New taxa and new combinations in Mesoamerican Stenorrhynchidinae (Orchidaceae, Spirantheae)

Piotr Rutkowski, Joanna Mytnik & Dariusz L. Szlachetko

Department of Plant Taxonomy and Nature Conservation, Gda\nnsk University, Al. Legionów 9, PL-80-441 Gda\nnsk, Poland (e-mails: biopr@univ.gda.pl; dokjom@univ.gda.pl; biodarek@univ.gda.pl)

Received 15 Dec. 2003, revised version received 10 Apr. 2004, accepted 8 June 2004


Key words: nomenclature, Orchidaceae, Spirantheae, Stenorrhynchidinae, taxonomy

The subtribe Stenorrhynchidinae (Orchidaceae, Spirantheae) as defined by Szlachetko (1995) embraces about 20 genera. The distinguishing features are a sheath-like viscidium, produced of the outer layer of rostellum cells, and a subulate rostellum remnant. Stenorrhynchidinae have two distinct geographical centres of diversity occurring almost symmetrically in relation to the equator: central Mexico, somewhat below the tropic of Cancer (Jalisco, Michoacan, Veracruz, San Luis Potosi), and south Brazil around the tropic of Capricorn (Espirito Santo, Rio de Janeiro and São Paulo). The interspecific differences are not clear and they were interpreted variously by taxonomists in the past.

Revising herbarium materials of Orchidaceae tribe Spirantheae for Flora Mesoamericana treatment we have found several specimens that did not fit any species known so far.

The genus Coccineorchis was described by Schlechter (1920) based on Spiranthes corymbosa. These terrestrial and epiphytic, rather large plants are characterised by free, similar sepals; subparallel lateral sepals with an obliquely inserted base on top of the ovary without forming an observable mentum; petals agglutinate to dorsal sepal; lip distinctly unguiculate, conduplicate with an arcuate apex, basally auriculate, margins of lamina in the middle agglutinate to both sides of column; gynostemium part slender, elongate, pubescent in front, free from the dorsal sepal, with a distinct, oblique base on top of the ovary, stigma bilobed, the lobes touching each other in the middle, rostellum rigid, more or less cartilaginous, linear-lanceolate to
subulate, and sharply pointed. The anther is ovate-lanceolate, acute, umbonate; pollinia are clavate with a slender, narrowly oblong viscidium. Garay (1982) placed in *Coccineorchis* four species native to higher elevation of Central and South America: *C. bracteosa*, *C. cernua*, *C. navarrensis* and *C. standleyi*. During the study of the Mesoamerican Spirantheae many specimens were found that are not referable to any recognised species so we describe three new species here.

*Coccineorchis warszewicziana* Szlach., Rutk. & Mytnik, *sp. nova* (Fig. 1A–E)

Species haec *C. cernua similis, sed recedit labello supra medium constricto, distincte con- cavo infra et super constrictionem cum quattuor distinctis lamellis inter se adherentibus.*

**Type:** Costa Rica. Prov. San Jose, San Jose, III.1975 Pank s.n. (holotype SEL!).
Roots numerous, up to 25 cm long, 0.2–0.4 cm in diameter, fasciculate, fusiform, puberulent. Leaves 4–9, basal, petiolate; petiole 8.5–19.5 cm long, narrow; blade 5–16 cm long, 2–8.5 cm wide, elliptic-ovate, ovate- or elliptic-lanceolate, more or less oblique, acute to acuminate. Scape 28–47 cm long, erect or arcuate at apex, rather stout, densely pubescent below and within raceme. Cauline sheaths 2–6, tubular, acute, glabrous, shorter than internodes. Raceme 5–10.5 cm long, 8–15-flowered, subdense, subsecund. Flowers medium-sized, conspicuous, yellow to yellow-orange, floral bracts orange, dull orange red to dull pale red. Floral bracts 23–44 mm long, ovate-lanceolate, acute, herbaceous, with hyaline margins, glabrous. Pedicel 1–1.5 mm long, twisted. Ovary 10–18 mm long, narrowly cylindrical, subsessile, sparsely glandular in upper part. Sepals connate in lower quarter forming a narrow, glandular tube. Dorsal sepal 16–25 mm long, 2.8–5 mm wide, elliptic-lanceolate, acute, 5-nerved. Petals 16–19 mm long, 1.4–2.5 mm wide, linear in lower part, oblong-lanceolate to oblanceolate above, acute to subobtuse, falcate, 3-nerved. Lateral sepals 16–25 mm long, 2.2–4.5 mm wide, obliquely oblong-lanceolate, acute, 5-nerved. Lip 14–22 mm long in total, 2.2–6 mm wide in middle, clawed; claw 1 mm long; basal lip auricles 1.2–2.2 mm long, thickened; lamina constricted near the apical third; hypochile oblong-ovate, concave near apex and here strongly squeezed with 2–5 thick lamellae, sometimes running to apex of epichile; epichile oblong ligulate, subobtuse. Gynostemium 12–14.5 mm long.

