ICONES STELIDARUM (ORCHIDACEAE) COLOMBIAE VI

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Abstract. Thirty-eight species of the genus Stelis (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 apiculate as in S. pardipes Rchb.f.


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 subsessile 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 2.5–5 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 subsessile 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 semi-lunate 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.
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, subsessile leaves; and larger, inflated floral bracts. The petals and lip are similar, but with details variable.


**Plant** small to medium in size, epiphytic to lithophytic, caespitose-ascenting; 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, sublax, 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 ramiacul; floral bracts thin, tubular, 1.5–2 mm long; pedicels 1 mm long; ovary 0.6 mm long, ovulate, obtuse, the dorsal sepal 1.1–1.75 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 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. spatulata* Poepp. & Endl.

**Stelis argentata** Lindl., sensu lato, Bot. Reg. 28: Misc. 64. 1842. TYPE: GUYANA. Without any other locality. **Synonym:** R. H. Schomburgk 427 (Holotype: not located). Etymology: named for H. Heylidy, the collector.


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


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, ellipsoidal, 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; petals 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; *sepals* yellow to 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 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. argentea* 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 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.


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, con nate 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 brevus, “wearing trousers,” could be referring to the caulin sheaths.

Additional specimens examined: COLOMBIA.

Additional distribution: Venezuela, Ecuador.

Stelis brevula, 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.


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, oblong, 2.5–3.25 mm long, 1.6–2 mm wide, 3-veined, conlate basally to the lateral sepals, the lateral sepals ovate, obtuse, oblong, 2–2.8 cm 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, antorse, 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 brevula, “with short lip,” referring to the labellum.

Additional specimens examined: COLOMBIA.

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.


**Plant** medium in size to large, epiphytic, densely caespitose. Ramiacals 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 rachis. 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 rachis; 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 ovate, 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 dorsal, 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.


This variable species is remarkable for thick, caespitose ramiacals 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.


**Plant** small, epiphytic, densely caespitose, roots slender. Ramiacals 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 ramiacal; 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 concinnus, “neat, elegant,” referring to the plant.

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


**Plant** medium to large in size, epiphytic, scendent, long-reptent, 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. Caucá: Páramo de Guanacas, H. Karsten s.n. (W); same area, F. C. Lehmann s.n. (W); above Pitary, 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. Juaqibiyo 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. Schultz & 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 dialissana, 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. Leh. & 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, 2430–2475 m, 22 April 1944, J. A. Steyermark 56034 (Holotype: AMES; Isotype: F). Illustrated in Luer (2017a: 34, fig. 13). Fig. 9–10.

**Synonym:** Stelis dendrophylla 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.


**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.
Stelis eublepharis was featured with a painting of a plant cultivated at Kew to be honored by a plate in (MO).

Additional distribution: 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 illusr. 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 Colobomorquideas, 23 May 1995, C. Luer 17574 (MO); Boquerón de Toyo, flowered in cultivation at Colobomorquideas, 16 May 1993, C. Luer 16917, 16918 (MO); without data, flowered in cultivation at Colobomorquideas, 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 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,

Stelis eublepharis is featured with a painting of a plant cultivated at Kew to be honored by a plate in (MO). Additional distribution: 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 illusr. 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 Colobomorquideas, 23 May 1995, C. Luer 17574 (MO); Boquerón de Toyo, flowered in cultivation at Colobomorquideas, 16 May 1993, C. Luer 16917, 16918 (MO); without data, flowered in cultivation at Colobomorquideas, 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 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,

This species is variable in its distribution through Ecuador and Colombia. Some Colombian collections are larger with stouter ramiacals 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 muscifera** Lindl.; 2009a: 229, fig. 419, as *S. muscifera* Lindl.; 2009a: 229, fig. 419, as *S. tristylos* Lindl.). Four variations shown in Fig. 17–20.


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


**Stelis atrobrunnea** 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). Etyymology: named for Hacienda Casana where the species was collected.


**Plant** small to large, epiphytic, caespitose; roots slender. Ramicaus 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. Inflorescences 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 ramiacal; 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 gula, with the apex round with a thick margin, (rarely 2.5 mm long with a large gula), 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.

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

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 alternatingly overlap. The sepals are deeply connate to form a subcircular flower. The thick, obtuse petals and lip concave below the bar are unremarkable.


**Plant** small to medium in size, epiphytic, caespitose to ascending; roots slender. Ramicauls erect, occasionally prolifer, 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, subulx, 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; *sepal* 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 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-pediculate, 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.


**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, subfloruous, 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; *sepal* 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.
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 and flowers.

Stelis jamesonii C. Luer, J. Luer & R. Escobar 10167

Santander: Bucaramanga, E of Bucaramanga, ca. 2700 m, 3 November 1984, C. Luer, J. Luer & R. Escobar 10167 (MO).

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.


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 spadix 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 2.2–2.3 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 dorum 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.


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.


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, cellullarly 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 dorum 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.


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.


*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 antorse 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.


*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.


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-margin apical lip. The lip is concave above a rounded apex with a relatively thin margin.


*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 ramiacul; floral bracts tubular, obtuse, 1.5–2 mm long; pedicels 1 mm long; ovary 1 mm long; flowers dark purple; sepal 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, subquadrato, 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.

