

Two new species of the genus *Sarcoglottis* (Orchidaceae) from Brazil

Dariusz L. Szlachetko & Piotr Rutkowski

Szlachetko, D. L. & Rutkowski, P., Department of Plant Ecology and Nature Protection, University of Gdańsk, PL-80-441 Gdańsk, Al. Legionów 9, Poland

Received 7 April 1997, accepted 30 May 1997

Two species of the genus *Sarcoglottis* from Brazil are described as new. The first of them, *Sarcoglottis viscosus* Szlach. & Rutk. resembles *Sarcoglottis fasciculata* (Vell.) Schlecht. by its habit and *S. biflora* (Vell.) Schlecht. in the flowers. The most characteristic features of the species are the sticky glandules on the stem, cauline and floral bracts and on the flowers. The second, *Sarcoglottis curvisepala* Szlach. & Rutk. is habitually similar to *S. fasciculata* (Vell.) Schlecht. and *S. grandiflora* (Lindl.) Kl., but it is easy to distinguish by its lateral sepals and lip. Lateral sepals are very long and strongly falcate, their free parts are as long as their basal parts adnate to the ovary. The lip is indistinctly constricted and cochleate in the centre.

Key words: New species, Orchidaceae, *Sarcoglottis*, taxonomy

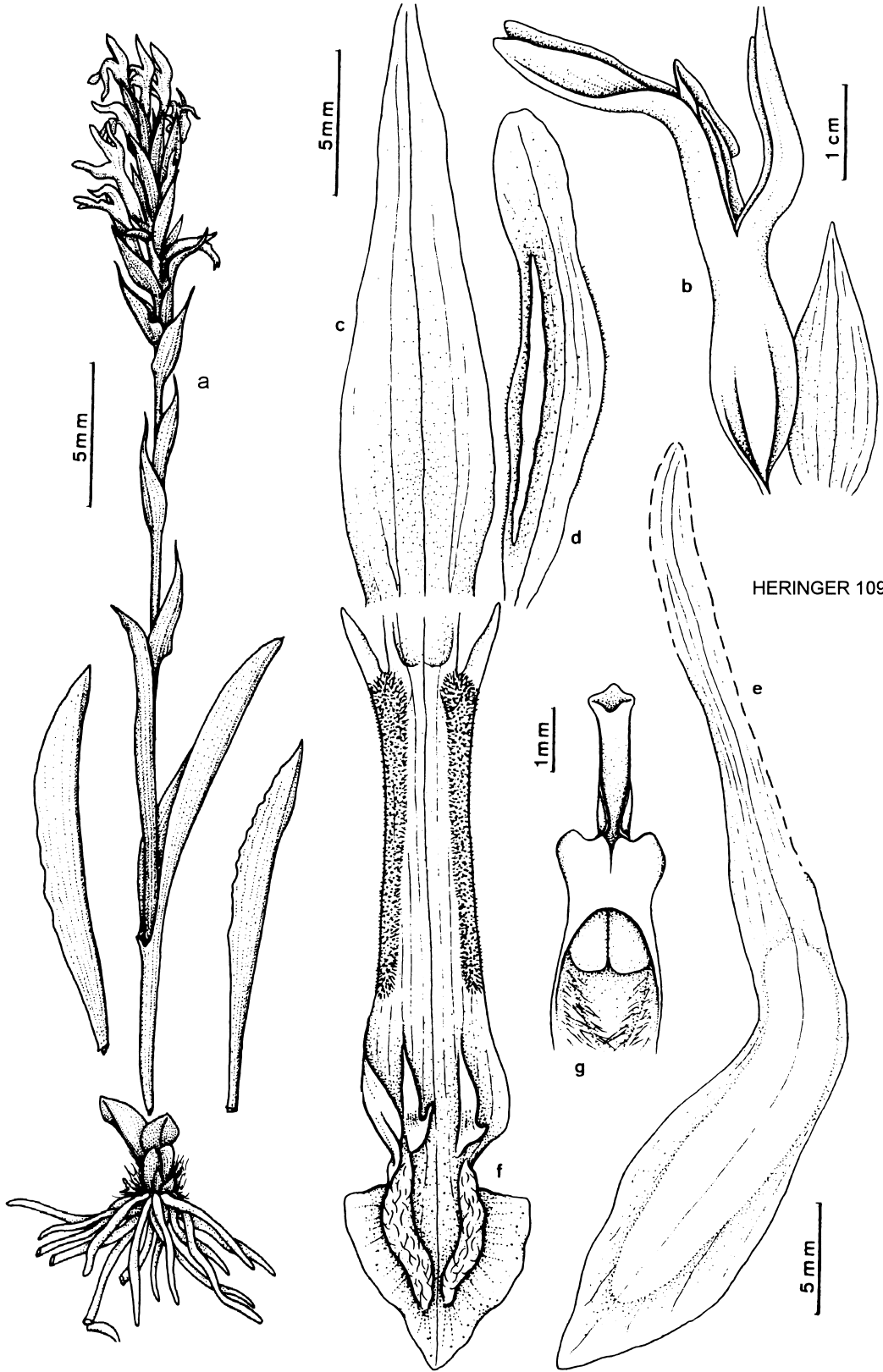
During taxonomic investigations of the orchid genus *Sarcoglottis* Presl. we found two interesting collections from Brazil. Both of them represent hitherto undescribed species.

