

## Four new species of *Rubus* L. (Rosaceae) from eastern England

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### ABSTRACT

The history of the study of Brambles in East Anglia is summarised and four new species are described: ***Rubus gariannensis*** A. L. Bull, **sp. nov.**; ***Rubus villosior*** A. L. Bull, **sp. nov.**; ***Rubus cromerensis*** A. L. Bull, **sp. nov.**; and ***Rubus hindii*** A. L. Bull, **sp. nov.**

KEYWORDS: Norfolk, W. M. Hind, E. F. Linton, cv 'Bedford Giant'.

### INTRODUCTION

The earliest student of the East Anglian *Rubus* flora was probably Charles Cardale Babington (1808–95), Professor of Botany at Cambridge University and author of *British Rubi* (1869). His record of *Rubus althaeifolius* Babington (Babington 1860) from Cambridgeshire and West Suffolk was later renamed *Rubus babingtonianus* by Watson (1946) as the name had been applied to another species by Trattinnick in 1823.

The Rev. W. M. Hind, an Irishman who was rector of Honington with Sapiston in West Suffolk for nearly twenty years, made a collection of Rubi which are with his herbarium in **IPS**. He published a *Flora of Suffolk* in 1889, much of the work for which had been done by the Rev. Dr Churchill Babington (1821–89), cousin of Charles and Professor of Archaeology at Cambridge until 1866, when he took the living of Cockfield in Suffolk. A distinguished lichenologist, in addition to his work towards the *Flora*, published after his death by Hind, he also published a volume on the *Birds of Suffolk* (Britten & Boulger 1931).

Hind's *Flora* reveals that a good number of students of the genus *Rubus* visited Suffolk in the latter half of the 19th century, drawn particularly to the area round Nayland and Polstead which was particularly rich at that time. The Rev. J. D. Gray features prominently, as does the Rev. E. F. Linton, rector of Sprowston in Norfolk from 1878 to c. 1888. So far as one can judge from Petch & Swann's *Flora of Norfolk* (1968), it would appear that Linton was almost alone in his studies of Norfolk brambles, and apart from a few additions made by H. J. Riddelsdell in 1925, these authors accepted Linton's records as the basis for *Rubus* in their *Flora* nearly 80 years later.

The early part of the present century appears to have been the batological dark ages in eastern England, though Linnaeus Cumming visited Polstead in 1915, and a specimen from there bearing his name is in **NWH** and is undoubtedly *Rubus hindii*. Specimens collected from Suffolk by W. H. Mills in 1947 are to be found in **CGE** and the late B. A. Miles also visited that county (Simpson 1982). During the 1950s, the late E. S. Edees paid regular visits to the Swaffham district of Norfolk, Mrs Edees being from a local family. From 1968, he helped the present author become established as a batologist, and also had a week-long stay in Suffolk which resulted in a paper in the county *Transactions* (Edees 1974).

The present author's paper (Bull 1985) on the *Rubus* flora of Norfolk and Suffolk made mention of a "Corton *Rubus*" and a "Thursford *Rubus*". These are published here as *Rubus gariannensis* and *R. villosior* respectively, whilst *R. hindii* was mentioned under *R. ferox* agg. as being "near *R. tuberculatus* (Babington 1860) but not identical with it."

### ***Rubus gariannensis*** A. L. Bull, **sp. nov.** (Series *Sylvatici*)

Turio arcuatus, angulatus, sulcatus, roseo-griseus subrubescens, sparsis pilis simplicibus fascicula-tisque et nonnullis (pilis) longioribus vestitus et glandulis nonnullis brevissime stipitatis instructus. Aculei 8–15 per 5 cm in angulis dispositi non numquam geminati, subaequales, robusti, longi et

abrupte e basi dilatati acutati, declinati vel decurvati, 7–10 mm, rubiginosi vel rubri et in apricis ad apicem flavescentes.

