

NOTES ON *ELLEANTHUS MUSCICOLA* (ORCHIDACEAE)  
AND DESCRIPTION OF A NEW *EPILYNA* SPECIES FROM PANAMAMARTA KOLANOWSKA<sup>1</sup> & DARIUSZ L. SZLACHETKO

**Abstract.** The generic affinity of *Elleanthus muscicola* Schltr. is clarified and a new combination within *Epilyna* Schltr. is proposed. The differences between *Epilyna* and morphologically similar genera are discussed. *Epilyna trilobata* Kolan. & Szlach., a new species so far known only from Panama, is described, illustrated and placed within a key to identification of all *Epilyna* species.

**Key words:** *Elleanthus*, *Epidendrum*, *Epilyna*, Panama, taxonomy

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## INTRODUCTION

The Neotropical genus *Epilyna* was proposed by Schlechter (1918) based on *E. jimenezii* Schltr. The author found it similar in habit to *Epidendrum* L. but different in its flower structure, which resembles *Elleanthus* C. Presl. From the latter genus *Epilyna* is easily distinguished by its leaves, which are conduplicate, obliquely bidentate and minutely mucronate at the apex. The leaves of *Elleanthus* s.str. are always plicate, thin or relatively stiff, and acute to acuminate. Unlike *Epidendrum*, the flabellate lip of *Epilyna* is not fused with the gynostemium and at the base is furnished with subglobose corpuscles. The two genera are easily separable by gynostemium structure. The gynostemium of *Epidendrum* is slender, elongate, erect or slightly arched, and finely swollen towards the apex. Usually four pollinia are produced in the anther. They are equal or unequal in size and form, obliquely ellipsoid, ovoid to clavate, laterally compressed, and rather hard. The prominent, granular and sticky caudiculae are attached to each pair of pollinia. The apical clinandrium is usually spacious, occasionally reduced, and entire or with fringed margins. The stigma is bilobed; both lobes are connate and sticky. The rostellum is erect, shelf-like, and

truncate. The single viscidium is usually longer than the caudiculae, oblong to ovoid, dorsiventrally compressed, and detachable. The rostellum remnant is more or less incised. In *Epilyna* the gynostemium is erect and rather short. The eight pollinia are rather unequal in size and form, ellipsoid to obovoid, slightly flattened laterally, and joined together by small, inconspicuous, sticky caudiculae. The apical clinandrium is prominent and rather spacious but entire. The stigma is rather large, transversely elliptic, and deeply concave. The truncate rostellum is bent forwards. Neither a viscidium nor tegula are produced (Szlachetko & Margońska 2002).

The generic distinction of *Epilyna* was discussed for many years. Schweinfurth (1937) proposed to include the only species of the genus known at that time in *Elleanthus*. This concept was not accepted by Dodson, who described two other species of *Epilyna* (Dodson 1989, 1994). The results of recent molecular studies indicated that *Epilyna* is sister to *Elleanthus* (Rothacker 2007; Neubig *et al.* 2011) and currently the genus is widely accepted.

There is, however, one species whose generic affiliation is not resolved: *Elleanthus muscicola*. It was described by Schlechter (1923) just five

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years after establishment of the genus *Epilyna*. The author placed it in *Elleanthus* but noted its similarity to *Epilyna*. While the inflorescence of *Elleanthus muscicola* is characterized by the *Elleanthus*-like arrangement (obscurely fractiflex raceme with imbricating floral bracts), its conduplicate leaves and subglobose calli connected to the lip margins resembles those of *Epilyna*. Dudek and Szlachetko (2010) considered *Epilyna muscicola* to be conspecific with *E. jimenezii* Schltr., but the two species differ significantly in their inflorescence structure, especially in floral bract size. While in *E. jimenezii* the inflorescence is somewhat elongated and its leaves become smaller to gradually form triangular-ovate floral bracts which are somewhat spaced, the inflorescence of *E. muscicola* is very short and its bracts are cucullate, sphacelate, and imbricating. Therefore we propose to treat those taxa as separate species of *Epilyna* and the new combination is given in this paper.

Our recent studies of Panamanian orchids revealed the existence of a distinctive *Epilyna* species related to *E. muscicola*. It is described here as new and placed within a key to identification of *Epilyna* species.

#### NEW COMBINATION

***Epilyna muscicola* (Schltr.) Kolan. & Szlach., comb. nov.**

BASIONYM: *Elleanthus muscicola* Schltr., Fedde Rep. Sp. Nov. Beih. 19: 10. 1923.

