



Revision of *Oxalis* section *Palmatifoliae* DC. (Oxalidaceae)

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Abstract

A taxonomic revision of *Oxalis* section *Palmatifoliae* is presented, together with cluster analyses to clarify the limits of the species. This monophyletic section includes five species endemic from Southern Argentina and Chile. A key for the species, descriptions, illustrations, synonymy, and geographical distribution for each species are also provided. Five lectotypifications and two new synonymies are proposed.

Key words: Patagonia, South America, Systematic, Taxonomy

Introduction

Oxalis Linnaeus (1753: 433) is a cosmopolitan genus that comprises approximately 500 species distributed in three main centres of species richness. The most important one is found in South America, with ca. half the species and the highest morphological variation, including variation in life-form, ranging from herbs to shrubs, acaulescent herbs to cushion shrubs, and adaptations to almost every environment (Knuth 1930, Macbride 1949, Lourteig 1994). The second centre of diversification is in South Africa where more than 200 bulbous species are concentrated in the Cape Region (Dreyer & Makgagga 2003). In North America, there are ca. 50 species, most of which are perennial and distributed in the south-western region (Eiten 1963, Denton 1973, Lourteig 1975, 1979, 1980, Nesom 2009). In addition, several cosmopolitan species and other few endemic species grow in Europe, Asia, and Oceania (Knuth 1930, Lourteig 1994).

The most comprehensive taxonomic treatment of the genus *Oxalis* was written by Lourteig (2000). Lourteig considered the genus divided into four subgenera, based mainly on characters of the leaf: *Oxalis*, *Monoxalis* (Small 1903: 665) Lourteig (1980: 451), *Trifidus* Lourteig (1995: 389), and *Thamnoxys* (Endlicher 1840: 1172) Reiche (1894: 275) emend. Lourteig (1994: 1). According to Lourteig (1994) the subgenus *Oxalis* is characterized by the presence of leaves with 3-multi leaflets subsessile, and it is divided into 19 sections.

Section *Palmatifoliae* de Candolle (1824: 702), endemic to South America, was named in allusion to the palmate leaves and grouped species by the following characters states: acaulescent or naked short-stem habit, leaves palmate, peltate-nerved and petiolate, with 5–13 leaflets, without glands and 1-flowered plants. De Candolle included nine species: *O. commersonii* de Candolle (1824: 702), *O. enneaphylla* Cavanilles (1799: 411), *O. flabellifolia* Jacquin (1794: 94), *O. flava* Linnaeus (1753: 433), *O. laciniata* Cavanilles (1799: 412), *O. lupinifolia* Jacquin (1794: 92), *O. mallobolba* Cavanilles (1797: 64), *O. pectinata* Jacquin (1794: 95), and *O. tomentosa* Thunberg (1781: 24).

Endlicher (1840) created the name *Palamoxys* but make use of the description of sect. *Palmatifoliae* by de Candolle, and included under this name the species *O. mallobolba*, *O. enneaphylla*, *O. laciniata*, *O. lupinifolia*, *O. Pectinata*, and *O. tomentosa*.