



Notes on *Malesherbia* (Passifloraceae) in Peru: a new species from southern Peru, a new record and a first report on interspecific hybridization in *Malesherbia*

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Abstract

Malesherbia fatimae is described as a new species from the Province Condesuyos, Department of Arequipa, Peru. The new species is clearly differentiated from all known species of the genus by forming a strictly erect, laxly branched shrub with densely tomentose indument and from the perennial Peruvian members by an absence of the glandular trichomes. No clear affinities to known species present themselves, but the new species evidently belongs to *Malesherbia* sect. *Malesherbia*. At the type locality a putative hybrid with the morphologically highly divergent *Malesherbia tenuifolia* was observed, showing morphologically intermediate characters between *M. fatimae* and *M. tenuifolia*. *Malesherbia tenuifolia* is here for the first time reported from Peru, bringing the species total for the county to 12. A second putative interspecific hybrid, *Malesherbia ardens* × *M. arequipensis*, is reported from Department Moquegua. This indicates that species of *Malesherbia* may hybridize when eco-geographical separation breaks down due to habitat modification. The new species and the two novel hybrids are described and illustrated.

Key words: Arequipa, Andean, endemic

Introduction

Malesherbia Ruiz & Pav. (1794: 45) is a group of annual and perennial plants, mostly from scree slopes and Andean scrub. In Peru they are largely restricted to the western slopes of the Andes from Lima southwards, but with a few collections from the inner-Andean valleys. The most recent revision of the genus *Malesherbia* recognized a total of 27 species (Ricardi 1967), nine of them from Peru. Gengler (2002) recognized 24 species in the genus and since then two species have been added, one from Chile (Muñoz-Schick & Pinto 2003) and one from central Peru (Beltrán & Weigend 2014), so that the current species total is 26 species, with 12 of them from Peru.

The species of *Malesherbia* are usually highly divergent and readily distinguished and no interspecific hybrids had been reported from the genus so far. Conversely, interspecific hybrids have been abundantly demonstrated in a range of other Andean genera, especially those that are supposed to be of recent origin, such as *Caiophora* (Ackermann et al. 2008), *Calceolaria* (Molau 1988), *Fuchsia* (Berry 1982) and *Passiflora* (Fischer 2004). Gengler & Crawford (2000) and Gengler (2002, 2003) showed that genetic diversity and genetic divergence in Peruvian *Malesherbia* are low and that all species represent closely allied taxa, in spite of their considerable morphological divergence. It has been hypothesized that extant species are the results of recent speciation and are mainly differentiated eco-geographically (Gengler (2002, 2003). During field studies on medicinal plant conservation, individuals of *Malesherbia* were encountered, that could not be assigned to any of the species known from Peru. The collections represent two interspecific hybrids of morphologically highly divergent (but phylogenetically closely allied) species, a new record for Peru, and one new species.

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