

SCAPHYGLOTTIS GEMINATA, AN ATTRACTIVE NEW SPECIES FROM COSTA RICA

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RESUMEN

Se describe *Scaphyglottis geminata* del Valle del Río Pejibaye. Se destaca por las flores relativamente grandes con sépalos y pétalos carnosos y desplegados en un sólo plano, por los sépalos laterales y los pétalos curvos, y por la base del labelo firmemente unida con el pie de columna. Cada tallo tiene 1-3 (usualmente 2) racimos condensados y cubiertos de brácteas. Cada racimo lleva una sola flor abierta a la vez, pero con frecuencia los racimos se desarrollan simultáneamente, por lo que se presenta un par de flores por tallo. El epíteto específico se eligió para enfatizar esta característica; *geminata* se deriva del latín *geminatus* (= apareado).

ABSTRACT

Scaphyglottis geminata is described from the valley of the Río Pejibaye. It is distinctive in the relatively large flowers with fleshy sepals and petals that spread in a single plane, in the curved petals and lateral sepals, and in the base of the lip firmly united with the column foot. Each stem has 1-3 (usually 2) condensed racemes covered with bracts. These open only one flower at a time, but often do so simultaneously, so that a pair of flowers is present. The specific epithet is chosen to emphasize this; *geminata* is from the Latin *geminatus* (= paired).

Scaphyglottis is a smaller genus than *Maxillaria*, with dozens of species rather than hundreds, but there are some parallels between the two genera. Almost anywhere in tropical America one finds at least a few species of *Scaphyglottis*, and they may be abundant. The flowers are mostly small and not brightly colored. In general, orchid enthusiasts show about as much interest in *Scaphyglottis* as they do in *Maxillaria* or *Oxalis*. As with both *Maxillaria* and *Oxalis*, though, there are a few exceptions. *Scaphyglottis gigantea*, from the mountains of western Panama, has large and attractive flowers, but it is rarely seen outside of its native area. The Costa Rican *S. pulchella* has relatively large, bell-shaped, greenish cream flowers, and it may be cultivated occasionally. The species that we have

called *Hexisea arctata* and *H. sigmoidea* have been reclassified as *Scaphyglottis*, and they have bright red or orange-red flower, but both are high elevation species, like *S. gigantea*, and difficult to transport or cultivate in warmer climates. *Hexisea bidentata* and *H. imbricata* are frequently cultivated because of their bright colors, and in fact, they are essentially hummingbird-pollinated species of *Scaphyglottis*.

Except for the *Hexiseas* and would-be *Hexiseas*, though, there are few *Scaphyglottis* species with large or attractive flowers. Thus, we were quite surprised to find an attractive *Scaphyglottis* flowering in the garden of Victor Vargas in Orosi. He very kindly showed us the locality from which it came in the valley of the upper Río Pejibaye, and we were able to



Scaphyglottis geminata

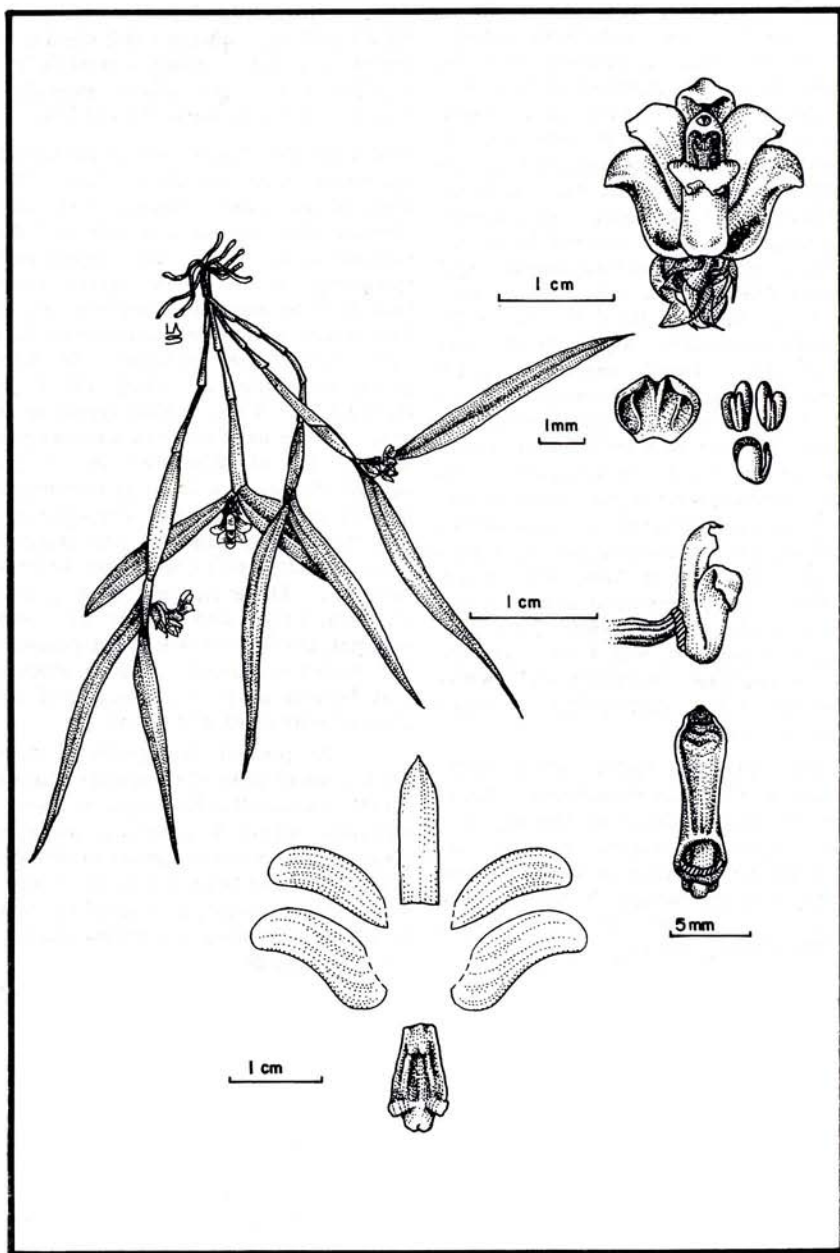
collect plants in bud and flower. At the time, we understood the locality to be near Taús, but it proves to be well upstream from Taús, in an area known as La Selva (not the same, as Finca La Selva in Heredia Province).