ETYMOLOGY: Named in honour of Józef Warszewicz (1812–1866), a Polish botanist who collected orchids from Central and South America.

ECOLOGY: Terrestrial in deep wet forest shade and in lower montane rain forests. Flowering between October and March.


This species is similar to *C. cernua* from which it is easily distinguished by the lip, which is compressed above the middle and with four parallel lamellae, closely adnate to each other. The lip is distinctly concave above and strongly squeezed below.


*Coccineorchis dressleri* Szlach., Rutk. & Mytnik, sp. nova (Fig. 1F)

Species haec *C. warszewicziano affinis*, sed differt labello rectangulari-subpanduriformi in dimidio inferiore, subsessili, apice angusto-lanceolato, acuto, auriculis indistinctis et tepalis acuminatis.

TYPE: Panama. Prov. Chiriqui, Cerro Hornito, 1700 m, 14.XII.1976 Luer, Luer, Dressler & Williams 1322 (holotype SEL!).

Roots numerous, 6–13 cm long, 0.2–0.4 cm in diameter, fasciculate, fusiform, puberulent. Leaves 3–6, basal, petiolate; petiole 6–12 cm long, narrow; blade 7.5–12 cm long, 3.4–6 cm wide, elliptic-ovate, ovate- or elliptic-lanceolate, more or less oblique, acuminate. Scape 25–46 cm long, erect, arcuate at apex at anthesis, delicate, sparsely glandular below raceme, densely so within. Cauline sheaths 3–7, tubular, acute, glabrous, shorter than internodes. Raceme 3–6 cm long, 6–20-flowered, dense, all-sided. Flowers medium-sized, conspicuous, red or yellow, floral bracts dull pale red. Floral bracts 19–39 mm long, ovate-lanceolate, acute, herbaceous,
with hyaline margins, glabrous. Pedicel 2 mm long, twisted. Ovary 8–14 mm long, narrowly cylindrical, subsessile, glabrous or occasionally with few glandular hairs at apex only. Sepals connate at base only, glabrous. Dorsal sepal 9.5–16 mm long, 1.6–3 mm wide, oblong lanceolate, acuminate, 3-nerved. Petals 9.5–16 mm long, 1.5–1.8 mm wide, linear oblanceolate, acute to acuminate, falcate, 3-nerved. Lateral sepals 10–19 mm long, 2.7–3 mm wide, oblong-lanceolate, acuminate, almost straight, 3-nerved. Lip 10–16 mm long in total, 4–5 mm wide at base, shortly clawed to almost sessile; basal lip auricles 0.3–0.8 mm long, broadly rounded, inconspicuous, slightly thickened; lamina constricted near middle; hypochile rectangular-subpandurate, truncate at base, slightly concave in centre, rather abruptly attenuate apically; epichile linear-lanceolate, acute to acuminate. Gynostemium 6–10 mm long.