Folia subpedata, non contigua, fuscoviridia pilosaeque supra praesertim in venis, subter quoque pilis brevibus, simplicibus fasciculatisque oblecta. Foliolum terminale 5.5–7.5 × 8–10 cm (cum cuspe e basi angusta orta, 1.5 ad 2 cm) obovatum, e basi integra vel emarginata et margine subaequaliter serrato, interdum nihilominus dentibus principalibus retroflexis. Foliolorum basaliu petioluli 3–5 mm longi. Petiolus foliolis basalibus usque duplo longior, brunneus vel rubiginosus, multis pilis brevibus simplicibus fasciculatisque vestitus, glandulis sessilibus et brevissime stipitatis instructus, aculeis subflavis c. 12 acute deflexis vel paulum decurvatis armatus.

Rami floriferi foliis subter 3-natis et saepe uno duobusve supra simplicibus praeditus, non ad apicem foliosus. Inflorescentia laxa. Pedunculi pauci vel sat multi, rigiduli divaricate ascendentes, supra medium divisi, ramulis 3–7 floris ad angulum 60–90° a pedunculis, 1–3 cm, divergentibus. Rachis flexuosior, brunneopurpurea, multis vel etiam densis pilis brevibus simplicibus fasciculatisque vestita, paucis vel interdum multis glandulis subsessilibus instructa, sat multis aculeis tenuibus, subflavis, acute declinatis, 3–6 mm longis, armata. Pedicelli tenues, rigiduli, pilis densis brevibusque, interdum simplicibus numerosioribus longioribusque vestiti multis aculeis tenuibus, subflavis declinatis, 3–5 mm longi, armati. Flores 2.5 cm diametro. Sepala griseo-viridia, albomarginata, pilis densis appressis et simplicibus longis sparsis vestita, reflexa. Petala lactea, leviter obovata, 8–9 × 4 mm, in marginibus pilosa, vix contigua. Stamina stylos superantia. Filamenta alba. Antherae glabrae. Styli virides. Carpella et receptaculum glabra.

Stem arching, angled, furrowed, pinkish grey becoming light red with mainly sparse, simple and tufted hairs and scattered longer hairs, and with few to rather many sessile, subsessile and very short stalked glands. Prickles 8–18 per 5 cm on the angles, sometimes in pairs, strong, long and abruptly needle like from a broad base, sharply declining or curved, 7–10 mm, reddish brown, or red with a yellow tip in exposure. Leaves subpedate, not contiguous, dark green and pilose above, especially along the veins, shortly pilose below, with a covering of short, simple and tufted hairs. Terminal leaflet 5.5–8 × 7.5–10 cm, including the narrow based terminal cusp, 1.5–2 cm, obovate, the base entire or emarginate, the margin more or less evenly serrate, though the principal teeth are sometimes retrorse, the petiolule 2/5 as long as the lamina. Petiolules of basal leaflets 3–5 mm. Petiole to twice as long as the basal leaflets, brown, or reddish brown, pilose, with numerous short, simple and tufted hairs, sessile glands, very short stalked glands, and about 12 sharply deflexed or somewhat curved yellowish prickles.

Flowering branch with 3-foliolate leaves below and often 1–2 simple leaves above, not leafy to the apex. Inflorescence lax, with few or rather many, wiry, ascending, divaricate peduncles divided above the middle, the branches 3–7 flowered, set at 60–90° to the peduncles, 1–3 cm. Rachis slightly flexuose, brownish purple with numerous to dense, short to medium simple and tufted hairs, few to occasionally many subsessile glands, and fairly many sharply declining yellowish prickles 3–6 mm. Pedicels slender, wiry, with dense short hair and fairly numerous simple longer hairs, and numerous slender, slanting yellowish prickles 3–5 mm. Flowers 2.5 cm diameter. Sepals greyish green with a white border, with dense appressed hairs and scattered, long simple hairs, reflexed. Petals milk white, slightly obovate, 8–9 × 4 mm, pilose on the margin, scarcely contiguous. Stamens exceeding the styles, filaments white, anthers glabrous, styles green, carpels and receptacle glabrous. Unripe fruit brownish red. Flowering from late June to early August.

Diagnostic features: the long, hard, slender and needle like declining prickles which are frequently in pairs; the neat, obovate terminal leaflet with a long, narrow based cusp, and the ample panicle with long, wiry, divaricate branches, or occasionally with a broad-truncate terminal panicle, the branches interwoven. Flowers milk white.

