

Eriopsis amazonica (Eriopsidinae), a new orchid species from Colombia

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Eriopsis amazonica Kolan. & Szlach. *sp. nova* (Orchidaceae, Eriopsidinae) is described and illustrated based on Colombian material. Its taxonomic affinities are discussed. An identification key is provided to Colombian species of *Eriopsis*.

The Neotropical orchid genus *Eriopsis* was described by Lindley (1847) to accommodate *E. biloba*. That author found it to be similar to *Eria* in its vegetative characters such as large leaves arising from the apical part of oblong pseudobulbs, and placed it in Maxillarieae. Pfitzer (1887) transferred *Eriopsis* to Zygopetaleae based on e.g. presence of four pollinia, and the mentum being formed of lateral sepals and a prominent column foot plus an incumbent anther. In the same group he placed *Zygopetalum*, *Colax* and *Pseuderriopsis*, and suggested that also *Cheiradenia* and *Pteroglossaspis* should be included there.

One of the characters considered by Pfitzer (1887) in his classification system was the number of pollinia. He probably did not verify Lindley's description of *Eriopsis*, in which the author mistakenly gave the pollinium number as four instead of two. Based on corrected number of pollinia, Dressler (1981) placed the genus in the subtribe Cyrtopodiinae within Cymbidieae, but in his previous classification system (Dressler & Dodson 1960) *Eriopsis* was in Maxillariinae. Based on gynostemium morphology (e.g. small, triangular tegula, narrow vis-

cidium forming a narrow ridge along the lower margin of tegula and deeply, widely split rostellum remnant) Szlachetko (1995) created a monotypic subtribe Eriopsidinae within Maxillarieae (Vandoideae), currently widely accepted by taxonomists (Whitten *et al.* 2000, Williams & Whitten 2003). However, it still is often placed in Cymbidieae, Epidendroideae (Neubig *et al.* 2009, Pridgeon *et al.* 2009).

Species of *Eriopsis* are clearly separable morphologically from all other Neotropical vandaoid orchids by the ovoid to cylindrical homoblastic pseudobulbs and the conduplicate and leathery leaves. The numerous resupinate flowers are arranged in lateral inflorescences. The lateral sepals are often connate with the column foot, forming a short, obtuse mentum. The lip is distinctly 3-lobed with the lateral lobes erect. The elongate, clavate gynostemium is erect or gently arched, with the column part ca. 6–7 times longer than the anther. The column part is narrowly winged near the stigma, about as long as the column foot. The ventral anther is incumbent, operculate, dorsiventrally compressed, transversely ellipsoid, and 2-chambered. The connective is thin and narrow. The two pollinia



Fig. 1. *Eriopsis amazonica* (from the holotype). — **A:** Habit. — **B:** Dorsal sepal. — **C:** Petal. — **D:** Lateral sepal. — **E:** Lip. — **F:** Gynostemium. Scale bar: 10 cm for **A**, and 5 mm for **B–F**.

are slightly dorsiventrally flattened, ellipsoid, deeply and unequally cleft, and rather hard. The very large receptive surface is elliptic and deeply concave. The broad rostellum is short and its remnant is shallowly notched. The single viscidium is triangular, thick, and fleshy (Szlachetko & Mytnik-Ejsmont 2009).

Eriopsis species are eurytypic and may be terrestrial, lithophytic or epiphytic in various habitats. *Eriopsis biloba* and *E. rutidobulbon* often occur in open areas characterized by intensive insolation and the former is apparently adapted to periodically burned habitats. On the other hand specimens of *E. sceptrum* have been found near the water line in the Amazon region. The altitudinal amplitude of the genus extends from near sea level up to about 2400 m a.s.l. (Pridgeon *et al.* 2009).

Eriopsis consists of about ten species, but the taxonomic status of several of them should be revised. Pridgeon *et al.* (2009) accepted just three species in *Eriopsis* considering the others to be synonyms. To the taxonomically most important characters in *Eriopsis* belong the surface of the pseudobulbs, and details of the lip, *viz.* form and arrangement of the callus and morphology of the middle lobe. The geographical range of the genus extends from the Amazonian region to Belize and Guatemala. Ortiz-Valdivieso and

Uribe Vélez (2007) recognized three species in Colombia, however they apparently regarded *E. colombiana* as a synonym of *E. biloba*, but we recognize the former as a distinct species. The specimens were found growing in warm lowland regions as well as higher up in the Andes.

