



A new species of *Minuartia* (Caryophyllaceae) restricted to the high Andes of South America

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Abstract

A new apetalous species of *Minuartia* from the high Andes of northwestern Argentina, *M. altoandina*, is here described and illustrated. At first sight, *M. altoandina* is morphologically very similar to the European *M. sedoides* because of the absence of petals and ciliate leaf margin with narrow hyaline teeth; however, from a biogeographical point of view, it will probably be related to the North American *M. rossii* complex through the morphology of *M. austromontana*.

Introduction

Minuartia Linnaeus (1753: 89) comprises an estimated 175 species distributed in temperate and arctic areas of Asia Minor, Europe, northern Africa, North America, and South America (Mattfeld 1922, Bittrich 1993, Rabeler *et al.* 2005). Only two species grow in South America: *M. groenlandica* (Retzius 1795: 107) Oestefeld (1920: 226) in southeastern Brazil (Hultén 1964) and *M. acutiflora* (Fenzl 1840: 965) Mattfeld (1921: 28) in southern Chile (Pedersen 1984, Marticorena & Quezada 1985). Latest molecular phylogenetic analyses have shown *Minuartia* to be a polyphyletic genus (Harbaugh *et al.* 2010, Greenberg & Donoghue 2011) and least three subgenera should be removed from *Minuartia*.

During a floristic study of the high Andes of northwestern Argentina, a tiny, moss-like herb with apetalous flowers was collected. DNA could not be obtained from the herbarium voucher, but a morphological analysis showed this plant to resemble *Minuartia sedoides* (Linnaeus 1753: 425) Hiern (1899: 321) and *Minuartia austromontana* S.J. Wolf & Packer (1979: 1676). Although *Minuartia* needs to be redefined as genus (Harbaugh *et al.* 2010), we describe this plant as a new species of *Minuartia* until it may be possible to obtain a new sample for DNA analysis.

Taxonomy

Minuartia altoandina Nicola & Pozner, *sp. nov.* (Fig. 1)

Type:—ARGENTINA. Jujuy: Dpto. Dr. Manuel Belgrano, del Refugio Militar al Chañi Chico, 4,740 m, 24° 02' 13" S, 65° 42' 58" W, 27 January 2012, C.A. Zanotti & M.A. Suescún 269 (holotype SI!).

Minute, moss-like herbs with slender, trailing stems with elongated internodes, rooting at nodes, and producing erect branches with short, reduced internodes. Trailing stems 40–50 × 0.6–0.8 mm with internodes 2–7 mm long and erect branches 10–15 mm long, densely covered by leaves. Leaves of the trailing stems opposite, sessile, shortly connated at base, lanceolate, 1.5–1.8 × 1 mm, recurved, acute-acuminate, 1-nerved; leaves of the erect branches opposite, sessile, shortly connated at base, ovate-lanceolate, 3–3.5 × 1–1.2 mm, erect, apex acute to rounded, 1-nerved, margin minutely pilose (2–5-celled, uniseriate trichomes) at base to papillose at apex. Flowers solitary, terminal. Pedicel reduced. Hypanthium short, dish-like, 0.25 × 1.5 mm;