HOLOTYPE: Howard's Common, Belton near Great Yarmouth, GR TM/475.025, v.c. 25, 23 July 1993, A. L. Bull (BM). Isotype in herb. A. Newton.

The name *gariannensis* is derived from Gariannonum, the well preserved Roman fort at Burgh Castle, 2 km north of the type locality.

Specimens have been circulated to Mr H. Vannerom in Belgium and to Prof. H. E. Weber in Germany. It was suggested to the latter that the present plant might be close to *R. schlechtendalii*

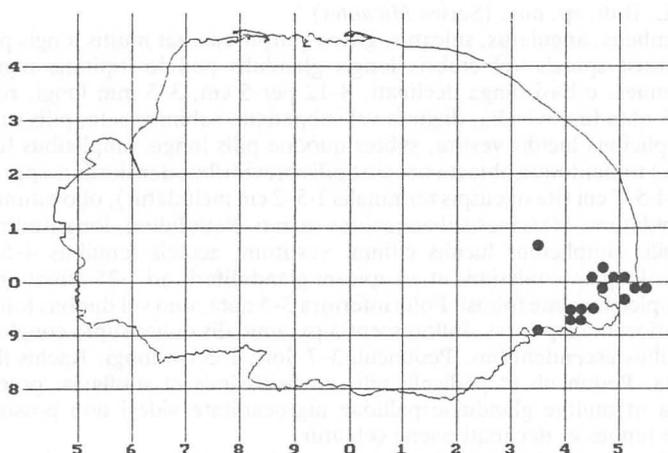


FIGURE 1. Distribution of *Rubus gariannensis* A. L. Bull in Norfolk. ● all records.

Weihe. In reply, Prof. Weber stated that it appeared to be closer to *R. maassii* Focke ex Bertram, but differing in a number of key points. In his account of Suffolk brambles, Hind claims to have collected *R. maassii* from Henstead, near Beccles in 1886, though his specimen cannot now be traced as it is not in his herbarium at IPS. It was collected from the general area where the present plant occurs, and may well have been this plant.

*Rubus gariannensis* grows in a wide range of habitats on relatively poor, sandy soils. It grows throughout the afforested area of v.c. 25 in the arc formed by the River Waveney and Breydon Water, and occurs on the other side of this peninsula on the cliff edge at Corton, just north of Lowestoft. In east Norfolk, v.c. 27, it occurs on the sea bank of the River Waveney at Aldeby near Beccles; on the marsh wall on the Haddiscoe levels, the only *Rubus* other than *R. ulmifolius* Schott to be found there; throughout several woods on the higher ground between the Waveney and the Yare, and on the north side of the latter river on heathy ground at Strumpshaw, only a few km from Norwich. Local endemic. The distribution of this species is shown in Fig. 1.

Representative exsiccatæ (all herb. A. L. Bull): v.c. 25: TM/4.9, Herringfleet and Blundeston; TM/5.9, Corton; TG/4.0, Belton and TG/5.0, Lound; v.c. 27: TM/4.9, Aldeby and TG/4.0, Haddiscoe.

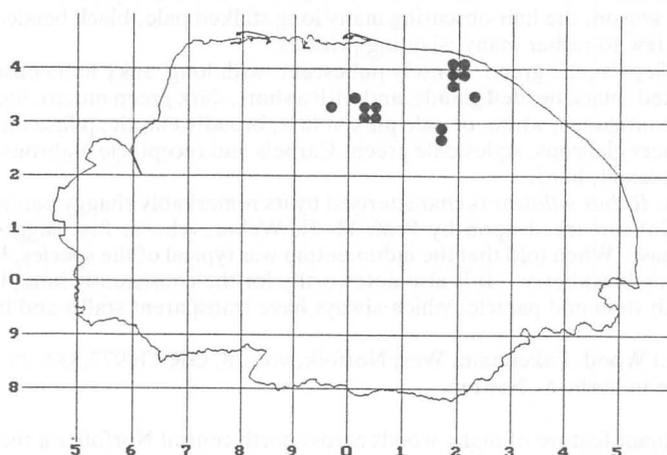


FIGURE 2. Distribution of *Rubus villosior* A. L. Bull in Norfolk. ● all records.

