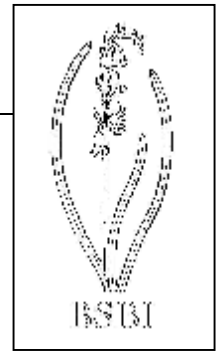


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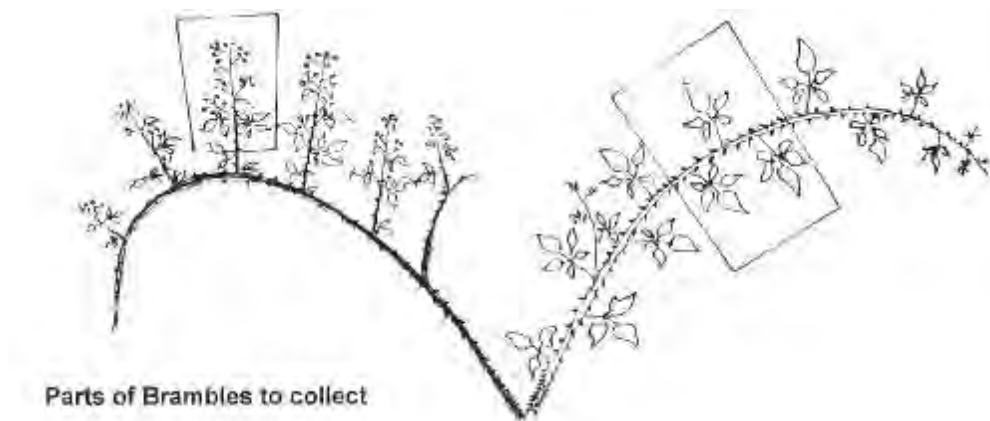


RUBUS

Brambles of the British Isles (Edees & Newton 1988) is the essential text, but the following notes have been prepared to aid botanists tempted to take up a study of the genus. Identification difficulties are due to:

- i) The large number of named taxa, c. 325, in the British Isles and perhaps 200 or more forms which remain unidentified or undescribed. Given this situation it is not surprising that it is necessary in most cases to collect material to confirm identity.
- ii) The occasional occurrence of hybrids where vigorous bramble growth has followed coppicing, felling or other disturbance.
- iii) The fact that bushes of different species often grow intermingled, making collection of representative material of the individual species more problematical.

Collection of specimens



Duplicate collections are usually required (retain one, send the other for naming), unless material has been identified in the field by an expert.

- i) If it is at all possible, material should be selected from a sunny but sheltered spot; 'normal' characters should then be exhibited. Exposure to the sun is required for expression of pigments in stem and stigmas, often useful characters for identification, but specimens from deep shade will have any secondary armature (pricklets, acicles, etc.) largely suppressed; panicles are also likely to be abnormal. Plants grown in very exposed conditions are sometimes dwarfed, armature is more heteracanth than usual and petals are often bleached.
- ii) A piece of primo-cane (barren stem) is required with at least one leaf or preferably two or three attached (more, if leaves are variable) (see Figure on next page).
- iii) Part of a flowering branch from the same bush is required (see below), with a typical panicle which has examples of flower in bud, open, and with the petals dropped and carpels are just beginning to swell. Under certain conditions a primo-cane will develop an elaborate panicle at its tip or send out secondary barren branches; these are usually abnormal and should be avoided.
- iv) A few petals should be pressed separately and notes taken of colour of petals in bud and expanded, and of filaments and styles. It is also a good idea to check what sort of indumentum appears on the developing carpels. This can be done when laying out the specimen; a flower should be chosen that

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has recently dropped its petals and the stamens removed from one side, which should reveal the young carpels with styles still attached. If the styles have already dropped off then it is likely that any hairs present will also have done so.

Pressing specimens

Brambles are fairly easy to press as long as attention is paid to their 3-D nature. Care must be taken with short-stalked leaves, especially basal leaflets. It is not advisable to let leaves overlap with pieces of stem or panicle as the leaves are likely to be damaged or poorly pressed. There are at least three approaches to solving this problem, but all have disadvantages:

- i) Leave stem piece dangling outside press. This ensures leaves are adequately pressed and the stem still exhibits its natural structure, but there is the danger that prickles will be snagged on something and the stem detached from its leaf (which may be difficult to relocate).
- ii) Leave stem in press and apply sufficient pressure to ensure leaves are sufficiently flattened. This is difficult to judge and may result in crispy leaves or a flattened stem.
- iii) Leave stem in press and pad leaves with layers of cardboard, wool or drying paper. This can be very effective but pressing and paper changes are more time consuming and less material can go in the press.