**ETYMOLOGY:** Dedicated to Dr. Robert L. Dressler, an eminent American orchidologist.

**ECOLOGY:** Terrestrial in dark wet forests and cloud forests. Flowering from December to March.

**DISTRIBUTION:** Costa Rica (Prov. Heredia), Panama (Prov. Chiriqui). Alt. 1100–2400 m.

This species is similar to the previous one, but it is characterised by a subsessile, rectangular-subpandurate lip with a linear-lanceolate apical part, inconspicuous basal auricles, and acuminate tepals.


---

**Coccineorchis cristata** Szlach., Rutk. & Mytnik, *sp. nova* (Fig. 1G–J)

_Planta a labello rhombo-ovali C. navarrensis affinis et a lamellis in parte superiori labelli C. warszewiczianum appropinquat sed labello in medium non constrieto recedit._

**TYPE:** Panama. Prov. Panama, Cerro Jefe, ca. 800 m, 16.XII.1972 Dressler 4233 (holotype FLAS!).

Roots numerous, 4–13 cm long, 0.2–0.4 cm in diameter, fasciculate, fusiform, puberulent. Leaves 6–7, basal, petiolate; petiole 6–11.5 cm long, narrow; blade 5–12 cm long, 3–5.5 cm wide, orbicular, elliptic, elliptic-ovate, ovate- or elliptic-lanceolate, more or less oblique, acute to acuminate. Scape 31–64 cm long, erect or arcuate, rather stout, densely glandular below and within raceme. Cauline sheaths 2–5, tubular, acute, glabrous, shorter than internodes. Raceme 5–10 cm long, 7–15-flowered, dense, all-sided to subsecund. Flowers medium-sized, conspicuous, coral red, orange-red to red outside and yellow within, floral bracts pink-red to orange. Floral bracts 20–34 mm long, ovate to elliptic, acute, herbaceous, with hyaline margins, glabrous. Pedicel 1–1.5 mm long, twisted. Ovary 8.5–16 mm long, narrowly cylindrical, sparsely or densely glandular. Sepals connate in the lower quarter, forming a narrow, sparsely glandular to almost glabrous tube. Dorsal sepal 14–19 mm long, 2.8–4 mm wide, oblong elliptic-lanceolate, acute, 3- or 5-nerved. Petals 12–19 mm long, 1.2–2.2 mm wide, linear in lower part, oblong-lanceolate to oblanceolate above, acute, falcate, 1- or 3-nerved. Lateral sepals 15.5–21 mm long, 2.5–3.8 mm wide, obliquely oblong-lanceolate, acute, 3- or 5-nerved, occasionally with 3 cristae in the upper half. Lip 13–19 mm long in total, 3.5–5 mm wide near middle, clawed; claw 1–1.5 mm long; basal lip auricles 0.5–1.2 mm long, thickened; lamina entire or subentire — rhomboid-ovate in outline, gradually attenuate from middle towards base and apex, with 3–5 longitudinal lamellae running from middle to below apex, acute to obtuse. Gynostemium 10 mm long.

**ETYMOLOGY:** The epithet refers to the lip covered by lamellae.

**ECOLOGY:** Terrestrial on thick humus in cloud forests. Flowering from October to December, occasionally at other times.

**DISTRIBUTION:** Costa Rica (Prov. San Jose), Panama (Prov. Chiriqui, Cocle & Panama), Colombia. Alt. 300–3200 m.

_Coccineorchis cristata_ is similar to _C. navarrensis_ in the lip form, which is rhomboid-ovate...
in outline, and to *C. warscewicziana* in the presence of lip lamellae. However, in the latter species the lip is not compressed near the middle.

**ADDITIONAL SPECIMENS EXAMINED** (paratypes). — *Costa Rica*. Prov. San Jose, La Hondura de San Jose, 29.X.1932 *Brenes 3* (NY!). Sine Prov. Detras de La Georgina, Carretera Panamericana Sur, 300 m, 28.VII.1965 *Jimenez 3410* (F!).

*Panama*. Prov. Chiriqui, above Cerro Punta, 2400 m, 13.II.1985 *Luer, Luer, Dressler & Dressler 10524* (MO!). Prov. Cocle, Divide SW of La Mesa at end of lodging road, 80°5’W, 8°35’N, ca. 900 m, 25.XII.1982 *Stein & Hamilton 986* (MO!).

