

## Five brambles from Wales

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### ABSTRACT

The history of the study of brambles in Wales is summarised and five new species are described: **Rubus tavensis** Newton & Porter, **sp. nov.**, **R. aquarum** Newton & Porter, **sp. nov.**, **R. gallofuscus** Newton & Porter, **sp. nov.**, **R. biloensis** Newton & Porter, **sp. nov.**, and **R. merlini** Newton & Porter, **sp. nov.**

### INTRODUCTION

Valuable pioneering studies of the Welsh brambles were made in the last decade of the nineteenth century by J. W. Griffith in the Bangor district, A. Ley, who collected in many parts of Wales and the Marches and W. M. Rogers who visited the upper Wye Valley and adjacent areas in 1898. Riddelsdell (1907), assisted by Rogers and Ley, compiled a lengthy Glamorgan list and with W. C. Barton visited the Dolgellau and Portmadoc areas in 1922–23, making extensive collections of the local plants (now in **BM**). The results of these endeavours can be studied in most of the major British herbaria and provide a solid foundation for systematic enquiry.

Knowledge of the Welsh *Rubus* flora has steadily increased since the brief visit of Watson (1950). *A Welsh bramble foray* (Newton 1972) described the fruits of a tour through northern and central Wales. Specimens collected by T. A. W. Davis in Pembrokeshire and Carmarthenshire were annually examined by E. S. Edees and A. N. and further surveys of South Wales produced new taxa described by Newton (1974) and an account of the *Rubi* of Glamorgan and adjacent areas (Newton 1976). In 1978 a B.S.B.I. field meeting based at Lampeter added considerably to the records for Cardiganshire and northern Carmarthenshire, updating the account of *Rubus* in Salter (1935). Visits to North Wales were made sporadically and the accumulated wisdom of these excursions, together with Welsh records from **NMW** and other herbaria, were collated by A. N. in Ellis (1983), which included some distribution maps. Also incorporated were records from M.P. who had been investigating the *Rubi* of Breconshire and gathering information for a county Flora since 1970. A joint visit in 1983 allowed many of the problematic local species of Breconshire to be studied in situ. The B.S.B.I. meeting based at Carmarthen reported by Pryce (1988) provided information from previously unrecorded areas, which was included in the monograph by Edees & Newton (1988). Gradually it has become possible to discern the extent of some recognised but hitherto unnamed taxa and to establish new distribution data for others. Even now not all Welsh brambles can be satisfactorily named, but few of these are other than single bushes or of limited local occurrence. The following descriptions are therefore the outcome of lengthy and painstaking study in the field and herbarium.

**Rubus tavensis** Newton & Porter, **sp. nov.** (Series *Rhamnifolii*)

Turio altiarcuatus in apricis purpureus pruinosis angulatus faciebus planis leviter pilosus aculeis ad angulos limitatis aequalibus validis patentibus rectis vel raro leviter curvatis e basi compressa

paulatim contractis armatus. Folia quinata pedata vel subdigitata pusilla inferne griseoviridia pilosa; foliolium terminale late obovatum vel suborbiculare apice cuspidatum basi integra margine aequaliter serrata longe petioluatum. Inflorescentia longa angustata inferne 2–4 foliis ternatis superne 1–2 foliis simplicibus ornata; ramuli medii  $\pm$  patentes 2–5 flori alte divisi. Rachis vix flexuosa dense pilosa aculeis curvatis validis nonnullis armata. Flores 2.5 cm diam.; sepala reflexa tomentosa grisea; petala rosea obovata pubescentia; stamina stylos virides basi roseos vix superantia; anthera glabra vel sparsim pilosa; carpella pilosa; fructus parvus rotundus.

Stem arching, dull purple on exposed side, pruinose, angled with flat sides, very thinly hairy with few short simple or tufted hairs and more frequent stellate hairs, scattered sessile or subsessile glands, prickles (c. 10 per 5 cm) on the angles, equal, strong, about as long as the stem diameter, straight or rarely slightly curved,  $\pm$  patent, dull purple with straw coloured tips. Leaves 5-nate, pedate or subdigitate, leaflets rather small, usually not contiguous, dull green and glabrous or sparsely strigose above, pale greyish-green and hairy beneath with numerous short or very short simple hairs, sparse to frequent stellate hairs and occasional inconspicuous sessile glands; terminal leaflet broadly obovate or suborbicular with entire or, rarely, emarginate base and shortly cuspidate tip; margin flat or slightly undulate, finely and evenly serrate, petiolule long (c. 45% length of lamina); intermediate leaflets only slightly smaller than the terminal; basal leaflets with petiolules 3–4 mm; petioles about the same length or longer than basal leaflets, coloured and clothed like the stem and with 12–15 small falcate prickles (2–3 mm). Flowering branch long and cylindrical, with 2–4 ternate leaves at the base subtending ascending peduncles usually shorter than the leaves, and 1–2 simple leaves, not leafy to the apex; peduncles of the ultra-axillary part almost patent, divided well above the middle and bearing 2–5 flowers. Rachis slightly flexuose, densely hairy with short, patent, simple or tufted whitish hairs, stellate hairs, some inconspicuous sessile or subsessile glands, strongly armed with stout curved prickles (4–7 mm); peduncles and pedicels clothed as rachis but with smaller curved prickles. Flowers about 2.5 cm in diameter; sepals reflexed, greyish felted, with simple hairs and dense stellate hairs; petals pink or pale pink, obovate, c. 13  $\times$  8 mm, downy; stamens about the same length or rather longer than the styles, anthers glabrous or sparsely hairy, filaments pink or white; styles pale green or pink-based; young carpels hairy; receptacle glabrous; fruit round, small with few drupelets. Flowering in July and August.