Sarcoglottis viscosus Szlach. & Rutk. *sp. nov.*
(Fig. 1)

A habitu S. fasciculatae, a floribus S. biflorae similis; foliis lanceolatis vel anguste-lanceolatis, arcuatis, petiolis latis, inflorescentia multiflora, vaginis caulinis multis, floribus strictis, sepalis lateralibus longis, subarcuatis distinguitur.

Typus: Brazil. District Federal, em freute ao Batalhao de Guardas, *Heringer 10977* (holotype: M).

Roots clustered, fleshy. Stem 34 cm high, 4 mm in diameter at base, 2 mm in diameter below inflorescence, erect, stout, densely glandular from the base, sticky in upper part. Cauline bracts 3–4, herbaceous, cup-like, acuminate, thick, densely, sticky glandular outside, longer than internodes. Leaves 3–4, two of them basal, petiolate and two other cauline, subsessile, erect, slightly arcuate at their apices; petiole up to 3 cm long, relatively wide, channel-formed; blade up to 10.5 cm long and to 3.0 cm wide, lanceolate to linear-lanceolate, acute. The uppermost leaf sticky glandular in basal part. Inflorescence 10.5 cm long, 12-flowered, dense, multi-lateral. Flowers rather large, adnate to the axis in basal half, and arcuate in apical part. Spur as long as the ovary,



invisible externally. Floral bracts 28 mm long, ovate-lanceolate, acute, herbaceous, thick, dense sticky glandular outside, 5-nerved. Pedicel 1 mm long, twisted. Ovary 22 mm long, twisted at base, densely glandular. Dorsal sepal 23 mm long, 4.5 mm wide, ovate-lanceolate, acute, thick, fleshy, densely glandular outside, 7-nerved. Lateral sepals 51 mm long, including free apical 30 mm, 7 mm wide, oblanceolate, acute, asymmetric, thickened along the midnerve, fleshy, densely glandular outside, 7-nerved. Petals 20 mm long, 3.1 mm wide, more or less linear, obtuse, thickened along the inner margins, fleshy, ciliate along the inner and outer margins, except the papillate apex, densely glandular outside, 6-nerved, midnerve thickened outside. Petals glued firmly to the dorsal sepal. Lip about 40 mm long, 8 mm wide, set on short and wide claw, constricted in apical fourth, fleshy, thick; hypochile linear, slightly extended at the apex, basal auricles finger-like, fleshy, below their bases along the hypochile margins two glandular area, two wing-like, fleshy edges at the apex; epichile triangular-sagittate, acute, papillate, entire, ornamented by two thick, wrinkled calli. The lip glandular at the base outside, papillate towards apex. Gynostemium 7 mm long, erect, fused with the dorsal sepal at the base, stigma bi-lobed, both lobes confluent. Column foot 21 mm long, completely adnate to the ovary. Rostellum remnant 2.2 mm long, linear, triangular at apex. Viscidium 1 mm long, rhomboid-elliptic.