*Cerro Jefe*, along trail on ridge running NE from summit, ca. 1000 m, 18.XII.1974 *Mori, Kallunki 3753*, *Cochrane, Cochrane, Hansen, Kowal & Nee* (F!, FLAS!, MO!, SEL!).

*Coccineorchis* embraces seven species from Central and South America. The species can be distinguished by the following key.

**Key to the species of Coccineorchis**

1. Lip lamina with prominent callus above centre …… 2.
2. Lip lamina ecallose ……………………………………… 3.
3. Lip lamina not compressed, rhomboid-ovate in outline, with 3–5 cristae in upper half ………………… *C. cristata*
4. Inflorescence dense, subcorymbose, subsecund; floral bracts shorter than flowers …………………………… 4.
5. Inflorescence elongate, usually multilateral; floral bracts longer than flowers …………………………… 5.
6. Lip ribbon-like or ligulate; petals half as wide as dorsal sepal ……………………………………… *C. standleyi*
6. Lip rhomboid or rhomboid-ovate in outline, widest near middle; petals as wide as dorsal sepal or only slightly narrower ……………………………………… *C. navarrensis*

The genus *Oestlundorchis* was described by Szlachetko (1991b). It is characterised by scarious, semi-transparent cauline and floral bracts; arcuate flowers; lip with thickened margins in the basal part; and by the gynostemium structure. The column foot is partially free, rostellum base broad, rostellum remnant 3-dentate and the viscidium semi-sheathlike. *Deiregyne* differs from *Oestlundorchis* in having free lip auricles, long ovary neck and column foot, viscidium suspended below the outer epidermis of rostellum, and from *Schiedeella* in its scarious, semi-transparent cauline and floral bracts, long column foot and broad rostellum base (Table 1).

*Oestlundorchis* embraces 14 species distributed in Mesoamerica only. Based on the rostellum structure, *Oestlundorchis* can be divided into the subgenera *Oestlundorchis* and *Mexicanthes*. The former has the rostellum longer than stigma, viscidium attached to its upper half, and rostellum remnant 3-dentate and elongate, with the median tooth being the longest one. The flowers are usually large or medium-sized, rarely small, often conspicuous, gathered into a lax to fairly dense inflorescence, often subsecund.

**Oestlundorchis** subgenus *Mexicanthes* Szlach., Rutk. & Mytnik, subgen. nov.

**Rostellum brevius quam stigma, breviter triden-**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Deiregyne</th>
<th>Oestlundorchis</th>
<th>Schiedeella</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cauline and floral bracts</td>
<td>scarious semi-transparent</td>
<td>scarious semi-transparent</td>
<td>herbaceous</td>
</tr>
<tr>
<td>Sepaline tube</td>
<td>+</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Lip claw</td>
<td>connate with lateral sepals</td>
<td>free</td>
<td>free</td>
</tr>
<tr>
<td>Lip auricles</td>
<td>free</td>
<td>fused with lip margins</td>
<td>free</td>
</tr>
<tr>
<td>Ovary neck</td>
<td>+</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Column foot</td>
<td>long, adnate to ovary neck</td>
<td>short, free at apex</td>
<td>reduced</td>
</tr>
<tr>
<td>Rostellum base</td>
<td>broad</td>
<td>broad</td>
<td>narrow</td>
</tr>
<tr>
<td>Rostellum remnant</td>
<td>U-shaped</td>
<td>linear, acute</td>
<td>linear, acute</td>
</tr>
<tr>
<td>Viscidium</td>
<td>suspended at rostellum apex</td>
<td>sheath-like</td>
<td>sheath-like</td>
</tr>
</tbody>
</table>
tatum viscidio ablatis, dentibus subaequalibus. *Flores minuti vel parvi, inconspicui, in inflorescentia densa, paniculata aggregati.*

**Type species:** *Oestlundorchis falcata* (L.O. Williams) Szlach.

Rostellum shorter than stigma, rostellum remnant shortly 3-dentate, all tooth subequal. Flowers small to tiny, inconspicuous, gathered in a usually dense, all-sided inflorescence.

