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) Oestenfeld (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. 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 papillosse at apex. Flowers solitary, terminal. Pedicel reduced. Hypanthium short, dish-like, 0.25 × 1.5 mm;