



Taxonomic remarks on some Asian *Lepidium* s. l. (Brassicaceae)

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Abstract

Taxonomy of some Central, Middle and South West Asian representatives of *Lepidium* s. l. is revised and updated. Poorly known taxon, *L. rubtzovii*, is shown to be unrelated to *L. coronopifolium* s. l., but close to *L. lacerum*. Three new combinations (*L. lacerum* subsp. *rubtzovii*, *L. leventii*, and *L. macrocarpum*) are proposed. The names *L. deserti*, *L. persicum* subsp. *arianum* and *L. seravschanicum*, and *Stroganowia kazachstanica* are newly recognized as synonyms of *L. obtusum*, *L. ferganense*, and *L. cardiophyllum*, respectively. For *L. ferganense* and *L. macrocarpum*, lectotypes are designated. Besides, *L. lacerum* subsp. *rubtzovii* is reported for the first time for China (instead of subsp. *lacerum*), *L. leventii* for Iran, *L. macrocarpum* for Tajikistan, and *L. obtusum* for Afghanistan. In contrast, occurrence of *L. lacerum* in Uzbekistan and Turkmenistan is considered doubtful.

Key words: Central, Middle, and South West Asia, Cruciferae, nomenclature, typification, *Stroganowia*

Introduction

Being one of the three largest genera within Brassicaceae (conf. Al-Shehbaz 2012), *Lepidium* Linnaeus (1753: 643), with the recent update of de Lange *et al.* (2013) comprising ca. 260 species worldwide represents a good source of unresolved taxonomic problems. A number of *Lepidium* L. s. l. (delimitation following Al-Shehbaz & Mummenhoff 2011 and Al-Shehbaz 2012) species is concentrated in Central, Middle, and South West Asia making this area one of the centers of taxonomic diversity and complexity of the genus. Additional circumstance contributing to the situation is rather considerable difference in understanding the species limits among authors, as stressed by Hedge (1968: 70) and Jalas (1996: 284) which is caused, on one hand, by different taxonomic traditions and, on the other, by a limited amount of material on certain taxa and its poor accessibility to particular experts. This is especially obvious while comparing the treatment in *Flora Iranica* (Hedge 1968) based on the broad species concept and rather rich material from SW Asian region (and scarce gatherings from neighboring territory of the former USSR) with the Middle Asian treatments of Soviet authors (Busch 1939, Vassilczenko 1948; Botschantzev & Vvedensky 1955; Vinogradova 1974) that follow narrow species concept and take into consideration an ample material from relevant region but nearly no gatherings from adjacent Iran and Afghanistan. Hence, a bilateral look would be helpful in order to place the concepts of taxa on the common ground. In addition, the status of a number of species such as *L. deserti* (Pavlov 1952: 86), *L. rubtzovii* (Vassilczenko 1966: 40), recently described *Stroganowia kazachstanica* Karpova (2006: 131) and *S. leventii* Dorofeyev (in Dorofeyev *et al.* 2004: 72) needed elucidation. All these species are known from either a single or at best very few gatherings. Besides, the latter two taxa were described as members of *Stroganowia* Karelin & Kirilow (1841: 386), a genus nowadays treated synonymous with *Lepidium* (Al-Shehbaz *et al.* 2002, Al-Shehbaz 2012), and their position within *Lepidium* also had to be clarified and fixed nomenclaturally. During the last decade, I had an opportunity to study the material on relevant taxa which enables presenting a refreshed view on their taxonomy. Although taxonomic characterization of certain species mentioned here such as *L. ferganense* Korshinsky (1898: 417), *L. lacerum* C.A. Mey. in Ledebour (1830: 19), and *L. persicum* Boissier (1842: 196) still might require further elucidation, the novelties presented here are hopefully a step in the right direction.

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