. 11–12.

Synonym: *Stelis brueckmuelleri* Rchb.f. ex Hook.f., Bot. Mag. t. 6521. 1880. TYPE: COLOMBIA. Without collection data, *ex Hort. J. Veitch & Sons* (Holotype: K). Etymology: named in honor of a Herr Brückmüller, possibly a gardener who cultivated this species.

Plant small to medium in size, epiphytic, caespitose; roots slender. Ramicauls erect, slender, 3–6 cm long, enclosed by a tubular sheath from below the middle, another sheath below the middle and another at the base. *Leaf* erect, coriaceous, narrowly elliptical-obovate, subacute to acute, petiolate, 6–10 cm long including the petiole 1.5–2.5 cm long, 0.9–2 cm wide, cuneate below into the petiole. *Inflorescence* single;

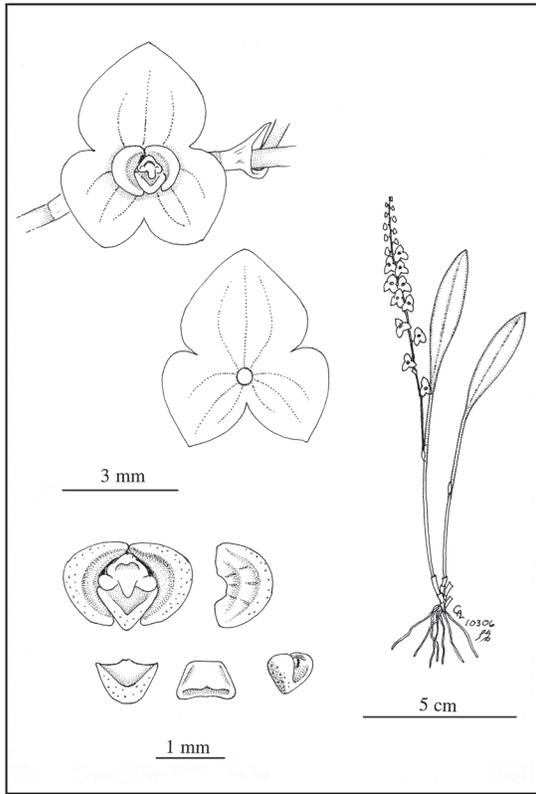


FIGURE 9. *Stelis dispar* Rchb.f.

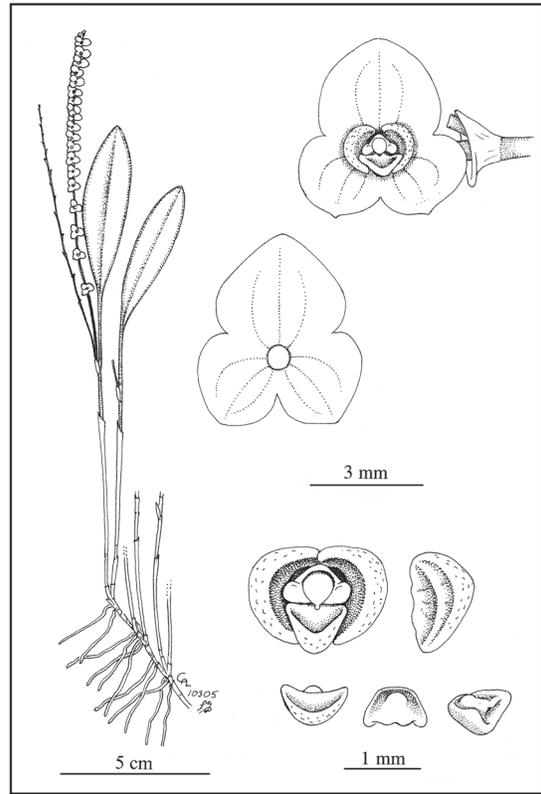


FIGURE 10. *Stelis dispar* Rchb.f.

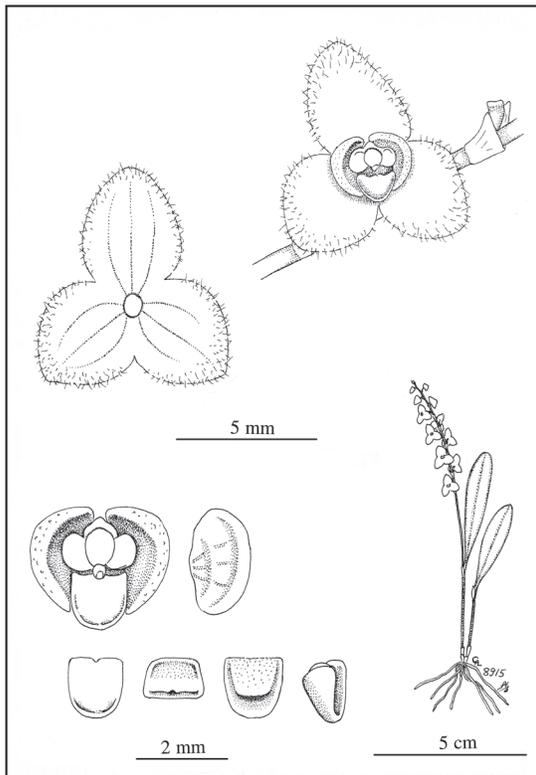


FIGURE 11. *Stelis eublepharis* Rchb.f.

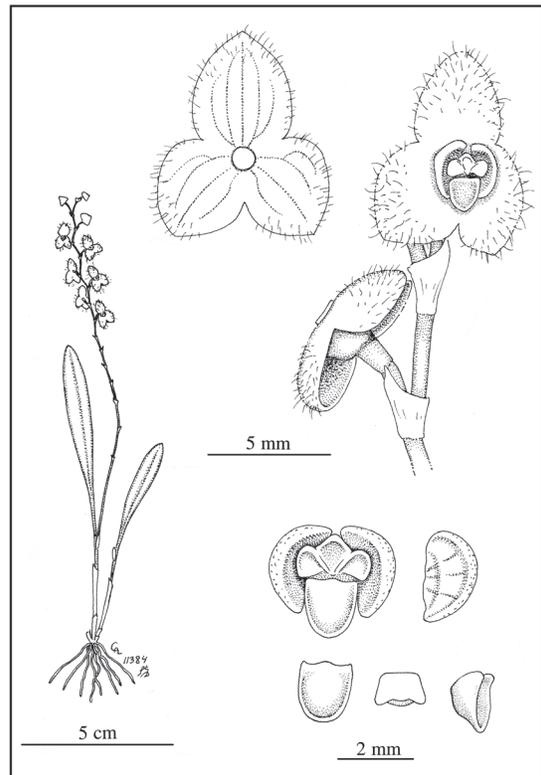


FIGURE 12. *Stelis eublepharis* Rchb.f.

5–13 cm tall, the raceme erect, distichous, subflexuous to strict, loosely several flowered (8–15); floral bracts oblique, acute, 2–4 mm long; pedicels 2–3 mm long; ovary 1.5–2 mm long; the peduncle 2–3 cm long, from a spathe 6–8 mm long at a node below the apex of the ramicaul; *sepals* white to greenish or yellowish white, occasionally suffused with rose, the pubescence white, glabrous externally, expanded, broadly ovate, subacute to obtuse, the dorsal sepal 4–6 mm long, 4–5 mm wide, 3- to 5-veined, the lateral sepals 3–5 mm long, 3–5 mm wide, 3- to 4-veined; *petals* light green, transversely semilunate, 1.5 mm long, 2 mm wide, 3-veined, shallowly concave, with a transverse callus, the apex broadly rounded with the edge thickened; *lip* light green, thickly subdiscoid, 1.2–1.8 mm long, 1.2–1.5 mm wide, 0.6 mm deep, the apex broadly rounded, shallowly concave, the dorsum more or less descending, more or less minutely pubescent, the base truncate, hinged to the base of the column; *column* stout, 1.5–2 mm long and wide, the anther and the stigma and bilobed stigma apical.

Etymology: from the Greek *eublepharis*, “truly eyelashed,” referring to the ciliate sepals.

Additional specimens examined: COLOMBIA. Antioquia: Cañasgordas, W of pass, Boquerón de Toyo, 2120 m, 2 May 1983, *C. Luer, J. Luer, R. Escobar et al.* 8915 (SEL); Frontino, El Plateado, near the gold mine, 2060 m, 5 May 1983, *C. Luer, J. Luer, R. Escobar et al.* 9038 (SEL); Santa Rosa, Yarumalito, 2350 m, 15 May 1985, *C. Luer, J. Luer & R. Escobar* 11384 (MO); Cocorná, collected and cultivated by *O. Duque s.n.* (MO), *C. Luer* illustr. 14327 (MO); Pabón, road to Santa Ana, 2050 m, 31 May 1995, *C. Luer, J. Luer & R. Escobar* 17674 (MO); Santa Rosa, Yarumalito, coll. by E. Valencia, flowered in cultivation at Colomborquídeas, 23 May 1995, *C. Luer* 17574 (MO); Boquerón de Toyo, flowered in cultivation at Colomborquídeas, 16 May 1993, *C. Luer* 16917, 16918 (MO); without data, flowered in cultivation at Colomborquídeas, 16 Apr. 1983, *C. Luer* 8717 (SEL). Risaralda: near Pereira, fl. in cult. by S. Tsubota, *C. Luer* 16760 (MO). Norte de Santander: Páramo de Jurisdicciones, 2500 m, 10 November 1981, *C. Luer, J. Luer & R. Escobar* 6623 (SEL); along river between Abrego and Sardinata, 1730 m, 12 November 1981, *C. Luer, J. Luer & R. Escobar* 6679 (SEL); Paramo de Jurisdicciones, 2570 m, 30 April 1982, *C. Luer, J. Luer & R. Escobar* 7654 (SEL); below Paramo de Jurisdicciones, 2600 m, 10 May 1984, *C. Luer, J. Luer & R. Escobar* 10223 (MO). Santander: Bucaramanga, between Bucaramanga and Berlin, 2800 m, 27 Apr. 1982, *C. Luer, J. Luer & R. Escobar* 7576 (SEL); between Bucaramanga and Berlin, 2550 m, 7 May 1984, *C. Luer, J. Luer & R. Escobar* 10201 (MO).

Additional distribution: Venezuela, Ecuador.

Stelis eublepharis is the only species of the genus *Stelis* to be honored by a plate in *Curtis's Botanical Magazine*. It was featured with a painting of a plant cultivated at Kew without collection data, and described by Reichenbach as *S. brückmülleri*, which was later reduced to synonymy of the former. The earliest known collection of this species was made by Jameson in Pululagua crater near Quito, Ecuador.

Stelis eublepharis is a variable, frequent and widely

distributed species found through the Andes of Venezuela, Colombia, and Ecuador. It is characterized by a several-flowered raceme of light greenish or light purplish flowers usually covered within by a very fine, long, white pubescence, but sometimes the pubescence is short, or sometimes limited to the margins. Both vegetatively and florally, it varies greatly. The dorsal sepal of Ecuadorian collections is 3-veined, while that of most Colombian collections is 5-veined. The bar of the lip of Ecuadorian collections is shallowly notched with a small glenion, and the dorsum is pubescent. The bar of the lip of Colombian collections is frequently smooth without a glenion, and the dorsum is glabrous.

Stelis flacca Rchb.f., *Bonplandia* 3: 240. 1855. TYPE: ECUADOR. Pichincha: western side of Pichincha, *W. Jameson* 735 (Holotype: K; Isotypes: BM, BR, G, LE, W). Illustrated in Luer (2009a: 84, fig. 316). Four variations shown in Fig. 13–16.

Synonym: *Stelis alismifolia* Lindl., *Folia Orch. Stelis* 16(128). 1859. TYPE: ECUADOR. “Forests on the western side of Pichincha,” *W. Jameson* R.89 (Holotype: K; Isotype: W). Etymology: named for the vegetative similarity to *Alisma plantago* L., a member of the *Alismaceae*.

Plant medium to large, epiphytic, densely caespitose, roots slender. Ramicauls erect, slender, 5–15 cm long, enclosed by a close, tubular sheath near the middle and 2–3 other sheaths below and at the base. *Leaf* erect, coriaceous, elliptical, acute, long-petiolate, 5–12 cm long including the petiole 1.5–2.5 cm long, the blade 0.8–2.5 cm wide, cuneate below into the petiole. *Inflorescence* solitary; 7–18 cm long; the raceme erect, lax to subdensely several- to many-flowered, the peduncle 2–6 cm long, subtended by a spathe 5–8 mm long, from a node below the apex of the ramicaul; floral bracts infundibular, oblique, acute, 2.5–3 mm long; pedicels 1.5 mm long; ovary 1.5–2 mm long; flowers purple; *sepals* glabrous, the dorsal sepal erect, ovate, obtuse, 6–8 mm long, 5–6 mm wide, 5-veined, or 3-veined, connate to the synsepal for 1–2 mm, connate into a broadly ovate, deeply concave synsepal, 6–7 mm long, 6–7 mm wide expanded, 6- to 8-veined; *petals* purple to light yellow, transversely ovate, 0.75–1.5 mm long, 0.8–1.5 mm wide, 3-veined, concave within the broadly rounded apex with a thick margin, with a transverse callus; *lip* purple, thick, subovoid, 0.6–1 mm long, 0.8–1 mm wide, 0.5–0.75 mm deep, the apex obtuse, shallowly concave behind a broad margin, the bar tall, erect, rounded with a shallow glenion, the dorsum descending with a low, central, rounded callus, the base truncate, hinged to the base of the column; *column* stout, 0.8 mm long and wide, the anther and bilobed stigma apical.

Etymology: from the Latin *flaccus*, “limp or withered,” for the appearance of the collected plant.

Additional specimens examined: COLOMBIA. Antioquia: Cocorná, quebradas around Río Cocorná, 24 Apr. 1983, *C. Luer, J. Luer & R. Escobar* 8803 (SEL); El Retiro, above the Miraflores Dam, NE of Santa Rosa,

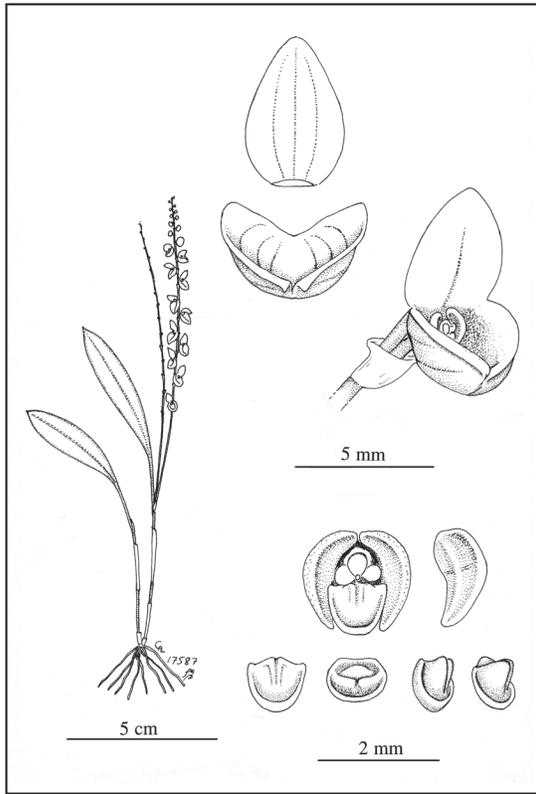


FIGURE 13. *Stelis flacca* Rehb.f.

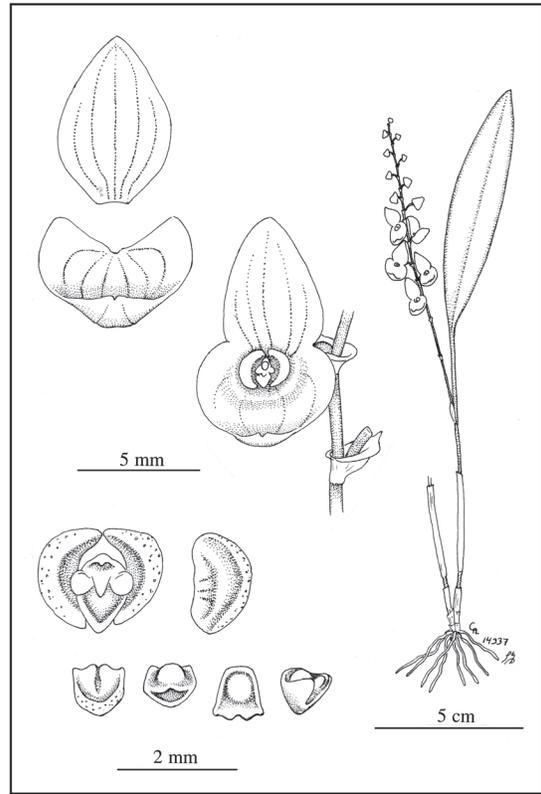


FIGURE 14. *Stelis flacca* Rehb.f.

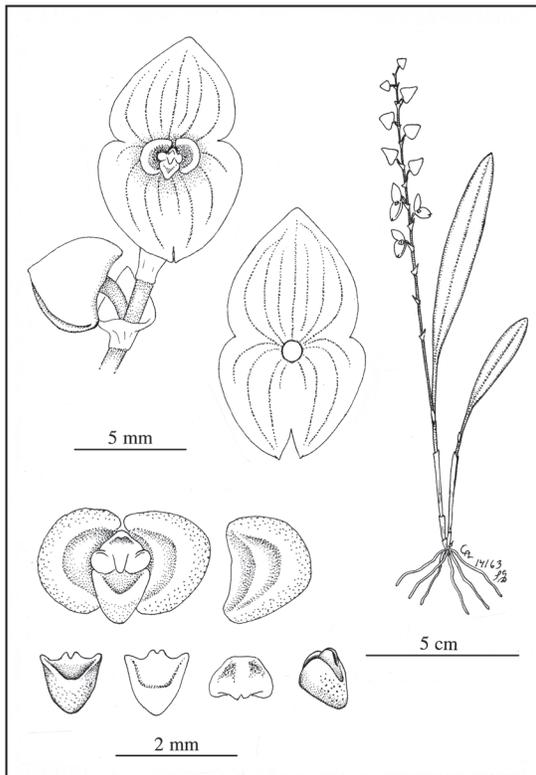


FIGURE 15. *Stelis flacca* Rehb.f.

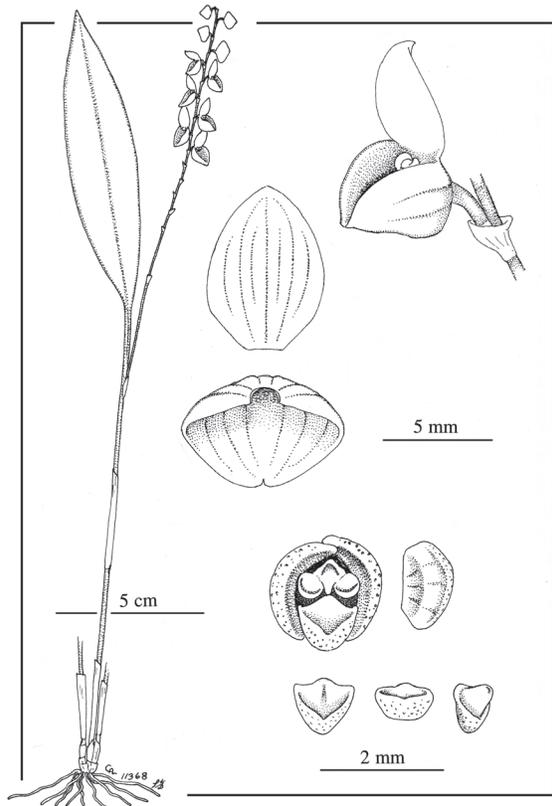


FIGURE 16. *Stelis flacca* Rehb.f.

2050 m, 15 May 1985, *C. Luer & R. Escobar 11368* (MO); Yarumal, road to El Cedro, 1850 m, 15 March 1989, *C. Luer, J. Luer, S. Dalström & W. Teague 14162, 14163* (MO); El Carmen, above San Lorenzo, 2500 m, *C. Luer, J. Luer & W. Teague 14337* (MO). Valle del Cauca: La Elsa, collected by J. L. Aguirre, flowered in cultivation at Colomborquídeas, 23 May 1995, *C. Luer 17587* (MO); without data, flowered in cultivation at Orquídeas del Valle, *C. Luer 18422* (MO).

This species is variable in its distribution through Ecuador and Colombia. Some Colombian collections are larger with stouter ramicauls and with larger, glabrous sepals with a 5-veined, or incompletely 7-veined dorsal sepal, but smaller collections are slender with a 3-veined dorsal sepal. The petals are similarly thick and 3-veined. The proportions of the lip of Colombian collections varies considerably from the lip of Ecuadorian collections. The bar and dorsal callus are less protruding and the anterior margin is not as broad.

Stelis grandiflora Lindl., *Comp. Bot. Mag.* 2: 353. 1836. TYPE: BRAZIL. Rio de Janeiro: Macahé, *J.-T. Descourtiz s.n.* (Holotype is Descourtiz's illustration at the Library of the Institut de France in Paris). Illustrated in Luer (2009a: 219, fig. 394, as *S. muscifera* Lindl.; 2009a: 229, fig. 419, as *S. tristyla* Lindl.). Four variations shown in Fig. 17–20.

Synonyms: *Stelis tristyla* Lindl., *Bot. Reg.* 24: misc. page 42, no. 69. 1838. TYPE: BRAZIL. Without locality, ex Hort. Loddiges Establishment (Holotype: K). Etymology: from the Greek *tristylōs*, “three-pillared,” referring to the three lobes of the column (two stigmas and the rostellum).

Stelis muscifera Lindl., *Fol. Orchid. Stelis* 2(6). 1859. TYPE: VENEZUELA. Aragua: Colonia Tovar, *A. Fendler 1460* (Holotype: K). Etymology: from the Latin *muscifer*, “fly-bearing,” in allusion to the flowers.

Stelis megantha Barb.Rodr., *Gen. Sp. Orch. Nov.* 2: 83. 1882. TYPE: BRAZIL. Rio de Janeiro: Forests of Rodeio, *J. Barbosa Rodrigues s.n.* (Holotype: lost). Etymology: from the Greek *meganthos*, “large flower,” referring to the flower.

Stelis zonata Rchb.f. *Gard. Chron. N. S.* 20: 556. 1883. TYPE: GUYANA [as Demerara]. Without locality, ex Hort. J. Veitch & Sons (Holotype: W). Etymology: from the Latin *zonatus*, “zoned,” referring to the colored zones of the sepals.

Stelis bangii Rolfe, *Mem. Torrey Bot. Club* 4: 260. 1895. TYPE: BOLIVIA. La Paz: Yugas, *M. Bang 458* (Holotype: K; Isotypes: AMES, GH, NY). Etymology: named for Miguel Bang, collector of the species.

Stelis amblyophylla Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 6: 33. 1919. TYPE: VENEZUELA. Distrito Federal: Caracas, *K. W. John s.n.* (Holotype: lost at B). Etymology: from the Greek *amblyophyllos*, “blunt-leaved,” referring to the leaves.

Stelis trinitatis Ames, *Sched. Orch.* 2: 15. 1923. TYPE: TRINIDAD. Heights of Aripo, *W. E. Broadway 9886* (Holotype (AMES 22671; Isotypes: AMES, GH).

Etymology: named for Trinidad, where the species was collected.

Stelis trinitensis Ames ex Broadway, *Orchid Rev.* 34: 134. 1926, *sphalm.* Ames.

Stelis macrochlamys Hoehne & Schltr., *Album Secc. Bot. Mus. Paulista, S. Paulo* 135. 1925, *nomen nudum*; *Archiv. Bot. Estad. S. Paulo* 1(3): 204. 1926. TYPE: BRAZIL. São Paulo: Matta do Governo, 23 December 1920, *F. C. Hoehne s.n.* (Holotype: destroyed at B; lectotype selected by Barros, 2004: SP 4607). Etymology: from the Greek *macrochlamys*, “large mantle,” referring to the cauline sheaths.

Stelis atrobrunnea Schltr., *Repert. Spec. Nov. Regni Veg.* 27: 40. 1929. TYPE: BOLIVIA. La Paz: Tipuani, Hacienda Simaco, 1400 m, *O. Buchtien 5068* (Holotype: destroyed at B). Etymology: from the Latin *atrobrunneus*, “dark brown,” in allusion to the flowers.

Stelis casanaënsis Schltr., *Repert. Spec. Nov. Regni Veg.* 27: 40. 1929. TYPE: BOLIVIA. La Paz: Tipuani, Hacienda Simaco, 1400 m, *O. Buchtien 7219* (Holotype: destroyed at B). Etymology: named for Hacienda Casana where the species was collected.