During our recent studies on the Colombian orchids a distinctive, undescribed species of *Eriopsis* was found.

***Eriopsis amazonica* Kolan. & Szlach., *sp. nova* (Fig. 1)**

TYPE: Dept. Amazonas. Corregimiento La Pedrera, Resguardo Indígena Comeyafü, Comunidad Angostura. Alt. 30 m. 20 Jul. 2010. *R. Cámara-Laret, M. Jaimes, G. Makuna Barasana & Ausencio Carijona 1672* (holotype COL!; drawing UGDA!).

ETYMOLOGY: In reference to the Amazon region, where the type specimen was collected.

Pseudobulb cylindrical, 20 cm long, 1.8 cm wide, apically trifoliate. Leaves up to 63 cm long and 6 cm wide, oblanceolate to subspathulate, acute, attenuate towards base, leathery. Inflorescence basal, ca. 40 cm long, laxly several-flowered. Flowers yellow with rose-maroon margins, whitish distally and somewhat purple-spotted. Pedicel and ovary 30 mm long. Floral bract

2 mm long. Margins of tepals slightly undulate, sepals fleshy. Dorsal sepal 17 mm long, 7 mm wide, narrowly elliptic, apiculate, obtuse, 7-veined. Petals 15 mm long, 5 mm wide, ligulate, apex slightly retuse, 5-veined. Lateral sepals 14 mm long, 7 mm wide, ovate, subobtusate, margins slightly incurved, 7-veined. Lip fleshy, 11 mm long and about as wide, 3-lobed; lateral lobes about 6.5 mm long, semicircular, irregularly ornamented with swollen cells, disc concave within a basal pair of divaricate, triangular, acute lamellae; 9-veined, veins branching near lip margins; middle lobe 4.5 mm long, 4 mm wide, suborbicular, apex minutely retuse; isthmus between lobes inconspicuous. Gynostemium 8 mm long, slender, clavate, gently arched, column foot 4 mm long. Flowering in July.

DISTRIBUTION AND HABITAT. So far this species is known exclusively from the Colombian Amazonia, where it was found growing epiphytically in the flooded forest at the altitude of about 30m a.s.l.

TAXONOMIC NOTES. *Eriopsis amazonica* species resembles *E. sprucei* reported from Peru and Venezuela, from which it is easily distinguished by the shape of the tepals. The dorsal sepal of *E. sprucei* is ligulate, rounded at the apex and its lateral sepals are elliptic, also rounded or obtuse at the apex. Its petals are elliptic-oblong and obtuse at the apex.

Eriopsis sprucei was considered conspecific with *E. sceptrum* (e.g. Romero-González 2003), but they may be easily distinguished by the lip middle lobe. It is large and distinctly unguiculate in the latter species but subsessile and small in *E. sprucei*. The occurrence of *E. sprucei* in Venezuela requires further studies as the records of this species in the national flora may be due to incorrect identification of *E. sceptrum*.

A unique feature of *E. amazonica* is the relatively small, basal lip callus forming a pair of narrow wings. Also, the gynostemium is exceptionally slender and long, ca. 8–9 times longer than the anther.

Eriopsis colombiana was considered conspecific with *E. biloba* by McLeish *et al.* (1995) and with *E. rutidobulbon* by Brako and Zarucchi (1993) and Funk *et al.* (2007). We decided to treat *E. colombiana* as a separate species because it may be distinguished from the two others by

the shape of the lip middle lobe apex (truncate or blunt vs. bilobulate) and the very short isthmus between the basal and apical parts of the lip.

Key to Colombian species of *Eriopsis*

1. Lip callus prominent, extending to about base of middle lobe 2
1. Lip callus inconspicuous, forming two basal lamellae ... 4
2. Leaves elliptic; lip middle lobe truncate or blunt *Eriopsis colombiana*.
2. Leaves oblong-ligulate to elliptic-oblong; lip middle lobe retuse or bilobed 3
3. Lip middle lobe unguiculate *Eriopsis rutidobulbon*
3. Lip middle lobe subsessile *Eriopsis biloba*
4. Dorsal sepal elliptic, acute, lip middle lobe subsessile, lip callus simple, small, basal *Eriopsis amazonica*
4. Dorsal sepal elliptic-oblong, rounded, lip middle lobe unguiculate, lip callus composed, large, at base and in centre of lip *Eriopsis sceptrum*

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