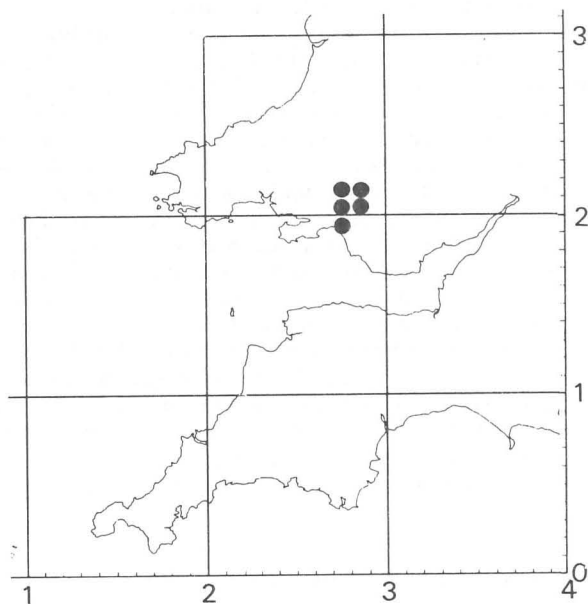


FIGURE 1. Distribution of *Rubus tavensis* Newton & Porter

HOLOTYPE: near Wern Plemys wood, Ystradgynlais, Brecs., v.c. 42, GR 22/790.095, 21 July 1988, *M. Porter* (NMW).

This bramble was named *Rubus godroni* Lec. & Lam. var. *foliolatus* by W. M. Rogers and A. Ley. Their very brief description in *J. Bot.* 44: 58 (1906) forms the basis for the entry in the addendum of Edees & Newton (1988), but also covered originally the Cheshire bramble subsequently described as *Rubus robii* (W. C. R. Watson) Newton. Rogers and Ley noted that the plant was first observed at Aberpergwm in the Nedd valley about 1890. The earliest herbarium specimen we have traced is at BIRM, collected by A. Ley on 21 July 1899 from Ystalyfera in the Tawe valley.

The bramble is frequent in the south-west of Brecs. (v.c. 42) and adjacent parts of Glam. (v.c. 41) and is a particular feature of the valleys of the Tawe and Nedd. The long narrow leafy panicle and the small leaflets are distinctive features.

*Representative exsiccata*: Glam., v.c. 41, Neath, 25 July 1905, *H. J. Riddelsdell* (NMW). Brecs., v.c. 42, Ystalyfera, 21 July 1899, *A. Ley* (BIRM); Ystradgynlais, 25 July 1899, *A. Ley* (LIV); Penwyllt, 4 August 1899, *A. Ley* (BIRM); Cellwen, 2 August 1906, *A. Ley* (BIRM); Pen-y-Cae, 27 July 1977, *M.P.* (herb. M.P.); Cwm Twrch, 1 August 1977, *M.P.* (herb. M.P.); Abercraf, 17 August 1978, *M.P.* (herb. M.P.); Cwm Giedd, 27 July 1982, *M.P.* (herb. M.P.).

The known distribution is shown in Fig. 1.

#### ***Rubus aquarum* Newton & Porter, sp. nov. (Series *Mucronati*)**

Turio primo arcuatus tandem procumbens faciebus planis vel concavis in apricis erubescens vel fusco-purpureus angulatus fere glaber glandulis aciculisque sparsis brevibus, aculeis plerumque ad angulos limitatis rectis tenuibus e basi vix compressa et aculeolis brevioribus raris obsitus. Folia (3–) 5nata pedata vel subdigitata inferne sparsim pilosa; foliolum terminale obovatum basi subcuneata apice cuspidatum margine denticulata. Inflorescentia diffusa inferne foliis ternatis (foliolo medio basi cuneata), superne uno folio ovato ornata apice aphylla ± pyramidata pedunculis pedicellisque longis; ramuli medii 1–4 flori. Rachis flexuosa aculeis tenuissimis falcatis declinatissive armata superne dense pilosa et tomentosa glandulis brevibus aciculisque nonnullis obsita. Flores (2–)2.5–3 cm, in umbrosis minores stellati, sepala reflexa griseoviridia tomentosa glandulifera aciculata; petala obovata roseo-lilacina ciliata; stamina stylos superantia, anthera pilosa; filamenta lilacina basi vinoso-purpurea. Carpella pilosa; fructus subglobosus.