Stelis trianguliflora Schltr., *Repert. Spec. Nov. Regni Veg.* 27: 48. 1929. TYPE: BOLIVIA. La Paz: Tipuani, Hacienda Simaco, 1400 m, *O. Buchtien 5066* (Holotype: destroyed at B). Etymology: from the Latin *trianguliflorus*, referring to the shape of the flowers.

Plant small to large, epiphytic, caespitose; roots slender. Ramicauls erect, stout, 2–10 cm long, enclosed by a loose, tubular sheath from below the middle, and 2 others near and at the base. *Leaf* erect, coriaceous, elliptical, obtuse, 4–15 cm long, 1.5–5 cm wide, cuneate below into a petiole ca. 1 cm long. *Inflorescence* single; to 35 cm long, the raceme erect, congested, distichous, many-flowered, many flowers open simultaneously, floral bracts erect, more or less inflated, oblique, acuminate, more or less imbricating, from 6–12 mm long below to 4–6 mm long above; pedicels 2–7 mm long, within the floral bract; ovary 2–3 mm long; the peduncle 5–10 cm long, with a spathe 1–1.5 mm long, from a node below the apex of the ramicaul; flowers purple to brown; *sepals* glabrous, transversely ovate, obtuse, deeply connate, the dorsal sepal 3–9 mm long, 4–11 mm wide, 5(–7)-veined, sometimes with incomplete, accessory veins, the lateral sepals 2–6 mm long, 3.5–8 mm wide, 5(–7)-veined; *petals* brown to purple, broadly ovate, obtuse, 1–1.5 mm long, 1.5–2.5 mm wide, the margin broad, flat, often with minute crystals, with a transverse callus; *lip* purple, subquadrate, 0.6–1 mm long, 1–1.8 mm wide, 0.5–1 mm deep, shallowly concave below the bar with a shallow glenion, with the apex round with a thick margin, (rarely 2.5 mm long with a large glenion), the dorsum with a rounded callus, sometimes flanked on either side with an indistinct, smaller callus, the base broadly truncate, hinged to the base of the column; *column* stout, 1 mm long, 1–1.5 mm wide, the anther and the bilobed stigma apical, the foot obsolescent.

Etymology: from the Latin *grandiflorus*, referring to size of the flower, being one of the largest known.

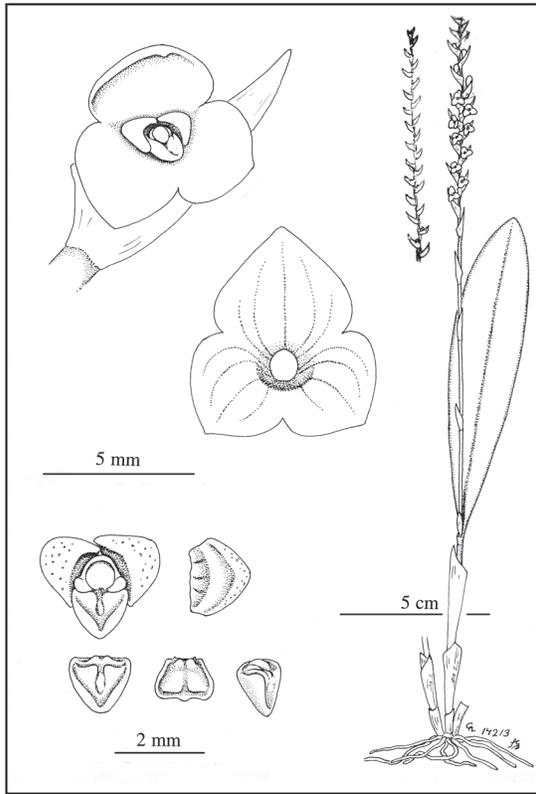


FIGURE 17. *Stelis grandiflora* Lindl.

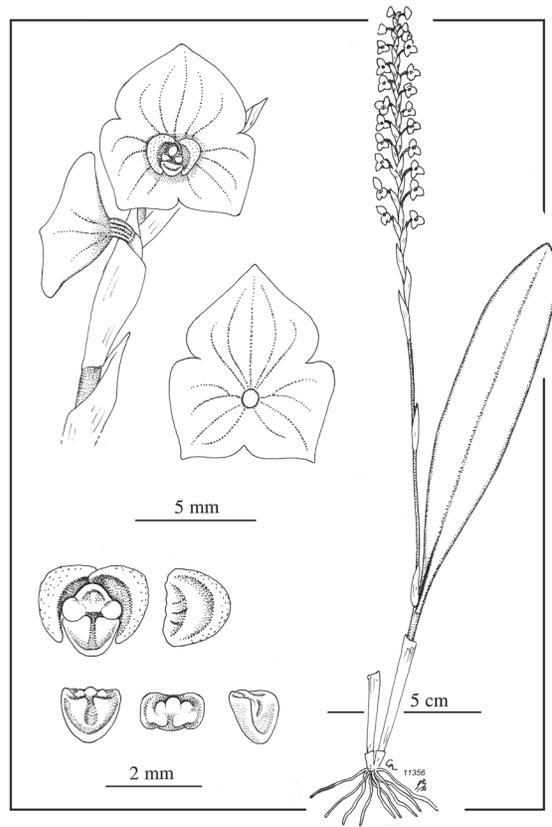


FIGURE 18. *Stelis grandiflora* Lindl.

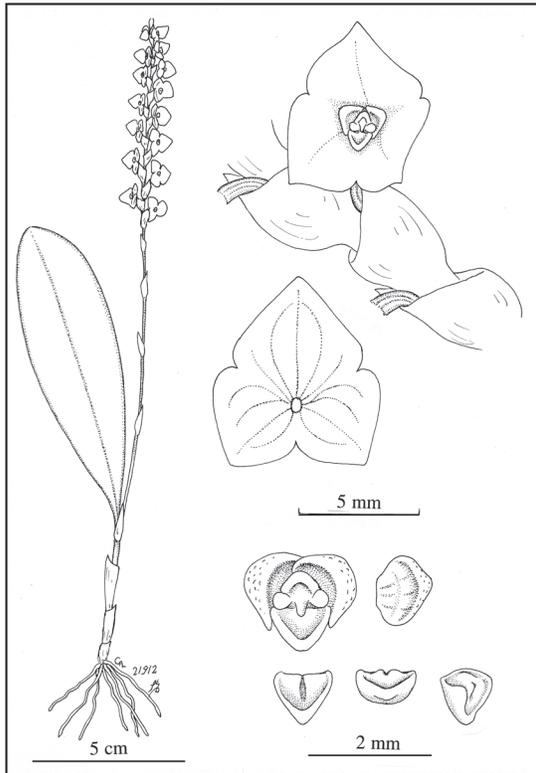


FIGURE 19. *Stelis grandiflora* Lindl.

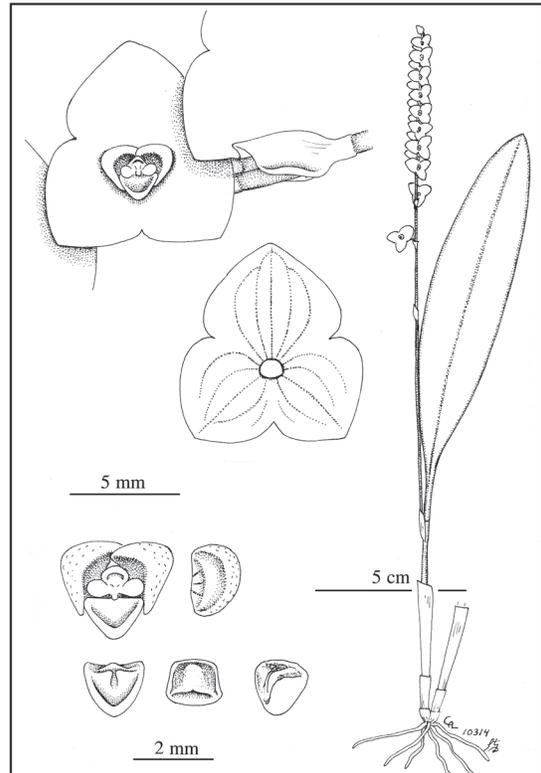


FIGURE 20. *Stelis grandiflora* Lindl.

Additional specimens examined: COLOMBIA. Antioquia: Yarumal, road to El Cedro, 1900 m, 17 March 1989, C. Luer, J. Luer, S. Dalström & W. Teague 14213 (MO); El Santuario, 2300 m, R. Posada s.n., fl. in cult. at Colomborquídeas, 3 January 1992, R. Escobar 5221 (MO), C. Luer illustr. 21912; E of Santo Domingo, 1920 m, 12 May 1985, C. Luer & R. Escobar 11356 (MO); Pabón, road to Santa Ana, 2050 m, 31 May 1985, C. Luer, J. Luer & R. Escobar 17669 (MO); Frontino, El Plateado, 2060 m, 5 May 1983, C. Luer, J. Luer & R. Escobar 9040 (SEL). Norte de Santander: Alto de Santa Inéz, 2100 m, 13 May 1984, C. Luer, J. Luer & R. Escobar 10314 (MO). Valle del Cauca: between Cali and Buenaventura, 1500 m, collected by Paul Desautels, flowered in cultivation at Colomborquídeas, 23 November 1981, C. Luer 6763 (SEL).

Collections of this species complex are frequent in southern Brazil and not rare in its wide distribution from Trinidad and Guyana through the Andes, gathering numerous synonymous names. It was first recorded by Lindley from an 1835 illustration by Descourtilz near Macahé, now the district of Macaé de Cima, municipality of Nova Frigurgo, in the state of Rio de Janeiro, where recent collections have been made and illustrated.

Stelis grandiflora is greatly variable in size through its wide distribution from Venezuela through Colombia, Ecuador, and southern Brazil. It is still unreported from intervening Peru. The species is distinguished by a congested raceme of relatively large, expanded flowers. The floral bracts are conspicuous as they alternately overlap. The sepals are deeply connate to form a subcircular flower. The thick, obtuse petals and lip concave below the bar are unremarkable.

Stelis jamesonii Lindl., J. Bot. (Hooker) 1: 11. 1834. TYPE: ECUADOR. Azuay: "Cuenca," W. Jameson s.n. (Holotype: K). Illustrated in Luer (2009a: 157, fig. 378). Fig. 21.

Synonym: *Stelis vittata* Lindl., Folia Orch. *Stelis* 13(96). 1859. TYPE: ECUADOR. Pichincha: valley of Lloa, W. Jameson s.n. (Holotype: K). Etymology: from the Latin *vittatus*, "striped longitudinally," referring to the sepals.

Plant small to medium in size, epiphytic, caespitose to ascending; roots slender. Ramicauls erect, occasionally prolific, 2–4 cm long, enclosed by a tubular sheath from below the middle and 2–3 sheaths below and at the base. *Leaf* erect, coriaceous, narrowly elliptical, subacute to narrowly obtuse, petiolate, 3–7 cm long including a petiole 1–2 cm long, 0.8–1 cm wide in the dry state, gradually narrowed below into the petiole. *Inflorescence* single; 7–15 cm long, the raceme erect, subax, distichous, flexuous, long-pedicellate, many-flowered with many flowers open simultaneously; floral bracts oblique, acute, 3–4 mm long below, 2 mm long near the tip; pedicels 3–4 mm long; ovary 2 mm long; the peduncle 4–7 cm long, from a node below the apex of the ramicaul; *sepals* rose, mottled with purple, glabrous, broadly ovate, obtuse, slightly convex, connate below the middle, 3-veined, the dorsal sepal 3–4 mm long, 3–4 mm wide, the lateral sepals 2.5–4 mm long, 2.5–3.5

mm wide; *petals* yellow or purple, transversely obovate, concave, 1.5 mm long, 1.5 mm wide, 3-veined, the apex broadly rounded with the margin slightly thickened; *lip* yellow or purple, subobovate-discoid, 1–1.8 mm long, 1–1.8 mm wide, 0.5–0.75 mm deep, shallowly concave within the broadly rounded apical margin, surrounding a low, rounded callus extending forward from a densely short-pubescent callus at the base, the base truncate, hinged to the base of the column; *column* stout, ca. 1.5 mm long and wide, the anther and the bilobed stigma apical.

Etymology: named in honor of Dr. William Jameson who collected this species as well as many others.

Additional specimens examined: COLOMBIA. Cundinamarca: south of Bogotá, above Gutierrez, 2700 m, 19 May 1984, C. Luer, J. Luer & R. Escobar 10370 (MO). Norte de Santander: between Cucutilla and Pamplona, 2800 m, 13 November 1981, C. Luer, J. Luer & R. Escobar 6703 (SEL).

Additional distribution: Venezuela, Ecuador.

This caespitose species is widely distributed in the Andes north of Peru. It is characterized by slender ramicauls with narrowly elliptical leaves, and a long-pedunculate, flexuous, long-pedicellate inflorescence. Most distinctive is the shallow, concave lip with a low, central, longitudinal callus microscopically pubescent at the base.

Stelis jamesonii is similar to *S. lentiginosa* Lindl., but it is best distinguished by long pedicels.

Stelis lentiginosa Lindl., Folia Orch. *Stelis* 8(58). 1859. TYPE: ECUADOR. "Descent of the E Cordillera, at 12000," W. Jameson s.n. (Holotype: K). Illustrated in Luer (2009a: 215, fig. 384). Fig. 22.

Plant small, epiphytic, caespitose; roots slender. Ramicauls erect, slender, 1–2 cm long, enclosed by a tubular sheath from below the middle and 2–3 sheaths below and at the base. *Leaf* erect, coriaceous, narrowly elliptical, acute to subacute, 2–2.5 cm long including a petiole 6–8 mm long, 5–6 mm wide in the dry state, gradually narrowed below into the petiole. *Inflorescence* single; 6–8 cm long, the raceme erect to arching, congested, distichous, subflexuous, many-flowered with many flowers open simultaneously; floral bracts oblique, acute, 2–3 mm long; pedicels 2 mm long; ovary 1 mm long; the peduncle 3–5 cm long, from a node below the apex of the ramicaul; *sepals* rose, light brown or yellow, suffused with rose, glabrous, ovate, obtuse, slightly convex, connate below the middle, 3-veined, the dorsal sepal 3 mm long, 2.2 mm wide, the lateral sepals 2.5 mm long, 2.5 mm wide; *petals* yellow or rose, subcircular, thin, concave, 1.2 mm long, 1.2 mm wide, faintly 3-veined, the apex broadly rounded; *lip* yellow or rose, subobovate-discoid, 1.2 mm long, 1 mm wide, 0.5 mm deep, shallowly concave within the broadly rounded apical margin, surrounding a low, rounded callus extending forward from a microscopically pubescent base, the base truncate, hinged to the base of the column; *column* clavate, ca. 1 mm long and wide, the anther and the bilobed stigma apical.

Etymology: from the Latin *lentiginosus*, "covered with minute dots," probably referring to the microscopically pubescent base of the lip and column.

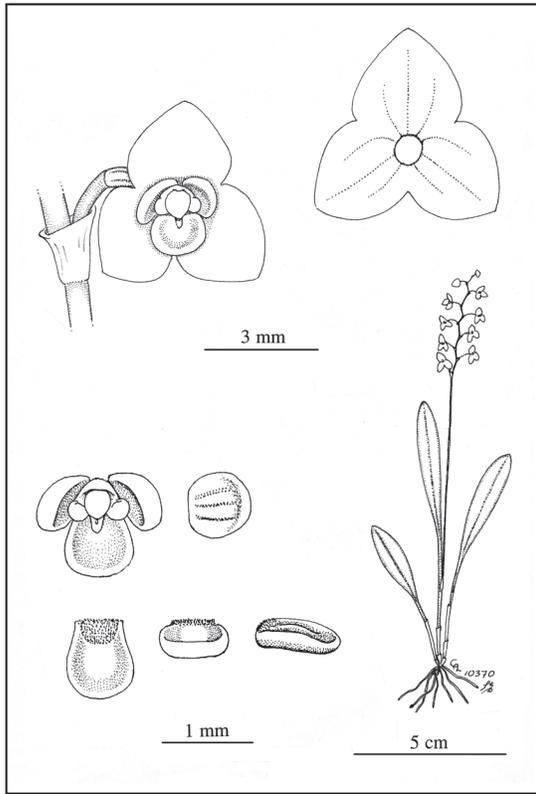


FIGURE 21. *Stelis jamesonii* Lindl.

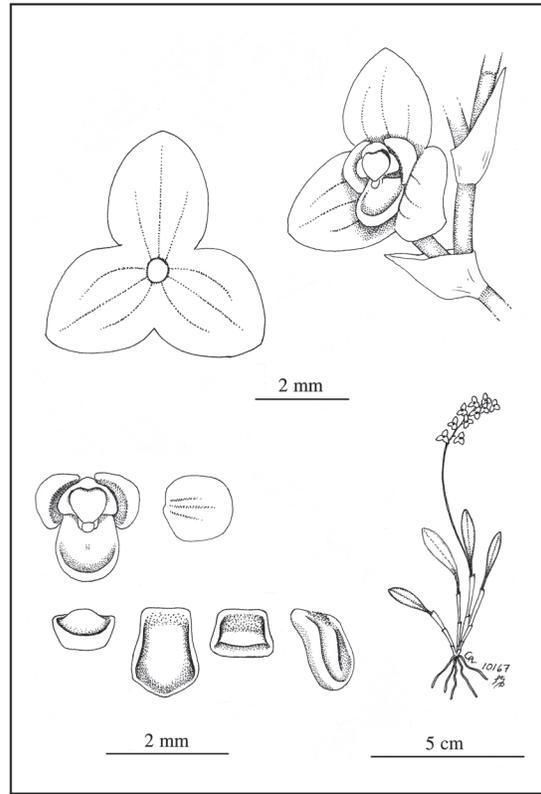


FIGURE 22. *Stelis lentiginosa* Lindl.

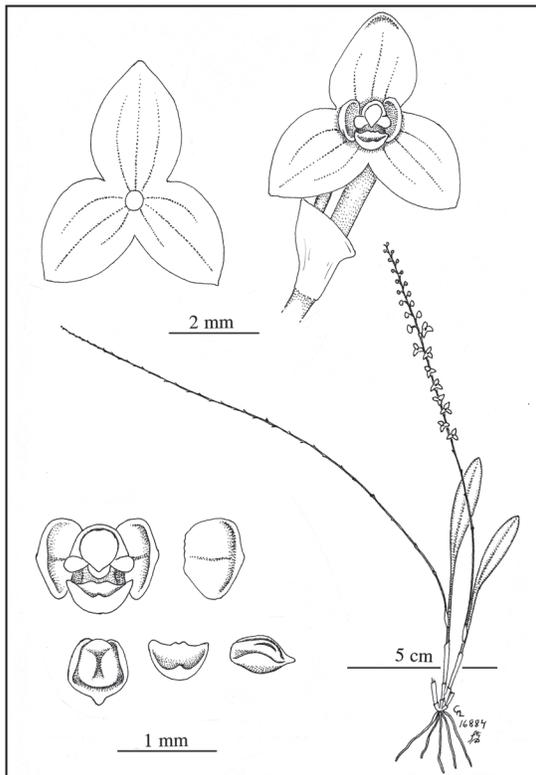


FIGURE 23. *Stelis liberalis* Luer & Portillo

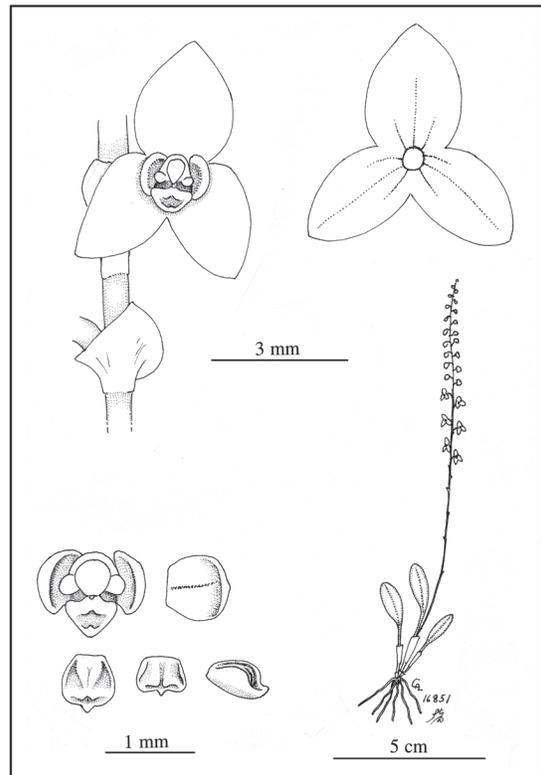


FIGURE 24. *Stelis liberalis* Luer & Portillo

Additional specimens examined: COLOMBIA. Cundinamarca: Bogotá, Quebrada del Chicó, 2800 m, 5 September 1943, *Martin Schneider Wc 126* (AMES); Santander: Bucaramanga. E of Bucaramanga, 2950 m, 7 May 1984, *C. Luer, J. Luer & R. Escobar 10167* (MO).

This uncommon little species is little more than a small variation of *Stelis jamesonii* Lindl. It is distinguished by a smaller, more delicate habit, and a shorter inflorescence with a congested raceme of flowers with short pedicels. The shallowly concave, subdiscoid lip is similar to that of *S. jamesonii*.

Stelis liberalis Luer & Portillo, *Monogr. Syst. Bot. Missouri Bot. Gard.* 95: 159, 2004. TYPE: ECUADOR. Zamora-Chinchipe, above Zumba, 1000 m, flowered in cultivation at Ecuagenera, 5 March 2001, *C. Luer 19734* (Holotype: MO). Illustrated in Luer (2004: 186, fig. 166). Fig. 23–24.

Plant small, epiphytic, caespitose; roots slender. Ramicauls erect, 0.5–4 cm long, enclosed by a tubular sheath from below the middle and another 1–2 sheaths below and at the base. *Leaf* erect, coriaceous, elliptical, petiolate, subacute to obtuse, 2.5–6 cm long including the petiole ca. 1.5 mm long, narrowed below to the petiole. *Inflorescence* solitary, 12–20 cm long, the raceme erect, strict, many-flowered, laxly flowered below, becoming crowded above with many flowers open simultaneously, the peduncle 4–5 cm long, from a node below the tip of the ramicaul, with a spathe 5–12 mm long; floral bracts oblique, acute, 2 mm long, pedicels 1.5–2 mm long; ovary 1 mm long; *sepals* yellow, expanded, glabrous, ovate, subacute to obtuse, 3-veined, connate basally, the dorsal sepal 2.5–3.2 mm long, 2 mm wide, the lateral sepals 2–2.3 mm long, 2 mm wide; *petals* rose or yellow, thin, transversely ovate, concave, broadly rounded at the apex, slightly thickened on the margin, without a transverse callus, 0.5–0.75 mm long, 0.6–0.9 mm wide, 1-veined; *lip* subquadrate, 0.6–0.75 mm long, 0.6 mm wide, 0.3 mm deep, shallowly concave below a thick, shallowly notched bar, the apex broadly obtuse, with a small, obtuse apiculum, the dorsum convex centrally, the base hinged to the base of the column; *column* clavate, ca. 0.6 mm long and wide, the anther and the stigmatic lobes apical.

Etymology: from the Latin *liberalis*, “free,” referring to the shallowly connate sepals.

Additional specimens examined: COLOMBIA. Quindío, 1 de Mena, March 1993, flowered in cultivation at Colomborquídeas, 23 May, 1995, *C. Luer 17589* (MO). Risaralda: Pueblo Rico, 2100 m, collected and cultivated at his home above Pereira by A. de Wilde 4491 (MO), *C. Luer* illustr. 16851. Valle del Cauca: Tuluá, Baragán, 2900 m, collected by Juan Filipe Posada, June 1992, flowered in cultivation at Colomborquídeas, 19 December 1992, *R. Escobar 5062* (MO), *C. Luer 21913*; Baragán, 3000 m, collected by Juan Filipe Posada, flowered in cultivation at Colomborquídeas, 16 May 1993, *R. Escobar 5129* (MO), *C. Luer* illustr. 16884. Santander: Bucaramanga, E of Bucaramanga, ca. 2700 m, 3 November 1981, *C. Luer & R. Escobar 6581* (SEL).

Collections with flowers answering the description of *Stelis liberalis* are found over a wide area in Colombia and Ecuador, but there is a marked, vegetative variation in size. A single, many-flowered raceme far exceeds a small, elliptical leaf. The sepals are yellow, glabrous, ovate, about 3 mm long, 3-veined, expanded and free nearly to the base. The petals are thin and 1-veined. The lip is concave below the bar and broadly obtuse with a small, obtuse apiculum.

Stelis longirepens Carnevali & J. L. Tapia, *Orchids Venezuela* ed. 2, 1146, 2000. TYPE: VENEZUELA. Carabobo: Municipio Autónomo Mora, cuenca hidrográfica del río Morón, 700–1100 m, 13–15 April 1991, *W. Diaz 125* (Holotype: VEN; Isotype: PORT). Illustrated in Romero-González and Carnevali (2000: 1029). Fig. 25.

