



A new species of *Bupleurum* (Umbelliferae) from Badakhshan, with notes on and a key to the alpine species of High Asia

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Abstract

A new species of *Bupleurum*, *B. pamiricum* Pimenov & Kljuykov, distributed in the Pamirs alpine plateau in Tajikistan and Afghanistan, is here described. Previously collections of this taxon have been attributed to either *B. aitchisonii* or *B. gracillimum*, but it differs from the first in the rootstocks not branching, thin roots, narrower stem leaves 3-6 (not 1-2) and from the second in the brown stylopods, thin stems, in the leaves almost not broadened at the base, and bracteole number. A taxonomic key to the five alpine species of *Bupleurum*, growing in High Asia, is also provided.

Key words: Apiaceae, *Bupleurum pamiricum*, Tajikistan, Afghanistan

Introduction

Badakhshan is a natural alpine area in High Asia, divided by the deep Pyandj valley into Tajik and Afghan parts (Kuhistani Badakhshan Autonomous Province and Badakhshan Velayet, respectively). Although the local flora forms a natural unity, there is, however, some difference in current species lists from Tajikistan, and Afghanistan, due to rather independent and unequal botanical exploration. In general, identity of plants growing on different sides of frontiers in High Asia in Tajikistan, Afghanistan, Pakistan, India, and China can sometimes be complicated. The Umbelliferae are not an exception.

During many years of field and herbarium investigation of Tajik Umbelliferae and studies of Afghan members of the family in various herbaria, we have described several new taxa and clarified general taxonomy and phytogeography of local taxa (Pimenov & Kljuykov 1985, 1996a,b, 2004, 2009, 2013). During a short trip in 2013 to Afghan Badakhshan near the Tajik border we added personal collections and observations of the Umbelliferae. As a result we are able here to clarify the identity of a previously misidentified species of *Bupleurum* Linnaeus (1753; 236) from the Great and Little Pamirs.

Bupleurum is one of big genera of the Umbelliferae (185–195 species in the World, 159 species in Asia; the second Umbelliferae genus in Asia after *Ferula* L. (1753: 246)). It is a natural monophyletic genus, which can be easily identified among Eurasian Umbelliferae by entire leaves. Afghanian flora contains 11 species of *Bupleurum*, flora of Tajikistan—6 species.

Materials and Methods

Herbarium materials were studied in BM, G, K, KHOR, KYO, LE, M, TAD, TASH, and W herbaria. Carpological studies were carried out using fruits from MW and the MSU Botanical Garden carpological collection; cross-sections were prepared by standard method.

Bupleurum pamiricum, a new species from the Pamirs

For the East (or “true”) Pamirs, only one *Bupleurum* species has been known, *B. aitchisonii* (Boiss.) H. Wolff (Linczevski 1950, Ikonnikov 1963, Pimenov 1983, Korovin & al. 1984). We regard this name to be partly incorrect for Pamirs