**Rubus villosior** A. L. Bull, *sp. nov.* (Series *Micantes*)

Turio arcuato-decumbens, angulatus, sulcatus, griseo-purpureus, sat multis longis pilis simplicibus fasciculatisque vestitus sparsis vel crebris longis glandulis pallido-stipitatis nigro-capitatisque intructus. Aculei tenues, e basi longa declinati, 8–12 per 5 cm, 3–5 mm longi, rubri ad apicem flavescens. Folia 5-nata fuscoviridia, digitata vel subpedata, subimbricata, pilis supra praesertim in venis, longis simplicibus lucidis vestita, subter quoque pilis longis simplicibus lucidis (in venis pectinatim dispositis) tomentoque oblecta nec sine pilis brevioribus densioribus appressis. Foliolum terminale 8.5–11 × 4.5–7 cm (ita ut cuspis terminalis 1.5–2 cm includatur), obovatum, e basi integra vel emarginata cuspidatum, Margines subaequaliter serrati. Petiolulum, longitudine quartae fere partis laminulae, pilis simplicibus lucidis c-imm. vestitum, aculeis tenuibus 4–5 declinatis vel decurvatis et aciculis longis, tenuissimis et ad apicem glanduliferis ad 1.25 armatum.

Rami floriferi ad apicem paene foliosi. Folia inferiora 3–5 nata, uno vel duobus foliolulis ad basim pedunculorum superiorum dispositas. Inflorescentia pyramidalis dense supra conglomerate, longis subter ramis axillaribus ascendentibus. Pedunculi 3–7 flori, 1–3 cm longi. Rachis flexuosa, longis pilis sericeis oblecta. Pedunculi et pedicelli pilis confertissimis et subflavis, praesertim aestate proveta, oblecta ita ut multae glandulae pallidae nigrocapitate videri non possint et pauci vel numerosiores aculei tenues et declinati paene celentur.

Flores 2–2.5 cm. Sepala pallidoviridia, dense pubescentia et pilis longis sericeis vestita qui paucas vel multas breves glandulas pallidostipitatas nigrocapitatisque celant, brevi mucrone fuscoviridi praedita, laxe reflexa vel patentia. Petala non contigua, alba vel primo subrosea, late elliptica, marginibus pilosis. Filamenta alba. Antherae glabrae. Styli pallidovirides. Carpella et receptaculum glabra. Fructus immaturus pallidoviridis, maturus parvus et durus.

Stem low arching, angled, furrowed, greyish purple, with moderately numerous long simple and tufted hairs, and with occasional to numerous pale stalked, blackheaded long glands. Prickles slender, slanting, from a long base, 8–12 per 5 cm, 3–5 mm, red with a yellow tip. Leaves 5-nate, dark green, digitate to subpedate, subimbricate, pilose above with long, simple hairs that glisten in the sun, and especially along the veins, pilose and tomentose below, with long, shining simple hairs, pectinately pilose on the veins, and shorter, denser appressed hairs, terminal leaflet 8.5–11 × 4.5–7 cm, including the terminal cusp 1.5–2 cm. Obovate cuspidate, with entire or emarginate base and straight sides, the margins more or less evenly serrate, the petiole about as long as the lamina with shining simple hairs c. 1 mm, 4 or 5 slender, slanting or curved prickles and long, very slender gland tipped acicles to 1.25 mm.

Flowering branch leafy almost to the apex, with 3–5 foliate leaves below and one or two simple leaves at the base of the upper peduncles. Inflorescence pyramidal, the upper part dense, with long/ascending axillary branches, the peduncles 3–7 flowered, 1–3 cm. Rachis flexuose, covered with long silky hairs which become very dense and somewhat yellowish on the peduncles and pedicels, especially later in the season, the hair obscuring many long stalked pale, black headed glands, and almost obscuring the few to rather many, slanting prickles.