Plant small, epiphytic, repent, the rhizome 3–8 mm long between ramicauls; roots slender. Ramicauls ascending, erect, slender, 5–8 mm long, enclosed by 2 tubular sheaths. *Leaf* erect, coriaceous, elliptical, subacute, 13–23 mm long with a petiole 3–5 mm long, the blade 4–5 mm wide in dry state, cuneate below to the base. *Inflorescence* solitary; 3–4 cm long, the raceme erect, lax, distichous, several-flowered with few flowers open simultaneously; floral bracts oblique, acute, 1.5 mm long; pedicels 1 mm long; ovary 0.5 mm long; the peduncle ca. 2 cm long, from a node at the apex of the ramicaul; *sepals* green, minutely pubescent, connate basally, broadly ovate, obtuse, 3-veined, the dorsal sepal 1.5 mm long, 2 mm wide, the lateral sepals oblique, 1.25 mm long, 1.75 mm wide; *petals* purple, transversely elliptical, concave, thickened on the obtuse margin, cellularly pubescent, with a transverse callus, 0.5 mm long, 0.75 mm wide, 3-veined; *lip* purple, subtriangular, 0.5 mm long, 0.66 mm wide, 0.5 mm deep, concave below the bar, the apex obtuse with thickened margin, the dorsum descending with the 3 veins slightly thickened, the base truncate, hinged to the base of the column; *column* clavate, ca. 0.5 mm long and wide, the anther and the stigmatic lobes apical.

Etymology: from the Latin *longirepens*, “long-repent,” referring to the habit.

Additional specimen examined: COLOMBIA. Cauca: Boca Caucana, coll. by J. L. Aguirre, flowered in cultivation at Colomborquídeas, 23 May 1995, *C. Luer 17604* (MO).

This tiny, repent species is apparently rare, known from two distant localities: the type-collection from Venezuela, and this collection from Colombia, where it is likely to occur. It is characterized by slender ramicauls borne along a proportionately stout rhizome. A loose, several-flowered raceme surpasses the leaf about twice its length. The sepals are obtuse and minutely pubescent; the petals are thick and 3-veined; and the lip is concave and obtuse.

Stelis lynniana Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 112: 5, 2007. TYPE: ECUADOR. without collection data, obtained from Ecuagenera, Gualaceo, flowered in cultivation at in Howell, Michigan, October 2003, by *Lynn O'Shaughnessy 02856* (Holotype: MO). Illustrated in Luer (2007: illustr. 20530, 8, fig. 208). Fig. 26.

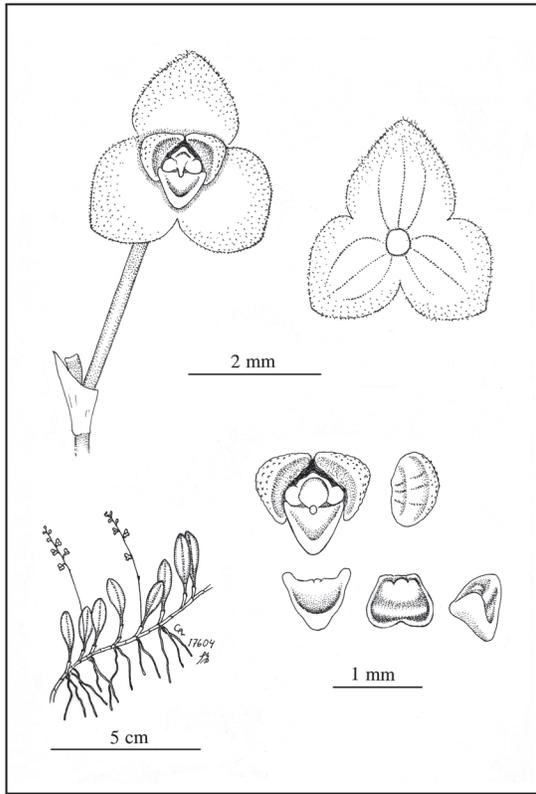


FIGURE 25. *Stelis longirepens* Carnevali & J.L.Tapia

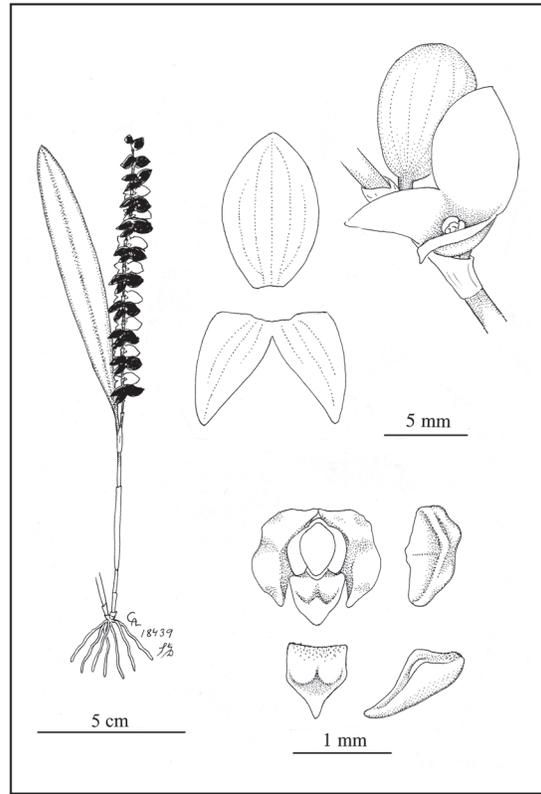


FIGURE 26. *Stelis lynniana* Luer

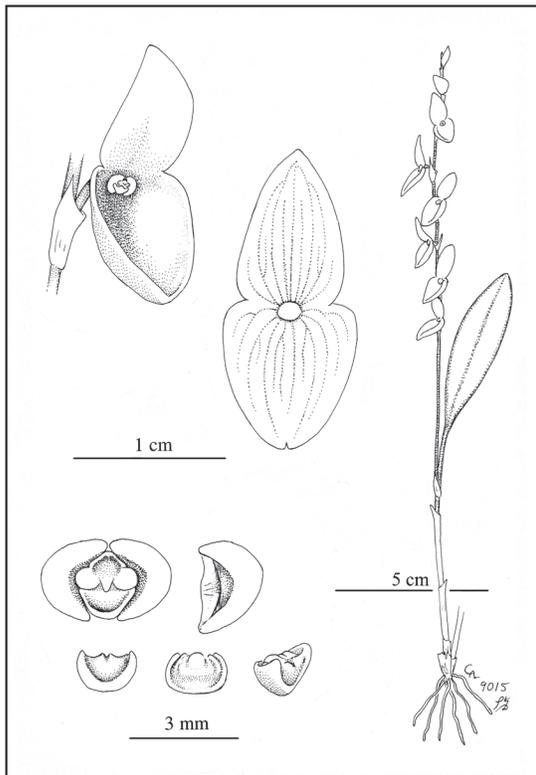


FIGURE 27. *Stelis maxima* Lindl.

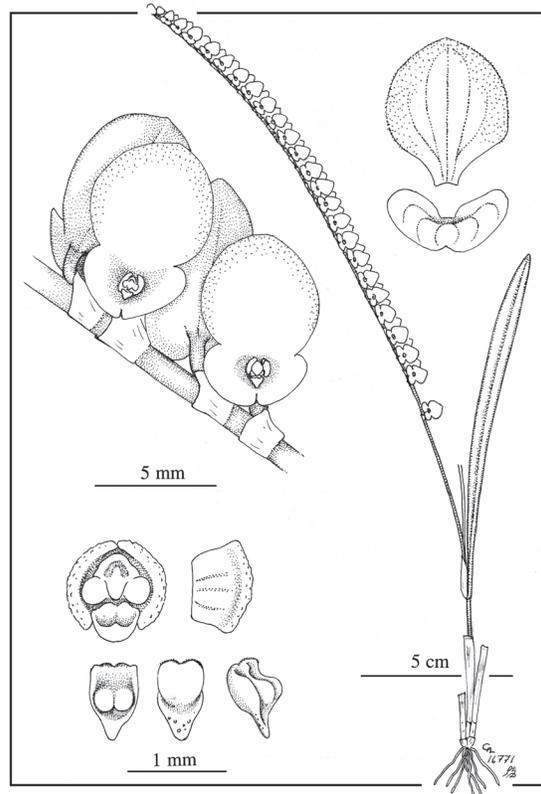


FIGURE 28. *Stelis megaloglossa* Luer

Synonym: *Stelis picea* Luer & Hirtz, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 7, 2007. TYPE: ECUADOR. Zamora-Chinchipec: Cordillera del Condor, near Paquisha, 1400 m, collected and cultivated by Ecuagenera, flowered in cultivation 11 January 2004, A. Hirtz 8624 (Holotype: MO). Etymology: from the Latin *piceus*, "pitch black," referring to the flowers.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls erect, slender, 4–6 cm long, enclosed by a tubular sheath from below the middle and 2 other sheaths about the base. *Leaf* erect, coriaceous, narrowly elliptical, acute, petiolate, 9–12 cm long including the petiole 2–2.5 cm long, 1.2–1.6 cm wide, cuneate below into the slender petiole. *Inflorescence* single, 11–13 cm tall, the raceme strict, congested, distichous, with many simultaneous, overlapping flowers, the peduncle 1.5–2 cm long, with a spathe ca. 1 cm long, from a node below the apex of the ramicaul; floral bracts oblique, acute, 4.5 mm long; pedicels 1.5 mm long; ovary 2 mm long; *sepals* purple-black, glabrous, the dorsal sepal broadly elliptical, obtuse, 8.5 mm long, 4.5 mm wide, 5-veined, connate to the lateral sepals 2 mm, the lateral sepals antrorse, ovate, acute, 6 mm long, 3 mm wide, 3-veined; *petals* black, transversely subquadrate with thickened, oblique margins, shallowly concave, 0.6 mm long, 1 mm wide, 1-veined; *lip* black, subquadrate, 0.6 mm long, 0.5 mm wide, 0.5 mm deep, shallowly concave anteriorly within the acute, apical margin, the bar thick with a glenion, the dorsum flat, minutely pubescent below the middle, the base truncate, hinged to the obsolescent column-foot; *column* stout, 0.5 mm long, 0.5 mm wide, with the anther and bilobed stigma apical.

Etymology: named for Lynn O'Shaughnessy of Howell, Michigan, who successfully cultivates this species.

Additional specimen examined: COLOMBIA. Valle del Cauca: without data, flowered in cultivation at Orquídeas del Valle, Cali, 15 March 1987, C. Luer 18439 (MO).

This species of section *Nexipous* is not rare in Ecuador, but it is known from Colombia by only a collection from Valle del Cauca and cultivated by Orquídeas del Valle. *Stelis lynniana* is characterized by a narrowly elliptical leaf that is about as long as or longer than the ramicaul, and an erect, congested raceme of shiny, purple-black flowers. The broadly elliptical, 5-veined dorsal sepal is larger than the antrorse lateral sepals; the petals are more or less quadrate with oblique margins and only one vein is visible. The lip is more or less subquadrate with a shallowly concave, acute, triangular apical lobe.

Stelis maxima Lindl., Ann. Mag. Nat. Hist. ser. 1, 15: 106. 1845. TYPE: ECUADOR. Tungurahua: at the foot of Mt. Tungurahua, 11000 ft, T. Hartweg 1407 (Holotype: K; Isotypes: G, LD, LE, W). Illustrated in Luer (2009a: 86, fig. 324). A vegetatively small variation is shown in Fig. 27.

Synonym: *Steliopsis anneliesae* Brieger, Orchideen 8(29–32): 457. 1976, *nom illeg.* Etymology: named for Anne Liesa, wife of Friedrich Gustav Brieger (1900–1983).

Plant medium to large, epiphytic, ascending-caespitose; roots slender. Ramicauls erect, stout, occasionally prolific,

4–15 cm long, enclosed by 2–3 close, tubular sheaths. *Leaf* erect, coriaceous, elliptical, acute to subacute, 8–11 cm long, 1.5–2.5 cm wide, cuneate below into a petiole 1.5–2 cm long. *Inflorescence* an erect, distichous, many-flowered raceme with many flowers open simultaneously, 15–27 cm long including the peduncle 5–10 cm long, subtended by a spathe 1–2 cm long, from a node below the apex of the ramicaul; floral bracts oblique, acute, 10 mm long below, 5 mm long above; pedicels 3–5 mm long; ovary 3–5 mm long; flowers purple; *sepals* glabrous, the dorsal sepal erect, ovate, subacute, 10–14 mm long, 7–10 mm wide, irregularly 11-veined, connate basally to the synsepal, the lateral sepals connate into a broadly ovate, concave synsepal, 10–12 mm long, 8–14 mm wide, irregularly 15-veined; *petals* purple, transversely semilunate, 1.5–2 mm long, 2.2–2.5 mm wide, 3-veined, the apex rounded, broadly thickened, concave below a transverse carina; *lip* purple, subquadrate, 1 mm long, 1.5–2 mm wide, 1 mm deep, concave below a botched bar, the apex broadly rounded with thick margin, the dorsum filled with an obscurely trilobed, microscopically pubescent callus, the base truncate, hinged to the base of the column; *column* stout, 1 mm long, 2 mm wide, the anther and the bilobed stigma apical.

Etymology: From the Latin *maximus*, "very large," referring to the flowers.

Additional specimens examined: COLOMBIA. Antioquia: Frontino, above Nutibara, Alto de Cuevas, 2050 m, 4 May 1983, C. Luer, J. Luer & R. Escobar 9015 (SEL). Choco: San José del Palmar, Cerro del Torrá, 2500 m, 24 August 1988, P. A. Silvestone-Sopkin 4700 (MO).

This usually large species is widely distributed in the Andes of Colombia and Ecuador. It is generally characterized by a robust habit with occasional prolific ramicauls, and with large, elliptical leaves and long-bracted racemes of large flowers that exceed the leaves several-fold. The sepals are between 10 and 15 mm long and multiveined. The semilunate petals are about as long as wide with a round, thick-margined apex. The lip is concave above a rounded apex with a relatively thin margin.

Stelis megaloglossa Luer, Phytologia 49(3): 231. 1981. TYPE: COLOMBIA. Nariño: E of Ricaurte, 1800 m, 1 November 1979, C. Luer, J. Luer, K. Walter & A. Hirtz 4528 (Holotype: SEL). Illustrated in Luer (2007: 14, fig. 215, as *Stelis glossulicles* Luer & Hirtz). Fig. 28.

Synonym: *Stelis glossulicles* Luer & Hirtz, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 10, 2007. TYPE: ECUADOR. Imbabura: between Carolina and Buena Vista, 1800 m, November 2004, A. Hirtz, F. Tobar & H. Simbaña 9155 (Holotype: MO). Etymology: named for the numerous large flowers similar to *Stelis glossura* Rchb.f.

Plant medium in size, epiphytic, caespitose; roots slender. Ramicauls slender, erect, 5–7 cm long, enclosed by a loose, tubular sheath below the middle, and another tubular sheath about the base. *Leaf* erect, coriaceous, narrowly linear, acute, subpetiolate, 11–12 cm long, excluding the petiole, 0.7–1 cm wide dry, narrowed below to the base. *Inflorescence* 1–2 erect, congested, distichous,

many-flowered racemes with 2 opposite-facing rows, many open simultaneously, 15–23 cm long including the peduncle 3–4 cm long, subtended by a narrow spathe 1.5 cm long, from a node below the apex of the ramicaul; floral bracts tubular, obtuse, 1.5–2 mm long; pedicels 1 mm long; ovary 1 mm long; flowers dark purple; *sepals* glabrous externally, microscopically pubescent within, the dorsal sepal broadly ovate to suborbicular, 6 mm long, 5 mm wide, 5-veined, connate basally 1–2 mm, the lateral sepals connate to near the apex into a concave synsepal, 1.5 mm long, 4 mm wide expanded, 6-veined; *petals* transversely obovate, 0.6 mm long, 1 mm wide, 3-veined, the apex broadly obtuse with the margin irregularly thickened, without a transverse callus; *lip* thick, subquadrate, acute at the apex with the tip blunt, 0.8 mm long, 0.5 mm wide, 0.4 mm deep, the bar elevated, narrowly cleft between rounded halves that descend onto the dorsum, then ascend onto a thickened base, the base truncate, hinged to the base of the column; *column* semiterete, ca. 0.8 mm long and wide, the anther and the bilobed stigma apical.

Etymology: from the Latin *megaloglossa*, “large tongue,” referring to the appearance of the dorsal sepal. (Not to be confused with *Stelis megalcephala* Luer, a small plant endemic to Ecuador, published on the same page in Luer, 1981).

Additional specimen examined: COLOMBIA. Risaralda: between Pereira and Armenia, 2000 m, collected and cultivated by Carlos Llanos in Pereira, 10 May 1993, *C. Luer 16771* (MO).

This species occurs uncommonly in the Andes of Colombia and Ecuador. It is characterized by a narrow, linear leaf that is surpassed by a distinctive raceme of 2 congested rows of opposite facing, dark purple flowers with a conspicuous, rounded dorsal sepal much larger than a short, transverse synsepal.

Stelis nostalgia Luer, *sp. nov.* TYPE: VENEZUELA. without collection data, flowered in cultivation at Colomborquídeas, 23 May 1995, *C. Luer 17573* (Holotype: MO). Fig. 29.

This large species with a multiflowered raceme that equals an oblong, obtuse leaf is distinguished by short floral bracts and pedicels.

Plant large, presumably epiphytic, densely caespitose; roots slender. Ramicauls erect, stout, 5–8 cm long, enclosed by a loose, tubular sheath from below the middle, and 2 others near and at the base. *Leaf* erect, coriaceous, elliptical, obtuse to rounded at the tip, 12–15 cm long, 2–2.5 cm wide, cuneate below into a petiole 2–3 cm long. *Inflorescence* 1–2 racemes to 15 cm long, erect, congested, distichous, many-flowered, floral bracts tubular, obtuse, 2 mm long; pedicels 2 mm long; ovary 2 mm long; the peduncle 5–7 cm long, with a spathe 1.5–2 mm long, from a node below the apex of the ramicaul; *sepals* light yellow, cellular pubescent, elliptical, ovate, obtuse, 3-veined, connate below the middle, the dorsal sepal 3.2 mm long, 2.2 mm wide, the lateral sepals 2.5 mm long, 2 mm wide; *petals* yellow, transversely semilunate, 0.6 mm long, 1.2 mm wide, faintly 3-veined,

the rounded margin slightly thickened, without a callus; *lip* brown, subquadrate, 0.6 mm long, 1 mm wide, 0.5 mm deep, shallowly concave below the bar with a shallow notch, the apex round with a thin margin, the dorsum slightly convex, the base truncate, hinged to the base of the column; *column* stout, ca. 1 mm long and wide, the anther and the bilobed stigma apical.

Etymology: from the Greek *nostalgios*, “nostalgic,” referring to the presence of the plant in Colombia, away from its Venezuelan home.

This large species was being cultivated at Colomborquídeas, near Medellín, Colombia, without collection data, except that the plant was noted to have been from Venezuela. A many-flowered raceme more or less equaled an obtuse, oblong leaf. The small flowers with 3-veined, cellular-pubescent sepals, simple petals, and a lip concave below the bar are not unusual. The floral bracts and pedicels are unusually short. It is likely to occur in Colombia.

Stelis oblonga (Ruiz & Pav.) Willd., *Sp. Pl.* 4: 139. 1805.

Basionym: *Humboldtia oblonga* Ruiz & Pav., *Syst. Veg. Fl. Peruv. et Chil.* 236, 1798. TYPE: PERU. Huánuco: Muña, *J. A. Pavón s.n.* (Holotype: MA; Isotype: W). Illustrated in Luer (2002: 68, fig. 50, as *S. dodsonii* Luer). Fig. 30, and an unusual variation shown in Fig. 31.

Synonyms: *Stelis floribunda* Kunth, *Nov. Gen. Sp.* 1: 362. 1815. TYPE: COLOMBIA. Cauca: Andes of Popayán, near Poblazón, 1210 hex., November 1801, *A. de Humboldt & A. Bonpland s.n.* (Holotype: P). Etymology: from the Latin *floribundus*, “many-flowered,” referring to the inflorescence.

Stelis fissa Lindl., *Folia Orch. Stelis* 5(28). 1859. TYPE: ECUADOR [as “PERU”]. Quito, *W. Jameson s.n.* (Holotype: K). Etymology: from the Latin *fissus*, “split,” referring to the bracts on the specimen examined.

Stelis apiculata Schltr., *Repert. Spec. Nov. Regni Veg. Beih.* 7: 84. 1920. TYPE: COLOMBIA. Without locality, 1909–1911, *M. Madero s.n.* (Holotype: destroyed at B), *non* Lindl. 1859. Etymology: from the Latin *apiculatus*, “apiculate,” referring to the labellum.

Stelis insignis Ames, *Sched. Orch.* 1: 5. 1922, as *S. insigne*. TYPE: COLOMBIA. Huila: Río Paez valley, Tierra Adentro, 1600–1900 m, January 1906, *H. Pittier 1299* (Holotype: US 531497; Isotype: AMES 25099). Etymology: from the Latin *insignis*, “outstanding, noted,” referring to the aspect of the species.

Stelis dodsonii Luer, *Monogr. Syst. Bot. Missouri Bot. Gard.* 88: 42, 2002. TYPE: ECUADOR. Pichincha: west of Calacalí, and La Liberia, 2100 m, 4 April 1985, *C. Luer, J. Luer, A. Hirtz, C. Dodson & P. Dodson 11057* (Holotype: MO). Etymology: named for Calaway Homer Dodson, co-collector of this species.

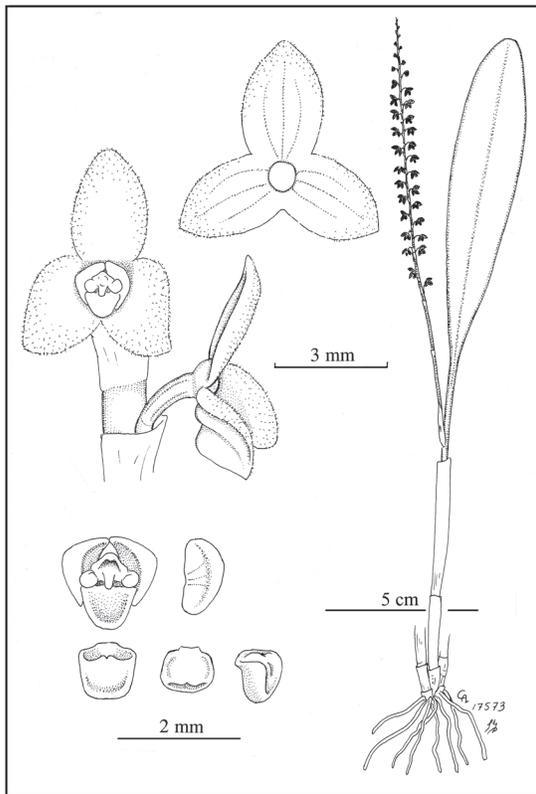


FIGURE 29. *Stelis nostalgia* Luer

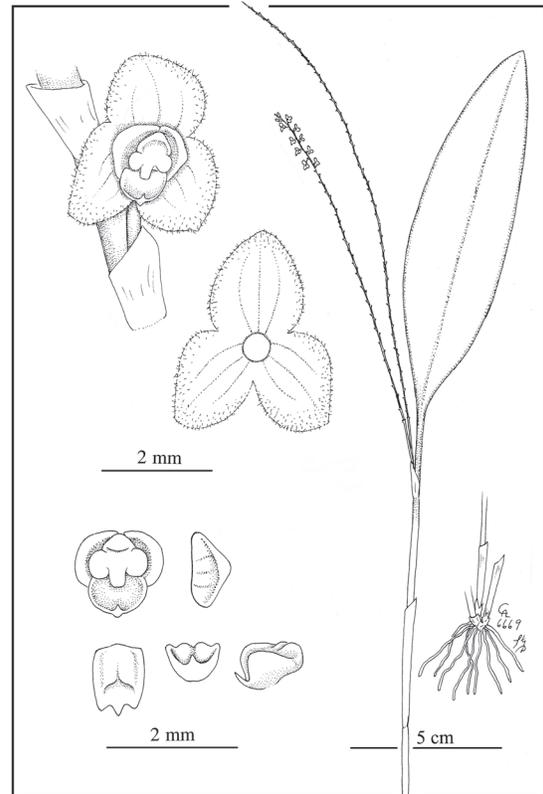


FIGURE 30. *Stelis oblonga* (Ruiz & Pav.) Willd.