Ultimately which approach is taken is down to personal preference. A few photographs may be useful to supplement herbarium material.

Identification of specimens

With the exception of those in Subgenus *Rubus*, all species native or naturalised in the British Isles are adequately covered in widely available publications (e.g. Stace's *New Flora*). There is an excellent account of Subgenus *Rubus* in Edees & Newton (1988), to which there have been a number of additions since publication, viz.

Section Glandulosus

Series Sylvatici

- R. aghadergensis* D. E. Allen in *Watsonia* **20**: 61 (1994)
- R. couchii* Rilstone ex D. E. Allen in *Watsonia* **20**: 146 (1994)
- R. ebudensis* A. Newton in *Watsonia* **17**: 173 (1988)
- R. edeesii* H.E. Weber & A. L. Bull in *Watsonia* **20**: 345 (1995)
- R. gariannensis* A. L. Bull in *Watsonia* **22**: 97 (1998)
- R. newtonii* Ballentyne in *Watsonia* **24**:107 (2002)
- R. waddellii* D. E. Allen in *Watsonia* **22**: 83 (1998)

Series Rhamnifolii

- R. cordatifolius* (W. M. Rogers ex Ridd.) D. E. Allen in *Watsonia* **17**: 437 (1989)
- R. davisii* D. E. Allen in *Watsonia* **22**: 83 (1998)
- R. tavensis* A. Newton & M. Porter in *Watsonia* **18**: 189 (1990)

Series Discolores

- R. pydarensiformis* D. E. Allen in *Watsonia* **25**:157 (2004)
- R. stenopetalus* Lef. & P. J. Mueller, A. Newton in *Watsonia* **18**: 89 (1990)

Series Vestiti

- R. caesarius* D. E. Allen in *Watsonia* **20**: 145 (1994)
- R. cerdicii* D. E. Allen in *Watsonia* **25**:161 (2004)
- R. corbieri* Boulay, D. E. Allen in *Watsonia* **19**: 131 (1992)

Series Mucronati

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R. aquarum A. Newton & M. Porter in *Watsonia* **18**: 191 (1990)