Flowers 2–2.5 cm. Sepals pale green, densely pubescent, with long, silky hairs obscuring few to many short, pale stalked, black headed glands, and with a short, dark green mucro, loosely reflexed to patent. Petals not contiguous, white, or pale pink at first, broadly elliptic, pilose on the margins. Filaments white, anthers glabrous, styles pale green. Carpels and receptacle glabrous. Young fruit pale green. Ripe fruit small, hard.

Diagnostic features: *Rubus villosior* is characterised by its remarkably shaggy panicle, especially when in shade, a point remarked upon by Prof. H. E. Weber, who at first suggested that the specimen had felt disease. When told that the indumentum was typical of the species, he referred to it as the “mite imitating blackberry.” It is also noteworthy for the consistently long, buried glands under the hair on both stem and panicle, which always have transparent stalks and black heads.

HOLOTYPE: Thursford Wood, Fakenham, West Norfolk, v.c. 28, GR TF/977.332, 29 July 1994, A. L. Bull (BM). Isotype in herb. A. Newton.

This species is a dominant feature of many woods across north central Norfolk on the south facing slopes of the high ground which culminates in the Cromer Ridge, the glacial moraine from the last Ice Age. Although this species and the next are dominant through the area in which they occur,

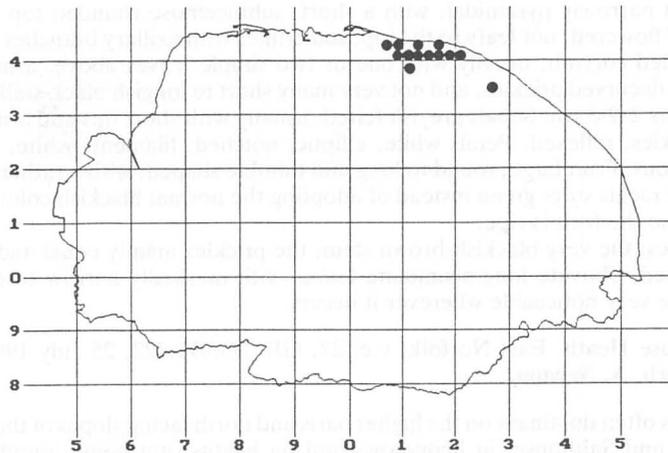


FIGURE 3. Distribution of *Rubus cromerensis* A. L. Bull in Norfolk. ● all records.

neither seems to have appeared in any of the earlier herbaria. This may possibly be due to the fact that both are associated with the Cromer Ridge, erroneously described by W. C. R. Watson as "poor bramble country. Norfolk has no brambles due to the Ice Age!" (E. L. Swann, pers. comm.) Local endemic. The distribution of this species is shown in Fig. 2.

Representative exsiccatae (all **herb. A. L. Bull**): v. c. 27: TG/0.3, Swanton Novers Great Wood, 14 July 1993; TG/1.2, Blickling Great Wood, 11 August 1995; TG/1.3 and TG/1.4, Felbrigg Great Wood, 17 August 1995; TG/2.3, Old John's Wood, Gunton, 22 July 1973.

***Rubus cromerensis* A. L. Bull, sp. nov.** (Series *Anisacanthi*)

Turio arcuatus, pruinosis, brunneo-nigrescens, angulatus vel sulcatus, multis plerumque pilis simplicibus stellatisque vestitus, paucis vel multis glandulis sessilibus brevissimeque stipitatis instructus. Aciculi pauci vel nulli. Aculei multi vel plurimi ad 20–25 per 5 cm, patentes plerumque et ad apicem flavi, ad 6–7 mm, saepe geminati et ad angulos plerumque sed non omnino dispositi nec sine minoribus aculeis numerosioribus interspersis.

Folia 3–5 nata pedata, viridia vel fuscoviridia, pilis supra sparsis simplicibus, multis subter simplicibus stellatisque vestita, mollia sed non dense oblecta. Foliolum terminale obovatum, longe e basi angusta, integra, saepe cuneata acuminatum, petiolo terminale brevi, ad quintam partem laminae longitudine, multis aculeis leviter curvatis armato.