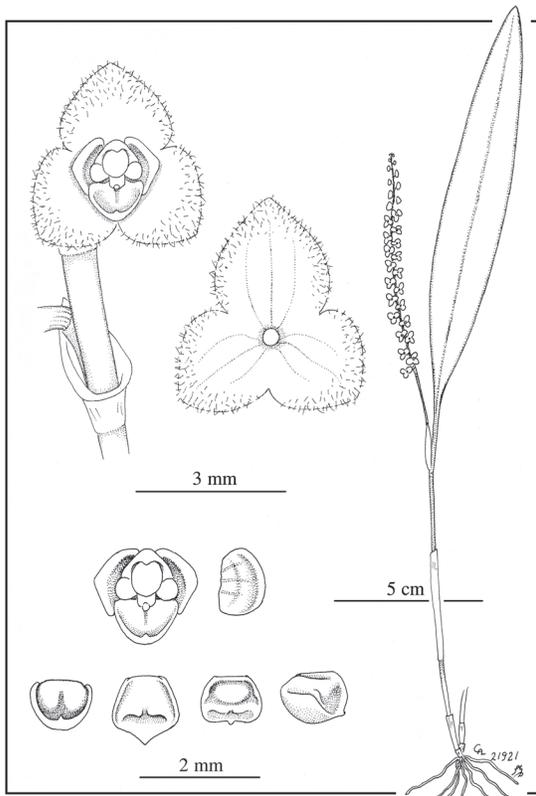


FIGURE 31. *Stelis oblonga* (Ruiz & Pav.) Willd.

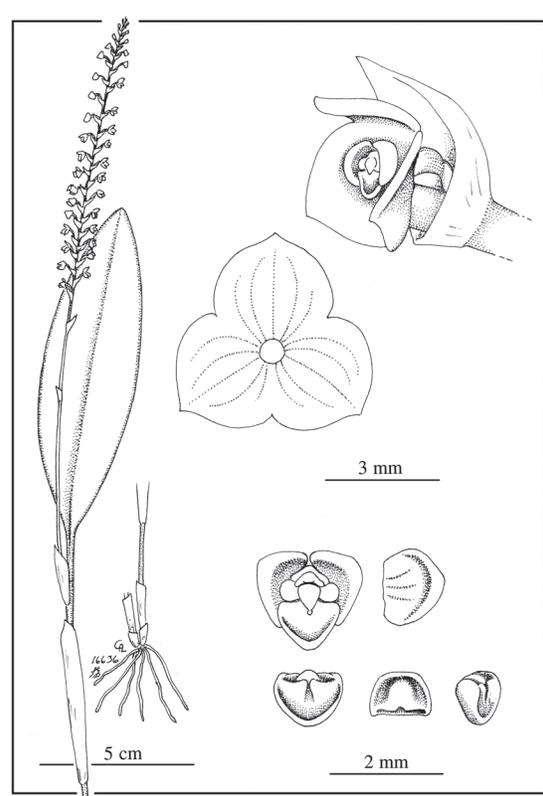


FIGURE 32. *Stelis ochreatea* Lindl.

Plant medium in size to large, epiphytic, ascending-caespitose; roots slender. Ramicauls erect, stout to relatively slender, 10–28 cm long, with a close, tubular sheath near the middle and another 2 sheaths at the base. *Leaf* erect, coriaceous, elliptical-oblong, subacute to obtuse or rounded at the apex, petiolate, 6–16 cm long including the petiole 1.5–3 cm long, the blade 1.5–4.5 cm wide, cuneate below into the petiole. *Inflorescence* 1–5 erect, strict, distichous, simultaneously many-flowered racemes, 10–25 cm long including the peduncle 3–7 cm long, with a spathe 1–1.5 cm long, below the apex of the ramicaul; floral bracts oblique, acute, 1.5–3 mm long; pedicels 1–2 mm long; ovary 1–1.5 mm long; flowers greenish or yellowish white to purple or brown; *sepals* similar, glabrous externally, densely pubescence within, broadly ovate, broadly obtuse, connate below the middle, 3-veined, the dorsal sepal 2–3 mm long, 1.8–2.5 mm wide, the lateral sepals 1.8–2 mm long, 1.8–2.25 mm wide; *petals* transversely obovate, broadly obtuse, concave, 0.75–1 mm long, 1–1.5 mm wide, 3-veined, with the margin thickened; *lip* oblong-subquadrate, 0.75–1 mm long, 1–1.5 mm wide, 0.5 mm deep, concave below a cleft bar, the apex broadly obtuse to subtruncate, abruptly acuminate-apiculate, the dorsum slightly convex, the base truncate, hinged to the base of the column; *column* stout, 1 mm long, 1.25 mm wide, the anther and bilobed stigma apical.

Etymology: from the Latin *oblongus*, “oblong,” referring to the leaf.

Additional specimens examined: COLOMBIA. Boyacá: between Arcabuco and Moniquira, 2500 m, 25 April 1982, *C. Luer, J. Luer & R. Escobar 7540* (SEL). Norte de Santander: between Abrego and Sardinata, 2300 m, 12 November 1981, *C. Luer, J. Luer & R. Escobar 6669* (SEL). Risaralda: Pueblo Rico, road to TV antenna, 2400 m, *C. Luer, J. Luer, R. Escobar & A. de Wilde 16832* (MO); Santa Rosa de Cabal, Ucumarí Regional Nature Reserve, 2250 m, *A. de Wilde 335* (MO), *C. Luer* illustr. 21918; between Salerno and Quindío, 3000 m, flowered in cultivation at Colomborquídeas 23 May 1995, *C. Luer 17583* (MO). Cauca: Tocatá, W of Cali, 1600–2000 m, no date, *F.C. Lehmann 6921* (AMES); Popayán, 1750 m, 15 February 1884, *F. C. Lehmann 3724* (AMES). Cundinamarca: Bogotá, Chapinero, 2700 m, 1939, *L. Uribe U. 384* (AMES).

Additional distribution: Ecuador, Peru.

This large species is widely distributed in the Andes from Colombia, through Ecuador into Peru. It is variable vegetatively, usually large with petiolate leaves broad, elliptical-oblong. Many small, crowded flowers are produced simultaneously on one to several racemes as long as or longer than the leaf. The internal pubescence of the 3-veined sepals varies from short to long, and the petals are thick and 3-veined. The lip is concave below a bar with the apex broadly obtuse to truncate and shortly acuminate-apiculate.

Stelis oblongifolia Lindl., *Folia Orch. Stelis* 12(89). 1859. TYPE: ECUADOR. Pichincha, *W. Jameson s.n.* (Holotype: K). Illustrated in Luer (2009a: 220, fig. 396).

Synonyms: *Stelis chachapoyebsis* Rehb.f. *Bonplandia*. 3: 225. 1855. TYPE: PERU. Chachapoyas, *A. Mathews s.n.* (Holotype: W). Etymology: named for Chachapoya where the species was collected.

Stelis superposita Schltr., *Repert. Spec. Nov. Regni Veg.* 14: 124. 1915. TYPE: ECUADOR. “Oyacali,” *A. Sodiro 8* (Holotype: lost at B). Etymology: from the Latin *superpositus*, “superposed,” referring to the prolific habit.

Stelis coturcoënsis *Repert. Spec. Nov. Regni Veg. Beih.* 8: 52. 1921. TYPE: ECUADOR. Riobamba: “In monte Coturco prope Pifo,” 3200 m, *L. Mille 13* (Holotype: destroyed at B). Etymology: named for Mt. Coturco where the species was collected.

Plant medium in size to large, epiphytic, scandent; roots slender. Ramicauls ascending, slender, prolific, 15–20 cm long below to 3–6 cm long above, enclosed by a tubular sheath near the middle and another sheath at the base. *Leaf* erect, coriaceous, elliptical-oblong, subacute to obtuse, petiolate, 5–10 cm long including the petiole 1–2 cm long, 1.5–2.5 cm wide, cuneate below into the petiole. *Inflorescence* an erect, congested, distichous, many-flowered, raceme with many flowers open simultaneously, 10–17 cm long including the peduncle 2–3 cm long, from a node below the apex of the ramicaul; floral bracts infundibular, 2–4 mm long; pedicels 1–2 mm long; ovary 1–2 mm long; *sepals* purple, yellow to white, glabrous externally, minutely cellular-glandular within, broadly ovate, obtuse, connate below the middle, the dorsal sepal 4–4.5 mm long, 3–4 mm wide, 3-veined, the lateral sepals 3–4 mm long, 2.5–3.5 mm wide, 3-veined; *petals* suffused with purple, transversely ovate, 0.6–1.25 mm long, 1–1.9 mm wide, 3-veined, with the apex broadly obtuse with a thick, flattened margin, the base broadly truncate; *lip* suffused with purple, thick, subquadrate, 0.6–1.4 mm long, 0.6–1.3 mm wide, the apex obtuse, concave anteriorly with a long glenion, the dorsum with 1 or 3 low, rounded calli, the base truncate, hinged to the base of the column; *column* stout, 0.75–1 mm long, 0.8–1.2 mm wide, the anther and the stigma apical, the stigma bilobed.

Etymology: from the Latin *oblongifolius*, “with oblong leaves,” referring to the leaves.

Additional specimens examined: COLOMBIA. Cauca: Popayán, Páramo de Barbillas, 3070 m, 27 July 1978. *C. Luer, J. Luer & R. Escobar 3046* (SEL). Nariño: near Laguna La Cocha, 25 July 1960, *L. A. Garay 36* (AMES).

This large, variable, widely distributed species is characterized by a prolific habit; oblong-elliptical leaves; and a much longer, crowded inflorescence. The sepals are broadly obtuse, about 4 mm long, and 3-veined; the petals are transverse and 3-veined with a thick margin; and the lip is subquadrate, obtuse, and shallowly concave with a prominent glenion. The calli on the dorsum are variable.

Stelis ochreatea Lindl., *Folia Orch. Stelis* 2(8). 1859. TYPE: ECUADOR. Without collection data, *W. Jameson s.n.* (Holotype: K). Luer (2009: 216, fig. 385, 385a,b, as *Stelis lindenii* Lindl.). Fig. 32.

Plant large, epiphytic, densely caespitose, roots slender. Ramicauls erect, stout, 6–13 cm long, with a loose, tubular sheath from below the middle and another 2 sheaths at the base. *Leaf* erect, coriaceous, elliptical-ovate, acute, petiolate, 8–15 cm long including the petiole 1.5 cm long, 2.5–3.3 cm wide when dry, cuneate below into the petiole. *Inflorescence* single; 20–32 cm tall, the raceme erect, strict, distichous, congested, many-flowered with many flowers open simultaneously, floral bracts oblique, acute, 5–7 mm long; pedicels 2 mm long; ovary 1.5 mm long; the peduncle ca. 10 cm long, with a spathe 2 cm long, at a node below the apex of the ramicaul; flowers purple; *sepals* similar, sensitive, glabrous, fleshy, more or less antrorse, transversely ovate, broadly obtuse, connate to near the middle, 2.5 mm long, 3.5 mm wide, 5-veined; *petals* transversely ovate, 1.25 mm long, 1.5 mm wide, 3-veined, the apex broadly rounded with the margin thickened, and with a transverse carina, the dorsum with a low, rounded callus; *lip* subquadrate, 1 mm long, 1.2 mm wide, 1 mm deep, the anterior surface shallowly concave below the bar with a small glenion, with the apex broadly rounded, the dorsum with a low rounded, central callus, the base truncate, hinged to the base of the column; *column* stout, ca. 1 mm long and wide, the anther and bilobed stigma apical.

Etymology: from the Latin *ochreatus*, “ochreate, sheathed,” referring to the basal bracts of the peduncle.

Additional specimens examined: COLOMBIA. Antioquia: Near Santa Bárbara, 1900 m, flowered in cultivation at Finca Alberto Neumann, 4 May 1983, *C. Luer 16636* (MO). Cauca: “La Galera,” Micay valley, 1500–1800 m, 1 July 1922, *E. P. Killip 7906* (AMES, NY). El Valle: “Mozambic,” N of La Cumbre, 16 September 1922, *E. P. Killip 11280* (AMES, NY).

This variable species occurs frequently in Ecuador, where it was mistakenly identified as the variable *Stelis lindenii* Lindl. of western Venezuela and Colombia. In Luer (2009a: 162), *S. ochreatea* was erroneously listed in the synonymy of *S. lindenii*.

Stelis ochreatea is a large plant with a long, single raceme of many small flowers. The sepals are fleshy, 5-veined, connate to near the middle, and more or less antrorse. The petals are thick and 3-veined, and the lip is concave below a bar.

Stelis paraguasensis Luer, *Selbyana* 30(1): 23, 2009. TYPE: COLOMBIA. Valle del Cauca: El Cairo, Cerro del Inglés, Serranía Paraguas, 2200 m, 6 November 1997, *P. A. Silverstone-Sopkin 7955* (Holotype: CUV). Illustrated in Luer (2009b: C. Luer illustr. 21255, 68, fig. 44). Four variations shown in Fig. 33–36.

Plant medium in size to large, epiphytic, densely caespitose, roots slender. Ramicauls erect, slender, elongated, 8–18 cm long, with a close, tubular sheath near the middle and another below and at the base. *Leaf* erect, coriaceous, ovate, acute, 5–9 cm long including a petiole 1.5–2 cm long, the blade 1.4–2.2 cm wide in dry state, cuneate below into the petiole. *Inflorescence* 2–5 simultaneous; 5–10 cm long, the racemes erect, strict,

congested, distichous, many-flowered; floral bracts tubular, acute, 1.5–2 mm long; pedicels 1–1.5 mm long; ovary 1–1.5 mm long; the peduncle ca. 1 cm long, with a spathe ca. 1 cm long, from a node below the apex of the ramicaul; *sepals* glabrous to pubescent, purple externally, sometimes blue within, connate below the middle, the sepals broadly ovate, obtuse, the dorsal sepal 2–3 mm long, 2–3 mm wide, the lateral sepals 1.75–2.5 mm long, 2–2.75 mm wide, 3- to 5-veined; *petals* yellow-green to rose, transversely ovate or semilunate, the apical margin thick, broadly obtuse to rounded, concave below with a transverse carina, 0.8–1 mm long, 1–1.25 mm wide, 3-veined; *lip* rose to purple, subquadrate, 0.5–0.8 mm long, 0.6–1 mm wide, 0.5–0.75 mm deep, the apex obtuse with a thick margin, concave below a cleft bar that is continuous with a smooth, central, suborbicular callus on the dorsum, the base truncate, hinged to the base of the column; *column* clavate, ca. 1 mm wide and long, anther and bilobed stigma apical.

Etymology: named for the Serranía de los Paraguas where the species was collected.

Additional specimens examined: Valle del Cauca: Alto de Los Galapagos, 2050 m, 13 May 1993, *C. Luer, J. Luer & R. Escobar 16808* (MO); Alto de Las Galápagos, at the pass between Valle del Cauca and Chocó, 2050 m, 13 May 1993, *C. Luer, J. Luer, R. Escobar & A. de Wilde 16898* (MO). Antioquia: Yarumal, road to El Cedro, 1850 m, 15 March 1989, *C. Luer, J. Luer, S. Dalström & W. Teague 14174* (MO); Yarumal, road to Briceño, Quebrada El Oro, 1850 m, 16 March 1989, *C. Luer, J. Luer, S. Dalström & W. Teague 14185* (MO); Sonsón, between La Ceja and Sonsón, 2400 m, 29 April 1983, *C. Luer, J. Luer & R. Escobar 8879* (SEL); Sonsón, Tres Cruces pass, E of Sonsón, 2750 m, 30 April 1983, *C. Luer, J. Luer & R. Escobar 8890, 8895* (SEL); La Unión, between La Unión and Mesopotamia, 2400 m, 8 April 1988, *C. Luer, J. Luer & R. Escobar 13062* (MO).

This species from the Western and Central Cordilleras of Colombia is distinguished by slender ramicauls that are distinctly longer than the leaves, and a few many-flowered racemes about as long as the leaves. The color of the floral parts varies from yellow to purple; the inner surface of the sepals varies from glabrous to pubescent. The sepals are either 3-veined or five-veined. All combinations of color, the integument and venation occur. The petals are thick and 3-veined below a transverse carina. The lip is rounded at the apex, and a cleft bar is continuous into a central, suborbicular callus on the dorsum.

Although, as conceived, this species is frequent and exceedingly variable in a wide distribution, no other name can be applied. Most distinctive are the ramicauls longer than the leaf, and the central, solitary, round callus on the dorsum of a cleft bar of the lip.

Stelis pardipes Rchb.f., *Beitr. Orch. Centr.-Amer.* 96, 1866. TYPE: COSTA RICA. Heredia: *H. Wendland 899* (Holotype: W). Illustrated in Luer (2009a: 88, fig. 330 and 330a). Fig. 37–38.

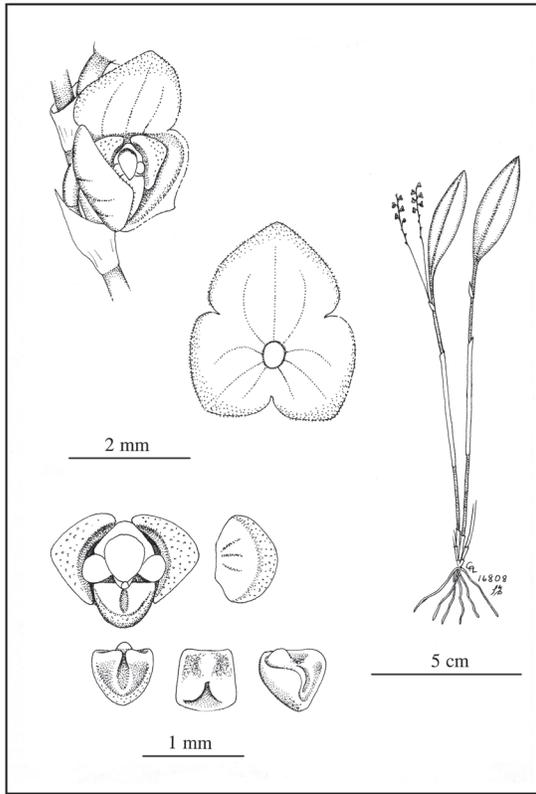


FIGURE 33. *Stelis paraguasensis* Luer

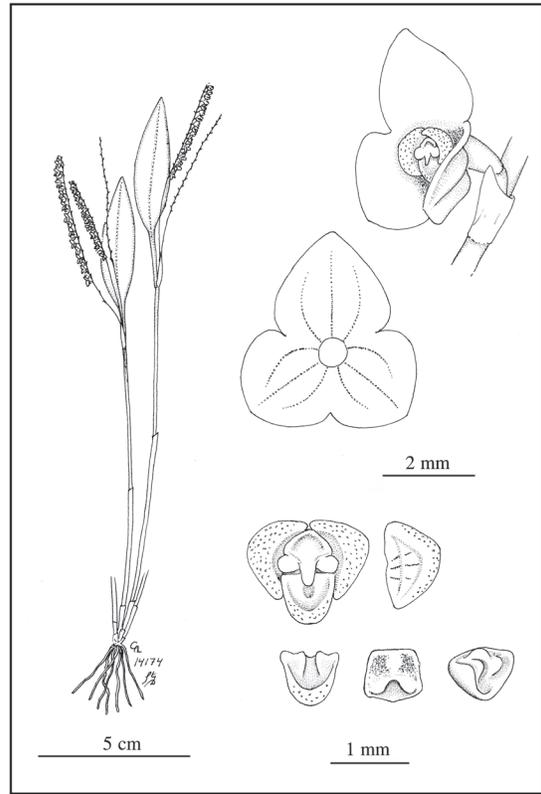


FIGURE 34. *Stelis paraguasensis* Luer

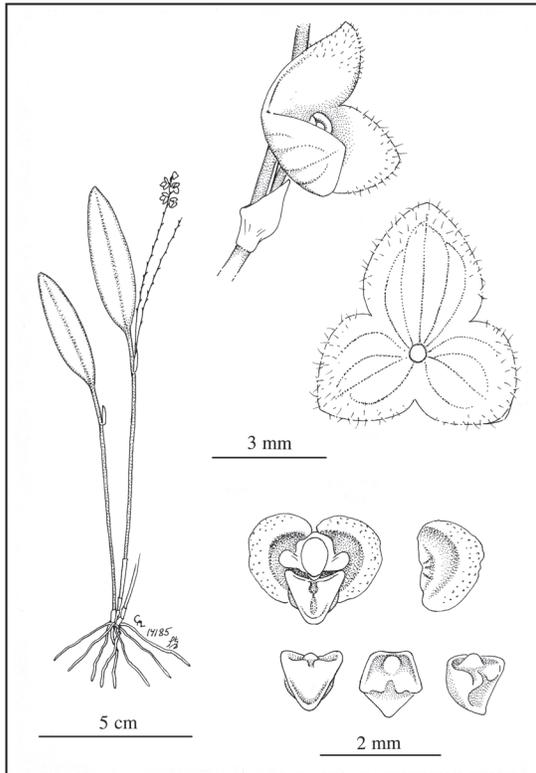


FIGURE 35. *Stelis paraguasensis* Luer

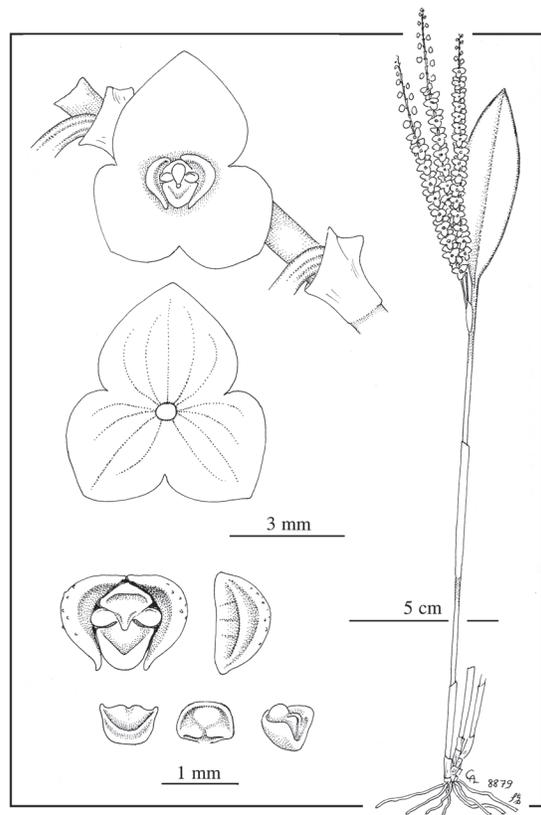


FIGURE 36. *Stelis paraguasensis* Luer

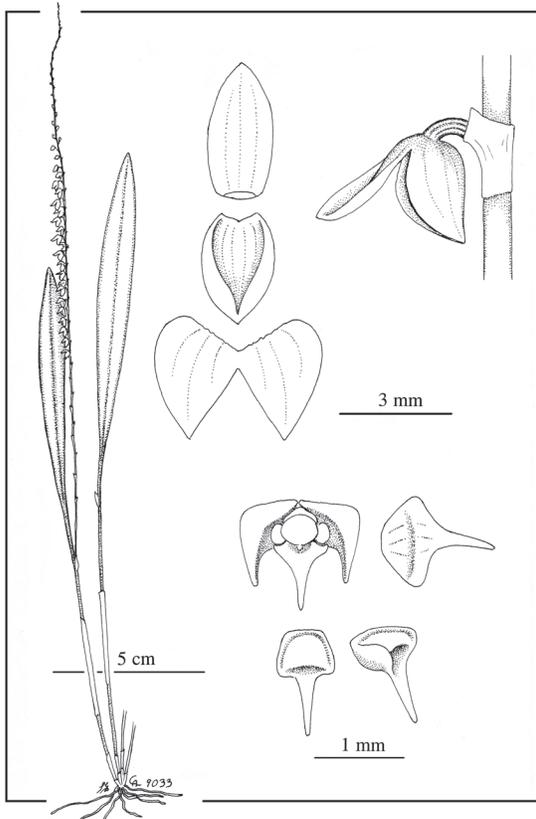


FIGURE 37. *Stelis pardipes* Rchb.f.

