



Typification of two species names of *Trigonella* sect. *Ellipticae* (Leguminosae-Papilionoideae) from Afghanistan

MAJID AGHAAHMADI¹, KAZEM NEGARESH¹, HOJJATOLLAH SAEIDI* & MOSTAFA ASSADI²

¹Department of Biology, University of Isfahan, Isfahan 81746-73441, Iran.

²Research Institute of Forests and Rangelands, P. O. 13185-116, Tehran, Iran

*corresponding author. Email: ho.saeidi@sci.ui.ac.ir

Two species names of *Trigonella* sect. *Ellipticae* are here lectotypified: *T. gharuensis* and *T. koeiei*. A distribution map of the species is presented.

Key words: Fabaceae, Flora Iranica, taxonomy

The genus *Trigonella* Linnaeus (1753: 776) is a large genus in the family Fabaceae (Širjaeve 1928). It is a member of the tribe Trifolieae, subtribe Trigonellinae (Small 1987, 2011) and contains over 100 species occurring mainly from the Mediterranean Sea to the Himalayan mountain range (Boissier 1872, Širjaeve 1928, Huber-Morath 1969). In Flora Iranica, Rechinger (1984) recognized 58 species in 12 sections, of which ca. 25 species are endemic to this area. The majority of this endemism occurs in East Afghanistan, in the Pamir mountain range (Širjaeve 1928, Small 2011).

Trigonella sect. *Ellipticae* Boissier (1872: 67) with ca. 60 species is the largest section in *Trigonella* (Širjaeve 1928, Rechinger 1984). This section includes all perennial species of the genus, and occurs mainly in central Asia. Rechinger (1984) listed 28 species for sect. *Ellipticae*, within the geographic range of Flora Iranica. 19 species of this section are found in Afghanistan, of which 12 species are endemic to this country. Therefore Afghanistan can be considered a center of diversity for sect. *Ellipticae*.

Whilst carrying out a revision of *Trigonella* sect. *Ellipticae* in Afghanistan, we realized that the protologues for *T. gharuensis* Rechinger in Kōie & Rechinger (1957: 12) and *T. koeiei* Širjaeve & Rechinger in Kōie & Rechinger (1957: 14) did not cite a holotype from amongst the syntypes. Following a thorough examination of the literature and of the type material, we here designate a lectotype for each of these species.

Materials and methods

Digital images of all type material, from the herbaria of C, E, HAL, KUFS and W (herbarium abbreviations follow Thiers [continuously updated]), were studied for both species. The distribution map was produced using DIVA GIS ver. 5 (Hijmans *et al.* 2005).

Typifications

1. *Trigonella gharuensis* Rechinger

Type:—AFGHANISTAN. Prov. Kabul: Tang-e Gharu, in fissuris rup. calc., 1600–1700 m, 21 May 1935, *Scheibe 66* (lectotype W! designated here, isolectotype HAL!) (Fig. 1)

Two duplicates of the type specimen (W and HAL) were cited by Kōie & Rechinger (1957) in the protologue of *T. gharuensis*; neither was designated as the holotype. The specimen at W is here selected as the lectotype because its leaves, flowers, and fruits are more developed than the other specimen, and the characters of the specimen agree closely with the protologue.

Distribution:—Afghanistan and Pakistan (Fig. 3).

2. *Trigonella koeiei* Širjaeve & Rechinger

Type:—AFGHANISTAN. Prov. Behzud: Farakulum, 2700 m, 22 July 1948, *Kōie 2617* (lectotype W! designated here, isolectotype C!, two sheets comprising one specimen) (Fig. 2).