**Plant**

large, presumably epiphytic, densely caespitose; roots slender. Ramiaculae 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 ramiacul; 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 *nostalgia,* “nostalgic,” referring to the presence of the plant in Colombia, away from its Venezuelan home.

This large species was being cultivated at Colombrórquideas, 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.

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


**Stelis insignis** Ames, Sched. Orch. 1: 5. 1922, as *S. insignis.* 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.

FIGURE 29. Stelis nostaligia Luer

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

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

FIGURE 32. Stelis ochreata 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 pubescent within, broadly ovate, broadly obtuse, conuate 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 ovate, 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 truncate, 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 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.


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; conuate 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 dorum 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.


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 dorum are variable.

Stelis ochreata 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.


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. ochreata was erroneously listed in the synonymy of S. lindenii.

Stelis ochreata 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: CUVC). Illustrated in Luer (2009b; C. Luer illusr. 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, subbicular callus on the dorsum, the base truncate, hinged to the base of the column; column elongate, ca. 1 mm wide and long, anther and bilobed stigma apical.

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


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, subbicular 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.

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. Selier* 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.


*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 sub congested, 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 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 pardinus* should not be confused with the common, prolific *S. triseta* Lindl. with surprisingly similar, individual flowers.

*Stelis peregrina* Luer, *sp. nov.* TYPE: COLOMBIA. Putumayo: Santiago San Antonio de Bellavista, Páramo de Bordocillo, 3240 m, 19 March 1999; *S. M. Pasmínho & 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.
Stelis purpurascens A.Rich. & Galeotti, Ann. Sci. Nat. Bot. ser. 3: 3: 18. 1845. TYPE: MEXICO. Veracruz: Mirador, Stelis purpurascens subcircular below a central, "V-shaped" callus. sepals; thin, 3-veined petals; and a pyriform lip concave and on acutely deflexed ovaries; shortly pubescent, 3-veined peduncle with a loose, subflexuous raceme; flowers nutant repent rhizome with caespitose components; a compressed features.

**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.


**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.

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 distichous raceme. The petals are cuneate to dark purple flowers, yellow at the base. The sepals are minutely congested, distichous raceme. The color varies through all shades of purple to green. The petals are cuneate, "cup bearing," referring to the floral bracts.


Figure 41. Stelis purpurea (Ruiz & Pav.) Wild.

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.


Figure 45. Stelis pusilla Kunth

Figure 46. Stelis pusilla Kunth

Figure 47. Stelis schomburgkii Fawc. & Rendle

Figure 48. Stelis spatulata Poepp. & Endl.
Stelis megahybos


**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, sublax, 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; pedicles 1 mm long; ovary 0.75 mm long; **sepal** 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 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.


**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, second, 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 ovate, shallowly concave, without a transverse callus, 0.4 mm long, 0.6 mm wide, 3-veined, the apex broadly rounded with the central apiculum being short and obtuse. The lip is more quadrate, being no smaller, with narrower leaves and smaller flowers with 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**: 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 subtridicate 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.


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


**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, sublax, 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, 1.2–1.5 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, ovate, acute, 0.6 mm long, 0.6 mm wide, 0.3 mm deep, with a thick, broadly channelled, 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.


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 persisting plant.


**Stelis superbiens** Lindl., Folia Orch. Stelis 8(57). 1859. TYPE: COLOMBIA. “New Grenada,” W. Purdie s.n. (Holotype: destroyed at B). Etymology: named for Nanegal in the Andes, 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 convallarioides
Stelis vulcanica

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 2–4 cm wide, cuneate below into the petiole. Inflorescence an erect, stout, 5–10 mm long, 6–10 mm wide, 5- to 9-veined, the petals yellow or purple, transversely cuneate-ovobate, 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.

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 de La Ceja, C. Luer 14297 (MO); Yarumal, road to El Cedro, 2400 m, 14 May 1993, C. Luer 14164 (MO); Hda. Normandia, collected by C. Luer 8499 (SEL). Synonyms: Stelis alata Lindl., Flora Orch. Stelis 18(2–3). 1859. TYPE: VENEZUELA. Aragua: near Colonía Tovar, A. Fendler 1471 (Holotype: K; Isotypes AMES, BR, G, GOET). Illustrated in Dunsterville and Garay (1959: 413, as Stelis alata Lindl.). Fig. 52.

Stelis tenulilabris 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.

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.


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 (Fide Schlechter), simultaneous, erect, congested, distichous, few- to many-flowered racemes, 2–4 cm long, from a node below the apex of the rami culum, 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).

Vegetatively 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 47) as illustrated above. 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. 198a).


**Plant** medium to large, epiphytic, pteridophyllic 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 racimulal; 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 floral 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 tricellular, 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 triseta, “three-bristled,” referring to the aristate petals and lip.


Additional distribution: Venezuela, Ecuador, Peru, Bolivia.

Stelis triseta 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 triseta 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. triseta, 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. triseta have 3-veined sepals, and petals with an apiculum. In Luer (2009a: 53), the description of S. biserrula applies to S. triseta. 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.


Plant: large, epiphytic, caespitose below, prolific above; roots slender. Ramicaulis erect, stout, prolifer, 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 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 rami culas 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


**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.