Inflorescentia anguste pyramidalis apice brevi subracemose rotundato et ramis inferioribus ascendentibus, 5–7 floris, non ad apicem foliosis. Rami axillares nonnumquam longitudine crescentes ita ut in corymbum densum rotundatumque disponantur, uno vel duobus foliis plerumque supra comitantibus, multis tenuibus aculeis declinatis vel decurvatis armati, et paucis subnigris glandulis stipitatis brevibus vel paulo longioribus instructa. Rachis pilosa. Sepala pilis griseis dense oblecta apicibus plerumque brevibus, multis aculeis pallidis vel purpureis armata, reflexa.

Flores 2–2.5 cm. Petala alba nonnumquam emarginata. Filamenta alba. Styli alborivides. Carpella glabra. Fructus magnus elongatus.

Stems arching, pruinose, brownish black, angled or furrowed with usually many simple and stellate hairs and few to many sessile and short stalked glands. Acicles few or none. Prickles many to very many, up to 20–25 per 5 cm, mainly patent, coloured like the stem but yellow tipped, 6–7 mm, often in pairs, mainly on the angles though not confined to them, and with fairly numerous pricklets. Leaves 3–5-nate, pedate, dark to mid-green, with scattered simple hairs above and many simple and stellate hairs beneath, soft but not felted. Terminal leaflet obovate, long acuminate from a narrow, entire, often cuneate base. Terminal petiole short, about 1/5 the length of the lamina, armed with slightly curved prickles.

Flowering branch narrowly pyramidal, with a short, subracemose rounded top and ascending lower branches, 5–7 flowered, not leafy to the top, sometimes with axillary branches lengthening to give a dense, rounded corymb, usually with one or two simple leaves above, armed with many slender declining or decurved prickles, and not very many short to longish black-stalked glands, the rachis pilose. Flowers 2–2.5 cm. Sepals greyish felted, usually with short tips and armed with many pale to purple prickles, reflexed. Petals white, elliptic, notched, filaments white, styles whitish-green, carpels glabrous. Fruit large, round to long and thimble shaped, with a rather sharp flavour. In shade, where the rachis stays green instead of adopting the normal blackish colour, this may go bright red at the time the fruit is ripe.

Diagnostic features: the very blackish-brown stem, the prickles mainly equal and patent, allied with the short stalked, obovate long acuminate leaves with markedly narrow to cuneate bases, renders this bramble very noticeable wherever it occurs.

HOLOTYPE: Salthouse Heath, East Norfolk, v.c. 27, GR TG/071.422, 25 July 1996, A. L. Bull (BM). Isotype in herb. A. Newton.

*Rubus cromerensis* is often dominant on the higher parts and north facing slopes of the Cromer ridge between that town and Salthouse, in hedgerows and on heaths, not being found very often in woodland, and rarely more than 3 km from the sea. Local endemic. The distribution of this species is shown in Fig. 3.

Representative exsiccatae (all herb. A. L. Bull): v.c. 27: TG/1.3, Kelling Heath, 10 July 1975; TG/1.4, Beeston Regis Common, 17 July 1975; TG/1.4, Pretty Corner, Sheringham, 3 August 1992; TG/2.4, roadside, East Runton, 3 July 1987; TG/1.4, Roman Camp, Aylmerton, TG/1.4, 3 August 1992, and Muckleburgh Hill, Weybourne, 4 July 1973.

***Rubus hindii* A. L. Bull, sp. nov.** (Section *Corylifolii*)

Turio arcuatus, pruinosis, rubropurpureus, paucis vel nonnumquam pluribus pilis simplicibus stellatisque vestitus, glabrescens, aculeis 15–25 per 5 cm, longis gracilibusque e basi longa ortis, rubropurpureis, magnitudine ad 9 mm gradatim accedentibus nec solum ad angulos dispositis armatus, aculeis minoribus, aculeolis et nonnullis aciculis, glandulis tamen stipitatis paucioribus instructus.

