



Three new species of *Stelis* (Orchidaceae; Pleurothallidinae) from Mexico

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Abstract

Three new species in the genus *Stelis* (Orchidaceae) are here described and illustrated for the first time: two have been previously mentioned and are published formally here. For each taxon, information is provided about its distribution, habitat, phenology, traits that distinguish it from similar species, and conservation status. A line drawing, photo, and map for the known localities of the three species are provided.

Key words: Orchids, *Stelis guerrerensis*, *Stelis kaiae*, *Stelis lapinerae*.

Resumen. Se describe e ilustra por primera vez tres nuevas especies en el género *Stelis* (Orchidaceae): dos habían sido mencionadas previamente como nombres no publicados y aquí son formalmente publicados. Para cada taxon se proporciona información acerca de su distribución, hábitat, fenología, rasgos que la distinguen de especies similares, así como su estatus de conservación. Se proporciona un dibujo a línea, foto y mapa para las localidades conocidas de las tres especies aquí descritas.

Palabras clave: orquídeas, *Stelis guerrerensis*, *Stelis kaiae*, *Stelis lapinerae*

Introduction

The genus *Stelis* Swartz (1799: 239), with approximately 900 species in its narrower circumscription, according to Luer (2007, 2009) and almost 1100 in its broadest circumscription *sensu* Pridgeon *et al.* (2001, 2002, 2005), is one of the largest genera in Orchidaceae, comparable in species richness to genera such as *Bulbophyllum* Thouars (1822: Table 3), *Dendrobium* Swartz (1799: 82), *Epidendrum* Linnaeus (1763: 952), and *Lepanthes* Swartz (1799: 85). The species of *Stelis* have their greatest richness in the Andes, especially in Colombia, Ecuador, and Peru. The genus is taxonomically difficult because botanists have traditionally neglected it, and currently there are few systematists specializing in it.

In Mexico, 60 species and one subspecies of *Stelis* have been recorded and formally published (Hagsater & Soto Arenas, 2003, 2008; Solano, 1993, 2000, 2010, 2011; Solano & Salazar, 2007; Soto Arenas *et al.*, 2007; Ramos-Castro *et al.*, 2012). Nonetheless, in recent years the continuous review of Mexican specimens in this group has led to the discovery of taxa that have not been formally named and described; three of them are described for the first time here. One was recently discovered in Chiapas, and the other two species had been mentioned in the literature but were not formally published (Soto *et al.*, 2007; Szeszko, 2011). As a result of this, the number of Mexican taxa of *Stelis* *sensu lato* increases to 63 species and one subspecies.

Taxonomy

Stelis guerrerensis Soto Arenas & R.Solano, *sp. nov.* (Figs. 1, 4A)

Similar to *Stelis pachyglossa* (Lindl.) Pridgeon & M.W.Chase from which it differs by its smaller and caespitose habit, arching inflorescence, smaller flowers, lateral sepals united with each other to their apices, and distribution.

Type:—MEXICO. Guerrero: municipio Atoyac de Alvarez, El Molote, selva perennifolia de montaña, ca. 1600 m elev., prensado de material cultivado, 18 Sep. 2006, *Santiago in Salazar 6739* (MEXU!).