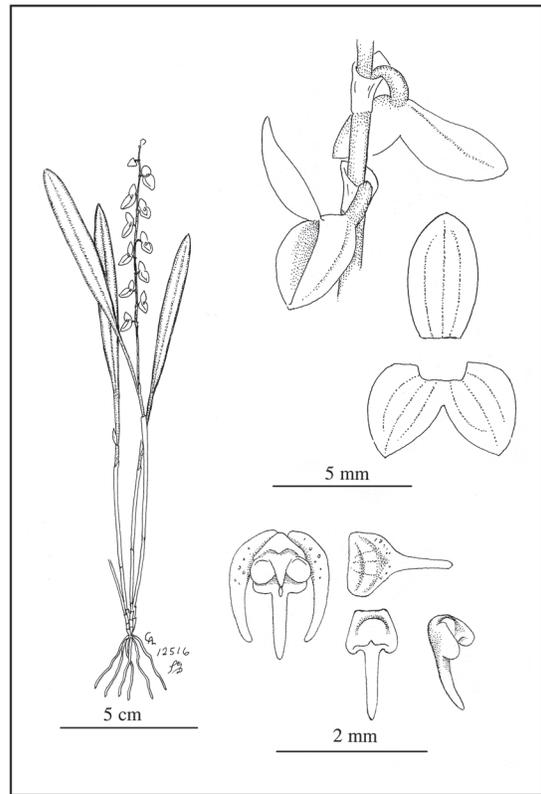


FIGURE 38. *Stelis pardipes* Rchb.f.

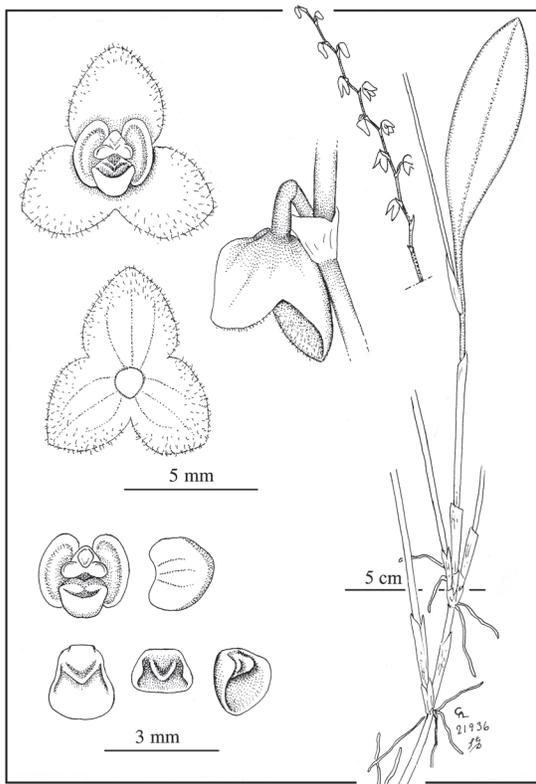


FIGURE 39. *Stelis peregrina* Luer

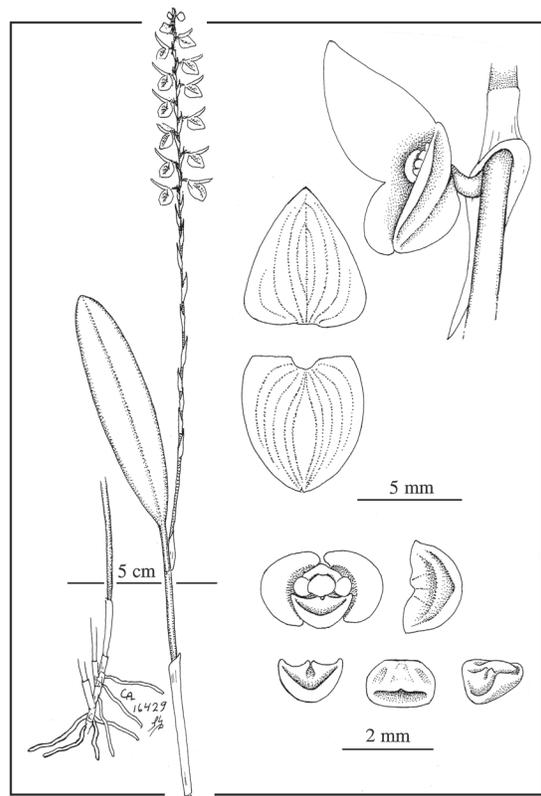


FIGURE 40. *Stelis purpurea* (Ruiz & Pav.) Willd.

Synonyms: *Stelis guatemalensis* Schltr., Bull. Herb. Boiss. 7: 541. 1899. TYPE: GUATEMALA. Huehuetenango, *E. G. Seler 2316* (Holotype: destroyed at B; Neotype, here designated: drawing of type, AMES 23720). Etymology: named for Guatemala, the country where the species was first identified.

Stelis longicuspis Schltr., Repert. Spec. Nov. Regni Veg. 9: 28. 1910. TYPE: COSTA RICA. La Palma, 1459 m, November 1898, *A. Tonduz 12650* (Holotype: destroyed at B). Etymology: from the Latin *longicuspis*, "with a long tooth," referring to the petals and lip.

Stelis patula Schltr., Repert. Spec. Nov. Regni Veg. 10: 359. 1912. TYPE: GUATEMALA. "... bei Coban und Pansamala," 1350–1400 m, *H. von Türckheim 698* (Holotype: destroyed at B). Etymology: from the Latin *patulus*, "spreading," referring to the sepals.

Stelis albertii Schltr., Repert. Spec. Nov. Regni Veg. Beih. 19: 170. 1923. TYPE: COSTA RICA: Without locality, *A. M. Brenes 118* (Holotype: destroyed at B). Etymology: named for Albert M. Brenes who collected this species.

Stelis vagans Schltr., Repert. Spec. Nov. Regni Veg. 27: 48. 1929, *non* Ames 1922. TYPE: BOLIVIA. La Paz: Tipuani, Hacienda Simaco, 1400 m, *O. Buchtien 5063* (Holotype: destroyed at B). Etymology: from the Latin *vagans*, "wandering," referring to a variation of the rhizome.

Stelis trisetata Lindl. var. *pardipes* (Rchb.f.) C. Schweinf., Bot. Mus. Leafl. Harvard Univ. 15: 24. 1951.

Plant small to large, epiphytic, densely caespitose to ascending; roots slender. Ramicauls erect, slender, 10–20 cm long, nonprolific, enclosed by a tubular sheath near the middle and 2–3 other sheaths at the base. *Leaf* erect, coriaceous, narrowly elliptical-oblong, with the apex subacute to acute, 7–12 cm long including the petiole 1–2.5 cm long, 1.5–3 cm wide, narrowly cuneate below into the petiole. *Inflorescence* 1–3 erect, 15–25 cm tall, racemes congested to subcongested, distichous to subsecund, many-flowered with many flowers open simultaneously, the peduncle 1–6 cm long, from a node below the apex of the ramicaul, with a spathe 1–2.5 mm long; floral bracts thin, tubular, 2–4 mm long; pedicels 1–3 mm long; ovary 1.5–3 mm long; flowers light green, yellow, rose, to purple or brown; *sepals* glabrous to microscopic-pubescent within, the dorsal sepal erect, elliptical, obtuse, slightly convex, 3–5 mm long, 2–3 mm wide, 3-veined, connate basally to the synsepal, the lateral sepals connate into an ovoid, deeply concave synsepal, 2–5 mm long, 2.5–6 mm wide expanded, 6-veined; *petals* green to purple, transversely triangular to oblong, obtuse, with the margin thickened, contracted into an apiculum, 0.5–1.3 mm long including the apiculum, 0.9–1.5 mm wide, concave below the middle, 3-veined, the base broadly truncate; *lip* green to purple, thick, subquadrate, 0.6–1.5 mm long including the apiculum, 0.5–1 mm wide, 0.4 mm deep, the apex abruptly acute, acuminate into a

narrowly triangular process, the bar with a shallow cavity on the anterior surface, the dorsum with a low indistinctly lobed callus, the base truncate, hinged to the base of the column; *column* stout, ca. 0.5 mm long and wide, the anther and the bilobed stigma apical.

Etymology: from the Latin *pardipes*, "a foot spotted like a leopard," referring to spots seen on juvenile cauline sheaths.

Additional specimens examined: COLOMBIA. Antioquia: Frontino, above Frontino toward Nutibara, 1900 m, 5 May 1983 *C. Luer, J. Luer & R. Escobar 9033* (SEL). Quindio: at the pass between Salento and Tocha, 3300 m, 10 May 1993, *C. Luer, J. Luer & R. Escobar 16747* (MO). Tolima: La Linea, terrestrial on road to TV antenna, between Ibague and Armenia, 3500 m, 20 October 1982, *C. Luer & R. Escobar 8496* (SEL). Cauca: above Monchique W of Popayan, 2750 m, 26 July 1978, *C. Luer, J. Luer & R. Escobar 2985* (SEL). Nariño: above Ricaurte, 1950 m, 2 November 1979, *C. Luer, J. Luer & A. Hirtz 4565* (SEL); collected near Ricaurte, flowered in cultivation at La Planada Orquideario, 25 January 1987, *C. Luer 12316* (MO); E of Ricaurte, above abandoned Magnesium mine, 1800 m, 1 November 1979, *C. Luer, J. Luer & A. Hirtz 4518* (SEL). Putumayo: between La Cocha and Sibundoy, 2700 m, 5 August 1979, *C. Luer, J. Luer & R. Escobar 3109* (SEL).

Additional distribution: Mexico, Panama, Colombia, Ecuador, Peru, Bolivia.

Described by Reichenbach.f. in 1866 from a Costa Rican collection, this species is frequent and variable with a wide distribution through Central America and the Andes into Bolivia. A very similar plant from Guatemala was described as *Stelis guatemalensis* by Schlechter in 1899, the only differences being the degree of development of a process at the tips of the sepals and lip. After reviewing numerous collections, it is concluded that these variations occur throughout the distribution.

Vegetatively, the plants are usually slender and caespitose to shortly ascending with narrow leaves. One or two long, erect inflorescences bear numerous, simultaneous, small flowers. The lateral sepals are variously connate, or adherent to their apices into a deeply concave synsepal. The petals are broadly triangular with the thickened apex obtuse, and with the tip contracted into a short or long process. Specimens with the process nearly absent to shorter than the body of the lip have been identified as *Stelis guatemalensis* Schltr.

Stelis pardipes should not be confused with the common, prolific *S. trisetata* Lindl. with surprisingly similar, individual flowers.

***Stelis peregrina* Luer, sp. nov.** TYPE: COLOMBIA. Putumayo: Santiago San Antonio de Bellavista, Páramo de Bordoncillo, 3240 m, 19 March 1999, *S. M. Pasmíño & M. R. Posso 40* (Holotype: MO; Isotype: PSO). *C. Luer* illustr. 21936. Fig. 39.

This large species is remarkable for a stout, repent rhizome; stout ramicauls; compressed peduncle, medium-sized, nutant flowers with pubescent, 3-veined sepals and petals; and a lip with a central, "V-shaped" callus.

Plant large, epiphytic, ascending-repent with caespitose components; rhizome stout, 3 mm thick, 3–4 cm between ramicauls, roots coarse. Ramicauls erect, stout, 8–12 cm long, enclosed by a tubular sheath from below the middle and 2–3 other sheaths below and about the base. *Leaf* erect, coriaceous, elliptical, subacute, 8–11 cm long including a petiole ca. 2 cm long, the blade ca. 1.5–2.3 cm wide, cuneate below into the petiole. *Inflorescence* single, the raceme ca. 10 cm long, erect, loose, subflexuous, distichous, the peduncle ca. 8 cm long, compressed; floral bracts oblique, acute, 2.5–3 mm long; pedicels 1.5–2 mm long, acutely deflexed on the ovary, the ovary 1.5 mm long; spathe slender, 2–2.5 cm long, from a node near the apex of the ramicaul; *sepals* “color cafe,” antrorse, shortly pubescent, ovate, subacute to obtuse, connate below the middle, 3-veined, the dorsal sepal 4 mm long, 3.5 mm wide, the lateral sepals 3.5 mm long and wide; *petals* yellow, thin, subcircular, concave, with the margin slightly thickened, 1.5 mm long and wide, 3-veined; *lip* yellow, subpyriform, 1.3 mm long, 1.3 mm wide, 1 mm deep, concave below the middle, thin and subcircular above the middle, expanded and more or less erect below the middle, with an erect, “V-shaped” callus in the center, the base truncate, hinged to the base of the column; *column* stout, clavate, ca. 1 mm long and wide, the anther and the stigmatic lobes apical.

Etymology: from the Latin *peregrina*, “a stranger,” referring to a strange combination of several morphological features.

This large species is distinguished by a thick, ascending, repent rhizome with caespitose components; a compressed peduncle with a loose, subflexuous raceme; flowers nutant on acutely deflexed ovaries; shortly pubescent, 3-veined sepals; thin, 3-veined petals; and a pyriform lip concave and subcircular below a central, “V-shaped” callus.

Stelis purpurascens A.Rich. & Galeotti, Ann. Sci. Nat. Bot. ser. 3: 18. 1845. TYPE: MEXICO. Veracruz: Mirador, J. J. Linden 211 (Lectotype, selected by Solano Gómez, 1993; W; Isolectotypes: BR, K). Illustrated in Luer (2007: 78, fig. 297, as *Stelis thermatica* Luer & Dodson).

Synonyms: *Stelis thecoglossa* Rchb.f., Beitr. Orch. Centr.-Am., 93. 1866. COSTA RICA. Desengaño, H. Wendland s.n. (Holotype: W). Etymology: from the Greek *thecoglossa*, “encased, or sheathed, tongue,” referring to the lip.

Stelis bourgeavii Schltr., Repert. Spec. Nov. Regni Veg. 9: 284. 1911. MEXICO. “Im tale von Cordova, Trinidad,” E. Bourgeau 1914 (Holotype: lost at B). Etymology: named for Eugéné Bourgeau, French botanist, who collected this species.

Stelis curvata Schltr., Repert. Spec. Nov. Regni Veg. 10: 358. 1912. GUATEMALA. Cubilguitz, 350 m, H. von Türckheim II 1889 (Holotype: destroyed at B). Etymology: from the Latin *curvatus*, “curved,” referring to leaves and raceme.

Stelis carioi Schltr., Repert. Spec. Nov. Regni Veg. 15: 202. 1918. GUATEMALA. “Bei Guatemala,” C. Bernoulli & R. Cario s.n. (Holotype: destroyed at B).

Etymology: named for Oscar Richard Cario, German physician, co-collector of this species.

Stelis fulva Schltr., Beih. Bot. Centralbl. 36(2): 388, 445. 1918. GUATEMALA. Cubilguitz, 350 m, H. von Turckheim 4064 (Holotype: destroyed at B). Etymology: from the Latin *fulvus*, “dull yellow-grey,” referring to colors of the flowers.

Stelis maxonii Schltr., Beih. Bot. Centralbl. 36(2): 389. 1918. PANAMA. Chiriqui, W. R. Maxon 5697 (Holotype: destroyed at B, drawing at AMES). Etymology: named for William R. Maxon who collected this species.

Stelis purpusii Schltr., Beih. Bot. Centralbl. 36(2): 391. 1918. MEXICO. Zacuapam, C. A. Purpus 2111 (Holotype: destroyed at B). Etymology: named for C. A. Purpus who collected this species.

Stelis alfaroi Ames & C. Schweinf., Sched. Orchid. 8: 4. 1925. COSTA RICA. La Fuente, 1200 m, A. Alfaro s.n. (Holotype: AMES 29011). Etymology: named for Anastasio Alfaro who collected this species.

Stelis thermatica Luer & Dodson, Monogr. Syst. Bot. Missouri Bot. Gard. 53, 2007. ECUADOR. Esmeraldas: lowland around Esmeraldas, 1000 m, September 1980, C. Luer, J. Luer, C. and P. Dodson 6839 (Holotype: SEL). Etymology: from the Greek *thermatics*, “heat tolerant,” referring to locality.

Plant medium in size to large, epiphytic, shortly ascending to caespitose; roots slender. Ramicaul erect, slender to stout, 5–22 cm long, enclosed by a tubular sheath near the middle, and 2–3 other sheaths below and at the base. *Leaf* erect, elliptical-obovate to narrowly elliptical-obovate, subacute to obtuse, petiolate, 9–12 cm long including the petiole 2–3 cm long, the blade 1–6 cm wide, cuneate below into the petiole. *Inflorescence* an erect, distichous, many-flowered raceme with many flowers open simultaneously, 10–22 cm long including the peduncle 1–5 cm long, subtended by a spathe 1–2 cm long, from a node below the apex of the ramicaul; floral bracts tubular, oblique, acute, 3–8 mm long, 4 mm wide; pedicels 1–3 mm long; ovary 2–2.5 mm long; *sepals* expanded, sensitive, yellow to green, variously suffused with purple, glabrous externally, cellular-pubescent to pubescent within, connate basally, transversely ovate, obtuse, 3- to 5-veined, the dorsal sepal 2–3.5 mm long, 2.75–4 mm wide, the lateral sepals 2–3 mm long, 2.75–3.5 mm wide; *petals* purple, transversely cuneate-obovate, shallowly concave, 1 mm long, 1–1.3 mm wide, the apex broadly rounded, thickened; *lip* purple, ovoid, 1 mm long, 1–1.4 mm wide, 1 mm deep, shallowly concave below the bar with a glenion, the apex obtuse to rounded with the margin thickened, the dorsum more or less convex with a low callus, the base broadly truncate, hinged to the base of the column; *column* stout, 1 mm long, 1.5 mm wide, the anther and the bilobed stigma apical.

Etymology: from the Latin *purpurascens*, “becoming purple,” referring to the color of the flowers.

This low-altitude species is frequent and variable in its

wide distribution through Central America, where local variations have been described numerous times. Although well-known from Panama, and from a recent collection from coastal Ecuador, *Stelis purpurascens* has not yet been identified from Colombia, where it is likely to occur.

Vegetatively, plants vary from small to large and robust with a well-developed ramicaul. The inflorescences are elongate, but often not surpassing the leaves. Numerous sensitive flowers are produced simultaneously in a congested, distichous raceme. The color varies through all shades of purple to green. The sepals are minutely pubescent, broadly ovate and obtuse. The petals are cuneate with thickened margins. The lip is ovoid and obtuse with the margin thickened. A glenion descends from the bar from the dorsum beneath the column.

Stelis purpurea (Ruiz & Pav.) Willd., Sp. Pl. 4: 140. 1805.

Basionym: *Humboldtia purpurea* Ruiz & Pav., Syst. Veg. Fl. Peruv. et Chil. 235, 1798; Fl. Peruv. Chil. Prodr. 121, t. 27, 1794, non Vahl, 1794. TYPE: PERU. Huánuco: *H. Ruiz & J. A. Pavón s.n.* (Holotype: MA). Illustrated in Luer (2009a: 90, fig. 105a). Fig. 40–41.

Synonyms: *Stelis macrocarpa* Kunth, Nov. Gen. Sp. 1: 363. 1816. TYPE: COLOMBIA. Nariño: mountains of Pasto, between village of Yenoí, forest La Trocha and villa Tiendala, 1360 hex., December 1801, *A. Humboldt & A. Bonpland s.n.* (Holotype: P). Etymology: from the Greek *macrocarpos*, “large fruit,” referring to the capsules.

Stelis connata C. Presl, Rel. Haenk. 1: 103. 1827. TYPE: PERU. “Huanocco,” *T. Haenke s.n.* (Holotype: PRC). Etymology: from the Latin *connatus*, “connate,” referring to the lateral sepals.

Stelis cupuligera Rchb.f. & Warsz., Bonplandia 2: 114. 1854. TYPE: PERU. Without locality, *J. von R. Warszewicz s.n.* (Holotype: W). Etymology: from the Latin *cupuliger*, “cup bearing,” referring to the bilabiate flowers.

Stelis dubia Lindl., Folia Orch. *Stelis* 8(55). 1859. TYPE: ECUADOR [as PERU]. “Western declivity of the Andes,” *W. Jameson s.n.* (Holotype: K). Etymology: from the Latin *dubius*, “doubtful,” because of a mistaken similarity to *S. nanegalensis*.

Stelis melanoxantha Rchb.f., Bonplandia 3: 71. 1855. TYPE: COLOMBIA. Norte de Santander: Aspasica, *H. Wagener s.n.* (Holotype: W). Etymology: from the Greek *melano-xantha*, “very dark, yellow,” referring to dark purple flowers, yellow at the base.

Stelis acutissima Lindl., Folia Orch. *Stelis* 14(108). 1859. TYPE: ECUADOR. “Western side of Pichincha,” *W. Jameson s.n.* (Holotype: K). Etymology: from the Latin *acutissimus*, “very acute,” referring to the floral bracts.

Stelis densiflora Lindl., Folia Orch. *Stelis* 16(118). 1859. TYPE: PERU. Chachapoyas, *A. Mathews s.n.* (Holotype: K). Etymology: from the Latin *densiflorus*, “densely flowered,” referring to the raceme.

Stelis abrupta Rchb.f., Linnaea 41: 7. 1877. TYPE: COLOMBIA. Antioquia, Medellín, *B. Roezl s.n.* (Holotype: W, drawing at AMES). Etymology: from the Latin *abruptus*, “terminated abruptly,” referring to the truncate lip.

Stelis endocharis Rchb.f., Linnaea 41: 8. 1877. TYPE: COLOMBIA. Without data, *B. Roezl s.n.* (Holotype: W). Etymology: from the Greek *endocharis*, “pretty inside,” referring to the flowers.

Stelis hemicardia Rchb.f., Linnaea 41: 8. 1877. TYPE: COLOMBIA. Medellín, *B. Roezl s.n.* (Holotype: W). Etymology: from the Greek *hemicardia*, “half-a-heart,” referring to the bilabiate flowers.

Stelis rusbyi Rolfe, Mem. Torrey Bot. Club. 4: 261. 1895. TYPE: BOLIVIA. Yungas, *H. H. Rusby 2758* (Holotype: K; Isotypes: AMES, GH, NY). Etymology: named for Henry Hurd Rusby, American medical botanist, who collected this species.

Stelis macrantha Rolfe, Bull. N.Y. Bot. Gard 4: 450. 1907. TYPE: BOLIVIA. Without locality, *M. Bang 1816a* (Holotype: K; Isotypes: AMES, GH, NY). Etymology: from the Greek *makranthos*, “big flowered,” referring to the flowers.

Stelis huancabambae Kraenzl., Bot. Jahrb. Syst. 54, Beibl. 117: 20. 1916. TYPE: PERU. Cajamarca, Jaën, “Cordillere östlich von Huancabamba,” 2400–2500 m, *A. Weberbauer 6112* (Holotype: destroyed at B). Etymology: named for the community of Huancabamba, near where the species was collected.

Stelis saxicola Schltr., Repert. Spec. Nov. Regni Veg. 10: 452. 1912. TYPE: BOLIVIA. Unduavi, 2800 m, *O. Buchtien 2610* (Holotype: destroyed at B). Etymology: from the Latin *saxicola*, “growing on rocks,” referring to the habitat.

Stelis cauae Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 85. 1920. TYPE: COLOMBIA. Cauca: West-Cordillera of Cali, 2000 m, *F. C. Lehmann 6923* (Holotype: K; Isotype: LE). Etymology: named for the department of Cauca where the species was collected.

Stelis pachyphylla Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 91. 1920. TYPE: COLOMBIA. Antioquia: *M. Madero s.n.* (Holotype: destroyed at B). Etymology: from the Greek *pachyphyllon*, “thick-leaf,” referring to the foliage.

Stelis cordibractea Schltr., Repert. Spec. Nov. Regni Veg. Beih. 8: 51. 1921. TYPE: ECUADOR. Chimborazo: “Auf Bäumen in lichten Wäldern der obersten Wald-region an den Westhängen des Chimborazo,” 3000–3500 m, *F. C. Lehmann 8212* (Holotype: destroyed at B). Etymology: from the Latin *cordibracteus*, “with cordate bracts,” referring to the bracts.

Stelis phaeantha Schltr., Repert. Spec. Nov. Regni Veg. Beih. 9: 68. 1921. TYPE: PERU. Junin: Yanagu, “östlich von Huacapistana,” 2300–2400 m, *A. Weberbauer 2128* (Holotype: destroyed at B).

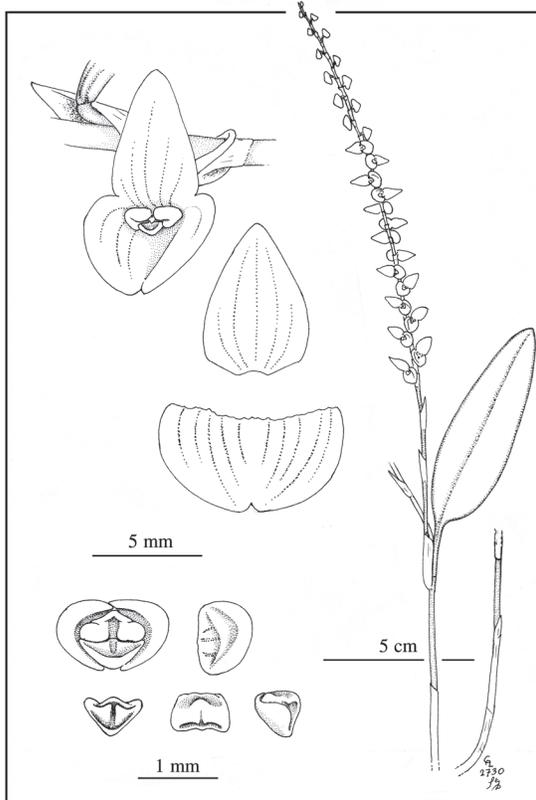


FIGURE 41. *Stelis purpurea* (Ruiz & Pav.) Willd.

