



Four new species and eighteen lectotypifications of *Larnax* from Ecuador and Peru and a new synonym of *Deprea orinocensis* (Solanaceae: Solanoideae, Physalideae)

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Abstract

Four new species of *Larnax*, *L. macasiana*, *L. pumila*, *L. purpureocarpa*, and *L. toledoana*, are described and illustrated and species conservation assessments presented. Eighteen lectotypifications of Peruvian *Larnax*: *Larnax abra-patriciae*, *L. altomayoensis*, *L. bongaraensis*, *L. chotanae*, *L. dilloniana*, *L. kann-rasmusseniorum*, *L. longipedunculata*, *L. lutea*, *L. nieva*, *L. pedrazae*, *L. peruviana*, *L. pilosa*, *L. pomacochaense*, *L. purpurea*, *L. sagasteguii*, *L. sawyeriana*, *L. schjellerupiae*, and *L. vasquezii* are proposed, mostly to replace material destroyed in a fire at HAO (Trujillo, Peru). A new synonym of *Deprea orinocensis* from Ecuador, *Ioichroma suffruticosum* is also proposed and lectotypified based on an examination of original type material.

Key words: Taxonomy, South America, Species conservation assessments

Introduction

The genus *Larnax* was described by Miers (1849: 37) from species of *Physalis* L. (1753: 182; *P. subtriflora* Ruiz López & Pavón 1799: 42, *P. orinocensis* Kunth in Humboldt *et al.* 1818: 12, and *P. xalapensis* Kunth in Humboldt *et al.* 1818: 13). These species were then transferred from one genus to another (*Withania* Pauquy 1825: 14, *Athenaea* Sendtner in Martius 1846: 133, and *Deprea* Rafinesque 1838: 57) by different authors (Dunal 1852, Hemsley 1882, Zahlbruckner 1892, D'Arcy 1973, 1993) making it difficult to delimit the genus. Hunziker (1977) reinstated *Larnax*, and Sawyer (2005) defined and differentiated *Larnax* from its most closely related genus *Deprea* based on six synapomorphies: filament base expansion (=stamen petalum, abruptly expanded, forming a short conspicuous or inconspicuous plaque with rounded or angular borders in *Larnax* vs. tapering, not forming a plaque in *Deprea*); filament length (heterodynamous, sometimes homodynamous in *Larnax* vs. always homodynamous in *Deprea*); filament adnation (< 1.8 mm in *Larnax* vs. > 2.5 mm in *Deprea*); anther length (unequal in *Larnax* vs. equal in *Deprea*); corolla shape (campanulate-rotate in *Larnax* vs. infundibular in *Deprea*); and pollen surface texture (scabrate or psilate in *Larnax* vs. rugulate in *Deprea*). Together with the other 12 so-called “physaloid” genera *Larnax* was included in the large tribe Solaneae by its accrescent calyx, longitudinally dehiscent anthers and the presence of a nectary at the base of the ovary (Averett 1979, D'Arcy 1991). From a phylogenetic standpoint *Larnax* is currently placed in a small unnamed subclade of the Physalideae clade (Olmstead *et al.* 2008, Särkinen *et al.* 2013). During the last two decades *Larnax* has expanded from eight to 33 species due to the description of many new species (Sawyer 1998, 2001, Leiva González *et al.* 2008, Leiva González & Barboza 2009, Leiva González *et al.* 2009).

Larnax is a neotropical genus that inhabits wet, premontane or montane forest edges, usually on slopes along streams or rivers, from southern Peru to Colombia (Hunziker 2001, Leiva González *et al.* 2009). A single species and subspecies is known from Central America: *L. sylvarum* (Standley & C. V. Morton 1938: 1036) N. W. Sawyer (2001: 461) subsp. *sylvarum*. Most *Larnax* species are herbs, shrubs or exceptionally small trees (up to 5 m). They

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