



## A revision of *Lophopappus* (Asteraceae, Nassauvieae)

LILIANA KATINAS<sup>1</sup>, GISELA SANCHO<sup>1</sup> & MAIRA S. VITALI<sup>1</sup>

<sup>1</sup>División Plantas Vasculares, Museo de La Plata, Paseo del Bosque s/n, 1900 La Plata, Argentina.

E-mail: [katinas@fcnym.unlp.edu.ar](mailto:katinas@fcnym.unlp.edu.ar) (corresponding author).

E-mail: [sancho@fcnym.unlp.edu.ar](mailto:sancho@fcnym.unlp.edu.ar).

E-mail: [vitali@fcnym.unlp.edu.ar](mailto:vitali@fcnym.unlp.edu.ar)

### Abstract

*Lophopappus* (Asteraceae, Nassauvieae) comprises five species endemic to South America. The genus is defined by its shrubby habit with unarmed branches, actinodromous or acrodromous leaf venation, solitary or few capitula at the apex of the branches with bilabiate and/or tubular-funnelform corollas, dorsally papillose style branches, and apically plumose pappus bristles. Leaf anatomy, cypsela trichomes, and pappus morphology are examined here for the first time in this genus. *Lophopappus cuneatus* is corroborated as a distinct species, *L. berberidifolius* is established as a synonym of *L. tarapacanus*, and a lectotype is designated for *L. foliosus*. A comprehensive key to the species and detailed descriptions, geographical distribution, phenology, illustrations and distribution maps are provided for all taxa.

### Resumen

*Lophopappus* (Asteraceae, Nassauvieae) comprende cinco especies endémicas de América del Sur. El género se define por su hábito arbustivo con ramas inermes, venación foliar actinódroma o acródroma, capítulos solitarios o en corto número en el ápice de las ramas, con corolas bilabiadas y/o tubulosas, ramas del estilo papilosas en el dorso y pajitas del papus plumosas en el ápice. Se examinan por primera vez en el género la anatomía foliar, tricomas del fruto y morfología del papus. Se corrobora que *L. cuneatus* es una especie independiente; *L. berberidifolius* es un sinónimo de *L. tarapacanus*; y se designa un lectotipo para *L. foliosus*. Se provee una clave de especies y descripciones detalladas, distribución geográfica, fenología, ilustraciones y mapas de distribución para cada especie.

### Introduction

*Lophopappus* Rusby (1894: 487) *emend.* Cabrera (1953: 45; Asteraceae, Nassauvieae) is a small genus of five shrubby species native to South America and ranges from central Peru to northwestern Argentina and northern Chile. Species of *Lophopappus* occur in dry areas at high elevations in the biogeographical provinces of Puna and Altoandean (Cabrera & Willink 1973), although some populations grow in moister areas such as the “bosque pluviifolio” (mountain rain forest) of Peru.

*Lophopappus* constitutes an intriguing genus of Nassauvieae. Its species display two characters unusual for the tribe: dorsally papillose style branches and tubular-funnelform corollas. These two characters deviate from those typical of Nassauvieae, i.e., style branches apically crowned by a tuft of papillae (collector hairs) and bilabiate corollas (Crisci 1974, Katinas *et al.* 2008a). Within Nassauvieae, dorsally papillose style branches are only found in two other genera: *Macrachaenium* J.D.Hooker (1847: 321) and *Proustia* Lagasca (1811: 33), whereas tubular-funnelform corollas are found exclusively in some species of *Acourtia* D.Don (1830: 203) and specimens of *Proustia pyrifolia* De Candolle (1812: 70) within the tribe (Crisci 1974). A revision in progress of the genus *Proustia* might, however, result in the discovery of more species with this corolla type. The type of exine stratification in the pollen grains of these genera, on the other hand, clearly indicates that they belong to Nassauvieae (Crisci 1974, Tellería *et al.* 2003).