Scaphyglottis geminata Dressler & Mora-Retana, *sp. nov.*

Herba epiphytica; pseudobulbis ellipsoideis, stipitatis; foliis binatis, ovato-lanceolatis, acutis; floribus fasciculatis, carnosiss, successivis, plerumque binatis; sepalis laterali-

bus oblongo-falcatis, obtusis; sepalo mediano oblongo-oblancoolato, obtuso; petalis sepalis lateralibus similibus; labello quadrato-oblongo, apice recurvato, emarginato.

Epiphytic herb, erect or pendent, up to 25 cm in length; roots slender, sinuous, grayish white, about 1 mm in diameter; stems slender basally, the upper internodes forming ellipsoid pseudobulbs, covered by papery sheaths, 15-25 cm long, 0.5-0.8 cm wide; leaves two, apical on pseudobulbs, coriaceous, ovate-lanceolate, basally conduplicate, apex superfi-



SCAPHYGLOTTIS GEMINATA Dressler & Mora-Retana

cially acute, but minutely emarginate, 10-15 cm long, 1.3-1.8 cm wide; **inflorescence** terminal, of 1-3 short condensed racemes, each with the flowers opening successively, only one open at a time; **flowers** fleshy, sepals and petals yellowish white with ventral 1/3 of lateral sepals rose-purple for basal 4/5, lateral lobes of lip and base of column rose purple, lip yellow; flowers 1.4-1.6 cm long, 2-3 cm wide; **ovary** and pedicel short and covered by papery deltoid **bracts**, about 1.4 cm long; **dorsal sepal** erect, oblong-ob lanceolate, concave, the apex obtuse, 1.3-1.5 cm long, 0.4-0.5 cm wide; **lateral sepals** subfalcate, asymmetrical, concave, apices obtuse, basally adnate to column foot, forming a prominent mentum, 1.2-1.3 cm long, 0.5-0.6 cm wide; **petals** similar to lateral sepals, concave, base united with column foot, apex obtuse, 1.2-1.3 cm long, 0.6-0.7 cm wide; **lip** subentire, rectangular, concave basally, with the apex reflexed and emarginate, basally united with the column foot, forming a short nectary; 1.1-1.3 cm long, 0.6-0.8 cm wide, callus weakly developed; **column** semiterete, parallel with the lip, about 1.3 cm long; **anther** apical, incumbent, with 4 cells, subcordate, apex emarginate; **pollinia** 4, wide, laterally flattened, with ribbon-like caudicles; **stigma** slightly bilobed.

HOLOTYPE: COSTA RICA: CARTAGO: Taús; planta epífita con pseudobulbos delgados; flores en racimos de pocas flores, protegidas por numerosas brácteas, blancas, con los sépalos laterales fuchsias en la base; labelo amarillento; columna blanca; 20 agosto 1984; D.E. Mora y R.L. Dressler 31, USJ (032348); isotypes USJ (032347, 032350).

OTHER MATERIAL SEEN: Taús; elev. aprox. 1000 m; 20 de octubre 1984; sépalos y pétalos crema-amarillento, mitad ventral de los sépalos laterales rojo vino; labelo amarillo pálido; R.L. Dressler y Biología 350 106 USJ.

DISCUSSION: *Scaphyglottis geminata* does not appear to have any close allies. We do not know of any other species with such large flowers with the lateral sepals and the petals subfalcate, or with the sepals and petals spreading in the same plane, causing the flowers to be markedly flattened. Further, the base of the lip is firmly united with the column foot, rather than movable. In habit, the plants are similar to those of *S. pulchella* (Schltr.) L.O. Wms., which grows in the same area, but we have not seen younger pseudobulbs on top of older ones in *S. geminata*, though this growth habit is common in most species of *Scaphyglottis*. The inflorescence of *S. geminata* is distinctive, consisting of one to three (usually two) condensed, bract covered racemes. These racemes each produce one flower at a time, and as there are usually two racemes, the flowers are often paired, whence the epithet *geminata*. Each of these racemes may become up to 3 cm long, and is densely covered with dead, dry bracts.

At present the species is known only from a small area of somewhat disturbed forest in the upper Río Pejibaye, at about 1500 m elevation, where *S. geminata* grows in shady areas on the trunks and lower branches of trees. The plants have been found in flower in August and September, a seasonality maintained by plants cultivated in Cartago and the Lankester Gardens ■