

Sterigmostemum laevicaule Bornm., a synonym of *Erysimum crassicaule* (Boiss.) Boiss. (Cruciferae)

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***Sterigmostemum laevicaule* Bornm., a synonym of *Erysimum crassicaule* (Boiss.) Boiss. (*Cruciferae*)**

Abstract

Sonboli, A., Assadi, M. & Zehzad, B.: *Sterigmostemum laevicaule* Bornm., a synonym of *Erysimum crassicaule* (Boiss.) Boiss. (*Brassicaceae*). – Willdenowia 30: 359-360. 2000. – ISSN 0511-9618.

Sterigmostemum laevicaule, described by Bornmüller in 1910, has been a nomen dubium since the single specimen ever known was destroyed in Berlin-Dahlem in 1943. A search in the type locality produced evidence that the description actually refers to *Erysimum crassicaule*, a name that has priority. A corresponding neotype is designated for *S. laevicaule*.

In 1910, Bornmüller described *Sterigmostemum laevicaule*, comparing it to *Isatis* on account of its shiny yellow stem and straight habit and distinguishing it from all other species of *Sterigmostemum* by the glabrous stem and entire leaves with a conspicuously dense indumentum of stellate hairs (Bornmüller 1910, description repeated in Bornmüller 1911). The description is based on a collection, which Bornmüller made at 2200 m on the Kuh-e Tagh Ali near Kerman (Kerman province, Iran) in June 1892. The single specimen of the type collection was kept in Bornmüller's personal herbarium (Bornmüller 1910), which he sold after his retirement from the position of the curator of the Herbarium Haussknecht (JE) in 1938 to the Botanic Garden and Botanical Museum Berlin-Dahlem. First parts of the herbarium, comprising families of the *Dialypetalae* and including also the *Brassicaceae*, were sent to Berlin in 1941-42 (Wagenitz 1960: 358) and destroyed in 1943 when the Berlin-Dahlem herbarium (B) burnt down, among them also the holotype of *S. laevicaule* (confirmed by the curators of B and JE, pers. comm.).

Apart from the holotype, no other collection of *S. laevicaule* has ever been recorded in the literature (compare Parsa 1951, Rechinger 1968, Jacquemoud 1988). Also in the course of the first author's revision of the *Sterigmostemum* specimens in the herbaria of the Research Institute of Forests and Rangelands (TARI), the Plant Pest and Diseases Research Institute (IRAN), the Tehran Natural History Museum (MMTT), the Institute of Natural Resources Research of Isfahan and Urmia, the Shahid Beheshti University (HSBU), the Urmia University and the Kerman University, not a single specimens determined as *S. laevicaule* could be traced.

Jacquemoud (1988) excluded *S. laevicaule* from the genus but did not ascribe it to another genus. Comparing its description with other species of the genus (e.g., solitary and glabrous versus branched and hairy stems; entire versus pinnatifid or pinnatisect leaves), Jacquemoud's ex-

clusion of *S. laevicaule* in fact appears most justified. Bornmüller (1910, 1911) unfortunately paid little attention to details of the flower morphology, whether, e.g., the longer filaments are connected in pairs as they usually would be in *Sterigmostemum*, which renders the correct placement of Bornmüller's species on the basis of the description difficult.

For the evident lack of any material, the type locality of *S. laevicaule* was visited by the first author in the same month as Bornmüller did, to unveil its identity. Searching the area, only one species was found that fits the description, but it turned out to represent *Erysimum crassicaule* (Boiss.) Boiss., which is rather common in this area. Besides, no other *Brassicaceae* that would somehow match the description was met there. A careful comparison of *E. crassicaule* and the features of *S. laevicaule* (life form, indumentum, stem, leaves, pedicels, petals, style, silique) shows full agreement. No mention is made in Bornmüller's description though that the inner sepals would be strikingly saccate as it is the case in *E. crassicaule*. However, taking into account that his description is focused on gross morphology, it is still the most plausible assumption that Bornmüller actually described a specimen of *E. crassicaule*.

The binomial *S. laevicaule* consequently applies to the prior described *E. crassicaule* and must be regarded as a synonym of this species. Correspondingly we neotypify the name *S. laevicaule* with a collection of *E. crassicaule* from the locus classicus on the Kuh-e Tagh Ali.

Erysimum crassicaule (Boiss.) Boiss., Fl. Orient. 1: 199. 1867 ≡ *Cheiranthus crassicaule* Boiss. in Ann. Sci. Nat. Paris, ser. 2, 17: 45. 1842.

= *Sterigmostemum laevicaule* Bornm. in Mitt. Thüring. Bot. Vereins 27: 23. 1910 [& Beih. Bot. Centralbl., Abt. 2, 28: 110. 1911]. – Holotype: Persia, prov. Kerman, in monte Kuh-tagh-ali prope Kerman, c. 2200 m, 2.6.1892, *Bornmüller 2128* (B[†]); neotype (designated here): *ibid.*, 2000-2200 m, 9.6.1998, *Sonboli 98301* (HSBU; isoneotypes B, TARI), **syn. nov.**

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References

- Boissier, E. 1867: Flora orientalis **1**. – Basel & Genève.
 Bornmüller, J. 1910: Novitiae florum orientalis, series 5 (88-90). – Mitt. Thüring. Bot. Vereins **27**: 22-24.
 — 1911: Iter persico-turcicum 1892-1893. Beiträge zur Flora von Persien, Babylonien, Assyrien, Arabien. – Beih. Bot. Centralbl., Abt. 2, **28**: 89-171.
 Rechinger, K. H. 1968: *Sterigmostemum*. – Pp. 277-282 in: Rechinger, K. H. (ed.), Flora iranica **57**. – Graz.
 Jacquemoud, F. 1988: Monographie du genre *Sterigmostemum* M. Bieb. (*Cruciferae-Hesperidae*). – Boissiera **40**.
 Parsa, A. 1951: Flore de l'Iran **1(1)**. – Teheran.
 Wagenitz, G. 1960: Joseph Bornmüller 1862-1948. – Willdenowia **2**: 343-360.

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