Folia subpedata. Foliola 3–5, mollia, saepe pilis canis dense subter obtecta, supra brevibus pilis appressis simplicibus stellatisque parce praedita, viridia vel fusco-viridia, subpedata, foliolorum inferiorum. petiolulis 2–3 mm. Foliolum terminale suborbiculare vel obovatum, 7.5 × 6.5 cm, apice cuspidato ad 1 cm, basi cordata vel emarginata, primo saepe concava postea convexa facta, margine leviter multiserrato, dentibus quaternis apiculatis praetexto. Petioli saepe ad tertiam vel dimidiam parti laminae longi, paucis vel pluribus aculeis gracilibus, patentibus vel curvatoribus armati, perpaucis glandulis instructi.

Inflorescentia recta, apice densiore rotundato et nonnullis inferioribus ramis angulo 45° ascendentibus, foliis infra ternatis superne singulis binisve ornata. Rami ad 10 cm et ad 7 flori, sicut caulibus armati et brevibus pilis simplicibus stellatisque, multis aculeis ad 6 mm patentibus vel paulum decurvatis, multis aciculis glanduliferis et glandulis stipitatis instructi. Flores ad 3.25 cm. Sepala canoviridia, ovata, longe acuminata sed apice non foliato, albo margine praetexta, multis glandulis subsessilibus instructa, laxe reflexa vel patentia, mox ascendentia et fructum immaturum amplectantia. Petala rosea, orbicularia vel rhombi fere forma, saepe subemarginata et basi angusta, margine ciliato. Filamenta subrosea vel alba, stylis rubris vel basi roseis, rarius subflavis, longiora. Carpella glabra. Fructus nonnumquam imperfectus, saepe magnus et succosus.

Stem arching, pruinose, becoming reddish purple with few to rather many simple and stellate hairs, glabrescent, with many long, slender prickles from a moderately long base, reddish purple, graduating in size up to 9 mm long, not confined to the angles, the main prickles 15–25 per 5 cm. Smaller prickles, pricklets and some acicles present but not many stalked glands.

Leaves (3–)5 nate, soft and often greyish white felted beneath, with short, simple and stellate hairs, sub-pedate, the basal leaf stalks 2–3 mm. Terminal leaflet almost round to shortly obovate, 7.5 × 6.5 cm with abrupt acuminate cuspidate tip to 1 cm. Some leaves may be more gradually acuminate, the base cordate or emarginate, often somewhat concave at first, but becoming convex later, the margin

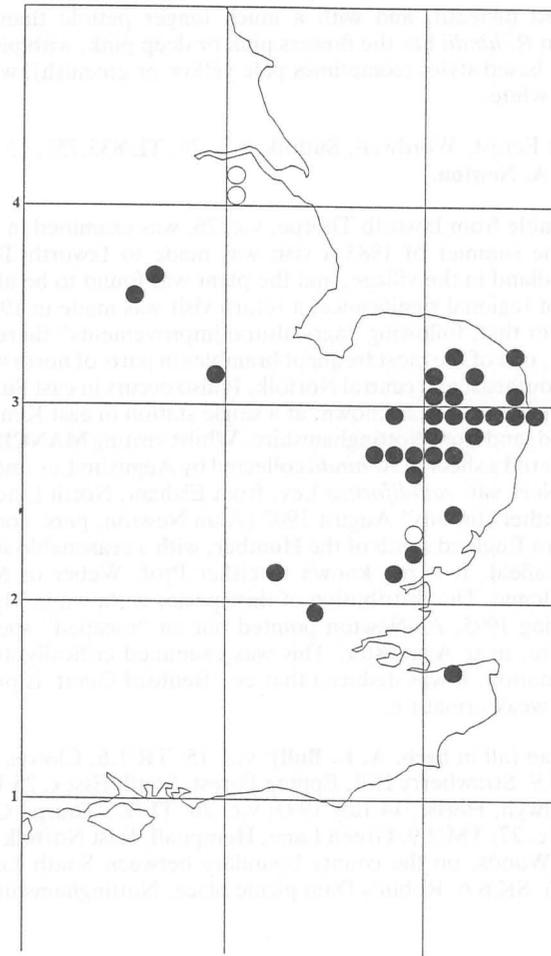


FIGURE 4. Distribution of *Rubus hindii* A. L. Bull in eastern England. ○ herbarium records; ● field records.

shallowly compound-serrate, the teeth in fours, each tooth apiculate. Petiole often long, 1/3 to 1/2 of the length of the lamina, armed with few to fairly many slender/patent to somewhat curved prickles and one or two stalked glands. Upper leaf surface thinly pilose, mid to dark green.

