

***Rubus edeesii* H. E. Weber & A. L. Bull (Rosaceae), a new bramble species from Britain and Germany**

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ABSTRACT

Rubus edeesii H. E. Weber & A. L. Bull is described and illustrated as a new species of subgen. *Rubus* sect. *Rubus* ser. *Sylvatici*, recorded in Lincolnshire and Westphalia (Germany) and named after the British batologist E. S. Edees.

KEYWORDS: Apomictic species, *Rubus* L., ser. *Sylvatici*, distribution, bird dispersal.

INTRODUCTION

During the exploration of the vegetation of hedges (Wittig 1975) and the *Rubus* flora in Westphalia (Weber 1985) a distinct bramble was found around Münster. Because its distribution area seemed to be very local, the plant was not treated taxonomically and, like other local or individual morphotypes, arranged merely under a provisional name and omitted from a book on the Westphalian bramble flora (Weber 1985). In December 1993, A.L.B. sent to H.E.W. for examination some sheets with provisionally named brambles gathered in Norfolk and Lincolnshire, and one of these specimens was easily recognised as the plant collected also in Westphalia. Its distribution area seems to be very disjunct, like that of other bird-sown bramble species such as *Rubus drejeri* Jensen ex Lange and *R. tuberculatus* Bab.

DESCRIPTION

***Rubus edeesii* H. E. Weber & A. L. Bull sp. nov. (Figs 1 & 2)**

Turio alte arcuatus, viridulus vel parce vinosus, (obtuse) angulatus faciebus planis, pilis plerumque fasciculatis (vulgo (5–)10–30 ad 1 cm) pilosus. Aculei 4–8 per 5 cm, flavescentes, aequales, e basis 6–8 mm dilatata paulo reclinati, rarius leviter curvati, 7–8(–8.5) mm longi.

Folia 5-nata (singuli raro 6–7 nata), digitata, supra pilis 15–25 ad cm², subtus viridia, pilis ad tactum non vel paulo perceptibilibus pilis stellulatis nullis instructa. Foliolum terminale mediocriter usque sat longe petiolatum (longitudo petioluli plerumque 33–41 per centum longitudinis laminulae), e basi leviter cordata (rarius rotundata) ellipticum vel parce obovatum, apice 15–23 mm longe acuminatum, dentibus cuspidatis dentibusque principalibus longioribus (non recurvatis) 3–5 mm alte grosse et irregulariter serratum, interdum paulo lobatum. Foliola infima 2–3 mm petiolulata. Petiolus pilosus, aculeis curvatis 9–13 munitus. Stipulae subfiliformes usque ad 1 mm latae, margine glandulis (sub)sessilibus instructae.

Inflorescentia ampla, late cylindrica, 3–15 cm infra apicem aphylla, cetera foliis 1–3-nata, instructa, ramis usque 70–80° divaricatis plerumque supra medium earum ramosis. Rachis pilis minutis fasciculatis pilisque longioribus dense obtecta, glandulis sessilibus multis instructa, aculeis



FIGURE 1. Holotype of *Rubus edeesii* H. E. Weber & A. L. Bull (MANCH).

sat gracilibus, parce reclinatis, plerumque leviter curvatis, 6–7 mm longis 3–5 per 5 cm armata. Pedicelli pro maxima parte 10–15 mm longi, pilis usque 0·6–0·8 mm longis hirsuti, glandulis stipitati 0–2 usque 0·3 mm longis instructi, aculeis 3–7, saepe inaequalibus, rectis vel parce reclinatis,

