

TWO NEW SPECIES OF *SCAPHYGLOTTIS* (ORCHIDACEAE, EPIDENDROIDEAE) FROM COLOMBIA

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Abstract. Two new species of *Scaphyglottis* Poepp. & Endl. from Colombia are described, illustrated and placed within a key for determination of Colombian *Scaphyglottis* species. The taxonomic affinities of each species are briefly discussed and information about their distribution and ecology is given.

Key words: Colombia, orchids, new species, *Scaphyglottis*, taxonomy

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INTRODUCTION

Since the description of *Scaphyglottis* Poepp. & Endl. (Poeppig & Endlicher 1836) its infrageneric classification has been discussed by taxonomists. Leaf blade and internode shape, lip form, fusion of the lip with the gynostemium, and number of pollinia have been the principle characters considered as bases for delimiting genera – *Costaricaea* Schltr., *Hexisea* Lindl., *Platyglottis* L. O. Williams, *Reichenbachanthus* Barb. Rodr. and *Tetragamestus* Rchb. f. Scientists have accepted those taxa in various combinations. Ames (e.g., Ames *et al.* 1934) recognized *Reichenbachanthus* and monotypic *Costaricaea* as synonyms of *Hexisea* (Dressler 1994), while Adams (1988) limited the latter genus to *H. bidentata* and *H. imbricata*. Recent molecular work on the classification of *Scaphyglottis* (Dressler *et al.* 2004) confirmed the earlier proposal to conserve the genus in its broad sense (Dressler 1994).

The general characteristics of *Scaphyglottis* consist in the following: the presence of pseudobulbs arising from the rhizome or apices of older pseudobulbs; resupinate or nonresupinate flowers with free, similar sepals which commonly are wider than the petals; and the usually prominent column-foot.

Roughly 60 of the *ca* 150 specific names published under *Scaphyglottis* are accepted presently, and novelties within the genus are still being described (Dressler 2002, 2004).

Most *Scaphyglottis* species grow epiphytically but sometimes they are found on broken branches as semiterrestrials. The most common habitats of those plants are humid forest, wet forest and cloud forest (Dressler 2001).

The geographical range of the genus extends from Mexico southward to Brazil and Bolivia. About 70% of the species were found in Costa Rica and Panama (Dressler 2001). Ortiz and Uribe (2007) placed 32 *Scaphyglottis* taxa on the list of Colombian orchids, including two species they classified as *Reichenbachanthus*. All of them except *S. aurea* (Rchb. f.) Foldats were found in lowlands and lower montane regions up to 2000 m a.s.l. (Ortiz Valdivieso & Uribe Vélez 2007).

Our recent studies on *Scaphyglottis* in several Colombian herbaria revealed three distinctive species described here as new. Each is described, with taxonomic notes and information about its habitat, and illustrated by a line-drawing. The distribution of the new species is shown on a schematic map.

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DESCRIPTIONS OF THE NEW SPECIES

Scaphyglottis caquetana Szlach. & Kolan.,
sp. nov. Fig. 1

This species is characterized by having an elongate, 3–4-flowered inflorescence and almost quadrilobate lip with 3 prominent verrucose ridges running from the base of the lip almost to the apex.

HOLOTYPE: COLOMBIA, Caquetá. Mpio. Solano. Rio Mesay, Chorro Jacameya, extreme S de la Serranía de Chiribiquete, Alt. 200–300 m, 25 Nov. 1995, D. Cárdenas, N. Rodríguez, J. Manaidego & M. Yukuna 6899 (COAH).

