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A new combination in *Descurainia* (Brassicaceae) from Turkey

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Descurainia sophia (L.) Webb *ex* Prantl subsp. *bartschii* (O.E. Schulz) C. Vural *comb. & stat. nov.*, previously regarded as a species, is proposed based on the morphological and pollen characteristics. A detailed description is given on the basis of new material from the type locality. The taxon is endemic to central Anatolia, Turkey. A key to the Turkish subspecies of *Descurainia sophia* is provided.

Key words: Brassicaceae, *Descurainia*, nomenclature, taxonomy

Introduction

The genus *Descurainia* has three taxa in Turkey, including *Descurainia bartschii* O.E. Schulz which was first collected by Bornmüller in 1930 (Hedge 1965).

Otto Eugen Schulz (1874–1936), an eminent specialist of Brassicaceae, described *Descurainia bartschii* in 1932 (Schulz 1932), citing a single collection gathered by Bartsch: *Kleinasien, Erdschias*, *auf dem Gipfel Ali Dag*, *1700 m*. It was collected two years earlier in the vicinity of Kayseri, Turkey. This species is only known from gatherings from the type locality, however, it appears not to have been found since 1930. According to Hedge (1965), the type specimen, once in the Herbarium of the Botanischer Garten und Botanishes Museum Berlin-Dahlem (B), was destroyed during World War II, so it was considered to be an imperfectly known species by that author. Afterwards the type specimen of *D. bartschii* was confirmed to be extant at B by Robert Vogt (Curator).

Currently, the interpretation of this species is based solely on Schulz's protologue (Schulz 1932: 391). To my knowledge, there are no morphological and palynological studies on *D. bartschii*. Thus, the aim of this study was to put forth a detailed description of *D. bartschii* on the basis of new material from the type locality and to determine its taxonomic status.

Descurainia sophia subsp. ***bartschii*** (O. E. Schulz) C. Vural, *comb. & stat. nov.*

Descurainia bartschii O. E. Schulz, Notizblatt des Botanischen Gartens und Museums zu Berlin-Dahlem, 11: 391, 1932. — TYPE: [Turkey] Kleinasien, Erdschias, auf dem Gipfel Ali Dag, 1700 m, 4.V.1930 *Bartsch n. 4* (photo: B!)

Annual herb, 20–60 cm, stem erect, densely covered with irregularly branched hairs (mostly

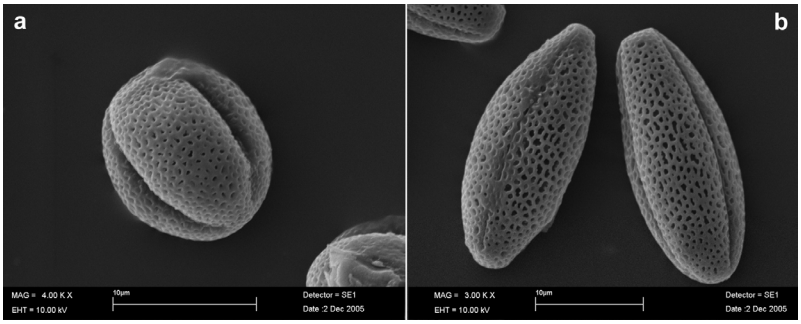

Fig. 1. SEM micrographs of pollen grains of *Descurainia sophia* subsp. *bartschii* (from *Vural* 4274, GAZI). — **a**: Spheroidal type. — **b**: Prolate type.

and basically bifid or twice bifid, often somewhat asymmetrical, sometimes with additional branch(es)), unbranched and glandular hairs abundant and distinct especially on inflorescence. Glandular hairs present also on sepals. Basal leaves petiolate, 2–3 pinnatisect. Inflorescence corymbose, elongating in fruit. Sepals 2.5–3.0 mm, dark yellow, violet-dotted at apex, with glandular hairs on dorsal side. Petals 3.0–3.5 × 0.5–1.0 mm, golden yellow. Fruiting pedicels erect ascending, 7–12 mm. Fruit 12–35 × 0.5–1.0 mm, slightly curved. Style ca. 0.4 mm. Pollen grains tricolpate, spheroidal or prolate with reticulate exine.

Descurainia sophia subsp. *bartschii* is closely related to *D. sophia* subsp. *sophia*, but differs in the presence of numerous glandular hairs in the region of the inflorescence. The most useful character is the presence/absence of glandular hairs. Subspecies *sophia* is covered (though usually not densely, only sparingly on the stem and inflorescence axes) with irregularly branched hairs (i.e. mostly and basically bifid or twice bifid, often somewhat asymmetrical and sometimes with additional branch(es)), and all three hair types occur in both species; the unbranched and glandular hairs are rare in subsp. *sophia* and difficult to observe, while in subsp. *bartschii* the unbranched and glandular hairs are abundant and distinct especially on the inflorescence. Subspecies *sophia* is distributed throughout Turkey, while subsp. *bartschii* is found only in Central Anatolia around Mt Ali (Hedge 1965).

The pollen features are not taxonomically useful because they do not vary or the variation is inconsistent. The pollen grains of subsp. *bartschii* and subsp. *sophia* are tricolpate and spheroidal or prolate with a reticulate exine, and both pollen types occur in both taxa (Fig. 1).

The following key is provided to distinguish the Turkish subspecies of *Descurainia sophia*.

1. Plant densely covered with irregularly branched hairs, unbranched and glandular hairs abundant and distinct especially on the inflorescence ..... subsp. *bartschii*
1. Plant glabrous or covered (though usually not densely, only sparingly on the stem and inflorescence axes) with irregularly branched hairs, unbranched and glandular hairs absent or rare and difficult to observe .... subsp. *sophia*

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