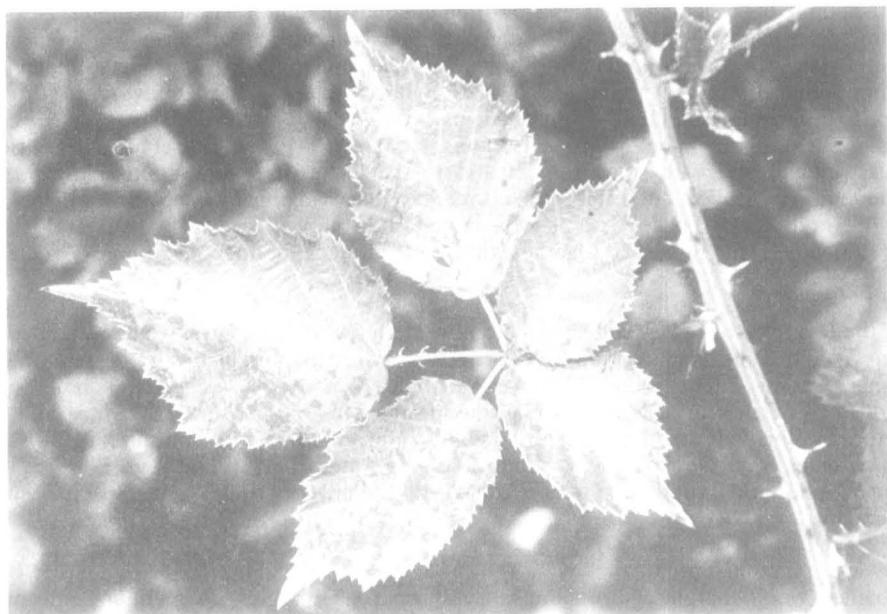


FIGURE 2. *Rubus edeesii* at the locus typicus (Germany, Westphalia).

usque (1–2(–3) mm longis muniti. Bracteolae vulgo glandulis breviter stipitatis instructae. Sepala canoviridia, plerumque inermia, post anthesin reflexa. Petala alba, obovata, unguiculata, apice parce emarginata vel crenata, 10–15 mm longa. Stamina alba stylos virescentes superantia. Antherae glabrae. Ovaria glabra. Receptaculum parce pilosum. Fructus bene evoluti. Floret (VI)–VII (–VIII).

Rubus e sect. *Rubus* ser. *Sylvatici* (P. J. Müller) Focke, honore clarissimi batologii Eric S. Edees (1907–1993), egregie meritis exploratione generis Ruborum in Britannia, nominatus. Crescit in Britannia (Lincolnshire) et Germania (Westfalia).

TYPUS: Germany, Westphalia: Margin of wood on the road S.W. of the airfield S. of Telgte, "Im Berdell", 12 August 1994, H. E. Weber no. 94.812.4 (MANCH. holotypus; **herb. A.L.B.**, **herb. H.E.W.**, isotypi).

Stem high arching, greenish or somewhat reddish, sharply to bluntly angled, with flat sides, each with (5–)10–30 mostly tufted hairs per 1 cm. Prickles 4–8 per 5 cm, slightly yellowish, equal, slenderly declining or more rarely slightly curved, 7–8 (–8.5) mm long with a 6–8 mm broad base.

Leaves 5-nate, digitate (exceptionally and rarely some 6–7-nate), dull green above with 15–25 hairs per cm^2 , green beneath, moderately hairy with simple hairs usually not or hardly to be felt by touch. Terminal leaflet elliptical or elliptical-obovate, with a slightly cordate (rarely rounded) base and a distinct acuminate 15–23 mm long apex and with a petiolule 33–41% as long as the lamina. Serration coarse, up to 3–5 mm deep, irregular with moderately cuspidate teeth and longer (not recurved) main teeth. Basal leaflets 2–3 mm, stalked. Petiole hairy, with 9–13 curved prickles. Stipules nearly filiform, up to 1 mm broad, with sessile to very shortly stalked glands at the margin.

Inflorescence large, broadly cylindrical with a broad apex, the upper 3–15 cm leafless, otherwise with 1–3-nate leaves, with spreading (70–80°) branches divaricately branched in their upper half. Rachis densely covered with small tufted and also longer hairs and with many sessile glands, prickles 3–5 per 5 cm, slender, slightly declining or a little curved, 6–7 mm long. Pedicels chiefly 10–15 mm long, with dense small tufted hairs and hirsute with simple hairs up to 0.6–0.8 mm long, stalked

glands 0–2, up to 0·3 mm long, prickles 3–7, often unequal, patent or a little declining, 1–2(–3) mm long. Bracteoles usually with short-stalked glands. Sepals greyish-green, usually without prickles, reflexed. Petals white, obovate, mostly notched at the apex, 10–15 mm long. Stamens white, exceeding greenish styles. Anthers and ovaries glabrous, receptacle with few hairs. Fruits well developed. Flowering time (June–) July (–August).

The plant belongs to subgen. *Rubus* sect. *Rubus* ser. *Sylvatici* (P. J. Müller) Focke. Because of the yellowish prickles and with some respect also to the leaves it reminds one a little of *Rubus platyacanthus* P. J. Müller, but differs much from that species mainly by the panicle which is similar to that of *Rubus gratus* Focke. The plant is named after the well known British batologist E. S. Edees (1907–1993) who published together with A. Newton the monograph *Brambles of the British Isles* in 1988.