Series Micantes

R. gallofuscus A. Newton & M. Porter in *Watsonia* **18**: 193 (1990)

R. percrispus D. E. Allen & R. D. Randall in *Watsonia* **20**: 148 (1994)

R. villosior A. L. Bull in *Watsonia* **22**: 100 (1998)

Series Anisacanthi

R. anglobelgicus D. E. Allen & H. Vannerom in *Watsonia* **22**: 83 (1998)

R. avaloniensis Newton & Randall in *Watsonia* **24**:443 (2003)

R. biloensis A. Newton & M. Porter in *Watsonia* **18**: 194 (1990)

R. campaniensis Winkeel ex. Beek in *Watsonia* **22**: 429 (1999)

R. cromerensis A. L. Bull in *Watsonia* **22**: 101 (1998)

R. metallorum Margetts in L. J. Margetts & K. L. Spurgin, *The Cornish Flora Supplement* 1981-1990: 107 (1991)

R. trinovantium A. L. Bull in *Watsonia* **23**:549 (2001)

Series Radulae

R. pannosus P. J. Müll. & Wirtg., A. L. Bull & A. Newton in *Watsonia* **21**: 278 (1997)

R. sempernitens D. E. Allen & Margetts in *Watsonia* **22**: 83 (1998)

Series Hystrices

R. clausentinus Allen in *Watsonia* **25**:164

R. merlini A. Newton & M. Porter in *Watsonia* **18**: 195 (1990)

R. milestanus Allen in *Watsonia* **25**:167

R. segontii A. Newton & M. Porter in *Watsonia* **20**: 140 (1994)

R. thyrigerifomis (Sudre) D. E. Allen in *Watsonia* **17**: 436 (1989)

R. venetorum D. E. Allen in *Watsonia* **22**: 83 (1998)

R. vindomensis Allen in *Watsonia* **25**:171

Section Corylifolii

R. ariconiensis A. Newton & M. Porter in *Watsonia* **20**: 134 (1994)

R. hindii A. L. Bull in *Watsonia* **22**: 102 (1998)

R. iscanus A. Newton & M. Porter in *Watsonia* **20**: 133 (1994)

R. transmarinus D. E. Allen in *Watsonia* **20**: 143 (1994)

R. vagensis A. Newton & M. Porter in *Watsonia* **20**: 137 (1994)

In addition there have been the following changes in nomenclature:

R. canadensis L. is synonymous with *R. pergratus* Blanch. and has priority.

R. armeniicus Focke is *R. procerus* sensu Eedes & A. Newton, *Watson et al*, non P. J. Mueller ex Boulay.

R. asperidens (Sudre ex Bouvet) Bouvet has priority over *R. milesii* A. Newton (D. E. Allen in *Watsonia* **21**: 199 (1996) and **24**:222 (2002)).

R. proiectus A. Beek has priority over *R. anglohirtus* Eedes.

R. neumannianus Webber & Vannerom has priority over *R. cromerensis* A. L. Bull (*Watsonia* **25**:212 (2004)).

Key to Subgenus *Rubus*

The following key is intended to give the beginner an introduction to the genus as an alternative to Eedes & Newton (1988), and to indicate the ecological requirements and significance of some of the species. It will not be possible to identify species but combined with one of the reference works it may speed up the identification process. Note that some of the divisions have more than two couplets.

Rubus occurs in a wide range of habitats, e.g. open woods, margins of heaths and moors, hedgerows and scrub. Where a particular habitat or soil type is preferred this has been indicated below. The number of

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species in each group in geographical regions is indicated in brackets. The number of British species recognised in Europe indicates the amount of endemism in each group and their distribution in the regions of the British Isles tends to indicate which groups are better adapted to open ground or the harsher conditions of the north (S. England = V.c. 1-34, Wales/Midlands = V.c. 35-52, N. England = V.c. 53-71).

- 1 Stipules ovate-lanceolate; leaves ternate, not felted beneath; inflorescence corymbose; stamens about equalling styles; styles on lateral flowers often fewer than terminal ones, fruit consequently smaller; drupelets few and large, black but pruinose, only loosely coherent and loosely adherent to receptacle, rarely coming away intact Section **Caesii**
[Dewberry, *R. caesius* L., frequent on clay, chalk and limestone, also commonly found on grey dunes on the coast. Europe and throughout the British Isles].
In hedgerows hybrids between it and members of Section *Glandulosus* or Section *Corylifolii* are often more frequent than the true species. *R. × pseudoideaus* (*R. idaeus* × *R. caesius*) is often present where the two parents grow in close proximity but is easily passed by as a robust *R. caesius*. It has prickles rather like *R. idaeus* and leaves like *R. caesius* but thinly felted beneath and often pinnate. Fruit is not normally formed.
- 1 Stipules lanceolate; leaflets usually imbricate, basal leaflets sessile or subsessile; inflorescence often corymbose; stamens often scarcely longer than styles; drupelets few and large, coherent and adherent to the receptacle, coming away intact when ripe, often imperfect; fruit from lateral flowers usually smaller than terminal ones Section **Corylifolii**
[Dewberry-like Blackberries, 23 spp. Common in hedgerows but also in open woods, margins of heaths and moors and in scrub. Channel Isles (Europe) 2(5), S. England 16, Wales/Midlands 17, N. England 10, Ireland 6, Scotland 7]
- 1 Stipules filiform; leaflets rarely imbricate, basal leaflets stalked, rarely subsessile; inflorescence rarely corymbose; stamens rarely shorter than styles; drupelets numerous, coherent and adherent to the receptacle, coming away intact when ripe; fruit from lateral flowers not much smaller than terminal ones 2
- 2 Stems sub-erect, suckering from the roots, rarely rooting at the tip; inflorescence racemose at first, sometimes more elaborate later Section **Rubus**
[Raspberry-like blackberries, 20 spp. Preferring heathy woods and edges of heaths, bogs and moors. Channel Isles (Europe) 1(9), S. England 17, Wales/Midlands 12, N. England 11, Ireland 7, Scotland 4]
- 2 Stem arching, rarely suckering from the roots but rooting at the tip; inflorescence compound Section **Glandulosus** 3
- 3 Stalked glands absent or rare on stem and inflorescence 4
- 3 Stalked glands and acicles absent, rare or sparse on stem, more frequent in inflorescence 5
- 3 Stalked glands and/or acicles or pricklets obvious on stem, usually distinct from main prickles 6
- 3 Stalked glands, acicles and pricklets frequent to abundant, usually grading into prickles 7
- 4 Leaves green beneath, rarely felted when mature; filaments usually long Series **Sylvatici**
[59 spp. Various habitats on the more acidic soils. Channel Isles (Europe) 2(21), S. England 44, Wales/Midlands 30, N. England 25, Ireland 14, Scotland 9]
- 4 Leaves greyish-felted beneath; filaments usually long Series **Rhamnifolii**
[42 spp. Mainly hedgerows and scrub, but also open woods, margins of heaths and moors. Channel Isles (Europe) 6(14), S. England 36, Wales/Midlands 24, N. England 15, Ireland 14, Scotland 12]
- 4 Leaves green or greyish beneath; filaments shorter than styles Series **Sprengeliani**
[4 spp. Heathy woods and edges of heaths, bogs and moors, ancient woodland indicators. Channel Isles (Europe) 1(2), S. England 4, Wales/Midlands 1, N. England 1, Ireland 1, Scotland 1]
- 4 Leaves silvery- or white-felted beneath; filaments usually long Series **Discolores**
[11 spp. Mainly hedgerows and scrub, but also open woods, margins of heaths and moors. Channel Isles (Europe) 2(5), S. England 10, Wales/Midlands 6, N. England 5, Ireland 3, Scotland 3]