Stem low-medium arching at first, then trailing or scrambling, angled with flat or slightly furrowed sides, reddish-brown or purplish-brown in exposure, obscurely striate, almost glabrous but with rare short simple or tufted hairs, locally frequent sessile glands and occasional short stalked glands and acicles; prickles (c. 10 per 5 cm) mostly on the angles, slender, declining from a slightly compressed base, coloured as the stem or with yellow tips, ± equal (c. 5–6 mm) but with an occasional shorter prickle. Leaves pedate or subdigitate; leaflets (3–)5, not contiguous, upper surface dark green, thinly strigose or almost glabrous, sometimes weakly plicate, lower surface sparsely clothed with short and very short simple hairs and sessile glands. Terminal leaflet c. 7 × 4 cm, obovate with sides tapering to a narrow rounded or cuneate base, apex cuspidate, margin flat or undulate with fine slightly irregular teeth; petiolute c. 30–40% length of lamina. Petiole as long or longer than the basal leaflets, coloured as the stem, with about 12–15 small falcate prickles and sparsely clothed with simple hairs and sessile glands, few short or very short stalked glands, rare acicles and some stellate hairs. Inflorescence diffuse and showy, with 2–4 ternate leaves having markedly cuneate central leaflets, subtending ascending peduncles as long as or shorter than the leaves, usually one broadly ovate simple leaf, not leafy to the apex; the upper part of the inflorescence more or less pyramidal with long peduncles and pedicels so that the flowers are well spaced, middle peduncles with 1–4 flowers. Rachis flexuose, with a few very slender falcate or declining prickles (to 4 mm), rather thickly clothed especially on the upper part with frequent short simple or tufted hairs and stalked glands mostly shorter than the hairs, a few acicles and dense grey felt; pedicels mostly 1–2 cm, clothed as upper rachis but with more stalked glands and acicles exceeding the short hairs and with a few straight, patent, very fine pricklets (up to three times the diameter of the pedicel). Flowers (2–)

2.5–3 cm diameter (smaller in shade), starry; sepals reflexed, greyish-green, closely felted and with short mainly adpressed simple hairs, few to many acicles and short stalked glands; petals c.  $14 \times 7$  mm, obovate, narrowed to a short claw, lilac-pink, hairy and with ciliate margins; stamens longer than styles, anthers cream with lilac sutures, pilose; filaments lilac shading to bright reddish-purple at the base; styles biscuit or pale green; young carpels hairy; receptacle hairy; fruit subglobose of about 20–30 drupelets. Flowering in July and August.

**HOLOTYPE:** hedge west of Llanwrtyd Wells, Brecs., v.c. 42, GR 22/872.459, 18 July 1988, *M. Porter* (NMW).

*A. Ley* first collected this bramble from a wood at Llanwrtyd Wells in 1897. It was determined by W. O. Focke as *Rubus lejeunei* W. & N. and appears thus in Rogers (1900), although the author was unusually sceptical about Focke's naming in this case. Later, the same plant, which *Ley* had gathered from several places in northern Breconshire, was equated with *Rubus breconensis* W. C. R. Watson (Watson 1958). Subsequently both *Edees* and *Newton* noted that *Ley*'s bramble did not match the type specimen of *R. breconensis* in **BM**. Although the taxa have some affinity, especially in floral characters, the northern Breconshire plant has almost glabrous stems with rare acicles and fewer prickles which are more or less equal and restricted to the angles. The inflorescence is more spectacular having larger well-spaced lilac flowers with conspicuous magenta filaments. Because it is such a distinctive plant and features prominently in the literature it was thought desirable to describe it, in spite of a limited distribution. As it has been found across northern Breconshire in a zone which includes the Victorian spas of Llanwrtyd, Llangammarch and Builth with their associated mineral springs we have named it *Rubus aquarum*.