The Mesoamerican genus *Schiedeella* proposed by Schlechter (1920) is characterised by an almost erect gynostemium, needle-like rostellum, rostellum remnant narrowly triangular and usually distinctly 3-dentate with the central tooth the longest; sheath-like viscidium; strongly reduced column foot; cuniculiform spur; basally nearly erect or only slightly arcuate lip; flat claw with unthickened margins, and herbaceous floral and cauline bracts. *Schiedeella* has 14 species. According to Szlachetko (1991a) it can be divided into three subgenera based on the rostellum structure: *Schiedeella*, *Schiedeellopsis* and *Gularia*. Revising herbarium materials for *Flora Mesoamericana* we found two specimens that did not fit any species known so far, so we describe two new species here.

**ETYMOLOGY:** The name is a combination of the words Mexico, where the genus has its centre of diversity, and *Spiranthes*, in which most species of this group have been placed.

**Schiedeella tamayoana** Szlach., Rutk. & Mytnik, *sp. nova* (Fig. 2)

Species haec *S. alinae affinis, sed differ hypochilo deltoideo-ovato, circa 2/3 latius quam longius, lobis lateralibus triangularibus acutis et sino acuto.*

**Type:** El Salvador. Dept. Chalatenango, Finca El Pital, Cerro El Pital, 2600 m, 29.I.1978 Hamer 681 (holotype MO!, isotype F!).

Roots 3–7, 1.5–8 cm long, 0.5–1 cm in diameter, fasciculate, tuberoid, densely woolly pubescent. Leaf single, usually withered at anthesis, basal, long-petiolate; petiole 9.5–18.5 cm long, narrow; blade 5–14 cm long, 1.5–3.8 cm wide, lanceolate to oblong-lanceolate, acute. Scape 20–50 cm tall, relatively stout, erect, glabrous. Cauelne sheaths 7–9, tightly adnate to stem, tubular, acuminate, herbaceous, glabrous, lower ones longer than internodes, upper ones shorter, or all shorter than internodes. Spike 4–20 cm long, loosely 5–30-flowered. Flowers small, inconspicuous, tubular, with reflexed petals and dorsal sepal. Floral bracts 7–18 mm long, ovate-lanceolate, acuminate, thin, herbaceous, delicate, glabrous. Ovary 5–7 mm long, cylindrical, sparsely glandular in upper part. Sepals dissimilar, free almost up to base, sparsely glandular at base only. Dorsal sepal 8.7–10 mm long, 2–2.2 mm wide, lanceolate to oblong-lanceolate, acute, 1(3)-nerved. Petals 8.2–9.1 mm long, 1–1.2 mm wide, linear oblanceolate, falcate, rounded at the apex, 1-nerved. Lateral sepals 8–9 mm long, 1.1–2 mm wide, linear-lanceolate, subacute, slightly oblique at the base, 1(3)-nerved. Lip shortly clawed, constricted near the middle; hypochile 5.5–6 mm long, 4–4.2 mm wide, deltoid-ovate in outline, widest near apex, lateral margins triangular, acute, with small, basal auricles, minutely glandular near base; epichile 4 mm long, 3.1–4.5 mm wide, almost rounded, truncate at apex, irregularly and minutely denticulate along margins, papillate. Gynostemium 6 mm long. Viscidium 0.5 mm long.

**ETYMOLOGY:** Dedicated to Dr. Roberto Gonzalez Tamayo (IBUG).

**ECOLOGY:** Terrestrial. Flowering from January to April.

**DISTRIBUTION:** Mexico (Hidalgo, Jalisco, Michoacan, San Luis Potosi) and El Salvador (Dept. Chalatenango). Alt. 2600 m.

Schiedeella tamayoana is related to S. alinae, from which it differs clearly in the lip form. The hypochile of the new species is deltoid-ovate in outline, ca. 2/3 as wide as long, with acute, triangular lateral lobes and an acute sinus. In S. alinae the hypochile is oblong-ovate, with blunt lateral lobes, ca. 1.5–2 as long as wide, and the sinus is shallow and broad.