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- 5 Stem moderately to densely hairy, glands often hidden by indumentum Series **Vestiti**
[21 spp. Open woods, margins of heaths and moors, hedgerows and scrub. Channel Isles (Europe) 3(5), S. England 18, Wales/Midlands 14, N. England 7, Ireland 6, Scotland 2]
- 5 Stem sparsely hairy, stalked glands or acicles more obvious Series **Mucronati**
[11 spp. Open woods, margins of heaths and moors, hedgerows and scrub. Channel Isles (Europe) 0(2), S. England 7, Wales/Midlands 5, N. England 4, Ireland 3, Scotland 3]
- 6 Acicles and/or pricklets unequal but evenly distributed Series **Micantes**
[29 spp. Open woods, margins of heaths and moors, hedgerows and scrub. Channel Isles (Europe) 2(5), S. England 23, Wales/Midlands 16, N. England 6, Ireland 5, Scotland 1]
- 6 Acicles and/or pricklets unequal and unevenly distributed Series **Anisacanthi**
[20 spp. Open woods, margins of heaths and moors, scrub, rarely in hedgerows. Channel Isles (Europe) 2(8), S. England 16, Wales/Midlands 13, N. England 9, Ireland 5, Scotland 5]
- 6 Stalked glands and acicles sub-equal, evenly distributed Series **Radulae**
42 spp. Open woods, margins of heaths and moors, scrub, less often in hedgerows. Channel Isles (Europe) 2(18), S. England 32, Wales/Midlands 28, N. England 17, Ireland 12, Scotland 6]
- 7 Prickles strong, pricklets more obvious than acicles and stalked glands Series **Hystrices**
[35 spp. Open woods, margins of heaths and moors, less often in hedgerows and scrub. Channel Isles (Europe) 0(8), S. England 29, Wales/Midlands 17, N. England 9, Ireland 2, Scotland 3]
- 7 Prickles weak, fine pricklets, acicles and stalked glands abundant Series **Glandulosi**
[7 spp. Forest species, ancient woodland indicators, numerous forms in mainland Europe. Channel Isles (Europe) 0(5), S. England 7, Wales/Midlands 5, N. England 2, Ireland 1, Scotland 0]

Reference Edees, E. S. & Newton, A. (1988). *Brambles of the British Isles*. Ray Society, London.

Author R. D. Randall, January 1998.