



## *Arenaria acaulis* (Caryophyllaceae), a new species from South Peru

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### Abstract

During studies on the flora of Moquegua (Southern Peru), some interesting *Arenaria* populations (subgen. *Dicranilla*, Caryophyllaceae) were found. The morphology of the plants does not resemble any other neotropical *Arenaria* species. The most similar species known so far is *Arenaria boliviana* (from Bolivia and Peru) from which it differs in having a shorter stem length, ciliate (not glabrous) short branches; ovate rather than oblong-lanceolate leaves always covered with dense, long trichomes, never glabrous; pedicels shorter than or equal to the size of the calyx (not twice as long), sepals broadly ovate (not ovate-oblong) and with glabrous surface, as well as in the petals. Hence, a new species—*A. acaulis*—is here described and illustrated.

### Resumen

Como parte de los estudios de la flora del departamento de Moquegua (Sur de Perú), unas poblaciones interesantes de *Arenaria* (Subgen. *Dicranilla*, Caryophyllaceae) fueron encontradas. La morfología de las plantas no se asemeja a otras especies neotropicales de *Arenaria*. La especie más próxima es *Arenaria boliviana* (de Bolivia y Perú) de la cual se diferencia en tener tallos más cortos longitudinalmente, ramas cortas y ciliadas (no glabras); hojas ovadas y cubiertas por densos tricomas alargados; pedicelos de menos o igual tamaño que el cáliz (no del doble de tamaño), sépalos anchamente ovados (no ovado-oblongos) y con la superficie glabra, al igual que en los pétalos. Como consecuencia, una nueva especie para la ciencia—*A. acaulis*—es aquí descrita e ilustrada.

**Key words:** *Arenaria*, new species, Peru, South America

### Introduction

*Arenaria* Linnaeus (1753: 423) is a genus of about 200 species distributed in Eurasia, America, and northern Africa (Williams 1898, Zhou 1996, Hartman *et al.* 2005). The species of *Arenaria* are annual or perennial (often caespitose), with leaves ovate to lanceolate, petals usually with margins entire, stamens 10, disk more or less developed, (2–)3 styles and capsules opening with twice as many teeth as there are styles (Macbride 1937, McNeill 1962, Volponi 1985, Hartman 2005) Based on molecular data *Arenaria* was shown to be polyphyletic by Fior (2006, 2007) a result that was further corroborated by Harbaugh *et al.* (2010) and by Greenberg *et al.* (2011). Harbaugh *et al.* (2010) proposed to accommodate the members of *Arenaria* subgen. *Eremogone* (Fenzl 1833: 13) Fenzl (1842: 360) and subgen. *Eremogoneastrum* F.N.Williams (1895: 598) in *Eremogone* and to recognize *Arenaria* subgen. *Odontostemma* (Bentham ex G.Don 1831: 449) F.N.Williams (1895: 603) as a separate genus, The South American members of the genus (ca. 50 species) belong to subgen. *Dicranilla* (Fenzl 1840: 967) F.N.Williams (1895: 599) and subgen. *Leiosperma* McNeill (1962: 105). Several members of subgen. *Leiosperma* were shown to belong in *Arenaria* s.str. by Harbaugh *et al.* (2010), and by Greenberg *et al.* (2011), but no members of subgen. *Dicranilla* have been included in any phylogenetic study so far. A recent taxonomic review is lacking for both these South American subgenera,