In 1907 the Rev. Augustin Ley collected a bramble at Apley, Lincolnshire, which he named *Rubus silvaticus* Weihe & Nees (Ley 1908), a specimen of which is now in the herbarium at Lincoln Museum. This was seen around 1936 by W. C. R. Watson who redetermined it as *Rubus macrophyloides* Genevrier. Edees (1966) saw the specimen in 1965 and stated that "it is unlikely that this determination will stand". He subsequently referred to the Lincolnshire plant as "false *macrophyloides*" (A. Newton, pers. comm.). Edees stated that he had seen it in the field at Stainton Wood, Short Wood and Great West Wood (the latter two sites being at Apley) where it was abundant.

ECOLOGY AND DISTRIBUTION

Hedgebanks, wood margins, shrubberies, clearings, road margins on medium, siliceous (not calcareous) soils. In Germany it occurs in Westphalia in the plain district around Münster, chiefly between Telgte and Altenberge, growing mainly together with *Rubus gratus* Focke, *R. plicatus* Weihe & Nees, *R. vigorosus* P. J. Müller & Wirtgen, *R. pyramidalis* Kaltenb., *R. silvaticus* Weihe & Nees, *R. rufus* Weihe and *R. calvus* H. E. Weber. In Britain in the ancient *Tilia cordata* woods now known as Bardney Forest, which includes Apley, to the E. of Lincoln, *Rubus edeesii* is associated with *R. mucronatoides* Ley ex Rogers, *R. calvatus* Lee ex Bloxam, *R. gratus* Focke, *R. vestitus* Weihe and *R. lindleianus* Lees. To the S.W. and S.E. of Lincoln, it grows on acid sands and gravels in the area between Woodhall Spa and Newark, in contrast to the boulder clay of Bardney, and here the associated species include *R. gratus*, *R. nemoralis* P. J. Müller, *R. lindleianus*, *R. vestitus* Weihe, *R. hylocharis* W. C. R. Watson, *R. polyanthemus* Lindeb., *R. pyramidalis* and *R. platyacanthus* P. J. Müller & Lef.

The great distance between the British and German distribution areas is due to seed transport by birds (Whitethroats, *Sylvia communis*, and others) which are able to carry these by non-stop flights directly from one place to another over distances up to 500 km (Berthold in Weber 1987), thus often forming discontinuous distribution patterns, or spots (each resulting from a single bird-sown bramble) along the flight paths of migrating birds. By subsequent continuous spreading such spots usually later spread to greater distribution areas (Weber 1987). Like other brambles (*Rubus dasypyllylus* (Rog.) Marsh., *R. tuberculatus* Bab.), *R. edeesii* seems probably to have originated in Britain and was spread to continental Europe.

REPRESENTATIVE EXSICCATAE

England:

v.c. 53, S. Lincolnshire: Northon Disney, 3 August 1993, SK/88.59, *A. L. Bull* (herb. A.L.B., herb. H.E.W.). Stapleford Wood, 3 August 1993, SK/88.56, *A. L. Bull* (herb. A.L.B.).

v.c. 54, N. Lincolnshire: Ostler's Plantation, Woodhall Spa, 29 July 1993, TF/21.62, *A. L. Bull*. Stainton Wood, 29 July 1993, TF/07.78, *A. L. Bull* (herb. A.L.B.).

v.c. 56, Nottinghamshire: Crowood Farm Belt, Thorne, 3 August 1994, SK/87.73, *A. L. Bull*. Wigsley Wood, 3 August 1994, SK/84.70, *A. L. Bull* (herb. A.L.B.).

Germany (Westphalia):

(Localities quoted as given on the sheets and arranged according to the grid system used for mapping in Germany.)

4012.14: Kasewinkel südlich Handorf bei Münster, 12 August 1994, *H. E. Weber* no. 94.812.7.

Nordwestlich Haus Möllenbeck bei Telgte, July 1975, *R. Wittig* no. R113 (herb. H.E.W.).

- 4012.41: "Im Berdel" zwischen Münster und Telgte, 15 July 1975, *E. Foerster no. 750715.4.*
Flugplatz Telgte bei Münster, 15 July 1975, *E. Foerster no. 750715.06 (herb. Foerster, herb.
H.E.W.).* Wallhecke nördlich Wolbeck, c. 500 m nördlich Böckmann, July 1975, *R. Wittig no.
R98 (herb. H.E.W.).*
- 4012.42: 1 km östlich Flugplatz bei Telgte, July 1975, *R. Wittig no. R120 (herb. H.E.W.).*
- 4108.13: NSG Schwarzes Venn nordwestlich Groß Reken, July 1975, *R. Wittig s. n. (herb. H.E.W.).*
- 4111.1: Viehstraße in der Ventruper Heide bei Münster, July 1976, *R. Wittig s. n. (herb. H.E.W.).*

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