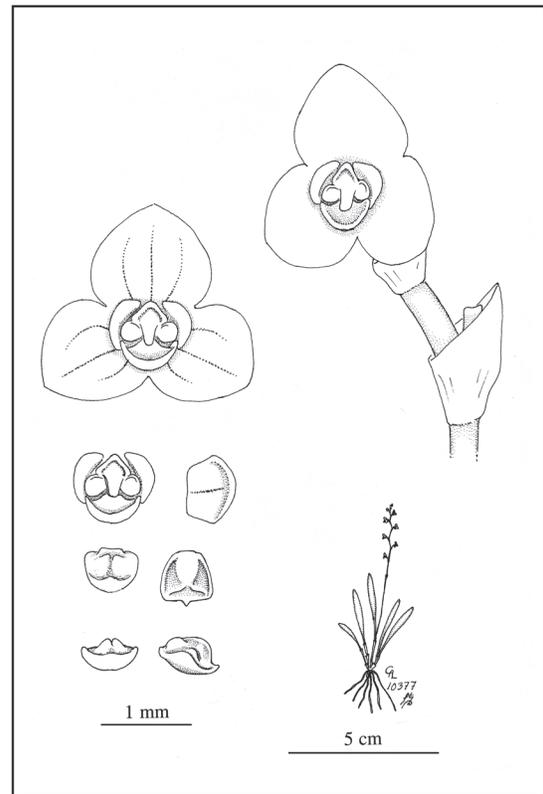


FIGURE 42. *Stelis pusilla* Kunth

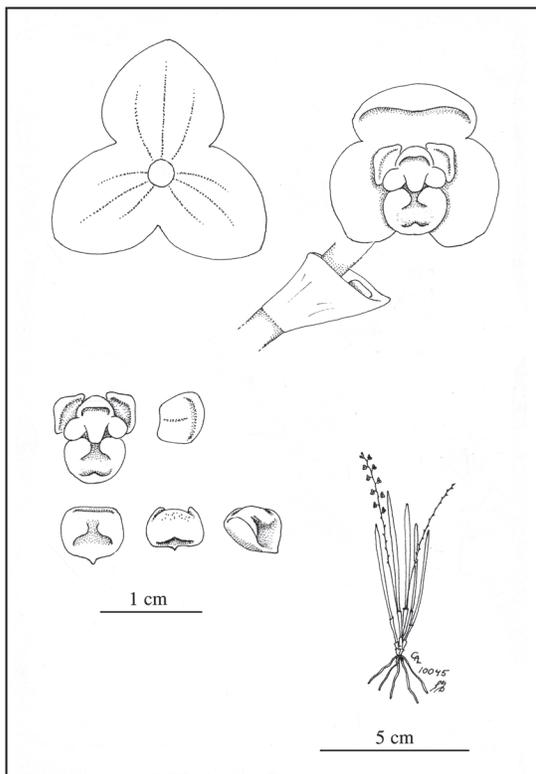


FIGURE 43. *Stelis pusilla* Kunth

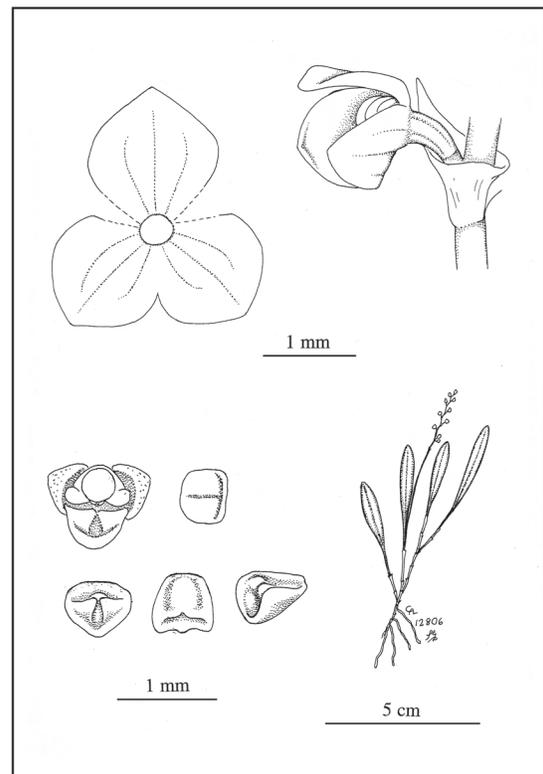


FIGURE 44. *Stelis pusilla* Kunth

Etymology: from the Greek *phaeanthos*, “darkly colored flower,” referring to the flowers.

Stelis robusta Schltr., Notizbl. Bot. Gart. Berlin-Dahlem 7: 270. 1918. TYPE: COLOMBIA. Putumayo: between Pasto and Mocoa, 3300 m, May 1921, W. Hopp 56 (Holotype: destroyed at B). Etymology: from the Latin *robustus*, possibly referring to the large, robust plants.

Stelis robusta Schltr., Repert. Spec. Nov. Regni Veg. Beih. 27: 38. 1924, non Schltr. 1918. TYPE: COLOMBIA [as COSTA RICA]: based on the same type as *S. robusta* Schltr. 1918.

Stelis robustior Garay, Bot. Mus. Leaflet. Harvard Univ. 27(7-9): 185. 1979, replaced name for *S. robusta* Schltr. 1924 non Schltr. 1918. Etymology: from the Latin *robustus*, “robust,” referring to the habit.

Stelis yungasensis Schltr., Repert. Spec. Nov. Regni Veg. 27: 49. 1929. TYPE: BOLIVIA. La Paz: Yungas, “Polo-Polo bei Coroico,” O. Buchtien 3699 (Holotype: destroyed at B). Etymology: named for the Yungas of Bolivia where the species was collected.

Stelis repanda Luer & Hirtz, Monogr. Syst. Bot. Missouri Bot. Gard. 88: 22, 2002. TYPE: ECUADOR. Zamora-Chinchipec: east of the pass east of Loja, 2150 m, 26 March 1985, C. Luer, J. Luer, A. Hirtz, and W. Flores 10957 (Holotype: MO). Etymology: from the Latin *repandus*, “repand,” referring to the wavy margins of the floral bracts.

Stelis alpina Luer & Hirtz, Monogr. Syst. Bot. Missouri Bot. Gard. 95: 121, 2004. TYPE: ECUADOR. Carchi: west of the pass of Tulcán, 3400 m, 26 March 1991, C. Luer, J. Luer, J. del Hierro & A. Hirtz 15094 (Holotype: MO). Etymology: from the Latin *alpinus*, “of a high altitude,” referring to the habitat.

Plant medium to large in size, epiphytic, shortly ascending-repent to densely caespitose; roots slender. Ramicaul stout, erect, up to 40 cm long, enclosed by a loose, tubular sheath near the middle and 2–3 other sheaths below and at the base. *Leaf* erect, coriaceous, elliptical, petiolate, with the apex subacute to obtuse, 6–17 cm long including the petiole 0.5–2.5 cm long, 1–5 cm wide, cuneate below into the petiole. *Inflorescence* 1–3 erect, distichous, subdensely many-flowered racemes with many flowers open simultaneously, 18–35 cm long including the peduncle 5–13 cm long, subtended by a spathe 1–2 cm long, from a node below the apex of the ramicaul; floral bracts oblique, acute, from 12 mm long below to 5 mm long above, more or less undulate; pedicels 3–6 mm long; ovary 2–3 mm long; flowers nutant, bilabiate, purple, yellow, yellow-green, or purple with yellow petals and lip; *sepals* glabrous externally, microscopically pubescent within, purple, yellow-green, or yellow-green, variously suffused with shades of purple, the dorsal sepal erect, ovate-triangular, acute, 5–10 mm long, 5–6 mm wide, 5(–7)-veined, connate to the synsepal for 1 mm, the lateral sepals connate into a broadly ovate, concave synsepal, 5–6.5 mm long, 5–7 mm wide unexpanded, 6(–8)-veined; *petals* purple to yellow,

transversely semilunate, 1–1.25 mm long, 2–2.25 mm wide, concave below the broadly rounded apex with the margin thickened and flattened, the base transversely truncate; *lip* purple or yellow, thick, subquadrate, 0.9–1.2 mm long, 1.2–1.5 mm wide, 0.9–1 mm deep, the apex thick, broadly rounded, shallowly concave below the bar with a glenion, the dorsum with a low, more or less trilobed callus, the base truncate, hinged to the base of the column; *column* stout, 1 mm long, 1.2–1.5 mm wide, the anther and the stigma apical, the stigma bilobed.

Etymology: from the Latin *purpureus*, “purple,” referring to the color of the flowers.

Additional specimens examined: COLOMBIA. Antioquia: Cerro Padre Amaya, 2900 m, 16 January 1979, C. Luer, J. Luer & R. Escobar 3699 (SEL). Boyacá: between Arcabuco and Moniquira, 2500 m, 25 Apr. 1982, C. Luer, J. Luer & R. Escobar 7546, 7547 (SEL). Tolima: Alto de Pozo, W of Ibagué, 3000 m, 20 April 1982, C. Luer, J. Luer & R. Escobar 7485, 7486 (SEL); southern slope of Mt. Tolima, N of Ibagué, 2930 m, 21 Apr. 1982, C. Luer, J. Luer & R. Escobar 7507 (SEL). Nariño: SE of Ipiales toward Victoria, 3000–3200 m, 22 February 1978, C. Luer, J. Luer & A. Hirtz 2727, 2730 (SEL); at the pass between Salento and Tocha, 3300 m, 10 May 1993, C. Luer, J. Luer & R. Escobar 16742 (MO). Putumayo: Laguna La Cocha, Ciudadela, near Páramo Bordoncillo, 2800–3000 m, 27 May 1946, R. E. Schultes & M. Villarreal 7574 (AMES); páramo between La Cocha and Sibundoy, 3000 m, 26 January 1987, C. Luer, J. Luer, R. Escobar et al. 12537 (MO).

This species is frequent and variable in its wide distribution in the Andes. Apparently because he had no access to an authentic specimen of *Stelis purpurea* (Ruiz & Pav.) Willd., Lindley described three specimens of this species as *S. acutissima*, *S. densiflora*, and *S. dubia*. No specimen in his herbarium was identified by him as *S. purpurea*. Variations and combinations of variations account for the multitude of synonymous names.

Stelis purpurea is usually a robust species characterized by a very shortly repent to a densely caespitose habit with 1 to 3 many-flowered racemes that usually far exceed the elliptical, petiolate leaves. Occasionally one ramicaul will produce another. The floral bracts are long and acute, often undulate. The flowers are variable in size, some large specimens equaling those of *S. maxima* Lindl. The color varies among all shades of purple to yellow-green. The 5-veined (occasionally 7-veined) dorsal sepal is ovate-triangular, more or less acute, 6–10 mm long, and the lateral sepals are connate into a concave synsepal. The petals are proportionately large with broadly rounded, thick margins. The apex of the lip is also rounded and thick, and often on the dorsum a low, rounded or trilobulated callus, fits beneath the column.

Stelis pusilla Kunth, Nov. Gen. Sp. 1: 361. 1816. TYPE: ECUADOR, Kingdom of Quito, 7380 ft., A. de Humboldt & A. Bonpland s.n. (Holotype: P). Illustrated in Luer (2009a: 223, fig. 405 and 405c). Five variations shown in Fig. 42–46.

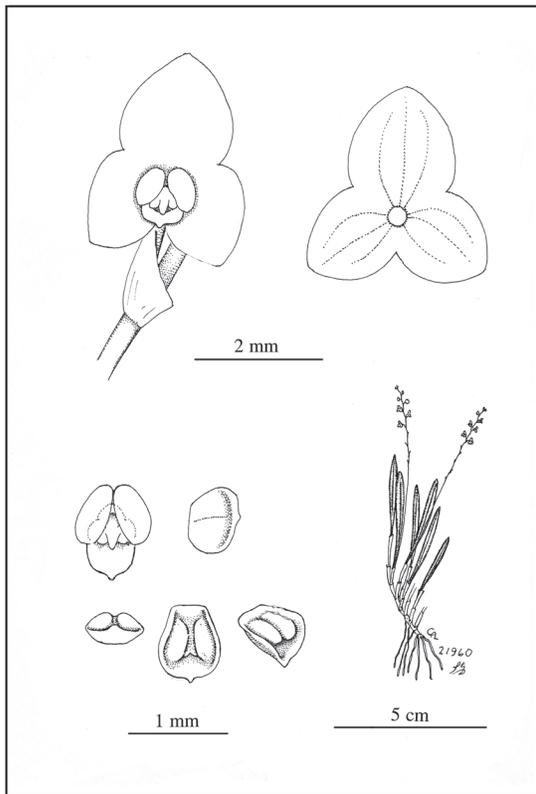


FIGURE 45. *Stelis pusilla* Kunth

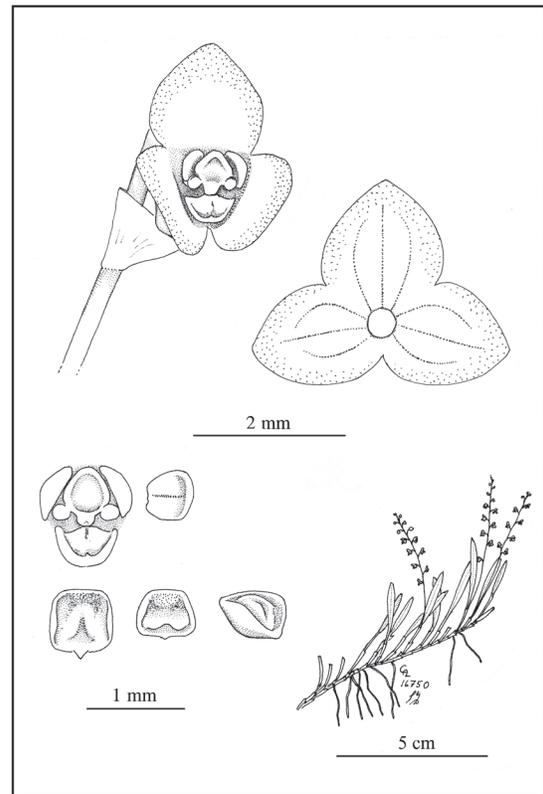


FIGURE 46. *Stelis pusilla* Kunth

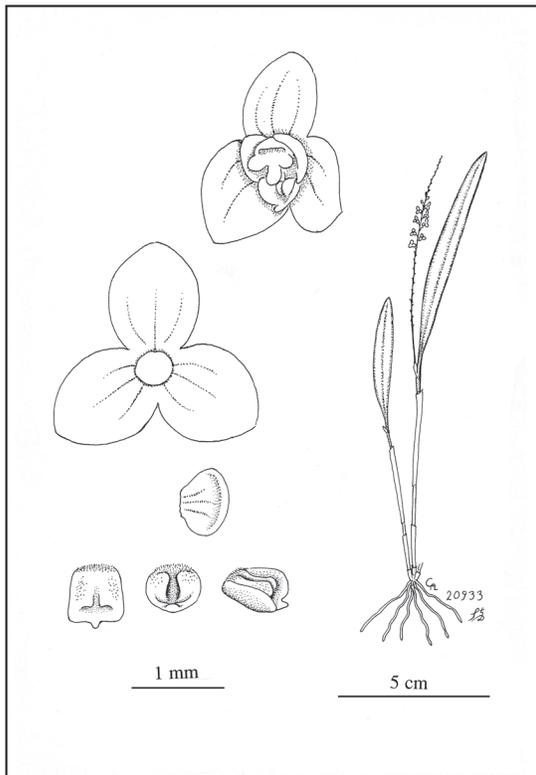


FIGURE 47. *Stelis schomburgkii* Fawc. & Rendle

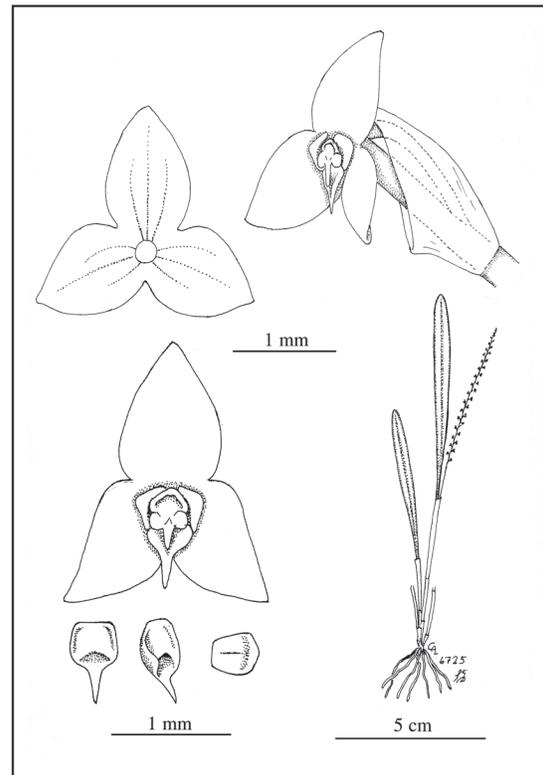


FIGURE 48. *Stelis spatulata* Poepp. & Endl.

Synonyms: *Stelis herbiola* Lindl., Folia Orchid. *Stelis* 10(73). 1859. TYPE: COLOMBIA. Quindio: without specific locality, ca. 1854, *I. F. Holton s.n.* (Holotype: K). Etymology: from the Latin *herbiolus*, "a little herb," referring to the size of the plant.

Stelis apiculata Lindl., Fol. Orchid. *Stelis* 11(76). 1859. TYPE: ECUADOR ["PERU"]. "Forests of Papallada in the E. Andes," *W. Jameson s.n.* (Holotype: K). Etymology: from the Latin *apiculatus*, "apiculate," referring to the labellum.

Stelis megahybos Schltr., Repert. Spec. Nov. Regni Veg. 14: 122. 1915. TYPE: ECUADOR. "In silvis subandinis vulcani Pulahua," *A. Sodiro 13* (Holotype: destroyed at B). Etymology: from the Greek *megahybos*, "with a large projection," referring to the callus of the lip.

Stelis callicentrum Schltr., Repert. Spec. Nov. Regni Veg. 15: 52. 1917. TYPE: ECUADOR. "Ad arbores in silvis catenae orientalis andium," 3200 m, *A. Mille s.n.* (Holotype: destroyed at B). Etymology: from the Latin *callicentrum*, "central callus," referring to the labellum.

Stelis tenuis Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 94. 1920. TYPE: COLOMBIA. Cauca: Páramo de Guanacas, 2800–3200 m, 9 January 1886, *F. C. Lehmann 6039* (AMES), *C. Luer* illustr. 21072 (Holotype: destroyed at B; Isotypes: K, LE). Etymology: from the Latin *tenuis*, "thin," referring to the leaves.

Plant small to very small, epiphytic, caespitose to ascending; roots slender. Ramicauls ascending-fasciculate, erect, slender, 1–4 cm long, enclosed by a tubular sheath and 2–3 others below. *Leaf* erect, coriaceous, narrowly elliptical, acute, 2–4 cm long including the petiole ca. 0.5–1 cm long, 0.3–0.8 cm wide, gradually narrowed below into the petiole. *Inflorescence* an erect, subclax, distichous, few- to many-flowered raceme with a few to many flowers opening simultaneously, 2–10 cm long including the peduncle 0.5–4 cm long, from an annulus below the apex of the ramicaul; floral bracts infundibular, 1–2 mm long; pedicels 1 mm long; ovary 0.75 mm long; *sepals* expanded, connate basally, white, yellow, green, rose, light brown, glabrous to microscopically pubescent, ovate, obtuse, dorsal sepal 1–1.75 mm long, 1–1.75 mm wide, 3-veined, the lateral sepals 1–1.75 mm long, 1–1.5 mm wide, 3-veined; *petals* yellow or white, translucent, transversely cuneate, 0.5–0.6 mm long, 0.6–0.7 mm wide, 1-veined, shallowly concave below the broadly obtuse, subtruncate, thickened, apical margin; *lip* yellow or white, thick, subquadrate, 0.75–0.6 mm long, 0.6 mm wide, 0.3 mm deep, the apex obtuse with a small, obtuse apiculum, concave below the bar, the dorsum with a low, indistinctly bilobed callus, minutely pubescent at the base, hinged to the base of the column; *column* stout, ca. 0.6 mm long, 0.6 mm wide, the foot obsolescent, the anther and the bilobed stigma apical.

Etymology: from the Latin *pusillus*, "very small," referring to the habit.

Additional specimens examined: COLOMBIA. Antioquia: Quirama, Río Negro, 2200 m, 13 July 1973, *R. E. Schultes s.n.* (COL, MO); Yarumal, Raton Pelado, above Yamural, 2650 m, 1 May 1984, *C. Luer, J. Luer & R. Escobar 10045* (MO). Cundinamarca: S of Bogotá, above Gutierrez, 2700 m, 19 May 1984, *C. Luer, J. Luer & R. Escobar 10377* (MO). Santander: Bucaramanga, E of Bucaramanga toward Berlin, 3300 m, 7 May 1984, *C. Luer, J. Luer & R. Escobar 10178* (MO). Quindio: at the pass between Salento and Tocha, 3300 m, 10 May 1993, *C. Luer, J. Luer, R. Escobar & A. de Wilde 16750* (MO). Tolima: Alto de Pozo, near the pass, 3300 m, W of Ibaqué, 20 April 1982, *C. Luer, J. Luer & R. Escobar 7482* (SEL). Cauca: Páramo de Guanacas, between Totoro and Inza, 3150 m, 15 November 1982, *C. Luer & R. Escobar 8386* (MO); Popayán, Páramo de Barbillas, SE of Popayán, 3070 m, 27 July 1978, *C. Luer, J. Luer & R. Escobar 3027* (SEL). Valle del Cauca: El Cerrito, between Tenerife and Páramo de Azúcar, 3450 m, 2 April 1993, *P.A. Silverstone-Sopkin 6542A* (CUVC, MO). Cauca: headwaters of Río Lopez, 2500–3000 m, June 1906, *H. Pittier 1059* (AMES), *C. Luer* illustr. 21960. Nariño: Barbacoas to Pasto, 8000 ft, 5 October 1878, *F. C. Lehmann s.n.* (W); Montaña Aranda, above Pasto, 9500 ft., 10 November 1878, *F. C. Lehmann s.n.* (W). Putumayo: Santiago, San Antonio de Bellavista, 3240 m, 18 March 1999, *S. M. Pasmíño & M. R. Posso 040* (MO, PSO), *C. Luer* illustr. 21936.

Additional distribution: Venezuela, Haiti, Dominican Republic, Ecuador, Peru, Bolivia.

Stelis pusilla sensu lato is common, variable, and widely distributed in the Andes, often blanketing roadcuts. It is most commonly characterized by a caespitose habit, but depending on the habitat, the rhizome ascends and branches, often forming large, tangled masses. When clusters are pulled apart, rhizomes of various lengths are found. Larger plants with similar inflorescences but with long-repent rhizomes and larger flowers were described as *S. polyclada* by Lindley. Variations have acquired many names, some of which could be regarded as specific.

The ramicauls of *Stelis pusilla* are shorter than the narrow leaves they bear, and the inflorescences are usually longer than the leaves. The flowers are small with glabrous, ovate, obtuse, 3-veined sepals 1–1.5 mm long. The colors of the flowers vary from white to yellow or light green, or rarely rose or buff. The petals are thin and 1-veined with a narrowly thickened margin. The lip is subquadrate with a small, obtuse apiculum on the apical margin, and the bar is variously cleft. The apiculum is sometimes almost absent.

Stelis schomburgkii Fawc. & Rendle, J. Bot. 48: 108. 1910. TYPE: VENEZUELA: Roraima expedition, ca. 1844, *R. Schomburgk 1025* (Holotype: K). Illustrated in *Dunsterville and Garay* (1966: 289, as *Stelis aprica* Lindl.). *C. Luer* illustr. 20933. Fig. 47.