Schiedeella williamsiana Szlach., Rutk. & Mytnik, sp. nova (Fig. 3)

Species haec S. trilineatae affinis, sed labello distincte in hypochilo et epichilo diviso, epichilo distinctissime latiori et majori quam hypochilum.

Type: Mexico. Jalisco, Guadalajara, 1500 m. II.1978 Rodriguez s.n. (holotype AMO!).

Roots unknown. Leaves lacking at anthesis, unknown. Scape 11.5 cm high, erect, delicate, glabrous, whitish or brownish. Cauline bracts 4, adnate to stem, sharply pointed, herbaceous with hyaline margins, shorter than internodes. Spike 2.5 cm long, loosely 4-flowered, subse-cund. Flowers tubular, erect, divergent at apex only, glabrous, yellowish-white. Floral bracts up to 9 mm long, ovate to broad lanceolate, acute, semi-transparent, thin, herbaceous with hyaline margins. Ovary 4–5 mm long, slender, glabrous. Sepals subsimilar, connate at short basal distance. Dorsal sepal 12 mm long, 1.6 mm wide,
narrowly lanceolate, broadest beneath middle, acute, slightly concave near apex. Petals 11.5 mm long, 1 mm wide, linear-oblancoelolate, sigmoid or falcate, acute. Lateral sepals 12 mm long, 1.2 mm wide, linear, acute, slightly sigmoid. Lip distinctly divided near middle, clawed; claw agglutinate with lateral sepals; hypochile 7 mm long, 4 mm wide, oblong at base with two fleshy auricles adnate to claw, ovate above, epichile 4.5 mm long, 5.1 mm wide, broadly ovate-cordate, truncate.

ETYMOLOGY: Dedicated to Louis O. Williams (1908–1991), an eminent American orchidologist.

ECOLOGY: No data available. Flowering in February.

DISTRIBUTION: Mexico (Jalisco). Alt. 1500 m.
This species belongs to the subgenus Gularia and it appears to be related to S. trilineata. It differs, however, from all species of this group in that the lip is constricted between the hypochile and epichile. The epichile is wider and distinctly larger than the hypochile.

Stenorrhynchos is a genus characterised by similar, free, parallel sepals, rather tightly connivent, and with flaring apices. The dorsal sepal is concave, free from gynostemium, and the lateral sepals are oblique, slightly gibbose at base, but not decurrent. The petals are agglutinate to dorsal sepal, without free apices, and slightly oblique at base. The lip is sessile, conduplicate with a gibbose base and the margins callose, thickened. The blade is conduplicate, arcuate with a recurved apex, and the lateral margins are agglutinate to both sides of gynostemium. The column is short and stout, with a distinct oblique base on top of the ovary; the rostellum is rigid, linear-lanceolate to almost circular, and sharply pointed. The anther is narrowly ovate-lanceolate, cordate at base, acute above, and the pollinia are linear-clavate, with a rather long, linear-lanceolate viscidium. Stenorrhynchos has ca. 10 species widely distributed in the New World tropics and subtropics. In the Flora Mesoamericana area it is represented by eight species, representing two subgenera: Stenorrhynchos with a sessile lip and Dithyridanthus with a clawed lip. We propose a new combination in this genus.

Stenorrhynchos vexillaris (Szach.) Szlach., Rutk. & Mytnik, comb. & stat. nov.