**Representative exsiccata:** Brecs., v.c. 42, Llanwrtyd Wells, 14 July 1897, *A. Ley* (**BIRM**, NMW); Builth Wells, 9 August 1898, *A. Ley* (**BIRM**); Llangammarch Wells, 25 July 1907, *A. Ley* (**BIRM**, NMW); Gorwydd, 26 July 1907, *A. Ley* (**BIRM**); Llangammarch Wells, 1 August 1963, *E. S. Edees* (NMW), Glannau Wells, Builth, 9 August 1980, *M.P.* (**herb. M.P.**); Cwm Dyfnant, 21 August 1982, *M.P.* (**herb. M.P.**).

The known distribution is shown in Fig. 2. A record for Rads., v.c. 43, from Llandrindod Wells, fide *Watson* (1958), has not been confirmed.

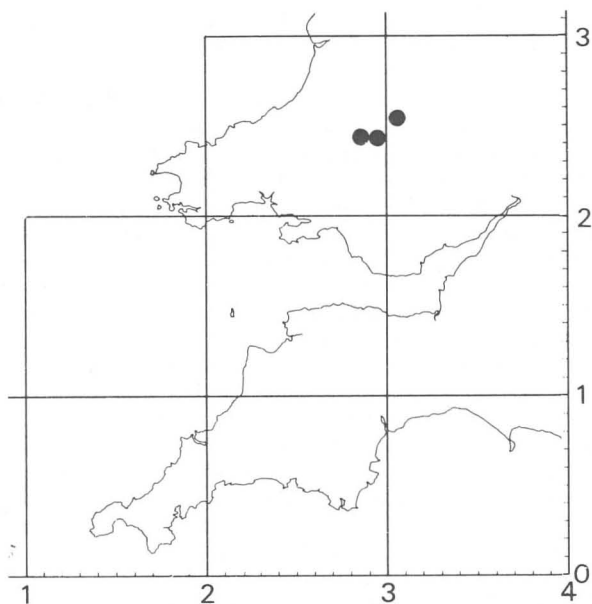


FIGURE 2. Distribution of *Rubus aquarum* Newton & Porter

**Rubus gallofuscus** Newton & Porter, *sp. nov.* (Series *Micantes*)

Turio altiarcuatus in apricis atropurpureus obtuse angulatus faciebus planis modice pilosus, glandulis mediocribus brevibusque, aculis nonnullis, aculeis mediocribus tenuibus rectis, patentibus vel declinatis e basi compressa vinaceis apice croceo, aculeolis interdum glanduliferis obsitus. Folia quinata  $\pm$  digitata superne strigosa inferne viridia velutina; foliolum terminale  $\pm$  longe petiolatum late obovatum vel subrotundum vel pentagonum basi subcordata vel emarginata breviter acutum margine interdum undulata aequaliter serratum. Inflorescentia intricata late pyramidata ad apicem singulatim foliosa; ramuli medii cymosi in summa parte divisi c. 7-flori. Rachis vix flexuosa dense pilosa tomentosa aculeis tenuibus declinatis, aculis nonnullis, glandulis brevibus mediocribus crebris armata. Flores 1.5–2 cm diam; sepala griseoviridia tomentosa breviter aciculata glandulifera patentia vel fructum laxe amplectantia. Petala obovata vel elliptica fimbriata alba haud contigua; stamina stylos aequantia vel vix superantia; filamenta alba; anthera glabra; carpella hirsuta; receptaculum  $\pm$  glabrum. Fructus parvus sphaericus.

Stem arching, deep purple in exposure, round or bluntly angled with flat sides, with numerous short or medium simple or tufted whitish hairs, few or numerous sessile or very short stalked glands and stellate hairs, occasional to frequent short and medium stalked glands and a few acicles, numerous short-medium prickles grading into pricklets some gland-tipped, largest prickles c. 7–8 mm long, 10–15 per 5 cm, straight, slender, patent to declining from a compressed base, hairy, reddish-purple with straw coloured tips. Young shoots tinged with bronze or purple. Leaves mostly digitate or subdigitate; leaflets 5, usually not contiguous, dark green and shortly strigose above, mid green and thickly and softly hairy below with short simple hairs, some stellate hairs and sparse to frequent sessile glands; terminal leaflet medium to long stalked, broadly obovate round or pentagonal, about 6  $\times$  5 cm, emarginate or slightly cordate at the base, usually abruptly narrowed at the apex to a short point (c. 1 cm); margin flat or undulate, serrate or slightly biserrate with fairly even rather short mucronate teeth of variable width; basal leaflets with stalks 4–7 mm; petioles longer than basal leaflets with about 10–15 falcate prickles (c. 3 mm), otherwise clothed and coloured as the stem. Flowering branch with 1–3 ternate leaves below with axillary peduncles of about the same length or shorter, then leafy to the apex with a series of diminishing simple leaves; inflorescence intricate when well developed, broadly pyramidal or cylindrical with a domed apex; middle peduncles branched above halfway, with about 7 flowers. Rachis slightly flexuose, coloured as stem, with frequent slender declining prickles (up to 4 mm), more densely hairy and felted than stems with patent short-medium simple or tufted hairs, frequent short to long stalked glands and some acicles. Pedicels with almost patent acicular prickles (up to 3 mm) otherwise clothed like the rachis but with shorter hairs and more numerous medium or long stalked glands. Flowers about 1.5–2 cm in diameter; sepals greyish-green, felted and with short spreading simple hairs, few to frequent short acicles and stalked glands, mainly reflexed in open flower and patent or clasping in fruit, those of the tip fruits developing long points; petals c. 10  $\times$  6 mm, obovate to elliptical, white with a greenish claw, downy on the margin and both surfaces, not contiguous; stamens about the same length or slightly longer than green styles, filaments white, anthers glabrous; young carpels hairy; receptacle glabrous or slightly hairy. Fruit round, small. Flowering in July and August.