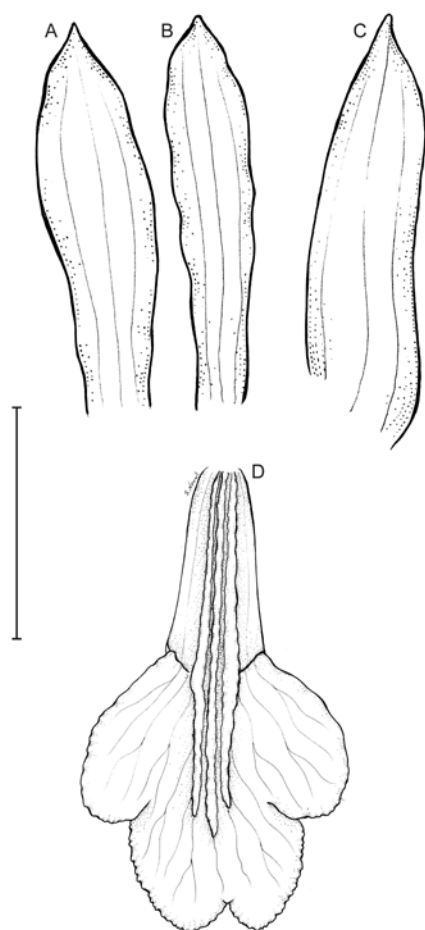


Fig. 1. *Scaphyglottis caquetana* Szlach. & Kolan., *sp. nov.* A – dorsal sepal; B – petal; C – lateral sepal; D – lip. Scale bar = 4 mm. Drawn by S. Nowak from holotype.

Pseudobulbs to 13 cm long and 3 mm in diameter, fusiform, bifoliate. Leaves up to 11 cm long and 3 mm wide, linear-lanceolate, acute. Inflorescence to 1.5 cm long, laxly 3–4-flowered. Flowers medium-sized. Floral bracts *ca* 2 mm long. Pedicel and ovary 9 mm long. Dorsal sepal 7.5 mm long, 1.8 mm wide, oblong-ob lanceolate, acute to acuminate, 3-nerved. Petals 7.5 mm long and 1.5 mm wide, linear-ligulate, acute to subobtuse, subfalcate, 3-nerved. Lateral sepals 8 mm long, 2 mm wide, ligulate, acuminate, subfalcate, 3-nerved. Lip 8 mm long in total, 4 mm wide when spread, clawed, with 3 verrucose ridges running from base almost to apex; claw 3.0–3.5 mm long; lamina up to 5 mm long, quadrilobate in middle, lobes elliptic-ovate, rounded, somewhat crispate along margins. Gynostemium 5 mm long.

ETYMOLOGY. In reference to the department where the type specimen was collected.

DISTRIBUTION AND ECOLOGY. Known so far from the Colombian department of Caquetá. Alt. 200–300 m. Flowering in November.

NOTES. Unique in the genus for its peculiar, almost quadrilobate lip with 3 verrucose ridges almost the entire length.

Scaphyglottis obtusisepala Szlach. & Kolan.,
sp. nov. Fig. 2

Species somewhat similar to *Scaphyglottis stellata* Lodd. *ex* Lindl. but lip callus very broad, spread between lip lateral lobes, sepals and petals obtuse, petals widest at apex, sepals ligulate-elliptic. Also similar to *S. modesta* (Rchb. f.) Schltr. from which it differs by having bifoliate pseudobulbs and different lip callus.

HOLOTYPE: COLOMBIA, Caquetá. Mpio. Belen de los Andaquies. Cordillera Oriental, vertiente oriental. Parque-Bosque Microcuenca la Resaca, 1°26'23.5"N 75°53'24.5"W, Alt. 720 m, 10 Oct. 2007, W. Trujillo, J.A. Rios, H. Gonzales & R. Alope WT1042 (COAH).

Pseudobulbs to 10 cm long and 5 mm in diameter, fusiform, bifoliate. Leaves up to 12 cm long and 4 mm wide, linear, acute. Inflorescence

