

Systematic and phylogenetic studies in Tribe Angelonieae (Plantaginaceae)

Tribe Angelonieae is a predominantly Southamerican clade, which includes 5 genera (sensu Olmstead, unpubl.) Angelonia, Basistemon, Monttea, Monopera and Melosperma. These genera have been grouped in more than one way in recent treatments. Fischer (2004) in the treatment of Scrophulariaceae for Families and Genera of Vascular Plants, includes in his tribe Angelonieae only Angelonia and Monopera. Monttea and Melosperma are placed in tribe Melospermeae, following Rossow (1985). Basistemon is placed in tribe Hemimerideae. However, Fischer's treatment was done before Oxelman et al. (2005) and Albach et al. (2005) published the phylogeny for this group.

Oxelman et al. (2005) lumped tribe Angelonieae with tribe Gratiroleae and genus Ourisia in a broadly enlarged tribe Gratiroleae but referred to separate Angelonieae and Gratiroleae in the accompanying text; Ourisia is not explicitly referred to Angelonieae, but is said to be weakly related to the other genera. Albach et al. (2005) also included Ourisia in tribe Angelonieae, even though two of the four DNA regions did not recover that clade, and consequently the support for that relationship is weak.

Ourisia is an interesting genus of herbaceous or suffruticose taxa found in wet, rocky habitats in high-elevation areas of South America (15 species) and Australasia (13 species) (Meudt & Simpson, 2006). Tank et al. (2006) discuss the ambiguity of the phylogenetic position of Ourisia within Plantaginaceae, which makes further studies necessary.

Objectives:

The main objective of this work is to establish phylogenetic relationships within genera in tribe Angelonieae and to analyse morphological traits that distinguish the group. Besides, relationship between tribe Angelonieae and sister tribe Gratiroleae is also going to be analysed, given both groups constitute the New World taxa clade of newly circumscribed Plantaginaceae. Finally phylogenetic position of genus Ourisia going to be studied given ambiguity found in recent phylogenetic studies.

Bibliografía:

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