**HOLOTYPE:** field bank, Penrhos, Brecs., v.c. 42, GR 22/802.113, 2 August 1988, *M. Porter* (NMW).

This bramble appears to have been collected first by A. Ley in 1890 from Pont-nedd-fechan in Breconshire and later from various localities in surrounding counties. Several gatherings were seen by Rogers and usually determined as “*R. fuscus* Wh. and N. forma” and the bramble appears as *R. fuscus* var. *macrostachys* from v.c. 42 in Rogers (1900). It is the Mid-Wales representative of the “*Rubus fuscus* group” which includes eight named regional species from southern and central Britain as well as two local unnamed plants, in addition to *R. fuscus* Weihe and *R. insectifolius* Lef. & Mueller (*R. fuscus* var. *nutans* Rogers).

**Representative exsiccata:** Herefs., v.c. 36, Wormbridge, 24 August 1906, *A. Ley* (NMW). Glam., v.c. 41, Ystalyfera, July 1906, *H. J. Riddelsdell* (NMW); Resolven, 22 July 1984, *M.P.* (**herb. M.P.**); near Gurnos, 3 August 1988, *M.P.* (**herb. M.P.**). Brecs., v.c. 42, Pont-nedd-fechan, 30 July 1890 *A.*

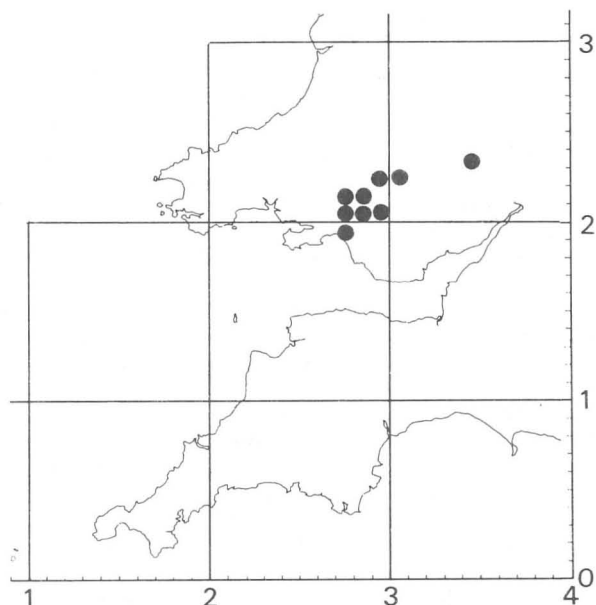


FIGURE 3. Distribution of *Rubus gallofuscus* Newton & Porter

*Ley* (BIRM), Ystradgynlais, 11 July 1906, *A. Ley* (BIRM); Heol Senni, 7 August 1906, *A. Ley* (BIRM, NMW, OXF); Heol Senni, 19 August 1947, *E. S. Edees* (NMW); Nant Senni, 21 July 1973, *A.N.* (herb. A.N.); Nant Llech, 2 September 1976, *M.P.* (herb. M.P.); Penrhos, 1 August 1977, *M.P.* (herb. M.P.); Cwmbrynich, 6 September 1977, *M.P.* (herb. M.P.); Cwm Giedd, 25 August 1978, *M.P.* (herb. M.P.). Carms., v.c. 44, Cwm Twrch, 7 July 1899, *A. Ley* (BIRM); Cwm Twrch, 2 August 1988, *M.P.* (herb. M.P.).

The known distribution is shown in Fig. 3.