The genus Svenkoeltzia was established by Burns-Balogh (1989). The main characteristic features of the genus are leaves usually absent at anthesis, forming a basal rosette, petiolate,
with an oblong-elliptical to lanceolate and acute blade. The erect, canaliculate, and sessile lip has a shallow constriction near the middle. The lamina is entire or constricted, and the hypochile is concave at the base and thickened slightly on the margins, lanceolate to oblong-ovate above. The epichile is oblong-ovate, sagittate, sometimes indistinctly 3-lobed, acute or obtuse, and papillate. The rostellum is formed of the apical part of the middle stigma lobe, is narrow at the base, linear, much elongate, longer than stigma, erect, and blunt. The viscidium is mesotonic, single, detachable, cellular, sheath-like, attached apically to the pollinium. The rostellum remnant is rather soft, pliable, acutely and unequally 3-dentate, the middle tooth being the longest one, the lateral ones are rudimentary. Burns-Balogh (1989) placed into this genus only Svenkoeltzia congestiflora. Szlachetko (1991a) divided the genus Funkiella into three sections: Funkiella, Lueretta and Svenkoeltzia, thus reducing the status of Svenkoeltzia. According to that author the section Svenkoeltzia is characterised by a subapical, few-flowered inflorescence with erect flowers, sessile lip, narrow, oblong symmetrical perianth parts, and an erect gynostemium. Gonzalez Tamayo (2000) recognized Svenkoeltzia as an independent genus and described two new species from Jalisco, Mexico: S. luzmariana and S. patriciae. We came across a specimen collected by Suarez sub Greenwood from Oaxaca (Mexico), which, in our opinion, must be distinguished as representing a new species.

_Svenkoeltzia pamelae_ Szlach., Rutk. & Mytnik, _sp. nova_ (Figs. 4 and 5)

*Species haec inter omnia speciebus generis flores maximi habet. A speciebus alliis generis inflo-*
rescentia elongata fere secunda differt. Planta labello supra medium distincte constricto S. congestifloram recedit.

**TYPE**: Mexico. Oaxaca, Comaltepec, IV.1976 Suarez sub Greenwood 371 (holotype UGDA!, DLSz-spirit).

- Roots 6, 3–6 cm long, 0.5–1.1 cm in diameter, clustered, tuberous, fleshy. Leaves absent at anthesis, unknown. Scape 17 cm high, erect, relatively stout, glabrous, covered by cauline bracts. Cauline bracts 7, herbaceous with hyaline margins, acute, thin, glabrous, lower ones imbricate, upper ones slightly longer than internodes. Spike 4.5 cm long, 10-flowered, rather lax, elongate, subsecund, with a glabrous axis. Flowers relatively large, erect, protandrous, tubular, yellow. Floral bracts 19–21 mm long, ovate-lanceolate, acute, yellow-greenish, 5-nerved. Ovary 12 mm long, sessile, obovoid-cylindrical, erect or slightly arcuate, glabrous. Dorsal sepal 20 mm long, 3.5 mm wide, oblong-narrowly triangular, acute, 3-nerved. Petals 17.5 mm long, 2.8 mm wide, linear-lanceolate, falcate, subacute, 3–4-nerved. Lateral sepals 21 mm long, 3 mm wide, oblong-triangular, broadest at base, acute, slightly falcate at base, 3-nerved. Lip erect, canaliculate, sessile, lamina distinctly constricted near apical third; hypochile 10.5 mm long, 3 mm wide, concave at base and thickened slightly on margins, oblong-ovate in general outline; epichile 7 mm long, 3.6 mm wide, oblong-ovate, obtuse, papillate. Gynostemium 9.5 mm long. Viscidium 0.2 mm long.

**ETYMOLOGY**: Named in honour of Dr. Pamela Burns-Balogh, who established this genus.

**ECOLOGY**: No data available. Flowering in April.

**DISTRIBUTION**: Mexico (Oaxaca).

*Svenkoeltzia pamelae* has the largest flowers in the genus and it is the only species with an elongate, subsecund inflorescence.

**Key to Mexican species of Svenkoeltzia**

1. Lip distinctly constricted above middle .......................... 2.
2. Inflorescence elongate, subsecund; sepals 20–21 mm long .................................................. 3.  
3. Epichile denticulate on margins ............................ S. patriciae
4. Epichile margins entire ............................. S. luzmariana

**Acknowledgements**

We are grateful to Prof. dr hab. Ryszard Ochyra for the Latin diagnoses. The studies were financed by the grant KBN 3PO4C 075 24.

**References**


Schlechter, R. 1920: Versuch einer systematischen Neu-


This article is also available in pdf format at http://www.sekj.org/AnnBot.html