



Saponaria emineana (Caryophyllaceae), a new species from inner Anatolia, Turkey

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Abstract

Saponaria emineana (Caryophyllaceae) is illustrated and described as a new species endemic to the inner part of West Anatolia, Turkey. It is related to *S. pamphylica* and differs from that species in having a densely tufted habit with compact and much-branched woody base, subfleshy, narrowly oblanceolate-spathulate basal leaves, petal limbs bifid at most to ¼ or ⅓, pink anthers and capsules with 25–30 seeds. *Saponaria pamphylica* has a less caespitose habit with fewer branches at base, non-fleshy leaves, petal limbs divided to c. ½, white anthers and capsules with fewer (c. 20) seeds. Pollen and seed samples of both species were compared using light microscopy and the scanning electron microscope (SEM) and found to be similar.

Introduction

The genus *Saponaria* Linnaeus (1753: 408) comprises ca. 40 species which are distributed in temperate Eurasia, mainly in the Mediterranean and Irano-Turanian regions. The component species often have a high saponin content which can be used as a soap substitute or for medicinal purposes (Bittrich 1993). In Turkey the genus was revised by Hedge (1967) and since then only three new taxa have been added to the Turkish flora: *Saponaria pinetorum* var. *elatior* Ekim & Hedge in Ekim (1984: 84), *S. bargyliana* Gombault (1963: 265) and *S. suffruticosa* Nábělek (1923: 41; see Davis *et al.* 1988, Mutlu 2006, Dönmez 2009). No new species have been described since. In this paper, *S. emineana* Y.Gemici & Kit Tan is included as a new *Saponaria* species for the country, bringing the total number of taxa in Turkey to 24, of which 12 are endemic. The doctoral thesis of the first author (Y.G.), began in 1983, and centred on the flora and vegetation of Akdağ and its immediate surroundings (Gemici 1988, 1990, 1991). Some interesting specimens of *Saponaria* were collected at that time in the area and we considered these related, but not identical to *S. pamphylica* Boiss. & Heldr. in Boissier (1849: 74).

The geographical area and its phytogeographical connections

Akdağ lies in the districts of Çivril (belonging to province of Denizli), Dinar and Sandıklı (province of Afyon). The mountain forms part of the mountain chains of western Anatolia and the main peaks are in a convex arc on the southern side, with the highest summit Büyük Yapağlı Tepe at 2449 m and the slopes losing height to the northeast until they merge with the Central Anatolian plateau. Kocayayla is a broad plain in the central mountain valley and connects to Işıklı lake via the Karanlıkdere river.

Phytogeographically speaking, Akdağ lies at an intersection of the Mediterranean and Irano-Turanian floristic regions. Of the 1060 vascular plant taxa published (Gemici 1990, 1991), 18.33% belongs to the