***Rubus biloensis* Newton & Porter, sp. nov. (Series *Anisacanthi*)**

Turio arcuatus tandem procumbens obtuse angulatus faciebus striatis planis vel leviter concavis, in umbrosis pallide viridis in apricis cinnabarinus parce pruinosis, leviter pilosus, aculis nonnullis, glandulis numerosis inaequalibus, aculeis croceis pilosis brevibus vel mediis rectis vel raro curvatis e basi compressa declinatis plerumque ad angulos dispositis minoribus interdum glanduliferis armatus. Folia 3–5-nata pedata superne parce strigosa subplicata inferne capillis simplicibus interdum stellatis vestita. Foliolum terminale apice cuspidatum ellipticum vel subrotundum basi truncata vel subcordata aequaliter serratum dentibus majoribus vix prominentibus. Inflorescentia angusta rigida ad apicem haud foliosa superne racemosa pedunculis patentibus 1–3(–5)-flori. Rachis valida ± recta dense pilosa aculeis nonnullis declinatis pusillis glandulisque crebris obsita. Flores 2–2.5 cm diam. Sepala griseoviridia tomentosa glandulis aculisque ornata patentia vel fructum amplectantia. Petala haud contigua fimbriata obovata pallide rosea; stamina stylos virides superantia; filamenta alba tandem rubescentia. Anthera glabra. Fructus mature rubiginosus.

Stem low-arching then prostrate, bluntly angled with flat or slightly concave sides, pale green in shade becoming orange-red in exposure, striate, slightly pruinose, with sparse to numerous medium or short simple or tufted hairs, occasional to frequent stalked glands of various lengths, sparse to numerous sessile glands and an occasional short acicle; prickles short to medium (3–7 mm) straight or rarely curved, declining from a compressed base, chiefly on the angles but not confined to them c.(10–)15–20 per 5 cm, yellow or orange-red with yellow tips, hairy, the smaller sometimes gland-

tipped; young shoots bronze in exposure. Leaves 3–5 nate, pedate, leaflets imbricate or not, ultimately mid-green above, paler beneath; thinly strigose above with sparse sessile glands at first, hairy beneath with sparse to numerous simple hairs and sometimes stellate hairs; terminal leaflet short stalked, broadly obovate or elliptical, but rarely ovate, emarginate to narrowly cordate at the base and with a cuspidate often curved tip (c. 1.5 cm); fairly evenly serrate with main teeth slightly prominent; upper surface of leaf often becoming convex and sometimes plicate or rugose; basal leaflets with short stalks (to 5 mm); petiole usually rather longer than basal leaflets with about 10–15 small slanting or falcate prickles (c. 3 mm), clothed like the stem but with more numerous spreading simple hairs, stellate hairs and stalked glands. Flowering branch narrow, with 1–3 basal peduncles usually shorter than their ternate leaves and 1–2 simple leaves with short axillary peduncles; not leafy to apex; upper part of inflorescence simply racemose with middle and upper peduncles almost patent up to 2 cm long and bearing 1–3(–5) flowers. Rachis coloured as the stem, fairly stout and almost straight with few or many declining prickles (to 3 mm), densely clothed with spreading simple hairs and stellate hairs and frequent short to long stalked glands; pedicels with almost patent acicular prickles (to 3 mm), clothed like the upper part of the rachis but with more numerous medium to long stalked glands. Flowers 2–2.5 cm diameter; sepals greyish-green felted with medium or short spreading simple hairs and sparse to frequent short to medium stalked glands and acicles, short pointed, patent, erect to clasping in fruit; petals not contiguous, usually obovate, c. 14 × 8 mm, very pale pink with a greenish claw, downy on the back and margin; stamens slightly longer than the styles, filaments white, turning red after petal fall, anthers glabrous; styles green or pink-based; young carpels glabrous; receptacle hairy or glabrous; fruit coloured reddish-brown at early stage, with medium to large number of drupelets. Flowering in July and August.

Although the inflorescence is remarkably constant in form, there is considerable variation in the frequency of stalked glands, acicles and hairs on the stem.

**HOLOTYPE:** lane bank, Llanfillo, Brecs., v.c. 42, GR 32/117.333, 21 July 1988, *M. Porter* (NMW).

In 1975 an unfamiliar bramble was noticed in Llanfillo churchyard, Breconshire, and later was found growing in considerable quantity around the nearby Iron Age hill fort. Specimens sent to A. N. revealed that it was nameless. The following year two sheets of the same bramble, collected by A. Ley at Nant Tresglen, Breconshire, in 1906, were found in his herbarium at **BIRM**. These had been identified, probably by W. M. Rogers, as *R. longithyrsiger* Lees var. *botryeros* Focke. A duplicate gathering was later seen at NMW. During the last few years the same bramble has been found in several localities in Brecs., v.c. 42, and the adjacent vice-counties of Glam., v.c. 41, Rads., v.c. 43, Carms., v.c. 44 and Cards., v.c. 46. Recently it was discovered in N. Devon, v.c. 4, during a B.S.B.I. field meeting based at South Molton.

Although superficially similar to *R. leyanus* Rogers in some of its vegetative characters, its simple, narrow, columnar inflorescence with stout rachis bearing pale pink flowers is distinctive.

