



## A new *Trichosalpinx* (Orchidaceae: Pleurothallidinae) from the northern Pacific lowlands of Costa Rica

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### Abstract

A new species of *Trichosalpinx* from the Pacific lowlands of Costa Rica is described and illustrated. *Trichosalpinx reflexa*, which is morphologically most similar to *T. memor* and *T. ciliaris*, is distinguished mainly by the narrow elliptical leaves, the glabrous sepals and the reflexed synsepal. Information about distribution, habitat and phenology of the new species is also provided.

### Introduction

*Trichosalpinx* Luer (1983) is a Neotropical genus of Pleurothallidinae with more than 110 species, ranging from Mexico to Brazil. The genus is mainly distinguished by the lepanthiform sheaths of the ramicaul (a feature shared with *Draconanthes* (Luer) Luer, *Lepanthes* Sw., *Lepanthopsis* (Cogn.) Ames, and *Penducella* Luer & L.Thoerle), the mostly ciliate, denticulate or fringed petals, and the prominent column foot.

There are 19 species recorded in Costa Rica (Luer 1997, Luer 2003). Although some species are easily distinguished morphologically (e.g. *T. pergrata* (Ames 1923: 24) Luer (1983: 396) and *T. ringens* Luer (1996: 108)), the genus also includes several widely distributed taxa that have been treated as species complexes, often difficult to separate into smaller units due to the highly variable vegetative characters and similar floral architecture. The difficulties in distinguishing the species of *T. blaisdellii* (Watson 1888: 284) Luer (1983: 394) and *T. memor* (Reichenbach 1856: 330) Luer (1983: 396) complexes are often linked to a poorly understanding of natural variation and type specimens and herbarium material that are often difficult to interpret.

Preliminary studies aimed toward a revision of the genus in Costa Rica and field work conducted in the protected areas of Barra Honda, Carara and Diríá National Parks (Bogarín & Pupulin 2007) allowed us to evaluate populations of a *Trichosalpinx* species that is apparently restricted to lowland (< 500 m elevation), semideciduous forest of northern Costa Rica, whereas most of the other species in the western part of the country are recorded in premontane and lower montane forest between 1000 and 2000 m elevation.

The seasonally dry, northwestern area of Costa Rica has been well characterized biogeographically (see references in Bogarín & Pupulin 2007). To the north of the Tárcoles River basin there is a lowland, humid, semideciduous forest with a characteristic orchid flora, several species of which reach the seasonal forests close to the Central Valley. Many of these species have their southern-most distribution in the areas surrounding the Cerro Turrubares, Tárcoles basin and the Candelaria River (Jiménez & Grayum 2002). Within this group we find *Barkeria obovata* (Presl 1827: 99) Christenson (1988: 221), *Cohniella cebolleta* (Jacquin 1760: 30) Christenson (1999: 177), *Cyrtopodium macrobulbon* (La Llave & Lexarza 1825: 42) Romero & Carnevali (1999: 331), *Encyclia cordigera* (Kunth 1815: 341) Dressler (1964: 247), *Laelia rubescens* Lindley