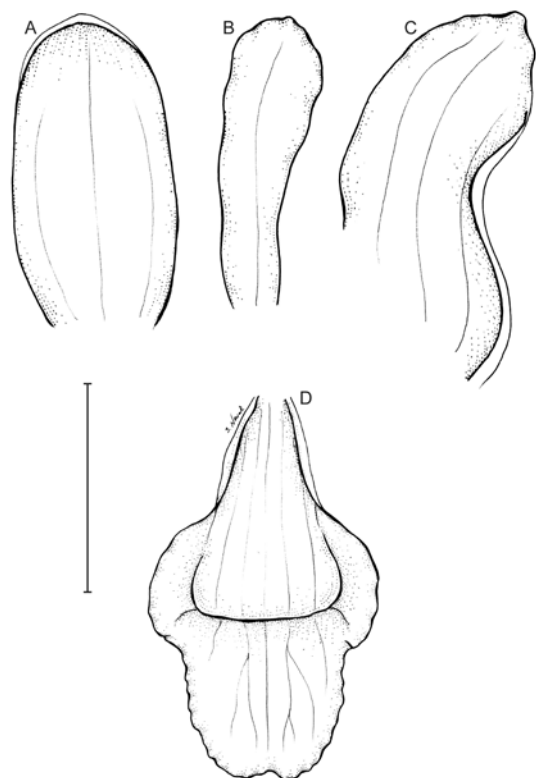


Fig. 2. *Scaphyglottis obtusisejala* Szlach. & Kolan., sp. nov. A – dorsal sepal; B – petal; C – lateral sepal; D – lip. Scale bar = 2 mm. Drawn by S. Nowak from holotype.

fasciculate, several-flowered. Flowers small, sepals somewhat fleshy. Pedicel and ovary 4 mm long. Dorsal sepal 3 mm long, 1 mm wide, elliptic to oblong-elliptic, obtuse, concave, obscurely 3-nerved. Petals 3 mm long, 0.8 mm wide, linear, somewhat widened towards apex, rounded, subfalcate, 1-nerved. Lateral sepals 3.5 mm long, 1 mm wide, ligulate-elliptic, falcate, obtuse, concave at base, obscurely 3-nerved. Lip 3.5 mm long in total and 1.5 mm wide when expanded; claw channelled; lamina 3-lobed near middle; middle lobe elliptic-subquadrate, truncate or emarginate at apex, somewhat erose on margins; lateral lobes obliquely obovate; callus prominent, spread between lateral lobes. Gynostemium 2.3 mm long.

ETYMOLOGY. An allusion to the presence of obtuse sepals.

DISTRIBUTION AND ECOLOGY. Found so far on the eastern slopes of Eastern Cordillera in the Colombian department of Caquetá. Alt. 720 m. Flowering in October.

NOTES. The most distinguishing character of this species consists in its fleshy sepals, which are obtuse at the apex. The lip callus is very prominent and spread between the lip lateral lobes.

KEY TO THE COLOMBIAN SPECIES OF *SCAPHYGLOTTIS*

- 1. Lip immovable 2
- 1* Lip movable 3
 - 2. Lateral sepals linear-lanceolate, lip lateral lobes rounded *S. emarginata* (Garay) Dressler
 - 2* Lateral sepals obliquely oblong ovate to ovate-lanceolate, lip lateral lobes obtuse-triangular *S. reflexa* Lindl.
- 3. Lip distinctly 3-lobed 4
- 3* Lip entire or obscurely 3-lobed 20
- 4. Inflorescence consisting of 1–2 flowers 5
- 4* Inflorescence consisting of more than two flowers 13
- 5. Leaves grass-like, usually less than 5 mm wide ... 6
- 5* Leaves linear-lanceolate to elliptic, usually more than 5 mm wide 8
 - 6. Lip middle lobe subquadrate ... *S. exilis* Schltr.
 - 6* Lip middle lobe subtriangular 7
- 7. Lip middle lobe acuminate, lateral lobes rounded *S. chocoana* I. Bock
- 7* Lip middle lobe acute, lateral lobes obtuse *S. longicaulis* S. Watson
- 8. Leaves linear-ligulate, bilobulate at apex ... 9
- 8* Leaves lanceolate, acute 11
- 9. Lip middle lobe decurved, subquadrate, margins crenulate *S. triloba* B. R. Adams
- 9* Lip middle lobe not decurved, suborbicular-flabellate or subquadrate, margins not crenulate 10
 - 10. Lip middle lobe widest at base, rounded at apex *S. bilineata* (Rchb. f.) Schltr.
 - 10* Lip middle lobe widest at apex, truncate *S. lueckelii* I. Bock
- 11. Lateral lobes obliquely subquadrate *S. stricta* Schltr.
- 11* Lateral lobes obliquely obovate 12
 - 12. Lip middle lobe rounded, obtuse *S. boliviensis* (Rolfé) B. R. Adams