It has been named after the Celtic Saint Bilo to whom Llanfillo church is dedicated. She is reputed to have been one of the twenty four saintly daughters of King Brychan who ruled over the small Welsh kingdom of Brycheiniog, later known as Breconshire, in the 5th Century A.D.

**Representative exsiccata:** Brecs., v.c. 42, Nant Tresglen, 8 August 1906, *A. Ley* (**BIRM**, NMW); Llanfillo, 26 July 1978, *M.P.* (NMW); Allt Fillo, 26 July 1978, *M.P.* (**herb. M.P.**); Nant Gwennol, 28 July 1982, *M.P.* (**herb. M.P.**). Rads., v.c. 43, Penmaenau, 5 August 1988, *M.P.* (**herb. M.P.**); Cwmbach, 8 September 1988, *M.P.* (**herb. M.P.**). Carms., v.c. 44, Nant Gwennol, 28 July 1982, *M.P.* (**herb. M.P.**); Dolgran, 3 August 1987, *M.P.* (**herb. M.P.**); Dolaucothi, 3 August 1987, *M.P.* (**herb. M.P.**); near Ynys Wen, 25 August 1988, *M.P.* (**herb. M.P.**). Cards., v.c. 46, Lampeter, 20 July 1978, *M.P.* (**herb. M.P.**).

The known distribution is shown in Fig. 4.

**Rubus merlini** Newton & Porter, *sp. nov.* (Series *Hystrices*)

Turio arcuatus tandem procumbens obtuse angulatus faciebus planis, in apicis brunneo-roseus leviter pilosus glandulis mediocribus numerosis, aciculis glanduliferis nonnullis aculeisque tenuibus

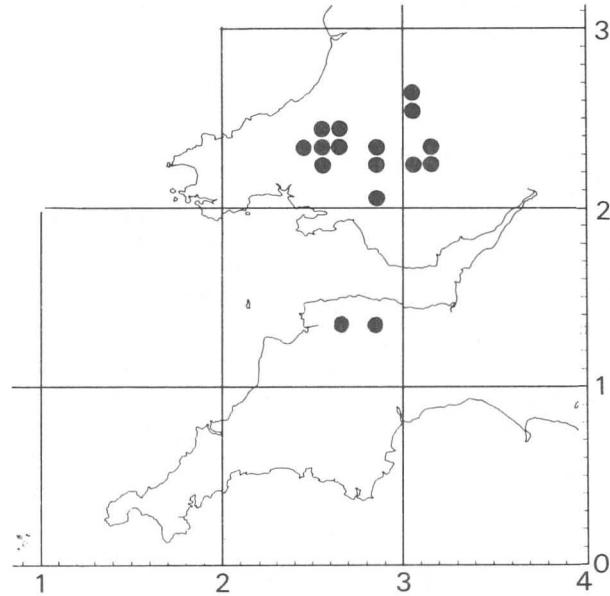


FIGURE 4. Distribution of *Rubus biloensis* Newton & Porter

rectis e basi lata declinatis amplitudine variabili omnino obtectus. Folia pedata quinata superne parce strigosa glabrescentia inferne leviter pilosa. Foliolum terminale brevipetiolatum ovatum basi cordata sensim acuminatum undulatum profunde duplicato-dentatum. Inflorescentia late pyramidata superne aphylla; ramuli medii 1-3(-5) flori pedunculis  $\pm$  patentibus. Rachis recta capillis densis glandulis crebris amplitudine variis, aculeolis aciculisque patentibus numerosis obsita. Flores stellati c. 2.5 cm diam; sepala patentia vel fructum laxè amplectantia tomentosa glandulifera aciculata. Petala alba anguste obovata margine glabra; stamina stylos pallide virides vix superantia; filamenta alba, carpella glabra, receptaculum pilosum; fructus oblongus.