Plant medium in size, epiphytic, densely caespitose; roots slender. Ramicauls erect, slender, 4–7 cm long, with a tubular sheath from below the middle and 1–2 sheaths below and at the base. *Leaf* erect, coriaceous, narrowly elliptical,

acute, 7–8 cm long including a petiole ca. 1 cm long, the blade 0.6 cm wide in the dry state, gradually narrowed to the petiole. *Inflorescence* single, 7–8 cm long; the raceme erect, congested, many-flowered, secund, the peduncle ca. 2 cm long, subtended by a slender spathe 5–6 mm long, from a node below the apex of the ramicaul; floral bracts oblique, acute, 1 mm long; pedicels 1 mm long; ovary 1 mm long; *sepals* similar, glabrous to sparsely pubescent, connate basally, elliptical-subcircular, obtuse, 1.25 mm long, 1.75 mm wide, 3-veined; *petals* transversely obovate, shallowly concave, without a transverse callus, 0.4 mm long, 0.6 mm wide, 3-veined, the apex broadly rounded with the margin thickened; *lip* subquadrate, 0.6 mm long, 0.6 mm wide, 0.25 mm deep, concave below a cleft bar, the apex truncate, with an obtuse apiculum between marginal angles, the dorsum slightly convex, minutely short-pubescent at the base, the base broadly truncate, hinged to the base of the column; *column* stout, ca. 0.8 mm long and wide, the anther and the stigma apical, the stigmatic lobes appear to have been expanded.

Etymology: named for Robert Hermann Schomburgk, collector of the species.

This species was collected during the Roraima expedition in the Guayana highlands, most likely in Venezuela (Steyermark, 1981). It is related to the widely distributed *Stelis foetida* O. Duque. *Stelis schomburgkii* is similar but smaller, with narrower leaves and smaller flowers with nearly circular sepals. The lip is more quadrate, being no longer than wide. The truncate apex is also subtridentate with the central apiculum being short and obtuse. The illustration and description provided here were made from the type collection of *Schomburgk 1025* at K. It had been reduced to the synonymy of *S. aprica* Lindl. in Dunsterville and Garay (1966: 288). No collection of *S. schomburgkii* is known from Colombia, where it is likely to occur.

Stelis sesquipedalis Lindl., Orch. Linden. 3. 1846. TYPE: VENEZUELA. Mérida: Sierra Nevada, 9000 ft, August 1842, *J. J. Linden 632* (Holotype: K). Illustrated in Dunsterville and Garay (1966: 305).

Synonym: *Stelis ephippium* Luer & R. Escobar, Harvard Pap. Bot. 22(1): 39, 2017, *nom. invalid.* TYPE: COLOMBIA. Norte de Santander: Alto de Santa Inéz, 2100 m, 13 May 1984, *C. Luer, J. Luer & R. Escobar 10323* (MO). Etymology: from the Latin *ephippium*, “a saddle” in allusion to the shape of the lip (see comment in Luer, 2018: 19).

Plant large, epiphytic, densely caespitose. Ramicauls erect, stout, 4–5 cm long, with a loose tubular sheath from below the middle, another 2 sheaths below and at the base. *Leaf* erect, coriaceous, elliptical, obtuse to rounded at the tip, 7–12 cm long including a petiole 1.5–2 cm long, the blade 2–2.7 cm wide in the dry state, cuneate below to the petiole. *Inflorescence* single; 20–25 cm tall, the raceme erect, congested, distichous, many-flowered; floral bracts oblique, acute, 3–4 mm long; pedicels 2 mm long; ovary 1–1.5 mm long; the peduncle 7–8 cm long, subtended by a spathe ca. 1 cm long, from a node below the apex of the

ramicaul; *sepals* dark purple, glabrous, the dorsal sepal ovate, acute, 5 mm long, 3 mm wide, 3-veined with an incomplete lateral pair, the lateral sepals broadly ovate, oblique, obtuse, 3 mm long, 3.5 mm wide, 3- to 4-veined; *petals* yellow with purple edge, transversely ovate, 1.2 mm long, 2 mm wide, 3-veined, concave below a thick, rounded apex, with a transverse carina; *lip* yellow with purple edge, subquadrate, 1.75 mm long, 1.4 mm wide, 1 mm deep, concave below a thick, protruding, rounded, solid callus, with a superficial glenion on the anterior surface, the apex rounded, the dorsum filled with the thick, erect, ovoid callus that extends from the base to include the bar, to within the space within the apical margin, the base truncate, hinged to the base of the column; *column* stout, ca. 1.5 mm long and wide, the anther and the stigmatic lobes apical.

Etymology: from the Latin *sesquipedalis*, “a foot and a half,” alluding to the height of the plant.

Additional specimens examined: COLOMBIA. Santander: Alto de Santa Inéz, ca. 2500 m, coll. by E. Valencia, flowered in cultivation at Colomborquídeas 23 May 1995, *C. Luer 17600* (SEL); Alto de Santa Inéz, ca. 2500 m, probably coll. by E. Valencia, flowered in cultivation at Colomborquídeas, 16 May 1993, *C. Luer 16878* (SEL).

A collection of *Stelis sesquipedalis* from Páramo La Negra, Mérida, Venezuela, by G. C. K. Dunsterville (see citation above) and also illustrated by Elmer Smith (Garay, 1980: plate 46) was identified as the Peruvian *S. lanceolata* Lindl. No material from the type of *S. lanceolata* is available, but a photograph of an isotype at B shows the plant to be slender with a narrow, acute leaf. In addition to westernmost Venezuela, similar plants found in the adjacent Eastern Cordillera of Colombia have been redescribed as *S. ephippium* Luer & R. Escobar.

This handsome species is characterized by large, elliptical leaves with shorter ramicauls and a long, multiflowered raceme with a proportionately small spathe. The sepals are unequal and dark purple, the dorsal sepal being ovate, acute and 3-veined, or incompletely 5-veined, with the lateral sepals being broadly ovate and obtuse. An erect, ovoid, shallowly channeled callus fills the middle of the lip. The large callus suggests a saddle, the callus rising in the center, being the horn thereof.

Stelis silverstonei Luer, Orquideología 22(1): 62, 2001. TYPE: COLOMBIA. Chocó: San José del Palmar, Cerro del Torrá above the heliport, 1920–1950 m, 8 August 1988, *P. Silverstone-Sopkin 4147* (Holotype: CUV). Illustrated in Luer (2016a: C. Luer illustr. 13221, fig. 5, as *Stelis caespitula* Luer & R. Escobar).

Synonym: *Stelis caespitula* Luer & R. Escobar, Harvard Papers in Bot. 21(1): 63, 2016. TYPE: COLOMBIA. Antioquia: El Retiro, above Colomborquídeas, coll. by W. Teague, 17 April 1988, *C. Luer 13221* (Holotype: MO). Etymology: from the Latin *caespitulus*, “small-caespitose,” referring to the tiny habit.

Plant very small, epiphytic, densely caespitose; roots slender. Ramicauls erect, slender, 3–4 mm long, enclosed by a tubular sheath and another sheath at the base. *Leaf* erect,

coriaceous, elliptical, acute, 8–20 mm long, 2.5–4 mm wide, cuneate below to the base. *Inflorescence* single; 4–8 cm long; the raceme erect, subax, distichous, many-flowered with most flowers open simultaneously; the peduncle ca. 2 cm long, from a node at the apex of the ramicaul; floral bracts oblique, acute, 1–1.5 mm long; pedicels 1 mm long; ovary 0.5 mm long; *sepals* yellow, more or less suffused with purple, microscopically cellular, connate in lower third, broadly ovate, obtuse, 3-veined, the dorsal sepal 1.2–2 mm long, 1.5 mm wide, the lateral sepals oblique, 1.2–1.4 mm long, 1–1.2 mm wide; *petals* yellow or green, thin, obcuneate, broadly obtuse, slightly thickened on the margin, without a transverse callus, 0.4 mm long, 0.6 mm wide, 1-veined; *lip* yellow or green, ovoid, acute, 0.6 mm long, 0.6 mm wide, 0.3 mm deep, with a thick, broadly channeled, ovoid callus from the base to near the tip, the base broadly truncate, hinged to the base of the column; *column* clavate, ca. 0.7 mm long and wide, the anther and the stigmatic lobes apical.

Etymology: named for Dr. Phillip Silverstone-Sopkin of the University Del Valle, Cali, Colombia, collector of this species.

Additional specimens examined: COLOMBIA. Antioquia: El Retiro, above Colomborquídeas, 2280 m, 26 April 1983, *C. Luer & J. Luer* 8837 (SEL).

This tiny, caespitose species has been found in two areas of the Western Cordillera of Colombia. A many-flowered raceme with little, yellowish flowers exceeds the leaf by at least twice its length. The sepals are 3-veined, and the petals are thin and 1-veined. The lip is filled with a tall, widely cleft callus that extends from the base to the acute apex.

The original illustration and description of *Stelis silverstonei* were made from an old, wilted flower that persisted on a depauperate plant.

Stelis spathulata Poepp. & Endl., Nov. Gen. Sp. Pl. 1: 46. 1836. TYPE: PERU. Huanuco: *E. Poeppig s.n.* (Holotype: W). Illustrated in Luer (2009a: 226; fig. 412). Fig. 48.

Synonyms: *Stelis tricuspis* Schltr., Repert. Spec. Nov. Regni Veg. 3: 276. 1907. COSTA RICA. La Uruca, *H. Pittier* 949 (Holotype: destroyed at B). Etymology: from the Latin *tricuspis*, “sharply three-toothed,” referring to the labellum.

Stelis cuspidata Ames, Sched. Orch. 3: 2. 1923. COSTA RICA. Without locality, *ex* C. H. Lankester *ex Hort. Kewensis* (Holotype: AMES 22858). Etymology: from the Latin *cuspidatus*, “sharply pointed,” referring to the labellum.

Plant small, epiphytic, caespitose; roots slender. Ramicauls fasciculate, erect, slender, 1–2.5 cm long, enclosed by 2–3 loose, tubular sheaths. *Leaf* erect, coriaceous, narrowly obovate, obtuse to rounded at the apex, 2–4 cm long including an indistinct petiole 1–1.5 cm long, 0.4–0.8 cm wide, narrowly cuneate below into the subpetiolate base. *Inflorescence* an erect, dense, distichous, many-flowered raceme, with many flowers open simultaneously, 5–8 cm long including the peduncle less than 1 cm long, from a node below the apex of the ramicaul; floral bracts infundibular, oblique, acute, 3–3.5 mm long, imbricating, enclosing the

pedicels, ovaries and much of the flower; pedicels 0.75 mm long; ovary 1 mm long; *sepals* similar, greenish white to pale yellow-green, glabrous, more or less cellular-glandular near the apices, connate basally, ovate, acute, 1.5 mm long, 1 mm wide, 3-veined, the lateral sepals parallel, oblique; *petals* greenish white, cuneate-obovate, shallowly concave, 0.5 mm long, 0.4 mm wide, 1-veined, the apex truncate, thickened and cellular-glandular externally; *lip* greenish white, ovoid-trilobed, 0.6 mm long, 0.5 mm wide, 0.3 mm deep, the lateral margins obtusely angled, the apex abruptly narrowly triangular, the disc with a pair of slightly convex, cellular-glandular, callous plates with rounded, apical margins, concave between on the anterior surface, the base broadly truncate, hinged to the base of the column; *column* stout, 0.5 mm long, the anther and the bilobed stigma apical.

Etymology: from the Latin *spathulatus*, “spathulate,” referring to the leaves.

Additional specimens examined: COLOMBIA. El Valle: La Cumbre, 1400–1700 m, 11 September 1922, *E. P. Killip* 11173 (AMES, NY); El Valle: Hoya del Río Sanquinini, La Laguna, 1250 m, 19 December 1943, *J. Cuatrecasas* 15630 (AMES). Chocó: near San José Palmar, 600 m, collected by J. Posada, flowered in cultivation at Colomborquídeas, 20 November 1981, *C. Luer* 6725 (SEL). Cauca: Meseta de Popayán, cultivated in Popayán by Amalia Lehmann de Sarria, 16 November 1982, *C. Luer* 8461 (SEL). Valle del Cauca: Yotoco, W of Buga, 1500 m, 1 May 1995, *P. Silverstone-Sopkin* 7536 (CUVC, MO).

Additional distribution: Ecuador, Venezuela, Panama, Costa Rica.

This little species is widely distributed from Costa Rica through much of the Andes. It is characterized by densely fasciculated, more or less ascending ramicauls with very narrowly obovate leaves and a longer, slender raceme of tiny flowers subtended by proportionately long, imbricating floral bracts that contain the pedicel, ovary and lower half of the tiny flowers. The sepals are acute with the laterals antrorse. The 1-veined petals are truncate at the thickened apex. The lip is tridentate with a longer, pointed middle lobe. The lip is similar to that of *Stelis hymenantha*, which is most easily distinguished from *S. spathulata* by short floral bracts that do not engulf the sepals.

Stelis superbiens Lindl., Folia Orch. *Stelis* 8(57). 1859. TYPE: COLOMBIA. “New Grenada,” *W. Purdie s.n.* (Holotype: K; Isotype: GH). Illustrated in Luer (2009a: 226, fig. 414). Fig. 49–51.

Synonyms: *Stelis nanegalensis* Lindl., Folia Orch. *Stelis* 8(54). 1859. TYPE: ECUADOR. “Forests of Nanegal, and Western declivity of Pichincha,” *W. Jameson s.n.* (Holotype: K). Etymology: named for Nanegal in Ecuador, where the plant was collected.

Stelis koehleri Schltr., Repert. Spec. Nov. Regni Veg. 10: 386. 1912. TYPE: PERU. Chanchamayo, Río Blanco, Hacienda Santa Teresa, on coffee trees, 1400 m, *E. Köhler s.n.* (Holotype: destroyed at B). Etymology: named for E. Köhler who collected the species.

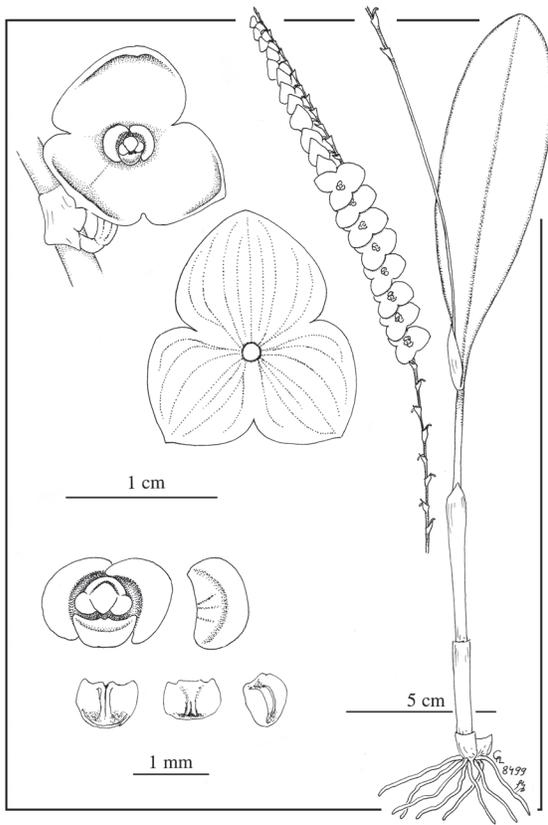


FIGURE 49. *Stelis superbiens* Lindl.

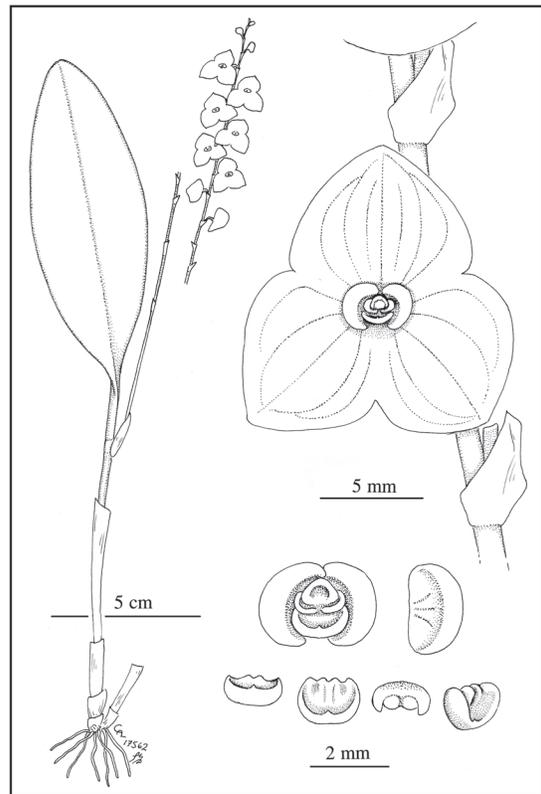


FIGURE 50. *Stelis superbiens* Lindl.

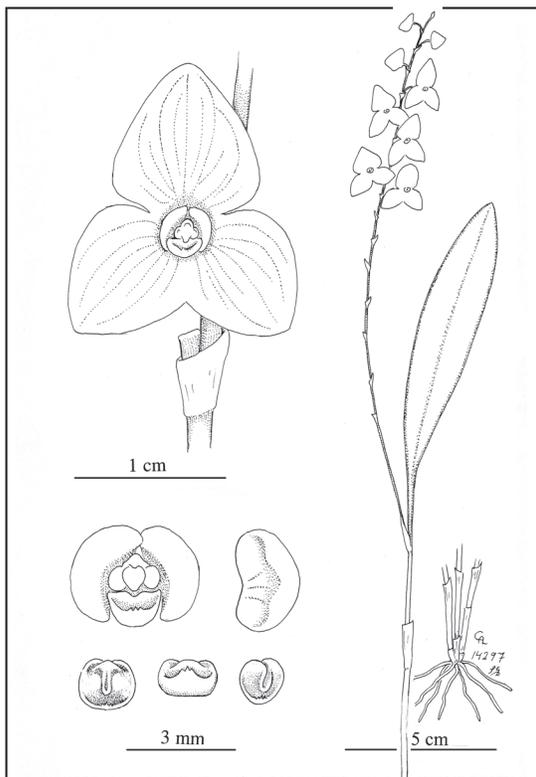


FIGURE 51. *Stelis superbiens* Lindl.

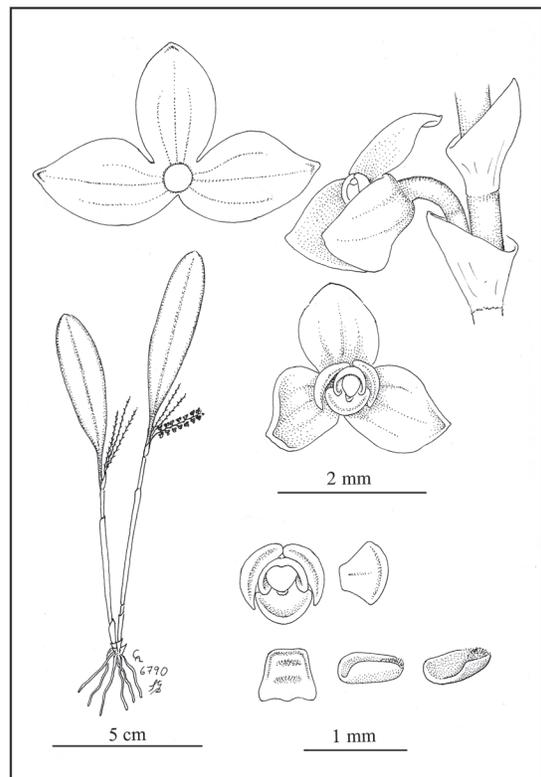


FIGURE 52. *Stelis tenuilabris* Lindl.

Stelis vulcanica Schltr., Repert. Spec. Nov. Regni Veg. 14: 125. 1916. TYPE: ECUADOR. "In crateri vulcani Pulalagua," A. Sodiro 19 (Holotype: destroyed at B). Etymology: from the Latin *vulcanicus*, "volcanic," referring to Pulalagua Crater.

Stelis convallarioides Garay, Canad. J. Bot. 34: 351. 1956. TYPE: COLOMBIA. Choco: Tutunendo, 20 km. N of Quibdo, 80 m, 19–20 May 1931, W. A. Archer 2143 (Holotype: US). Etymology: from the Latin *convallarioides*, "like a *Convallaria*, a genus of the *Liliacea*," without apparent reason.

Plant medium in size to large, epiphytic, caespitose; roots slender. Ramicauls erect, stout, 5–17 cm long, enclosed by a loose, tubular sheath near the middle and 2–3 other sheaths below and at the base. *Leaf* erect, coriaceous, elliptical to obovate-oblong, subacute to obtuse, 10–16 cm long including the petiole 1–2 cm long, the blade 2–4 cm wide, cuneate below into the petiole. *Inflorescence* an erect, subdense, distichous, many-flowered raceme with several to many flowers open simultaneously, 10–30 cm long including the peduncle 2–10 cm long, with a few bracts, subtended by a spathe 1–2 cm long, from a node below the apex of the ramicaul; floral bracts oblique, acute, 3–5 mm long; pedicels 3–4 mm long; ovary 3–6 mm long; *sepals* expanded, yellow, green, or purple, glabrous externally, pubescent or cellular-glandular within, connate to near the middle, transversely ovate, obtuse, the dorsal sepal 5–10 mm long, 6–10 mm wide, 5- to 9-veined, the lateral sepals 5–10 mm long, 6–10 mm wide, 5- to 7-veined; *petals* yellow or purple, transversely cuneate-obovate, shallowly concave, 1–1.25 mm long, 1.6–2 mm wide, the apex broadly rounded with the margin thickened; *lip* yellow or purple, thick, transversely subquadrate, 1 mm long, 1.3–1.5 mm wide, 0.7–1 mm deep, concave inside the apical margin, the margin thin, minutely apiculate to triapiculate, the disc transversely callous, the callus (bar) curved with a long, narrow glenion, the base broadly truncate, hinged to the base of the column; *column* stout, 1 mm long, 1.5 mm wide, the anther and the stigma apical, the stigma bilobed.

Etymology: from the Latin *superbiens*, "superb," referring to the fine qualities of the species.

Additional specimens examined: COLOMBIA. Antioquia: Parque Nacional Las Orquídeas, 1300 m, 30 March 1988, A. Cogollo et al. 2827 (JAUM, MO); Dabeiba, Chimiado, fl. in cult. by M. & O. Robledo at La Ceja, C. Luer 14297 (MO); Yarumal, road to El Cedro, 1650 m, 15 March 1989. C. Luer, J. Luer, S. Dalström & W. Teague 14164 (MO); Alejandria, 1600 m, collected by M. Zapata, fl. in cult. at Colomborquídeas, 12 December 1992, R. Escobar 5011A (MO); Hda. Normandia, collected by Pacho Lopez, fl. in cult. by Colomborquídeas, 23 May 1995, C. Luer 17562 (MO). Risaealda: Belén de Umbria, trail to Alto de Serna, 2300 m, flowered at El Jordan, 12 September 1992, A. de Wilde 3942 (MO); Pueblo Rico, road to TV tower, 2400 m, 14 May 1993, C. Luer, J. Luer, R. Escobar et al. 16828 (MO). Chocó: Cajanania, 1600 m, 11 November 1883, F.C. Lehmann 3346 (AMES); Urrao, road to Carmen de Atrato, 2500 m, collected by E. Valencia, May

1993, flowered in cultivation at Colomborquídeas, 23 May 1995 C. Luer 17577 (MO). Valle del Cauca: Yotoco. W of Buga, 1600 m, 29 April 1995, P. Silverstone-Sopkin 7473 (CUV, MO). Nariño: above Ricaurte, 1800 m, flowered in cultivation at La Planada Orquideario, 25 January 1987, C. Luer 12514 (MO). Without data, flowered in cultivation at Colomborquídeas, 22 November 1981, C. Luer 6718 (SEL); Without data, flowered in cultivation at Cota by Helmuth Schmidt-Mumm, 22 November 1982, C. Luer 8499 (SEL).

Additional distribution: Panama, Costa Rica, Guatemala, Mexico, Venezuela, Ecuador, Peru, Bolivia.

This spectacular species is widely distributed through the Andes, but less spectacular populations occur from Central America to Bolivia. It is distinguished by a large leaf and a long, erect inflorescence of large, flat, widely spread flowers. The color varies from yellow, green, to purple. The sepals are glabrous or microscopically pubescent, broadly ovate, obtuse, 5-veined, and shallowly connate. The petals are large and 3-veined with a thickened margin. The lip is proportionately small, and with the margin minutely apiculate. This apiculum varies without respect to any morphological character. It varies from a mere, minute, simple point (rarely absent), minutely tridentate, to an acute, triangular apiculum accompanied by acute points at either side, producing a triapiculate process.

Stelis tenuilabris Lindl., Folia Orch. *Stelis* 4(20). 1859. TYPE: VENEZUELA. Aragua: near Colonia Tovar, A. Fendler 1471 (Holotype: K; Isotypes AMES, BR, G, GOET). Illustrated in Dunsterville and Garay (1959: 413, as *Stelis alata* Lindl.). Fig. 52.

Synonyms: *Stelis alata* Lindl., Folia Orch. *Stelis* 18(2–3). 1859. TYPE: VENEZUELA. Without data, A. Fendler 2154 (Holotype: K). Etymology: from the Latin *alatus*, "winged," referring to a winged dorsal sepal.

