



Article

Amoana (Orchidaceae, Laeliinae), a new genus and species from Mexico

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Abstract

Encyclia is monophyletic after removal of a number of species to *Euchile*, *Microepidendrum*, *Oestlundia*, and *Prosthechea*. However, phylogenetic analysis using DNA sequences indicated that *Encyclia kienastii* belongs to a separate, strongly supported sister group of *Alamania*, from which it differs markedly in vegetative and floral morphology. Here we transfer *Encyclia kienastii* to a new genus, *Amoana*. It is easily distinguished from other genera of Laeliinae by the following combination of characters: pseudobulbs narrowly cylindrical, leaves lanceolate, callus with two conspicuous, divergent, digitiform processes at the base of the midlobe of the labellum, and column reflexed in the middle. We also propose a second species in the genus, *Amoana latipetala*, which is easy to distinguish from *A. kienastii* because of its much wider sepals and petals. *Amoana* is endemic to intermediate elevations in south-central Mexico. A key to the species of the genus is presented. The conservation status of the two species is assessed using the IUCN and MER criteria.

Key words: *Alamania*, *Amoana latipetala*, *Encyclia*, *Encyclia kienastii*, Mexican orchids, Oaxaca, IUCN, MER

Resumen

Encyclia es monofilética luego de la exclusión de un grupo de especies que ahora son referidas a los géneros *Euchile*, *Microepidendrum*, *Oestlundia* y *Prosthechea*. Sin embargo, análisis filogenéticos previos, utilizando secuencias de ADN, sugieren que *Encyclia kienastii* pertenece a un clado distinto con un fuerte soporte estadístico, este clado es hermano de *Alamania*, de quien difiere en su morfología tanto floral como vegetativa. En este artículo se propone que *Encyclia kienastii* sea asignada a un nuevo género, *Amoana*. Este género se distingue fácilmente de otros géneros de Laeliinae por la siguiente combinación de caracteres: pseudobulbos angostamente cilíndricos, hojas lanceoladas, callo con dos procesos digitiformes conspicuos, divergentes en la base del lóbulo central del labelo y columna reflexa en su porción media. Se propone también una segunda especie para este género: *Amoana latipetala*, que se distingue fácilmente de *A. kienastii* debido a sus sépalos y pétalos muchos más anchos. *Amoana* es endémico de alturas intermedias en la región sur-central de México. Se propone una clave para las especies del género. Se presenta una evaluación del estado de conservación para las dos especies utilizando los criterios MER y IUCN.

Introduction

Encyclia kienastii (Rchb.f.) Dressler & Pollard (1971: 437) was originally described as *Epidendrum kienastii* Reichenbach (1887), based on a plant sent to Consul Kienast Zölly from Mexico. The plant flowered in the Consul's collection in 1887. Initially, *E. kienastii* was placed in section *Encyclium* Lindley (1841: 81) of *Epidendrum* Linnaeus (1763: 1347) because of its thickened pseudobulbs. Since its discovery, it has been considered a peculiar entity, and Ames (1923) commented: "It is a very distinct species, quite unlike any other Mexican *Epidendrum* that I have seen."

Discussion:—This species is easily distinguished from *Amoana kienastii* by its more robust flowers and lanceolate tepals, which are wider (ca. 0.7 cm) and shorter (ca. 1.6 cm) than those of *A. kienastii* (0.3–0.4 × 2.0–2.5 cm). The lip of *A. latipetala* is also different from that of *A. kienastii*; it is orbicular-elliptic, not oblong-obovate as in *A. kienastii*.

IUCN Conservation assessment:—**CR.** *Amoana latipetala* meets criteria B1a and B2a of the IUCN. The species is known from a single collection of uncertain provenance (Oaxaca or Guerrero).

MER Conservation assessment:—**P** (in danger of extinction). *Amoana latipetala* is known from only one specimen of uncertain provenance (possibly from Oaxaca or Guerrero), thus most likely occurring in less than 5% of the Mexican territory. Judging from the biology of its sister species and the fact that it is known from a single collection, it seems safe to assume that it is rare and grows at low population densities. Upon assessing the conservation status of this taxon against MER criteria, it scores 14 points.

Key to the *Amoana* species

1. Tepals more than 2.0 cm long and 0.4 cm or less wide. Labellum more than 1.8 cm long; midlobe of the lip much longer than wide, acute (1.3–1.5 × 0.6–0.8 cm) *A. kienastii*
- Tepals 1.6 cm long and 0.7 cm wide. Labellum rounded at apex, less than 1.7 cm long; midlobe sub-orbicular to broadly elliptic, slightly longer than wide (1.3 × 1.1 cm) *A. latipetala*

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