

# ICONES ORCHIDACEARUM

Fascicle 16(2)  
THE GENUS EPIDENDRUM  
Part 12  
“Species New & Old in Epidendrum”

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# ICONES ORCHIDACEARUM

Fascicle 16(2), plates 1668 to 1700

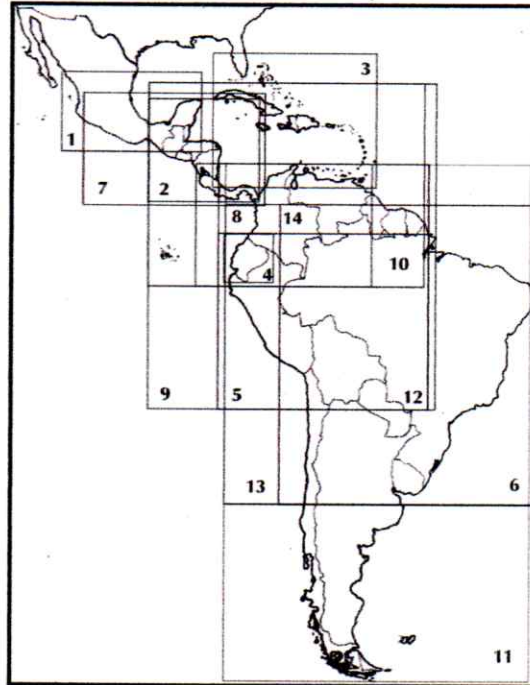
## THE GENUS EPIDENDRUM Part 12

### "Species New & Old in Epidendrum"

Reference Map

#### TROPICAL AMERICA

(numbers refer to the portions of the map used in individual plates)



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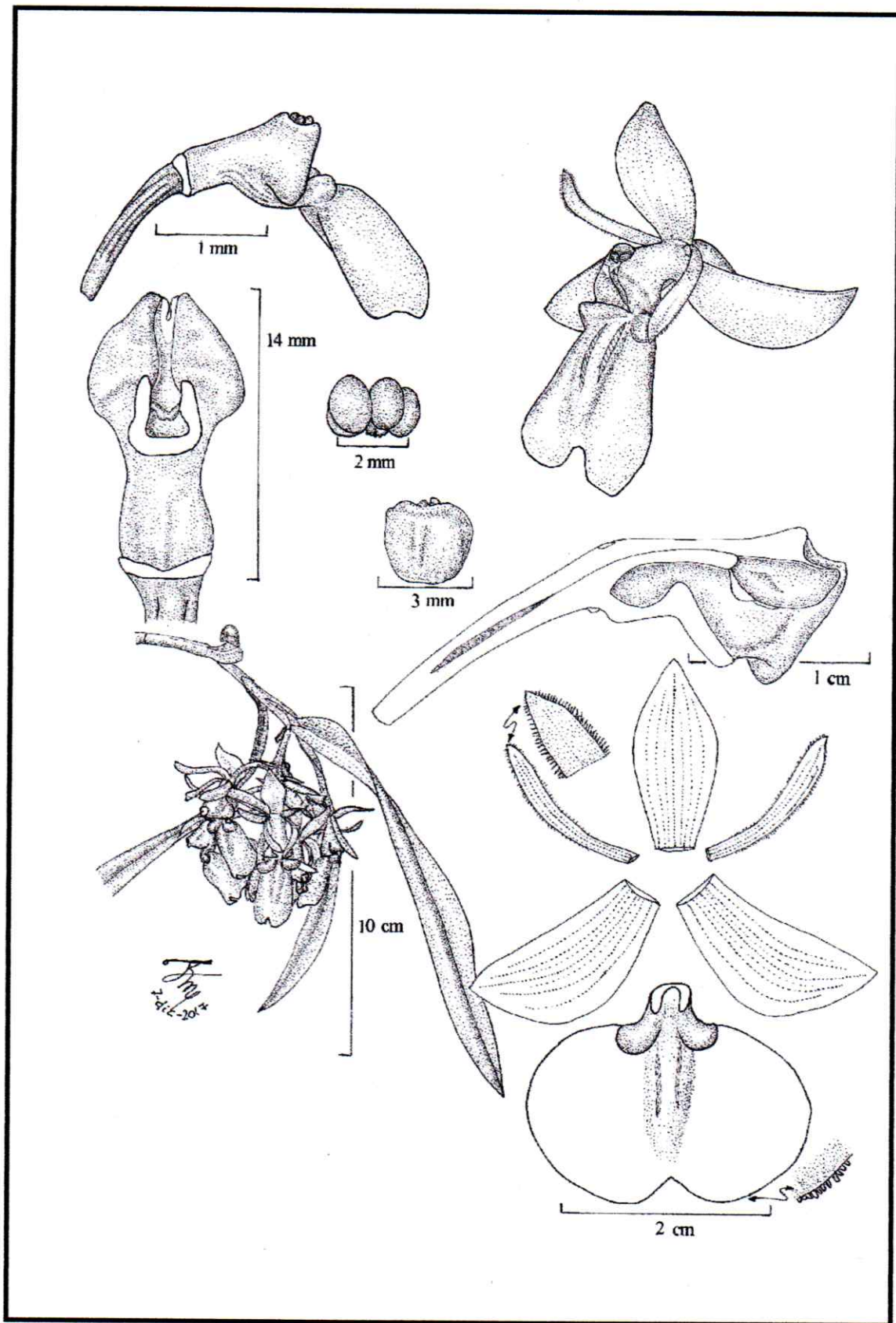
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EPIDENDRUM GUISLAINAE Hągsater & C.Soto

