

Neoreophilus sibundoyensis (Orchidaceae, Pleurothallidinae), a new species from Colombia

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A new species, *Neoreophilus sibundoyensis* Kolan. (Orchidaceae), is described and illustrated. So far it is known only from the montane humid forest in the Colombian department of Putumayo. The differences between *N. sibundoyensis* and some similar species are discussed and a key to the *Neoreophilus* species with reduced petals is provided.

Reichenbach (1856) accommodated species of the genus *Lepanthes* with the rhizomes longer than ramicauls into section *Brachycladae*, which at that time contained only one species, *L. nummularia*. Luer (1986) elevated this section to the subgeneric rank and later (Luer 2005) to the generic rank. The generic name *Brachycladium* was, however, already in use for a fungus. A new name, *Oreophilus*, was proposed by Archila-Morales and Higgins (2008), but because the authors included in that genus *Lepanthes dielsii*, which is the type of the genus *Andinia*, the name was illegitimate. The mistake was corrected by Archila-Morales (2009), who proposed *Neoreophilus* to supplant the name *Brachycladium*. A year later another name, *Penducella*, was suggested by Luer and Thoerle (2010), but it was superfluous.

Recent molecular studies by Wilson and Jost (2011) suggest merging the genera *Andinia*, *Neoreophilus*, *Masdevalliantha* and *Xenosia* in *Andinia*.

Despite the nomenclatural complexities,

Neoreophilus species are easily distinguished from those of *Lepanthes* by a short rhizome which is ensheathed by two tubular, lepanthiform sheaths, while the abbreviated ramicaul is ensheathed by a single, ciliate sheath. The resupinate flowers, usually with undivided petals and lip are arranged into a congested, successively few-flowered raceme. Plants of this group are usually found growing in damp moss or lower branches of trees in wet montane forests (Luer 1994).

Neoreophilus comprises about 40 species, whose geographical range is limited to the Andean regions of South America, from Bolivia to Colombia (Luer 1994, 2005). So far 20 species of *Neoreophilus* were reported from Colombia, most of them found growing above 2000 m a.s.l. (Ortiz-Valdivieso & Uribe-Vélez 2007, Ortiz-Valdivieso 2011, Vieira-Urbe & Thoerle 2011).

During field studies conducted in the Colombian department of Putumayo, a distinctive species of *Neoreophilus* was found and it is described here as new.

