

Rubus brdensis – first record for Germany

von

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Kurzfassung: *Rubus brdensis* – Erstnachweis für Deutschland. *Rubus brdensis*, eine Regionalart aus *Rubus* ser. *Hystrix*, bisher als endemisch für Böhmen angenommen, wurde für die Flora Deutschlands neu entdeckt. Er wurde in der Nähe von Bayerisch Eisenstein (Bayerischer Wald) gefunden. Die Art bildet Schösslinge mit Stacheln in variabler Form und Größe sowie zahlreichen verschiedenen Borstenformen; die Schösslingsblätter sind 3-fiedrig und unterseits kahl bis spärlich behaart; die Infloreszenz ist kurz und armlütig, die Kronblätter sind rosa. Die Bestimmungsmerkmale, die sie von den ähnlichsten Arten unterscheiden (z. B. *Rubus bavaricus*) werden im Detail genannt; ein Scan des Herbarbelegs und Fotos in situ werden gezeigt.

Schlüsselwörter: Batologie, Brombeere, floristischer Nachweis, Pflanzenverbreitung, *Rosaceae*.

Abstract: *Rubus brdensis*, a regional species of *Rubus* ser. *Hystrix*, until recently presumed endemic to Bohemia, has been newly discovered for the flora of Germany. It was found at a site near Bayerisch Eisenstein (Bavarian Forest). The species has primocanes with prickles of various shapes and sizes and many various forms of setae; the leaves are mostly 3-foliolate and glabrous to sparsely hairy below; the inflorescence is short and poorly flowered, the flowers have pink petals. The diagnostic characters that distinguish it from the most similar species (e. g. *Rubus bavaricus*) are given in detail; a scan of the herbarium specimen and photos in situ are provided.

Key words: batology, bramble, floristic record, plant distribution, *Rosaceae*.

Rubus brdensis Holub was described in 1991 from the edge of the settlement Sklená Hut' (Rokycany district) lying between the Křivoklátsko region and the Brdy hills in central Bohemia (HOLUB 1991), where the species has its distribution centre. The Latin epithet *brdensis* refers to the Brdy hills, where the species is common. Its entire distribution area is situated within central (especially the Střední Povltaví region, the Křivoklátsko region and the Brdy hills) and western Bohemia (Plzeň and Klatovy regions). It is more or less circular and reaches about 100 km in diameter (PLADIAS 2020). The most remote localities of the species are 170 km apart, which allows it to be classified as a regional species (WEBER 1996). So far, it has been considered an endemic of Czechia without any reported locality in the neighbouring Germany (cf. HAND et al. 2020). The nearest known localities to Germany are located near the villages of Pelechý and Nový Kramolín in the Domažlice district, 4 km and 9 km away from the German-Czech border, respectively (PLADIAS 2020). *Rubus brdensis* is a woodland species inhabiting shaded or open woods and forests, woodland edges, clearings, and gaps (HOLUB 1995).

Rubus brdensis is classified to the series *Hystrix* Weihe. It is characterized by low-arching to prostrate primocanes, which are sparsely hairy and besides prickles

of various shape (straight to slightly curved) and size, bear many various forms of setae, specifically pricklets, bristles, acicles, and prickle papillae (Fig. 1). The leaves on primocanes are almost exclusively 3-foliolate (Fig. 2), glabrous to sparsely hairy below and therefore green and not hairy to the touch (Fig. 3). The terminal leaflet is elliptical or elliptical obovate with a \pm not pronounced, 5–10 mm long apex. It has periodical, \pm regular, shallow, crenate-serrate indentation and 1–2 mm deep incisions. Stipules are lanceolate. The inflorescence is short and poor-flowered with straight or slightly curved prickles. Pedicels have dark red, stalked, 0.5–0.8 mm long glands. Flowers are characterized by sepals which are slightly reflexed after anthesis, pink petals, pinkish filaments, pinkish styles at their base, and glabrous anthers, carpels, and receptacle. Fruits are small, ovate, and black (HOLUB 1995, TRÁVNÍČEK & HAVLÍČEK 2002). A concise illustration of the species has been published in the Flora of the Czech Republic (HOLUB 1995).

The following species from the *Hystrix* series occur or may occur in the wide vicinity of Bayerisch Eisenstein, the locality of the new record described below: *Rubus koehleri* Weihe, *Rubus apricus* Wimmer, *Rubus schleicheri* Tratt., and *Rubus bavaricus* (Focke) Utsch. The two first species differ, among many other characteristics, mainly in having 5-foliolate leaves whereas the two latter species both have 3- to 5-foliolate leaves. To distinguish them, it is necessary to observe other characters. *Rubus schleicheri*, in contrast to *Rubus brdensis*, has falcate to hooked prickles with flattened base on the primocane and nodding inflorescence. *Rubus bavaricus* which is common in the surroundings of Bayerisch Eisenstein and other areas in Bavaria (the most frequent Bavarian species of ser. *Hystrix*) can be differentiated based on its 3- to 5-foliolate primocane leaves which are pale-grey-tomentose on the underside (Fig. 4).

The new locality of *Rubus brdensis* in Germany was discovered during a botanical survey for the Flora Šumava project („Flora des Böhmerwaldes“ – funded by the EFRE, Ziel ETZ Freistaat Bayern – Tschechische Republik 2014–2020, INTEREG V, Projekt-Nr. 216; vgl. FLORA DES BÖHMERWALDES 2020). The site lies near the village of Bayerisch Eisenstein (Bavarian Forest, eastern Bavaria) on the northern slope of the Hochberg hill ca. 700 m from the state border with Czechia. Only one small shrub on a forest clearing was observed; however, the surroundings of the locality were not searched in detail to find other individuals, so further occurrences cannot be excluded. The locality is second known site of the species in the Šumava mountains and at the same time the first and only record of the occurrence of the species in Germany (cf. HAND et al. 2020). The nearest known locality of *Rubus brdensis* is located by the settlement of Číhaň (Klatovy district) in western Bohemia which is ca 30 km from the new and below presented locality. Below is the new floristic record in detail:

TK 6845/332, Landkreis Regen, Bayerisch Eisenstein, ca. 1.1 km NNW of the summit of Hochberg hill, 800 m ü. NHN; Lat=49,11666°, Long=013,20055° (WGS84), forest clearing, small shrub, 13 Aug 2020; leg. M. Lepší & P. Lepší (CB ID 87498; Fig. 3).



Fig. 1: Illustrative photo of *Rubus brdensis* at a locality near Příbram town (Czechia), detail of primocane stem. Photo: J. Velebil, 26 Jun 2015.



Fig. 2: Illustrative photo of *Rubus brdensis* at a locality near Příbram town (Czechia), 3-foliolate primocane leaf. Photo: J. Velebil, 26 Jun 2015.



Fig. 3: Herbarium specimen of *Rubus brdensis* from the locality near Bayerisch Eisenstein (TK 6845/332), 13 Aug 2020, leg. M. Lepší & P. Lepší (CB ID 87498).



Fig. 4: Illustrative photo of a herbarium specimen of *Rubus bavaricus* from Vogelwiese near Arrach (TK 6843/221), 8 Sept 2019, leg. P. Lepší & M. Lepší, CB ID 86175.

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