- 12* Lip middle lobe long acuminate, acute
 *S. huebneri* Schltr.
13. Middle lobe of lip emarginate, retuse 14
- 13* Middle lobe of lip apiculate, acute to obtuse
 *S. modesta* (Rchb. f.) Schltr.
14. Lip longer than tepals 15
- 14* Lip subequal in length to tepals. 16
15. Leaves elliptic to oblong-lanceolate
 *S. bifida* (Rchb. f.) C. Schweinf.
- 15* Leaves linear-oblong
 *S. behrii* (Rchb. f.) Benth. & Hook. f. ex Hemsl.
16. Lip middle lobe deeply bilobulate
 *S. caquetana* Szlach. & Kolan.
- 16* Lip middle lobe undivided. 17
17. Leaf *ca* 1 mm wide
 *S. filifolius* Szlach. & Kolan.
- 17* Leaf more than 3 mm wide 18
18. Lip callus very broad, spread between lateral lobes and not exceeding them
 *S. obtusisepala* Szlach. & Kolan.
- 18* Lip callus narrow, exceeding lateral lobes
 19
19. Lip 3.0–3.5 mm long, middle lobe elliptic-obovate
 *S. violacea* Lindl.
- 19* Lip 6.0–8.5 mm long, middle lobe ligulate to rectangular
 *S. stellata* Lodd. ex Lindl.
20. Inflorescence a fascicle of more than 2 flowers 21
- 20* Inflorescence 1–2-flowered 22
21. Lip *ca* 10 mm long and 5 mm wide, subpandurate
 *S. coriacea* (L. O. Williams) Dressler
- 21* Lip 2.5–4.0 mm long and 1.5–2.5 mm wide, obovate to oblong
 *S. minutiflora* Ames & Correll
22. Leaves oblong-elliptic to elliptic-lanceolate 23
- 22* Leaves linear 25
23. Pedicellate ovary *ca* 20 mm long, lip panduriform-obovate.
 *S. arctata* (Dressler) B. R. Adams
- 23* Pedicellate ovary *ca* 3–4 mm long, lip spatulate 24
24. Sepals up to 3.5 mm long, petals subobtusate
 *S. sickii* Pabst
- 24* Sepals up to 2.5 mm long, petals emarginate
 *S. signata* I. Bock
25. Sepals linear-lanceolate, ligulate to lanceolate. 26
- 25* Sepals elliptic-ovate. 28
26. Lip spatulate to cuneate-flabellate. 27
- 26* Lip oblong-ovate
 *S. isochiloides* (Regel) Foldats
27. Lip middle lobe conspicuous
 *S. esuriens* (Rchb. f.) Schltr.
- 27* Lip middle lobe inconspicuous
 *S. fusiformis* (Griseb.) R.E. Schultes
28. Lip anchoriform.
 *S. gentryi* Dodson & M. Monsalve
- 28* Lip subquadrate, cuneate-ovate, oblong-lanceolate to ovate 29
29. All tepals similar in size and shape. 30
- 29* Petals and sepals dissimilar. 33
30. Leaves less than 5 mm wide.
 *S. sessilis* (Rchb. f.) Foldats
- 30* Leaves more than 5 mm wide 31
31. Tepals elliptic to ovate-elliptic
 *S. aurea* (Rchb. f.) Foldats
- 31* Tepals lanceolate-oblong to ovate-oblong. 32
32. Stems usually simple, or with only few branches
 *S. punctulata* (Rchb. f.) C. Schweinf.
- 32* Stems branched
 *S. summersii* L. O. Williams
33. Lip flabellate, cuneate-ovate 34
- 33* Lip subquadrate to ovate-quadrate
 *S. livida* (Lindl.) Schltr.
34. Pseudobulbs stipitate
 *S. graminifolia* (Ruiz & Pav.) Poepp. & Endl.
- 34* Pseudobulbs cylindrical-fusiform.
 *S. prolifera* (Sw.) Cogn.

ACKNOWLEDGEMENTS. We thank the curators and staff of the cited herbaria for their kind hospitality and assistance during visits and for making specimens available on loan, the anonymous reviewers for helpful remarks on the manuscript, and Sławomir Nowak for preparing the illustrations. The research described here was funded by the Polish Ministry of Science and Higher Education (grant no. 8124/B/PO1/2011/40).

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Received 8 October 2014