



## Three new species of *Heliotropium* sect. *Heliothamnus* (Boraginaceae) from Peru

FEDERICO LUEBERT<sup>1,2</sup> & MAXIMILIAN WEIGEND<sup>1,3</sup>

<sup>1</sup> Freie Universität Berlin, Institut für Biologie, Botanik, Altensteinstraße 6, D-14195 Berlin, Germany. E-mail: f.luebert@fu-berlin.de

<sup>2</sup> Departamento de Silvicultura, Facultad de Ciencias Forestales, Universidad de Chile, Santiago, Chile.

<sup>3</sup> Current address: Nees-Institut für Biodiversität der Pflanzen, Meckenheimer Allee 170, D-53115 Bonn, Germany.  
E-mail: mweigend@uni-bonn.de

### Abstract

Three new species of shrubby *Heliotropium* sect. *Heliothamnus* endemic to the Andean inner valleys and the eastern and western slopes of the Peruvian Andes are described as *Heliotropium marañonense*, *H. pamparomasense* and *H. oxapampanum*. *Heliotropium oxapampanum* is the first species of the genus described from riparian habitats in the cloud forest. *Heliotropium pamparomasense* is the tallest species known in the group and forms shrubs to 4 m high with huge inflorescences. Notes on diagnostic characters, distribution and illustration are provided for each species.

**Key words:** Ancash, inner Andean valleys, Heliotropiaceae, Boraginales, Marañón, Oxapampa

### Resumen

Tres nuevas especies, endémicas de los valles interandinos y de las vertientes oriental y occidental de los Andes de Perú, pertenecientes al grupo de arbustos *Heliotropium* sect. *Heliothamnus*, son descritas como *Heliotropium marañonense*, *H. pamparomasense* y *H. oxapampanum*. *Heliotropium oxapampanum* es la primera especie del género descrita para hábitats riparios de los bosques nublados. *Heliotropium pamparomasense* es la especie más alta conocida para este grupo y forma arbustos de hasta 4 m de altura con grandes inflorescencias. Para cada especie se incluyen notas sobre sus caracteres diagnósticos, distribución e ilustraciones.

**Palabras clave:** Ancash, Valles interandinos, Heliotropiaceae, Boraginales, Marañón, Oxapampa

### Introduction

*Heliotropium* sect. *Heliothamnus* Johnston (1928: 38; Boraginaceae subfam. Heliotropoideae ≡ Heliotropiaceae) is a monophyletic and a morphologically well-defined group of shrubs with broad and generally pubescent leaves, coherent and papillose anthers, and fruits falling into four nutlets, with a centre of diversity in the Andes of Peru (Johnston 1928, Förther 1998, Hilger & Diane 2003, Luebert *et al.* 2011). Phylogenetically this section is the sister group to all other *Heliotropium* species (Luebert *et al.* 2011). The fruits in this group develop distinct apical septa, and the nutlets are separated by a gynoeical columella, both these characters are absent in the other sections of *Heliotropium* (Hilger 1992). Johnston (1928) recognized 11 species in *H.* sect. *Heliothamnus* in his revision of the South-American *Heliotropium*, ten of which were considered to be present in Peru (MacBride 1960) and three endemic to that country (León & Sánchez 2006). However, no attempt at critically revising the group has been made since Johnston (1928), who recognized the taxonomic difficulties of the group and left several specimens “doubtfully placed”. Taxonomic difficulties arise from the relatively small range of diagnostically useful characters (in flower and fruit), while the species are at the same time ontogenetically very plastic with leaf size and dimensions, pubescence and growth habit