**EPIDENDRUM GUISLAINAE** Hágsater et C.Soto, sp. nov.

Type: PERU: Cusco: Santuario Histórico de Machu Picchu-SHM, 2040 m, XI 2011, Equipo de Inkaterria Asociación-ITA: **Ermitaño Quispe & Carmen Soto 30**, pressed inflorescence originally conserved in spirit, AMO! (illustration & photo voucher).

Similar to *Epidendrum evelynae*\* Rchb. f., but the flowers twice as large, sepals 17.7-20.0 mm long (vs. 9-11 mm), the calli of the lip much larger, divergent, fleshy, the margin of the petals minutely ciliate (vs. denticulate-erose), as well as the margin of the lip.

Epiphytic herb, 85 cm tall, where the new stem is produced from a sub-apical internode of the previous stem. **Roots** ca. 3-5 mm in diameter, fleshy, from the base of each stem. **Stems** 15-32 x 0.3-0.6 cm, simple, cane-like, terete, straight, the new produced from the middle of a sub-apical internode of the previous stem. **Leaves** 3-4, sub-coriaceous, smooth; leaf-sheaths 1-4 cm long, striate; blade 11-17 x 1.4-2.0 cm, articulate, narrowly oblong, acute, margin entire. **Spathes** lacking. **Inflorescence** 6 cm long, apical, from the mature stem, flowering only once, nodding, racemose; peduncle 15-20 mm long, laterally compressed, ancipitose; rachis unornamented. **Floral bracts** 3-7 x 2-6 mm, triangular, acuminate, shorter than the ovary. **Flowers** 3-10, successive, ca. 2-7 open at one time, resupinate, green with the column, calli and mid-rib of the lip tinged purple, especially the apex of the column which may be a solid purple; fragrance not registered. **Ovary** 15-16 mm long, not inflated, terete, unornamented. **Sepals** free, spreading, narrowly elliptic, acute, fleshy, glabrous, without any dorsal keel, margin entire, spreading; dorsal sepal 17.7 x 8.3 mm, 7-veined; lateral sepals 20 x 8-9 mm, elliptic, somewhat oblique and thus upper side straight, 7-veined. **Petals** 16.6 x 2.3 mm, partly spreading forward, linear-lanceolate, curved into an arch, acute, 3-veined, margins minutely ciliate, spreading. **Lip** 17 x 28 mm, united to the column, bilobed, obreniform, base truncate, the sides strongly revolute in natural position, so as to appear apron-like, apex emarginate; the lateral lobes 14 x 17 mm, semi-orbicular; bicallose, the calli thick, divergent, with a prominent, wide, fleshy, thickened mid-rib that runs the length of the lip; margin minutely ciliate, spreading. **Column** 13-14 mm long, triangular when seen from the side, thin at the base, and almost immediately strongly dilated, with a pair of rounded wings at the base of the oblique apex, protruding on the side of the base of the lip. **Clinandrium** very short, fleshy, without covering the anther, margin entire. **Nectary** short and thick, without penetrating beyond the perianth, constricted underneath at the basal 1/3 of the column. **Anther** sub-globose, 4-celled. **Pollinia** 4, obovoid, laterally compressed, caudicles soft and granulose, as long as the pollinia. **Rostellum** apical, slit. **Lateral lobes of the stigma** short, 1/3 the length of the stigmatic cavity. **Capsule** not seen.

**OTHER RECORDS:** PERU: Cusco: Prov. La Convención; Distrito Huayopata; Bosque montano de Alfamayo, ca. 1800 m, received 7 X 2013, Calatayud s.n. digital fotos, AMO!