The new species resembles *Sarcoglottis fasciculata* (Vell.) Schlecht. by its habit and *S. biflora* (Vell.) Schlecht. in the flowers. The most characteristic features of the species are the sticky glandules on the stem, cauline and floral bracts and on the flowers.

Sarcoglottis curvisepala Szlach & Rutk. *sp. nov.*
(Fig. 2)

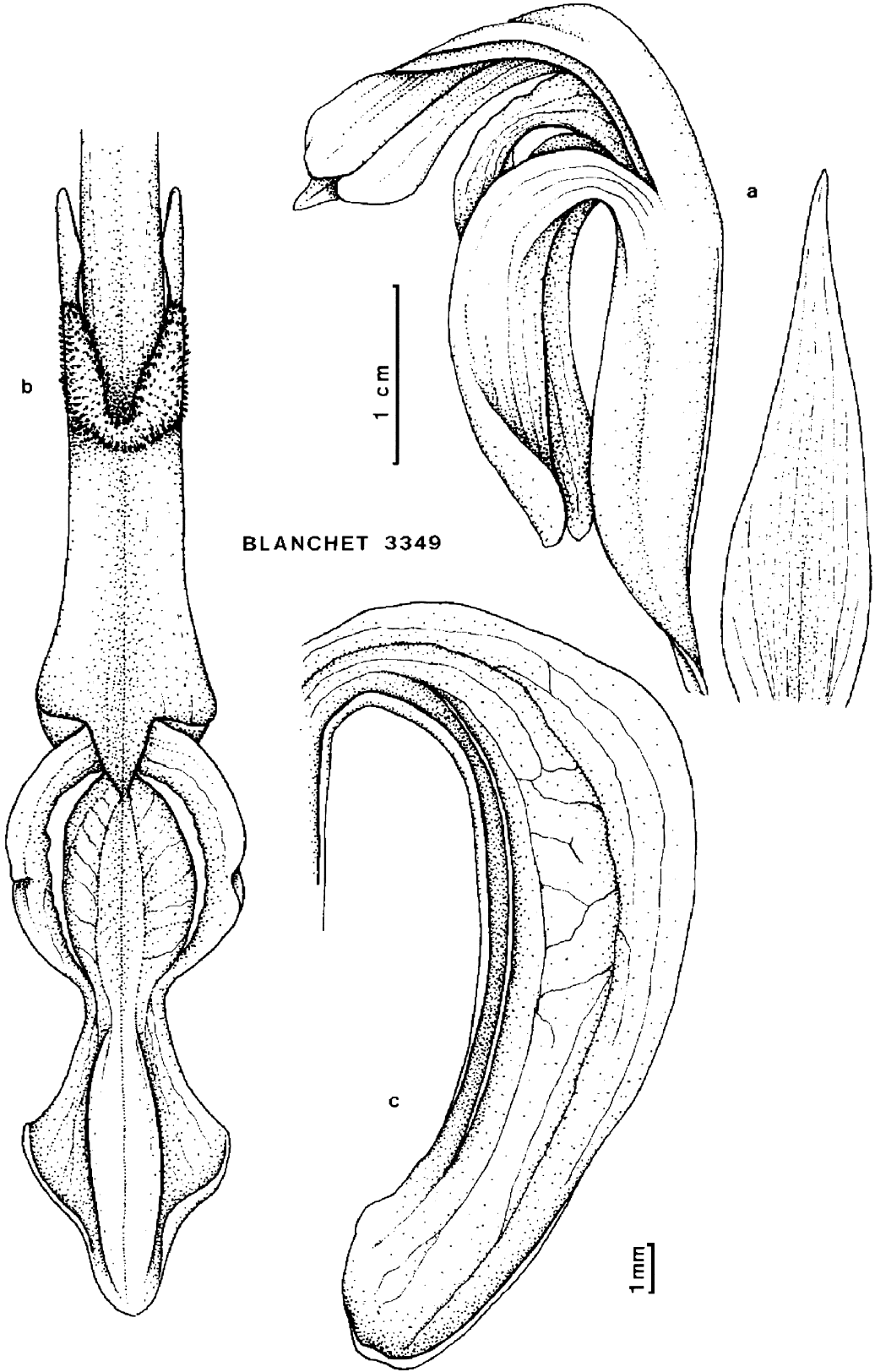
Planta habitu ad S. fasciculatam et S. grandifloram vergens, sed ab eis involucris phyllis externis

