



Pinguicula filifolia subsp. *alba* (Lentibulariaceae), a new subspecies with an extremely restricted distribution in Pinar del Río, Cuba

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Abstract

The carnivorous plant *Pinguicula filifolia* occurs in western Cuba and shows a restricted distribution due to habitat specificity associated with poor wet soils. Its populations are distributed mainly in south Pinar del Río (Cuba) and in Isla de la Juventud. Plants from one isolated location in NW Pinar del Río shows morphological differences with respect to the rest of the known populations observed in nature. Subsequent detailed morphological analysis of specimens led to the description of *Pinguicula filifolia* subsp. *alba* as a new subspecies. It differs from the typical subspecies in several reproductive traits involving flower, fruit and seed characters and is so far known only from the type locality.

Keywords: morphology, taxonomy, western Cuba

Introduction

The carnivorous genus *Pinguicula* Linnaeus (1753: 17) comprises more than 100 recognized species (Rodondi *et al.* 2010, Yildirim *et al.* 2012, Peruzzi & Gestri, 2013) which are mainly distributed throughout the northern hemisphere and in tropical and subtropical America (Legendre 2000). At present 13 *Pinguicula* species are known in Cuba (Domínguez 2012), all of which are endemic and show a very restricted distribution associated with poor wet soils in the westernmost, central and easternmost parts of Cuban archipelago. *Pinguicula filifolia* C. Wright ex Grisebach (1866: 162) is the species with the widest distribution in western Cuba; it occurs on Pinar del Río (island of Cuba) and in Isla de la Juventud (Isle of Youth), the second largest island of the archipelago.

Studies on Cuban *Pinguicula* have been done through traditional morphological analyses (Ernst 1961, Casper 1966, Casper 2003, 2004, 2007, Casper & Urquiola 2003, Domínguez *et al.* 2012, Domínguez *et al.* 2013), as well as using molecular techniques (Shimai *et al.* 2007). Some of these studies have revealed a large morphological variability in *P. filifolia* consistent with morphological variations observed during botanical explorations in western Cuba. Such intraspecific variability can be found among plants occurring in south Pinar del Río and in Isla de la Juventud; meanwhile, plants from a location toward the extreme of species distribution at the Ecological Reserve “Los Pretiles” in Pinar del Río showed exclusive morphological features not shared with other populations. After analysis and comparison of the plants collected in nature with a large number of specimens available in herbarium collections as well as with type specimens of *P. filifolia*, plants from “Los Pretiles” (NW Pinar del Río) are here described as a new subspecies of *P. filifolia*.

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