

***PORROGLOSSUM RAOI*, A NEW SPECIES OF PLEUROTHALLIDINAE (ORCHIDACEAE) FROM ECUADOR**

LUIS E. BAQUERO R.¹⁻⁴ & GABRIEL A. ITURRALDE¹

¹ Carrera de Ingeniería Agroindustrial y Alimentos. Facultad de Ingeniería y Ciencias Agropecuarias. Universidad de Las Américas, Calle José Queri, Quito 170137, Pichincha, Ecuador

² Jardín Botánico de Quito, Pasaje #34, Rumipampa E6-264 y Av Shyris, Interior Parque La Carolina, Quito, 170135, Pichincha, Ecuador.

³ Instituto Nacional de Biodiversidad, Pasaje Rumipamba 341 y Av. de los Shyris, 170135, Quito, Pichincha, Ecuador

⁴ Correspondent author: lbaquero@hotmail.com

ABSTRACT. A new species of *Porroglossum* (Pleurothallidinae), *Porroglossum raoi* Baquero & Iturralde, apparently endemic to a cloud forest close to Chical, is described here. *Porroglossum raoi* is compared to known species within the genus growing close to the area where it was discovered. The big white flower, the thick, subclavate and brown-purple lateral sepal tails, a single subacute angle on the lower margin of the petals and a strong cinnamon and clove smell, immediately separates this from other species in *Porroglossum*. Taxonomical and ecological notes are given.

KEY WORDS: Pleurothallidinae, *Porroglossum hoijerii*, *Porroglossum* section *Porroglossum*

Introduction. The genus *Porroglossum* Schltr. was proposed by Schlechter in 1920 when some of the species previously placed in *Masdevallia* Ruiz & Pav. did not seem to fit among the rest of species in this genus. 55 species of *Porroglossum* are known at the moment (Luer 1987, Dodson 2003, Merino, Doucette & Pupulin 2010, Chase *et al.* 2015, Karremans 2016), and new taxa continue to be added to the list (Luer 2010, 2011, Luer & Thoerle 2012, 2013, Doucette, McDaniel, Merino, Portilla & Cameron 2015). The most remarkable feature of the flowers of *Porroglossum* is the trigger-sensitive lip, something that is otherwise only in *Masdevallia teaguei* Luer, and some species belonging to *Specklinia* Lindl. (ex *Acostaea* Schltr.) and *Stelis* (ex *Condylago* Luer). *Porroglossum* is one of the three genera in the Pleurothallidinae with a lip capable of moving when affected by an external stimulus (Luer 1987). A change in turgor in a layer of cells from a tiny structure of the lip called the claw, causes it to move into a “closed” position on where the callus of the lip presses against the frontal surface of the column-foot (Sweet 1970, Luer 1987). Some species of *Porroglossum*, section *Porroglossum* (Luer 1987), have glabrous peduncles and big, expanded, dorsal sepals, wider than the synsepal formed by the fused lateral sepals, the apex of the dorsal sepal,

with a longer or shorter tail, reflected towards the ovary. Species exhibiting such characteristics include *Porroglossum actrix* Luer & Escobar, *P. amethystinum* (Rehb. f.) Garay, *P. aureum* Luer, *P. hoeijeri* Luer, *P. josei* Luer, *P. marniae* Luer, *P. nutibara* Luer & Escobar, *P. olivaceum* Sweet, *P. rodrigoii* Sweet, *P. sergioi* P. Ortiz and *P. teaguei* Luer. Except for *P. actrix*, from Putumayo department in Colombia, the rest of the species grow on the western slopes of the Andes from Colombia and Ecuador (Luer 1980, 1987, 1988, 1989, 1991, 1994, 1995, 1998, 2006).

The north-western cloud forests of Carchi and Esmeraldas provinces in Ecuador are an area in which some species such as *Porroglossum aureum*, *P. hoeijeri* and *P. josei* have been discovered (Luer 1987, 1995). Before 2008, the only way to reach Maldonado and Chical, in Carchi province, was through Tulcán, the biggest city near the Ecuador-Colombia border. This meant a long trip, first, going north to Tulcán and, from there, driving west until getting to Maldonado and Chical. *Porroglossum aureum* and *P. hoeijeri* were discovered along the Tulcán-Maldonado road. In 2008, the road that connects Chical to el Carmen (E187) was officially opened; this allowed the access to previously unexplored zones. Through the E187 road, not only the possibility to reach certain unexplored areas was