Flowering branch with 3-nate leaves and with one or two simple leaves above, straight, with a fairly dense rounded top and with several ascending lower branches at an angle of 45°, to 10 cm and up to 7-flowered, armed like the stem and clothed with short, simple and tufted hairs, and fairly many to many patent to somewhat decurved prickles to 6 mm, and fairly many gland tipped acicles and stalked glands.

Flowers to 3.25 cm. Sepals pale green with a white margin, ovate long acuminate but not leafy tipped, with many sessile glands, loosely reflexed to patent but soon rising to clasp the unripe fruit. Petals pink to bright pink, round to roughly rhomboidal, often slightly notched and with a short claw, pilose on the margin. Filaments pale pink or white, longer than the pink based or red styles. These are rarely pale yellow or greenish. Carpels glabrous. Fruit sometimes partly defective, but often large and good.

Diagnostic features: *R. hindii* needs to be separated from *R. tuberculatus* Bab. It is less glandular than that species, especially on the stem. The terminal leaflet of the present plant is usually almost

round, and white felted beneath, and with a much longer petiole than is the case with *R. tuberculatus*. In addition *R. hindii* has the flowers pink or deep pink, with pink or white filaments, and usually pink or red based styles (sometimes pale yellow or greenish), whilst the flowers of *R. tuberculatus* are always white.

**HOLOTYPE:** The King's Forest, Wordwell, Suffolk, v.c. 26, TL/835.735, 15 July 1995, *A. L. Bull* (BM). Isotype in **herb. A. Newton**.

A specimen of this bramble from Ixworth Thorpe, v.c. 26, was examined in the Hind collection in IPS in 1982. During the summer of 1983 a visit was made to Ixworth Thorpe Carr, the only remaining piece of woodland in the village, and the plant was found to be abundant. When it was later discovered to be of regional significance, a return visit was made in 1994 to collect holotype material, only to discover that, following "agricultural improvements" there was very little of the plant left. It is, however, one of the most frequent brambles in parts of north west Suffolk bordering Breckland, and across southeast and central Norfolk. It also occurs in east Suffolk, Herts., Essex as far south as Epping Forest; so far as is known, at a single station in east Kent; from the borders of south Lincs. and Rutland, and from Nottinghamshire. Whilst visiting MANCH during the autumn of 1995, A. Newton discovered a sheet of *R. hindii* collected by Augustin Ley under the name of *Rubus dumetorium* Weihe & Nees var. *raduliformis* Ley, from Elsham, North Lincs., v.c. 54, annotated "also at Barnetby and other stations" August 1907 (Alan Newton, pers. comm.). Thus, *R. hindii* occurs in much of eastern England south of the Humber, with a reasonable supposition that it may be found even further afield. It is not known to either Prof. Weber or Mr Vannerom on the continent. Regional endemic. The distribution of this species is shown in Fig. 4.

Whilst in Devon during 1995, A. Newton pointed out an "escaped" specimen of the cultivar 'Bedford Giant' at Shute, near Axminster. This was examined critically and compared with *R. hindii*. From the examination, it was deduced that cv. 'Bedford Giant' is probably a sport of the present plant with very weak armature.

Representative exsiccatae (all in **herb. A. L. Bull**): v.c. 15: TR/1.6, Clowes Wood, East Kent, 23 July 1996; v.c. 18: TQ/4.9, Strawberry Hill, Epping Forest, South Essex, 25 July 1995; v.c. 20: TL/2.1, Brockett Park, Welwyn, Herts., 14 July 1993; v.c. 26: TL/9.7 Thorpe Carr, Ixworth Thorpe, Suffolk, 19 July 1983; v.c. 27: TM/2.9, Green Lane, Hempnall, East Norfolk, 3 July 1992; v.c. 53/55: TL/9.1, Pickworth Woods, on the county boundary between South Lincs. and Rutland, 25 September 1995; v.c. 56: SK/6.6, Robin's Dam picnic place, Nottinghamshire, 22 July 1994.

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