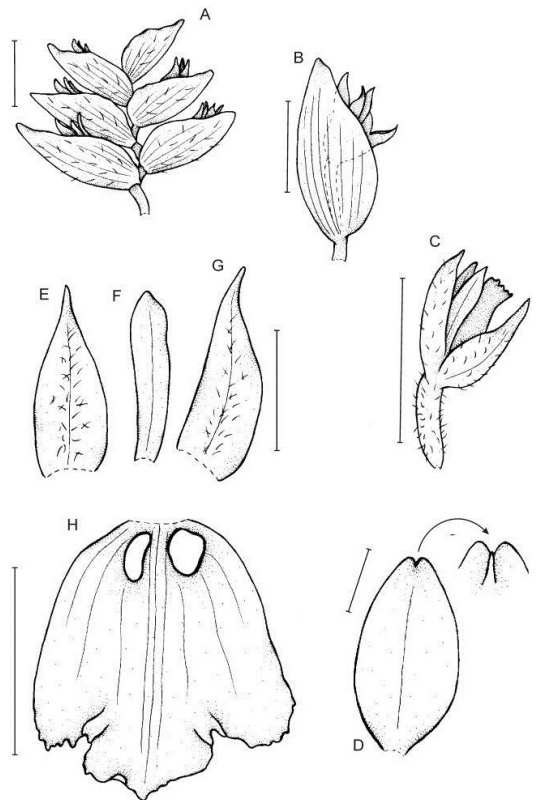
#### DESCRIPTION OF A NEW SPECIES

***Epilyna trilobata* Kolan. & Szlach., sp. nov.**  
Figs 1 & 2

Species resembling *Epilyna muscicola* (Schltr.) Kolan. & Szlach., but with entire petals, a trilobulate lip apex, and five somewhat thickened veins running from the lip base up to the lip apical lobe.

HOLOTYPE: PANAMA, Prov. Panamá, La Eneida, region of Cerro Jefe. 25 Jun. 1969. Dressler 3640 (MO); ISOTYPE: PMA; UGDA – drawing of the type).

Small caespitose plants, 6–10 cm tall. Stems slender, leafy. Leaves coriaceous, 11–13 mm long and 5–6 mm wide, oblong-ovate, apex bilobulate with a minute apicule. Inflorescence 10–15 mm long, a slightly fractiflex raceme, 5–12-flowered. Ovary 3 mm long. Floral bracts up to ca 10 mm long, oblong-ovate to ovate, imbricating, scarious, sparsely furfuraceous. Flowers white, sepals with some furfuraceous dark hairs. Dorsal sepal 3.2–3.5 mm long and 1.3–1.5 mm wide, ovate, acute, 1-nerved. Lateral sepals ca 3.5 mm long and 1.4 mm wide, ovate-lanceolate, acute, 1-nerved. Petals 3.2–3.5 mm long and 0.5–0.9 mm wide, ligulate-oblongate, obtuse. Lip 3.0–4.5 mm long and 3.0–3.2 mm wide, 5–9-nerved, 3 or 5 middle veins somewhat thickened, lamina trilobulate



**Fig. 1.** *Epilyna trilobata* Kolan. & Szlach., sp. nov. A – inflorescence, B – floral bract and flower, C – flower, D – leaf and leaf apex detail, E – dorsal sepal, F – petal, G – lateral sepal, H – lip (drawn by Natalia Ołędryńska from holotype). Scale bars: A–D = 5 mm; E & H = 2 mm.



Fig. 2. *Epilyna trilobata* Kolan. & Szlach., *sp. nov.* A – habit, B – inflorescence closeup (isotype; PMA). Scale bar = 2 cm.

in apical part; lateral lobes oblong-ovate; apical lobule transversely elliptic, apiculate; apical margins of lobes minutely denticulate; disc in basal part with two subglobose, separated calli. Gynostemium 1.5–2.3 mm long.

**ETYMOLOGY.** In reference to the trilobulate lip apical part.

**DISTRIBUTION AND ECOLOGY.** So far the species is known exclusively from the type locality. It grows in tropical humid forest at elevation below 1000 m a.s.l. It flowers in June.

**CONSERVATION NOTES.** While the species is known exclusively from one locality, the site of its occurrence is part of Chagrés National Park so its habitat is not endangered by anthropoppression.

**NOTES.** The species is undoubtedly related to *E. muscicola*, from which it is easily distinguished by the trilobulate lip apical part (vs lip apex truncate) and entire petals (vs petals crenulate-undulate apically). Moreover, the lip disc of *E. trilobata* is ornamented with 3–5 somewhat thickened veins running from the lip base up to the lip apical lobe.

#### KEY TO THE SPECIES OF *EPILYNA*

1. Inflorescence abbreviated, floral bracts imbricating ..... 2
- 1\* Inflorescence elongated, floral bracts somewhat spaced ..... 3
2. Lip apex truncate .....  
... *Epilyna muscicola* (Schltr.) Kolan. & Szlach.
- 2\* Lip apex trilobulate .....  
..... *Epilyna trilobata* Kolan. & Szlach.
3. Lip apical margin erose... *Epilyna embreei* Dodson
- 3\* Lip apical margin lacerate ..... 4
4. Lip with four subglobose calli in basal part ....  
..... *Epilyna hirtzii* Dodson
- 4\* Lip with two subglobose calli in basal part ....  
..... *Epilyna jimenezii* Schltr.

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