Stem medium-low arching then trailing, bluntly angled with flat sides, brownish-pink in exposure, slightly striate, thinly to moderately hairy with simple or clustered spreading hairs, few or numerous sessile glands and numerous short to medium stalked glands and few to many gland-tipped acicles. Prickles numerous on angles and faces, straight, slender, declining from a compressed base, ranging in size from slightly less than stem diameter down to c. 2 mm, about 10-15 of the large prickles per 5 cm. Young shoots golden or copper coloured. Leaves pedate; leaflets usually 5, contiguous or not, slightly strigose or glabrescent above, softly but sparsely hairy beneath. Terminal leaflet short-stalked, ovate, with cordate base and gradually acuminate apex, undulate margins usually distinctly jagged and sharply biserrate. Petiole about the same length or shorter than the basal leaflets, clothed as the stem except that the largest prickles (2-3 mm) are often falcate. Flowering branch broadly pyramidal, usually with 1-3 long ascending or divergent axillary branches more than half the length of the inflorescence subtended by ternate leaves at the base, 1-3 simple leaves above, not leafy to the apex; middle panicle branches with 1-3(-5) flowers on fairly long almost patent pedicels. Rachis straight, densely clothed with spreading simple or tufted hairs, short to long stalked glands, numerous patent subulate pricklets and acicles. Pedicels clothed as upper rachis but with more crowded pricklets and acicles and the hairs more adpressed so that the stalked glands appear more conspicuous. Flowers starry, about 2.5 cm diameter; sepals patent in open flower, patent or loosely clasping in fruit, long-pointed, densely clothed with simple and stellate hairs, short or medium stalked glands and frequent acicles; petals white c. 14  $\times$  6 mm, narrowly obovate, sparsely hairy on the back but with glabrous margins; stamens slightly exceeding styles, filaments white, anthers glabrous; styles pale green, carpels glabrous; receptacle pilose. Fruit oblong of about 30 drupelets.



**HOLOTYPE:** roadside hedgebank, Cilycwm, Carms., v.c. 44, GR 22/751.396, 14 July 1973, *T. A. W. Davis* (NMW). **ISOTYPE:** herb. A.N.

This plant was collected by A. Ley at the end of the nineteenth century from several localities in Mid Wales (vide infra). The early gatherings were usually identified as *Rubus viridis* Kaltenb., and under that name the plant is included in Rogers (1900). It differs however in significant respects from this continental plant (for which the correct name is *R. iuvenis* van de Beek) as exhibited by Wirtgen's authentic specimens in MANCH. *R. merlini* forms a conspicuous member of the mid-Welsh bramble community, being widespread and frequent in v.cc. 42–44 & 46. It is easily distinguished by the very prickly stem, bright green attenuate terminal leaflets and white starry flowers. As it is particularly prevalent in the deciduous woods of Carms., v.c. 44, it has been named after the local sage Merlin who is associated with this area in many legends and after whom Carmarthen is named.

*Representative exsiccata:* Brecs., v.c. 42, Fannog, Nant Towy, 4 August 1897, *A. Ley* (BIRM); Dyffryn Cwannon, 27 June 1898, *A. Ley* (BIRM); Cwm Gwydderig, 8 August 1906, *A. Ley* (BIRM); Corryn Wood, Garth, 29 July 1977, *M.P.* (herb. M.P.); Nant Gwennol, 2 August 1977, *M.P.* (herb. M.P.); Llangoed, 15 July 1980, *M.P.* (herb. M.P.); Abergwesyn, 23 August 1980, *M.P.* (herb. M.P.); Myarth, Llangynidr, 17 August 1988, *M.P.* (herb. M.P.). Rads., v.c. 43, Cwm Elan, 2 August 1986, *A. Ley* (BIRM); Allt goch, 26 August 1892, *A. Ley* (BIRM, MANCH, NMW). Carms., v.c. 44, Pont Gwydderig, 5 August 1897, *A. Ley* (BIRM, NMW); Rhandirmwyn, 29 July 1962, *T. A. W. Davis* (NMW), Rhyd-y-groes, 28 July 1978, *T. A. W. Davis* (NMW), Abergorlech, 22 August 1988, *M.P.* (herb. M.P.). Cards., v.c. 46, Nant Doethi, 10 August 1897, *A. Ley* (BIRM).

The known distribution is shown in Fig. 5.

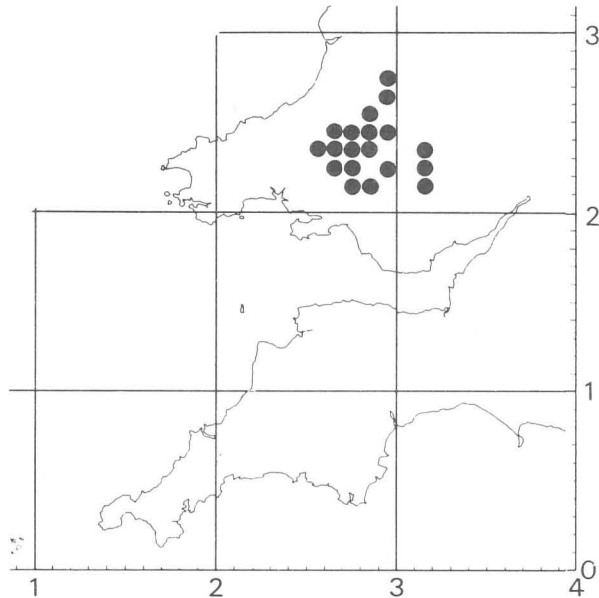


FIGURE 5. Distribution of *Rubus merlini* Newton & Porter

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