



## A new species of *Acanthophyllum* (Caryophyllaceae) from Iran

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### Abstract

The new species *Acanthophyllum yasamin-nassehiae* (Caryophyllaceae) from North Khorassan province (north-eastern Iran) is here described and illustrated. It belongs to the sect. *Oligosperma*, and it is related to *A. lilacinum* and *A. brevibracteatum* from the morphological point of view. Notes on its ecology and conservation status are given.

**Key words:** sect. *Oligosperma*, Endemic species, Irano-Turanian, Taxonomy

### Introduction

*Acanthophyllum* Meyer (1831: 210) is a genus of about 60 species mainly distributed in the Irano-Turanian region, with center of diversity in north-east of Iran and adjacent areas of Afghanistan and Turkmenistan (Takhtajan 1986, Ghaffari 2004). This genus includes small pulvinate shrubs with spiny leaves that grow in open habitats. These taxa are floristic components of steppe and mountain vegetation in Iran (Zohary 1973).

The first classification of *Acanthophyllum* was made by Boissier (1897). He recognized five groups within the genus (any certain taxonomic rank was given). Boissier's classification has been followed by several authors (e.g. Golenkin 1893, Shishkin 1936, Schiman-Czeika 1988). There are two main taxonomic treatments of the genus *Acanthophyllum*. The first one by Shishkin (1936) in the *Flora of USSR* in which two subgenera [subgen. *Acanthophyllum* and subgen. *Allochrusa* (Bunge in Boissier 1867: 559) Shishkin (1936: 799)], six sections, five series and 33 species are recognized. The other important study has been made by Schiman-Czeika (1988) for the Flora Iranica region: seven sections were recognized for *Acanthophyllum*, of which four [sect. *Acanthophyllum*, sect. *Macrostegia* Boissier (1867: 563), sect. *Oligosperma* Shishkin (1936: 783), and sect. *Pleiosperma* Boissier (1867: 565)] occur in Iran.

Several other works have recently been published on the taxonomy of the genus in Iran. Parsa (1951) recognized 18 species [five sections corresponding to the five groups by Boissier (1867)]. Mobayen (1979) reported 17 species without subgeneric classification. Schiman-Czeika (1988) recognized four sections including 33 *Acanthophyllum* species in Iran. Some new records as well as a new species of *Acanthophyllum* for Iran have been recently published (Joharchi & Akhane 2006, Mahmoudi-Shamsabad *et al.* 2012). Basiri-Esfahani *et al.* (2011) reduced the number of Iranian species to 21, on the basis of morphological studies. They followed the sectional classification by Schiman-Czeika (1988), and suggested seven synonymies as well as the treatment of five species at variety rank.

*Oligosperma* is the largest section of *Acanthophyllum*, and represents the most diverse and controversial group (Ghaffari 2004, Mahmoudi-Shamsabad *et al.* 2012). It includes shrubs with elongate internodes, cushion-forming shrubs and, subshrubs with extremely reduced stems and imbricate leaves. All members of the section have inflorescences in cymes (compound dichasia), five sepals, five clawed pink to lilac petals, 10 exerting stamens and 4-ovuled ovaries.