lateralisque longis, falcatis obtusisque, labello incrassationibus duobus, longis laminiformibusque et sepalis lateralis et isthmo anastomosis multis jam dignoscenda.

Typus: Brazil. Prov. Bahia, "cerca Igreja Velha", Blanchet 3349 (holotype: P; isotypes: BM, W).

Stem 38–39 cm high, 2.0–3.5 mm in diameter at base, 1.5–2.5 mm in diameter below inflorescence, erect, rather delicate, from the base or in upper half rather sparsely glandular. Cauline bracts 4–7, adnate to the stem, herbaceous with hyaline margins, acute, glabrous or sparsely glandular, shorter than internodes. Leafless in flowering time. Inflorescence 10–12 cm long, 8–9-flowered, multilateral, lax to relatively dense. Flowers relatively large, in basal half adnate to the axis, in apical part arcuate. Spur as long as the ovary, invisible externally. Floral bracts up to 3 cm long, oblong-lanceolate, acute, herbaceous, glandular outside and on margins. Pedicel up to 6 mm long, twisted. Ovary up to 2 cm long, glandular. Dorsal sepal 21 mm long, 3.5 mm wide, oblong-lanceolate, acute, relatively thick, concave and glandular outside in the basal part, 7-nerved. Lateral sepals 37 mm long, including free part 17 mm long, 5 mm wide, ligulate-falcate, hooded at apices, fleshy, almost glabrous on free distance, 3–4-nerved, midnerve(s) branched, lower side vein thickened. Petals 18–19 mm long, 2.0–2.5 mm wide, oblong- or spatulate-falcate, obtuse, thinner than sepals, glandular along outer margins, 7-nerved, midnerve thickened. Lip set on a distinct claw about 3 mm long, indistinctly constricted in apical part; hypochile 19 mm long, 6 mm wide, linear in basal part, with two, finger-like auricles, densely glandular between them, elliptic-cochleate in apical part, with two membranous edges along side veins, nerves branched; epichile 8–9 mm long, 6–7 mm wide, rhomboid-elliptic, obtuse, thicker and papillate along the midnerve, thinner on margins, Gynostemium 9–14 long, arcuate. Column foot 17–19 mm long, completely adnate to the ovary. Anther 5 mm long. Rostellum remnant 3 mm long, relatively broad, truncate, thin.

Fig. 1 (Left). *Sarcoglottis viscosus* Szlach. & Rutk. (from the holotype). — a: Plant. — b: Flower and floral bracts. — c: Dorsal sepal. — d: Petal. — e: Lateral sepal. — f: Lip. — g: Top of the gynostemium, rostellum remnant, bottom view.



Sarcoglottis curvisepala is habitually similar to *S. fasciculata* (Vell.) Schlecht. and *S. grandiflora* (Lindl.) Kl., but it is easy to distinguish by its lateral sepals and lip. Lateral sepals are very long and strongly falcate, their free parts are as long as their basal parts adnate to the ovary. The lip is indistinctly constricted and cochleate in the cen-

tre. A very characteristic feature is the branched venation on the lip and lateral sepals.

Acknowledgements. The senior author wishes to express his gratitude to the Curators of B, BM, P and W for their hospitality during his personal visits, the Curator of M for the loan of herbarium material, and to Prof. Dr. hab. Ryszard Ochyra for the latinization of the diagnoses.