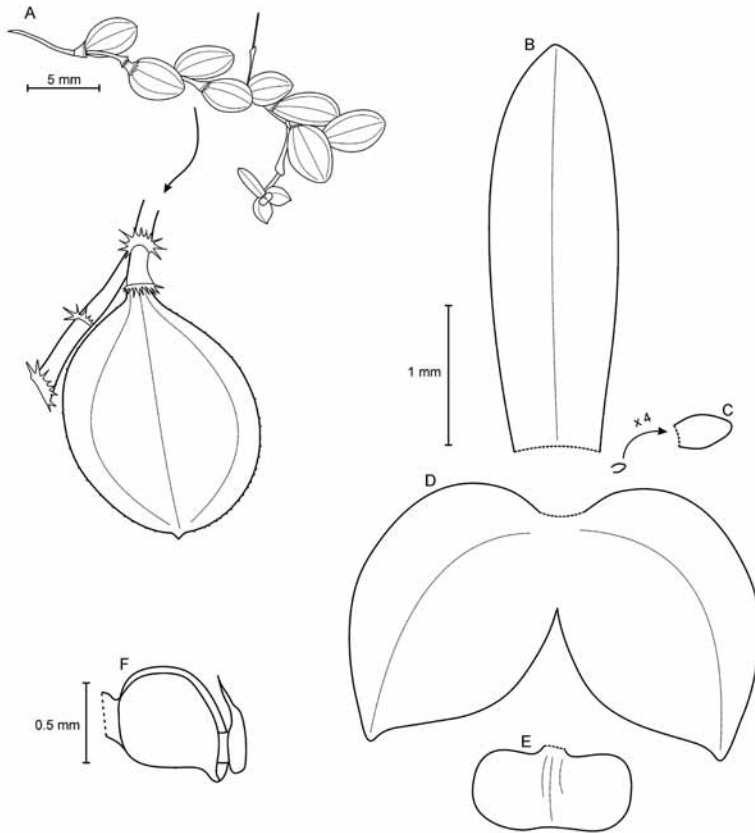


Fig. 1. *Neoreophilus sibundoyensis* (from the holotype). — **A:** Habit. — **B:** Dorsal sepal. — **C:** Petal. — **D:** Lateral sepals. — **E:** Lip. — **F:** Lip and gynostemium in natural position.

Neoreophilus sibundoyensis* Kolan., *sp. nova (Fig. 1)

TYPE: Colombia. Dept. Putumayo, Valle de Sibundoy. Mountains few km from San Andres, 1°06.928'N, 76°56.946'W, alt. ca. 2400 m, 31 August 2012 *Kolanowska & Barrera s.n.* (holotype UGDA, plant in alcohol; isotype COL).

ETYMOLOGY: In reference to the locality Valle del Sibundoy where the type specimen was collected.

Plants pendent, up to 20 cm long. Roots filiform. Rhizome 1.5–2.0 mm between ramicauls, enveloped by two ciliate sheaths. Ramicaul abbreviated, enveloped by a single ciliate sheath. Leaves descending, margins ciliate, blade up to 5 × 3.5 mm, ovate-suborbicular, acute, 3-nerved, violet, petiole 0.8–0.9 mm long. Inflorescence a single flower borne by a slender peduncle up to 4 mm long. Floral bract about 0.8–1.0 mm long. Pedicel up to 3 mm long. Ovary about 0.5 mm long, echinate. Flowers very small, sepals and petals orange-brown with yellow margins, lip pink. Sepals and petals glandular-cellular,

with entire margins. Dorsal sepal 3.0 × 0.9 mm, oblong, obtuse to subacute, 1-veined, connate for 0.2–0.3 mm to the lateral sepals. Lateral sepals 2.0 × 1.2 mm, ovate, obtuse, 1-veined, connate for about 0.6–0.8 mm. Petals reduced, less than 0.1 mm long, elliptic, obtuse. Lip glandular-cellular, inconspicuously clawed, about 0.6 × 1.2 mm when expanded, rectangular-reniform, apex truncate, embracing the column in the natural position. Gynostemium about 1.2 mm long. Flowering in August and September.

DISTRIBUTION AND HABITAT: Known only from the Colombian Valle del Sibundoy, where it was found growing epiphytically on mossy tree branches in the edge of a montane humid forest at about 2400 m a.s.l.

The microscopic petal characteristic of the new species are found also in some other *Neoreophilus* species known from Colombia and Ecuador: *N. destitutus*, *N. irrasus*, *N. lupulus*, *N. micropetalus* and the recently described *N. ortizianus*. From all those species *N. sibun-*

doyensis differs by the oblong dorsal sepal and the rectangular-reniform, truncate lip. A key to the morphological *Neooreophilus* species group characterized by reduced petals (up to 0.2 mm long) is as follows.

Key to the *Neooreophilus* species with microscopic petals

1. Sepals with entire, glabrous margins 2
1. Sepals with denticulate or ciliate margins 4
2. Lateral sepals narrowly ovate *N. destitutus*
2. Lateral sepals ovate to suborbicular 3
3. Dorsal sepal oblong, lip rectangular-reniform
..... *N. sibundoyensis*
3. Dorsal sepal broadly ovate to suborbicular, lip subcordate to reniform *N. micropetalus*
4. Petals triangular *N. ortizianus*
4. Petals orbicular 5
5. Leaf elliptic, lip subcordate *N. lupulus*
5. Leaf suborbicular, lip broadly ovate to suborbicular
..... *N. irrasus*

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