**DISTRIBUTION AND ECOLOGY:** Known southern Peru, on the Amazon slope of the Cordillera Oriental of the Andes, at 1800-2040 m altitude, in montane forest, on *Inga adenophylla* Pittier, locally known as "Pacaemona". Flowering August-October.

**RECOGNITION:** *Epidendrum guislainae* belongs to the Incomptum Group which is characterized by the erect habit with successive lateral growths produced from the middle of the previous growth, few leaves aggregate towards the apex of the stems, roots generally only from the base of the primordial stem, with short apical inflorescences and fleshy yellowish to green to violet-green to black flowers with short ovaries, the lip entire to 3-lobed. The species is recognized by the sub-coriaceous leaves, the successive large flowers, sepals 17.7-20 mm long, without any prominent ventral nectary which inflates the ovary, a obreniform lip, with large, fleshy divergent calli, the margin of the petals and lip minutely ciliate. *Epidendrum evelynae* has smaller flowers, sepals 9-11 mm long, a reniform, bicallose lip, the calli small and parallel, and the linear, 1-veined petals with the margin denticulate-erose. *Epidendrum chimantense* Hágsater & Carnevali has the purple-tinged leaf-sheaths, narrow, elliptic-lanceolate leaves, the column arching only at the base and a slender, non-inflated ovary, sepals 9-10 mm long, lip reniform, 3.5-6.0 x 6.5-9.0 mm. *Epidendrum lechleri* Rchb. f., a species native to Peru, has 13 mm long sepals and a 3-lobed lip. *Epidendrum nephroglossum* Schltr. has very prominent floral bracts equal or longer than the ovary which is not swollen, 11.0-16.5 mm long sepals, acute petals, lip 7 x 14 mm, and an obsolete clinandrium. *Epidendrum bakrense* Hágsater & Cremers has wider petals and shorter segments, sepals 7.0-7.5 mm long, with a much-inflated ovary, and the column apex with a rounded lobe above the calli, not a tooth. *Epidendrum rousseffianae* Collantes & Hágsater has somewhat similar reniform lip, but the plant is quite different, with monopodial, branching stems, sepals are 19-20 mm long and lip 2.9 x 1.5 cm.

\*NOTE: We previously illustrated the Icon of *Epidendrum evelynae* (Santiago & Hágsater, 2015), with a photograph of the new species taken by Gloria Calatayud from Cusco. Now with an inflorescence in spirit, we have been able to prepare an illustration of the material from Machu Picchu, and it is clearly distinct from that of Bolivia, especially by the flowers twice as large, and large fleshy divergent calli, and the minutely ciliate margin of the petals and lip. Vásquez and Ibsich (2004) treated this *E. evelynae* as a synonym of *E. lechleri* Rchb. f.

**CONSERVATION STATUS:** DD. Data deficient. Only two collections have been identified.

**ETYMOLOGY:** In honor of Mrs. Denise Guislain McKee, (1943-) who is responsible for the extraordinary native gardens of Inkaterria: Inkaterria Machu Picchu Pueblo Hotel, Inkaterria Hacienda Urubamba, Inkaterria Reserva Amazónica and Inkaterria Hacienda Concepción.

**REFERENCES:** Collantes, B., & E. Hágsater, 2013, *Epidendrum rousseffianae*, in E. Hágsater & L. Sánchez S. (eds.), The Genus *Epidendrum*, Part 10, *Icon. Orchid.* 14: pl. 1482. Hágsater, E., & E. Santiago, 2013, *Epidendrum nephroglossum*, in E. Hágsater & L. Sánchez S. (eds.), The Genus *Epidendrum*, Part 10, *Icon. Orchid.* 14: pl. 1461. Hágsater, E., & G. Carnevali, 1993, *Epidendrum chimantense*, in E. Hágsater & G.A. Salazar (eds.), The Genus *Epidendrum*, Part 1, *Icon. Orchid.* 2: pl. 121. Hágsater, E., & G. Cremers, 1999, *Epidendrum bakrense*, in E. Hágsater, L. Sánchez S. & J. García Cruz (eds.), The Genus *Epidendrum*, Part 2, *Icon. Orchid.* 3: pl. 312. Santiago, E., & E. Hágsater, 2015, *Epidendrum evelynae*, in E. Hágsater & L. Sánchez S. (eds.), The Genus *Epidendrum*, Part 11, *Icon. Orchid.* 15(1): pl. 1524. Vásquez Ch., Roberto, & Pierre L. Ibsich (eds.), 2004, *Orquídeas de Bolivia* 2: 124.



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