Stelis canaliculata Rchb.f., Gard. Chron. 1718. 1872. TYPE: COLOMBIA. Cundinamarca: "Bogotá," without collection data, flowered in cultivation at Hillfield House, Reingate, 1872, W. Saunders 2707 (Holotype: W). Etymology: from the Latin *canaliculatus*, "channeled," referring to the midline groove of the leaf.

Stelis myriantha Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 90. 1920, non Lindl. 1859. TYPE: COLOMBIA. Cauca: La Ceja near Inza, 1800–2200 m, F. C. Lehmann 6920 (Holotype: destroyed at B). Etymology: from the Greek *myrianthos*, "many-flowered," referring to the inflorescence.

Apatostelis alata (Lindl.) Garay, Bot. Mus. Leaflet. 27: 187. 1979.

Stelis abbreviata Luer & Hirtz, Monogr. Syst. Bot. Missouri Bot. Gard. 112: 16. 2007. TYPE: ECUADOR. Napo: Reventador, 1300 m, 14 September 1994, A. Hirtz, W. & J. Coeck 9044 (Holotype: MO).

Plant small to medium in size, epiphytic, caespitose; roots slender. Ramicauls erect, slender, 3–9 cm long, enclosed by

tubular sheaths. *Leaf* erect, coriaceous, narrowly elliptical, subacute to acute, 5–8 cm long including a petiole ca. 1 cm long, 1–1.5 cm wide, narrowly cuneate below into the petiole. *Inflorescence* 2–20 (*vide* Schlechter), simultaneous, erect, congested, distichous, few- to many-flowered racemes, 2–4 cm long, from a node below the apex of the ramicaul, subtended by a spathe 5–6 mm long; floral bracts, oblique, obtuse, 1.5 mm long, pedicels 1 mm long; ovary 1 mm long; flowers yellow or green; *sepals* nearly free, glabrous, ovate, acute, 1.5–2 mm long, 1–1.5 mm wide, 3-veined; *petals* thin, cuneate, 0.5 mm long, 0.5 mm wide, 1-veined, with the apex subtruncate, thickened along the margin, shallowly concave; *lip* cuneate-subquadrate, 0.5 mm long, 0.6–0.8 mm wide, with the apex thin, broad, subtruncate, shallowly concave below a low bar, the base truncate, hinged to the base of the column; *column* stout, 0.5 mm long and wide, the anther and stigma apical.

Etymology: from the Latin *tenuilabris*, “with thin lip,” referring to the labellum.

Additional specimens examined: ECUADOR: Pastaza: near Mera, 1100 m, 4 April 1956, *E. Asplund 20125* (AMES, S); near Mera, 1000 m, March 1976, *C. Luer, J. Luer & P. Taylor 921* (SEL); same collection, flowered in cultivation 23 December 1981, *C. Luer 6790* (MO); east of Mera, 1100 m, 28 March 1984, *C. Luer, S. Dalström, T. Höijer & J. Kuijt 9783* (MO); Morona-Santiago: new road west of Macas toward Guamote, 1900 m, 16 January 1989, *C. Luer, J. Luer & A. Hirtz 13938* (MO).

This species, known from the Andes of Venezuela to Ecuador, was collected by Fendler near Colonia Tovar, Venezuela, and described by Lindley as *Stelis tenuilabris* in his *Folia Orchidacea* (see reference above). After the printing type had been set, an additional collection by Fendler, but without collection data, was added as a note, in which it was described as *S. alata* (Lindley, 1859: 18, No. 2–3).

Vegatively variable, *Stelis tenuilabris* is characterized by narrow, acute leaves; a few to many racemes shorter than the leaves; small flowers with ovate, acute leaves; 1-veined petals; and a distinctive lip that is thin and shallowly concave below a low, transverse callus above the middle. This lip is well-demonstrated by *S. alata* in Elmer Smith’s illustration (Garay, 1980: plate 88, *sub Apatostelis* Garay), and G. C. K. Dunsterville’s drawing (cited above).

Much of *Stelis polybotrya* Lindl. is similar, but the lip is concave below a thick bar with a glenion.

Stelis triplicata Lindl., *Folia Orchid. Stelis* 2(5). 1859. TYPE: ECUADOR. Pichincha: Cordillera near Pacha, *W. Jameson 1357* (Holotype: K). Illustrated in Luer (2009a: 228, fig. 418). Fig. 53.

Plant large, epiphytic, caespitose; roots slender. Ramicauls erect, stout, 8–12 cm long, enclosed by a large, loose, tubular sheath from below the middle and 2 others below. *Leaf* erect, thickly coriaceous, elliptical, obtuse, 9–17 cm long, 3–5 cm wide, cuneate below into a subpetiolate or petiolate base 2.5 cm long. *Inflorescence* an erect, congested, distichous, many-flowered raceme with flowers

overlapping, 20–40 cm long including the peduncle ca. 10 cm long, with a spathe 1.5–2.5 cm long, from a node below the apex of the ramicaul; floral bracts oblique, acuminate, imbricating, 10–12 mm long below to 6 mm long above; pedicels 4–7 mm long, within the floral bract; ovary 2–3 mm long; flowers purple to orange-brown; *sepals* glabrous, transversely ovate, obtuse, deeply connate, the dorsal sepal 5–9 mm long, 6.5–11 mm wide, 7-veined, the lateral sepals 4–9 mm long, 6–8 mm wide, 5- to 6-veined; *petals* triangular, obtuse, 1.5 mm long, 2.5 mm wide, with a transverse callus, the margin broad, flat; *lip* subquadrate, 0.9–1.5 mm long, 1.3–1.5 mm wide, 1 mm deep, shallowly concave below a thick bar with a relatively large glenion, the apex obtuse with a broad margin, the dorsum with a broad, low, minutely pubescent callus, the base broadly truncate, hinged to the base of the column; *column* stout, 1 mm long, 1.5 mm wide, the anther and the bilobed stigma apical.

Etymology: from the Latin *triplicatus*, “three-plicate,” referring to plicate corners between the sepals, undoubtedly an artifact caused by drying and hydration of an old, or wilted flower.

Additional specimens examined: COLOMBIA. Antioquia: without collection data, flowered in cultivation at La Ceja, 17 October 1977, by Marta and Oscar Robledo, *C. Luer 2079* (SEL).

This large species, uncommonly found in Colombia and Ecuador, is distinguished by a large, robust habit, and a long, congested raceme of large, alternating floral bracts from which large flowers protrude. The flowers from the original Jameson collection were undoubtedly old, because wrinkles are drawn by Lindley on the type-sheet, and Elmer Smith (Garay, 1980: plate 47) drew the wrinkles as well. The sepals of freshly pickled flowers are not wrinkled. The sepals are large and transversely ovate with the dorsal sepal multiveined, and the petals are thick and obtusely triangular. The lip is concave below the bar and obtuse, not remarkably distinct. The lip illustrated by Elmer Smith (Garay, 1980: plate 47) is elongated and protruding. A similar elongated lip was found on one specimen collected by Stig Dalström as illustrated in Luer (2009a: 228, fig. 418a).

Stelis trisetata Lindl., *Folia Orch. Stelis* 17(126). 1859. TYPE: BOLIVIA. La Paz: Yungas, 1846, *T. C. Bridges s.n.* (Holotype: K). Illustrated in Luer (2004: 115, fig. 312).

Plant medium to large, epiphytic, prolific or scandent; roots slender. Ramicauls erect to ascending, slender, prolific, 3–15 cm long, enclosed by a tubular sheath from below the middle and 1–2 sheaths at the base. *Leaf* erect, coriaceous, narrowly elliptical, acute, petiolate, 4–10 cm long including the petiole 0.5–1.5 cm long, the blade 1–2 cm wide, cuneate below into the petiole. *Inflorescence* an erect, congested, distichous, many-flowered raceme with many flowers open simultaneously, 4–17 cm long including the peduncle 1–5 cm long, from a node below the apex of the ramicaul; floral bracts oblique, acute, 2.5–3 mm long; pedicels 1–1.5 mm long; ovary 1.5–2 mm long; *sepals* green, yellow, rose to purple, glabrous, the dorsal sepal erect, elliptical, obtuse, 3–4 mm long, 2–3 mm wide, 3- to 5-veined, connate basally to

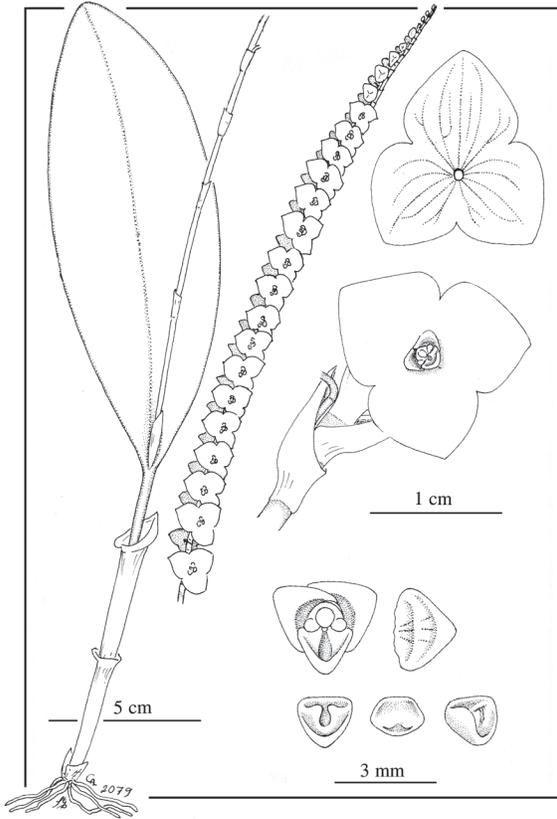


FIGURE 53. *Stelis triplicata* Lindl.

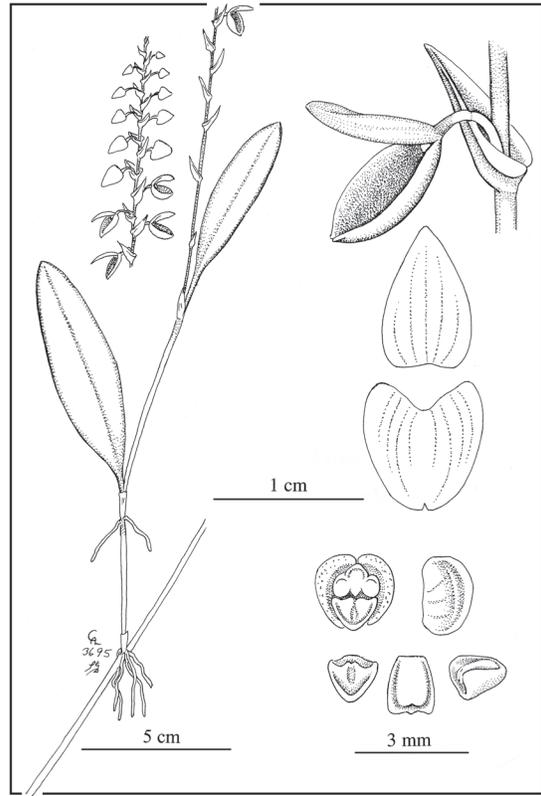


FIGURE 54. *Stelis truncata* Lindl.

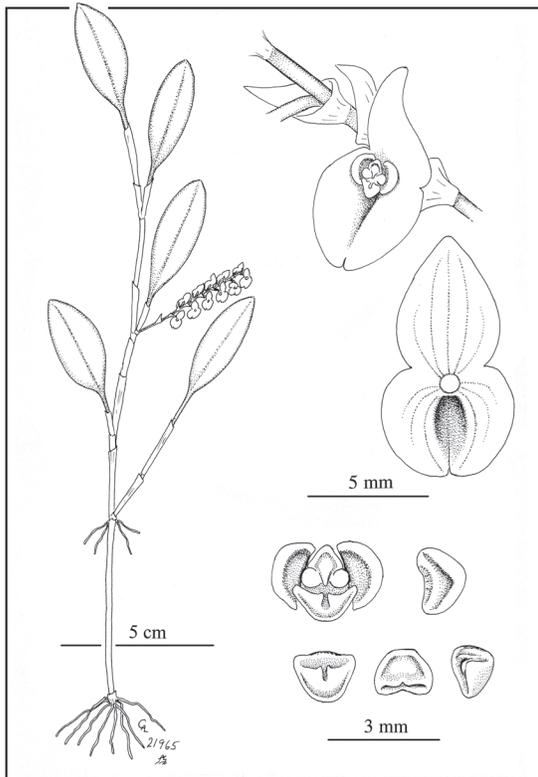


FIGURE 55. *Stelis truncata* Lindl.

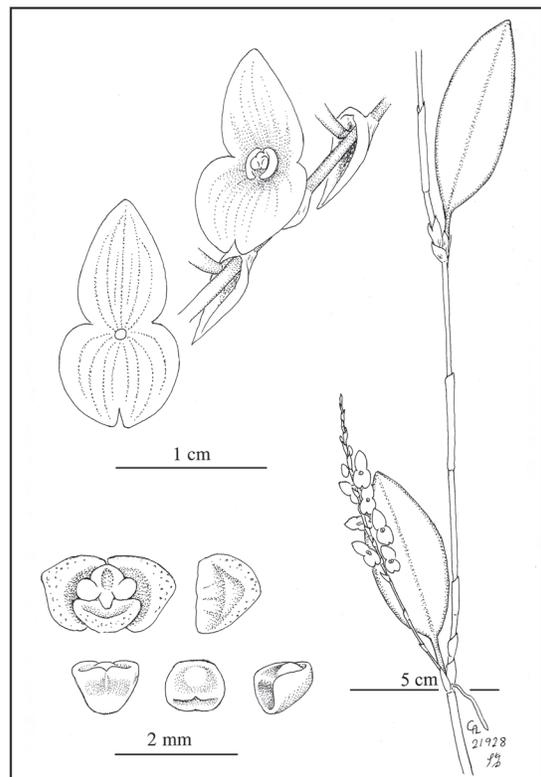


FIGURE 56. *Stelis truncata* Lindl.

the synsepal, the lateral sepals connate into an ovoid, deeply concave synsepal, 2.5–3.5 mm long, 3.5 mm wide expanded, 6-veined; *petals* transversely oblong, the obtuse apex long-apiculate, 1–1.5 mm long including the apiculum, 1–1.5 mm long with the apiculum, 1–1.5 mm wide, concave below the thickened margin, 3-veined; *lip* thick, subquadrate, 0.5–0.75 mm long, 0.6 mm wide, the obtuse apex abruptly contracted into a narrowly triangular apiculum, 0.5–0.75 mm long, the dorsum broad, with a rounded callus to obscurely tricallous, with a shallow cavity on the anterior surface at the base of the apiculum, the base truncate, hinged to the base of the column; *column* stout, 0.75 mm long, 1 mm wide, the anther and bilobed stigma apical.

Etymology: from the Latin *trisetia*, “three-bristled,” referring to the aristate petals and lip.

Additional specimens examined: COLOMBIA. Antioquia: Yarumal, 30 km N of Santa Rosa de Osa, 2580 m, 14 March 1989, C. Luer, J. Luer, S. Dalström & W. Teague 14148 (MO). Boyacá: between Arcabuco and Moniquirá, 2500 m, 25 April 1982, C. Luer, J. Luer & R. Escobar 7558 (SEL).

Additional distribution: Venezuela, Ecuador, Peru, Bolivia.

Stelis trisetia is frequent in its wide distribution through the Andes. The flowers are similar to those of the also frequent and variable, but always caespitose, *S. pardipes* Rchb.f., from which it is easily distinguished by the prolific or scandent habit. Both species are characterized by small, bilabiate flowers with the tips of the sepals and petals setiform of variable lengths.

In Luer (1909b), collections of *Stelis trisetia* were erroneously considered to be variations of the twice-larger *S. bicornis* Lindl. Following Dunsterville and Garay (1965: 298–299, as *S. biserrula* Lindl.), small variations of *S. bicornis*, or *S. trisetia*, were erroneously considered to be *S. biserrula* Lindl. *Stelis biserrula* was poorly described, because the Jameson’s collection from Ecuador has only buds. A dissection of two buds hydrated in ammonia revealed the dorsal sepal to be 5-veined, and the petals totally devoid of an apiculum. All specimens seen of the Ecuadorian *S. trisetia* have 3-veined sepals, and petals with an apiculum. In Luer (2009a: 53), the description of *S. biserrula* applies to *S. trisetia*. *Stelis biserrula* is illustrated and described as *S. propagans* Luer & Hirtz in Luer (2004: 128 and 137, fig. 119, respectively). Neither *S. bicornis* nor *S. biserrula* are known from Colombia.

Stelis truncata Lindl., Comp. Bot. Mag. 2: 353. 1836. TYPE: PERU. Chachapoyas, A. Mathews s.n. (Holotype: K). Illustrated in Luer (2009a: 91, fig. 339). Fig. 54–56.

Synonyms: *Stelis fruticulosa* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 7: 88. 1920. TYPE: COLOMBIA. Antioquia: Alto de Alegrias, 2500–2800 m, October, F. C. Lehmann 8214 (Holotype: destroyed at B; Isotypes: AMES, K, LE, NY). Etymology: from the Latin *fruticulus*, “a little shrub,” referring to the habit. *Stelis virgulata* Schltr., Repert. Spec. Nov. Regni Veg. Beih. 27: 40. 1924. TYPE: COLOMBIA. Nariño: between Pasto and Mocoa, 3000 m, May 1921, W.

Hopp 44 (Holotype: lost at B). Etymology: from the Latin *virgulatus*, “with little twigs,” referring to the prolific habit.

Plant large, epiphytic, caespitose below, prolific above; roots slender. Ramicauls erect, stout, prolific, 5–15 cm long, with a tubular sheath below the middle and 1–2 sheaths at the base. *Leaf* erect, coriaceous, elliptical, acute, 5–11 cm long including the petiole 0.5–2 cm long, the blade 1–4 cm wide in the dry state, cuneate below into the petiole. *Inflorescence* an erect, strict, congested, simultaneously many-flowered raceme, 5–23 cm long including the peduncle 2–8 cm long, from a node below the apex of the ramicaul, subtended by a narrow spathe 10–18 mm long; floral bracts oblique, acute, 9 mm long below, 4 mm long above; pedicels 2–4 mm long; ovary 1.5–2 mm long; flowers yellow-green, orange, to purple; *sepals* glabrous, the dorsal sepal ovate, acute, 6–9 mm long, 4–6 mm wide, 5-veined, the lateral sepals ovate, oblique, connate to near the middle, or near the apex into a variably concave, bifid synsepal, 4–8 mm long, 5–8 mm wide, 8-veined; *petals* lunate, broadly rounded, with a slightly roughened, apical margin, 1.5 mm long, 2 mm wide, 3-veined; *lip* subovoid, shallowly concave below a bar with a glenion, the apex obtuse, 0.75–1 mm long, 1–1.5 mm wide, 1 mm deep, the dorsum with a broad, low, rounded callus, the base broadly truncate, hinged to the base of the column; *column* stout, ca. 1.5 mm long and wide, the anther and the bilobed stigma apical.

Etymology: from the Latin *truncatus*, “truncate,” referring to the labellum.

Additional specimens examined: COLOMBIA. Antioquia; Cerro Padre Amaya, 2900 m, 16 January 1979, C. Luer, J. Luer & R. Escobar 3695 (SEL). Santander: Bucaramanga, E of Bucaramanga toward Berlin, 2500 m, 3 November 1981, C. Luer & R. Escobar 6569 (SEL). Putumayo: Laguna La Cocha, Ciudadela, near Páramo de Bordoncillo, 2800–3000 m, 27 May 1946, R. E. Schultes & M. Villarreal 7576 (AMES, MO, SEL); between Laguna La Cocha and Páramo Támano, 2800–3000 m, 1 June 1946, R. E. Schultes & M. Villarreal 7777, 7849 (AMES, MO, SEL); Sibundoy, 2800 m, 30 June 1953, R. E. Schultes & I. Cabrera 20097 (AMES). Santiago, San Antonio de Bellavista, Páramo de Bordoncillo, 3240 m, S. M. Pasmíño & M. R. Posso 012 (PSO, MO), C. Luer illustr. 21928; N side of Laguna de la Cocha, 3200 m, 8 April 1958, D. S. Correll Co496 (AMES), C. Luer illustr. 21965. Chocó: San José del Palmar, Cerro del Torrá, 2500 m, 17 August 1988, P. A. Silverstone-Sopkin 4508 (CUVC, MO), C. Luer illustr. 21981.

Additional distribution: Ecuador, Bolivia.

This large, robust, widely distributed species is obviously related to the common and variable *Stelis purpurea* (Ruiz & Pav.) Willd., but it is easily distinguished from the latter by the prolific habit. The plant is long-scandent with stout, superposed ramicauls with elliptical, petiolate leaves. The flowers are similar, easily falling within the variations found in *S. purpurea*. The dorsal sepal is ovate, subacute, 5-veined and about 1 cm long. The lateral sepals are connate into a synsepal, but the depth of the synsepal is variable. The petals are 3-veined and thick with a transverse carina. The lip is concave below a bar with a glenion.

LITERATURE CITED

- BARROS, F. 2004. Taxonomic and nomenclatural notes on Brazilian Orchidaceae. Pages 7–22 in K. S. MANILAL AND C. SATHISH KUMAR, EDS., *Orchid Memories—A Tribute to Gunnar Seidenfaden*. Mentor Books & Indian Association for Angiosperm Taxonomy, Calcutta.
- DUNSTERVILLE, G. C. K. AND L. A. GARAY. 1959. *Venezuelan Orchids Illustrated*. Vol. I. Andre Deutsch Limited, London.
- . 1965. *Venezuelan Orchids Illustrated*. Vol. III. Andre Deutsch Limited, London.
- . 1966. *Venezuelan Orchids Illustrated*. Vol. IV. Andre Deutsch Limited, London.
- GARAY, L. A. 1980. Systematics of the genus *Stelis* Sw. Botanical Museum Leaflets 27(7–9): 167–204, plates 43–97.
- LINDLEY, J. 1845. A century of new genera and species of Orchidaceous plants [in several parts]. The Annals and Magazine of Natural History 15(100): 383–386.
- . 1859. *Folia Orchidacea, Stelis* Swartz. J. Matthews, London.
- LUER, C. A. 1981. Miscellaneous new species and combinations in the Pleurothallidinae (Orchidaceae). Phytologia 49(3): 197–240.
- . 2002. Icones Pleurothallidarum XXIV. Monographs in Systematic Botany from the Missouri Botanical Garden 88: 1–122.
- . 2004. Icones Pleurothallidarum XXVI. Monographs in Systematic Botany from the Missouri Botanical Garden 95: 1–265.
- . 2007. Icones Pleurothallidarum XXIX. Monographs in Systematic Botany from the Missouri Botanical Garden 112: 1–130.
- . 2009a. Icones Pleurothallidarum XXX. Monographs in Systematic Botany from the Missouri Botanical Garden 115: 1–265.
- . 2009b. Miscellaneous new species in the Pleurothallidinae. Selbyana 30, 1: 1–71.
- . 2016a. *Icones Stelidarum (Orchidaceae) Colombiae*. Harvard Papers in Botany 21(1): 59–92.
- . 2016b. *Icones Stelidarum (Orchidaceae) Colombiae II*. Harvard Papers in Botany 21(2): 193–225.
- . 2017a. *Icones Stelidarum (Orchidaceae) Colombiae III*. Harvard Papers in Botany 22(1): 27–60.
- . 2017b. *Icones Stelidarum (Orchidaceae) Colombiae IV*. Harvard Papers in Botany 22(2): 81–112.
- . 2018. *Icones Stelidarum (Orchidaceae) Colombiae V*. Harvard Papers in Botany 23(1): 19–45.
- ROMERO-GONZÁLEZ, G. A. AND G. CARNEVALI FERNÁNDEZ-CONCHA. 2000. *Orchids of Venezuela, an Illustrated Field Guide*. 2nd ed. Armitano Editores, Caracas.
- SOLANO GÓMEZ, R. 1993. El género *Stelis* Sw. (Orchidaceae: Pleurothallidinae) en México. Orquídea (Mexico City) 13(1–2): 1–112.
- STAFLEU, A. AND R. S. COWAN. 1981. *Taxonomic Literature*. 2nd ed. Vol. 3. Bohn, Scheltema & Holkema, Utrecht, and W. Junk, The Hague.
- STEYERMARK, J. A. 1981. Erroneous citations of Venezuelan localities. Taxon 30(4): 816–817.

ERRATUM

In previous issues of *Icones Stelidarum Colombiae*, the date of publication of John Lindley's *Folia Orchidacea, Stelis*, may have followed what was given on the title page, "Nov. 1, 1858." Nonetheless, according to Stafleu and Cowan (1981: 57), this portion of Lindley's work was published most likely in February 1859.