



Pulsatilla vulgaris

Register of Plants of Conservation Concern found in Cambridgeshire (vc 29)

Seventeenth Edition 2026 March

The Cambridgeshire (vc 29) Rare Plant Register

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Cover: *Pulsatilla vulgaris* (Pasqueflower) is the county flower of Cambridgeshire. Its only extant county site in the wild is the Devil's Ditch, where the photo was taken. Historically it was also found on the Fleam Dyke (last seen there 1973), the Gog Magog Hills (where plants have been seen recently, though not necessarily of native origin) and Hildersham Furze Hills (last seen there 1990).

Register of Plants of Conservation Concern found in Cambridgeshire (vc 29)

The basis of this Register was those plants listed in Part 1 (Rare Species) of the “Cambridgeshire Flora Records since 1538” <http://www.cambridgeshireflora.com/>, together with threatened plants from the GB and English Red Lists that are or have been found in Cambridgeshire, and plants that are native or archaeophyte and are uncommon or declining in the county. A few neophyte plants of historic interest are also included.

Cambridgeshire had an existing listing of what were considered rare plants in the county that used subjective criteria and was published online in 2000. These rare species are listed in detail in Part 1 (Rare Species) of the “Cambridgeshire Flora Records since 1538” <http://www.cambridgeshireflora.com/> Most species from this listing were included in a revised listing compiled in 2016, though a few, such as some halophytes, were now sufficiently common that they were excluded. There has been a pragmatic approach in updating the listing over time. First, species from the England Red List (ERL 2014) that had a threat status of EW, CR, EN, VU, DD, WL or NT together with any species that were in marked decline in England and were not previously included were added. Secondly any additional native or archaeophyte species that were only found in 16 or fewer monads in the previous 20 years (originally back to 2000) were added. Because it is possible that a plant could be in four monads but in one site, six monads was taken as an upper limit for rarity. The alternative approach of defining a rare plant as occupying a maximum of three “sites” gives similar results, but is harder to implement automatically on the DDb. Sixteen monads was similarly taken as an upper limit for scarcity. Using an earlier starting date would remove some species from the Register, however the date chosen was in line with Atlas 2020 recording and gave a better indication of current threat. Some nationally rare or threatened plants are common in the county because this is their heartland.

The title of the document was changed in 2017 from “Scarce Plant List” to “Register of Plants of Conservation Concern” to reflect the fact that some of the species are common in the county. There was a separate Rare Plant Register. Following a suggestion made at the BSBI Recorders Conference in 2018, hectad, tetrad and monad records of all native and archaeophyte species were assessed for change in vc 29 and as a consequence over 70 additional plants were added to the listing. The pre-2001 tetrad and monad coverage is not as complete as the post-2000 coverage, so it was a surprise to find some species had declined at this level. One caution is that a monad reference (even/even) has sometimes been used to signify a tetrad by some recorders.

The BSBI had revised its guidelines for Rare Plant Registers in 2017, though this was not appreciated until 2022. Our criteria for this RPCC were then synonymous with those for a full BSBI Rare Plant Register. When the new GB Red List was published in 2025 the Register was revised to include all species with newly assigned threat status of NT or above, though many had already been included.

Discussion at a BSBI S&D committee in 2026 noted that the definition for Nationally Rare was “occurring in fewer than 0.5% of all hectads in Britain” and that a similar definition could be used on a county basis. Nationally Scarce was more arbitrarily defined as occurring in fewer than 101 hectads, which corresponds to 3.4% of them. Adopting such an area based approach seemed to match experience within the county, so bounds were revised to <0.5%

of monads = Rare, 0.5-2.0% = Scarce and 2.0-3.5% = Near Scarce. The total area of the county is 2222 sq km, so these boundaries have been treated conservatively as Rare <=10, Scarce 11-40 and Near Scarce 41-70 monads.

Notes:

1. Nomenclature follows Stace IV (2019)
2. Counting complete and partial squares, there are 42 hectads, 665 tetrads and 2454 monads in the county, which has an area of 2222 km².
3. There were 679 tetrads and 2314 monads with records in (or assigned to) the county as of 2018 December 29; some of these were probably errors. There were 138940 records with monad accuracy or better prior to 2000 and 336273 after 1999 (ratio 0.41); the tetrad totals were 224203 and 385237 (ratio 0.58); the hectad totals were 280182 and 393271 (ratio 0.71).
4. County Scarcity is based on the monad counts in the last 20 years and may give a status of: **Lost** (ie no longer present), **Rare** (1 – 10 monads), **Scarce** (11 – 40 monads), **Near Scarce** (41 – 70 monads) and not listed because it is sufficiently common.
5. County Threat is based on occupancy criteria:
 - a) The ratio of hectad counts in the last 20 years to total hectad counts, where the species has occurred in at least six hectads and may be: **VU**nerable (decline >30%), **EN**dangered (decline >50%), **Critically EN**dangered (decline >80%) or **Regionally EX**tinct. These are noted in the comments as H decline.
 - b) The ratio of monad (tetrad) counts in the last 20 years to the total monad (tetrad) counts, where the species has occurred in at least 20 monads (10 tetrads). Species with a decline of more than 30% at this level are listed as **VU** and are noted in the comment as either M or T decline.
 - d) Species put on the list with a monad or tetrad decline of more than 30% remain on it as **NT** until there is a recovery to a 25% decline.
6. The Monad Counts give the number of monads where it was seen more than 20 years ago, the number for the last 20 years and the number for all years. It is taken from the BSBI DDb. All records are counted, whether in the wild or not. Records of species will not be counted if they were only recorded at tetrad or hectad level, so this may not reflect the true extent of more common species. Some Regionally Extinct species were often not accurately located, so their monad counts may be 0.
7. The known dates of first and last record are given.
8. Some species listed in Part 1 of the on-line Flora are not native or archaeophyte. These are noted in the Comment as Flora.
9. Species that have Cambridgeshire Biodiversity Action Plans are indicated by CBAP. Species included in the Cambridge and Peterborough Additional Species of Interest (CPASI) list produced by CPERC are indicated by CP.
10. Species for which there is or may be an international responsibility are indicated by IR.
11. Species that are listed in Schedule 8 of the NERC Act (those that are protected under the legislation) are listed as Sch 8.
12. Species that are listed in Section 41 of the NERC Act (species of principal importance for conserving biodiversity in England) are listed as S41.

13. GB Scarcity is from the GB Red List for Nationally Rare (present in fewer than 16 hectads), Nationally Scarce (<101 hectads) and from the DDb for Nationally Uncommon (<251 hectads).
14. GB or England Red List (ERL) Threat Status may be: EXtinct, Extinct in the Wild, Regionally Extinct, CRitically endangered, ENdangered, VUInerable, Near Threatened, Least Concern, Data Deficient, Parking List or Waiting List. Species in significant decline in England, though not necessarily rare or threatened, are indicated by Dec. All species known from the county with a threat level greater than LC are listed in the Register, and those LC species in decline in England are also included. Species not seen in the county for more than 20 years are listed as RE. Some may be re-found.
15. The complete distribution of Chara, Hieracium, Rubus and Taraxacum species is generally not well known in the county and most are strictly DD for the county.
16. Site details and species accounts etc can be found in the Flora of Cambridgeshire (2019) by Alan Leslie, in the online Cambridgeshire Flora Records, on the BSBI web pages and from the BSBI DDb.
17. Annual records are required for most plants featuring in this List that are not listed as LC for local status. Those with a County status of RE, DD, R or S should be given a six- or eight-figure grid reference accuracy depending on the number and distribution of the plants. Monad accuracy is usually sufficient for all others, unless they are away from their usual occurrence areas.
18. The Register is updated on an ongoing basis, with a full update of the main section made annually.
19. Scarce or rare (using the old definitions) hybrid species are listed in appendix 1, which is now fairly comprehensive. The next full revision will be at the end of 2029.
20. Scarce varieties are listed in appendix 2.
21. Invasive species which give concern at wildlife sites are listed in appendix 3. It is planned to revise this list every five years, with the next revision at the end of 2029.

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Amendment history

Deletions/additions in 2017

Galeopsis bifida deleted - >16 monads
Cladium mariscus deleted - >16 monads
Holcus mollis deleted - >16 monads
Rubus tuberculatus deleted - >16 monads
Trifolium ornithopodioides added – new to county
Leersia oryzoides added – new to county

Deletions/additions in 2018

Nitella opaca added – new to county
Sagina maritima deleted - >16 monads
Rubus babingtonianus deleted - >16 monads
Lathyrus nissolia deleted - >16 monads
Rubus flexuosus and Rubus pyramidalis removed from extinct list, present in Gamlingay area
Carex muricata deleted - >16 monads
Ranunculus penicillatus deleted - >16 monads
Rubus conjugens deleted - >16 monads

In 2018 October there was a major update to add/restore species in significant decline in the county based on hectad occupancy. Additional declining species based on monad or tetrad occupancy were added in 2018 December and scarce or declining hybrids were also added. Some first dates were updated following research by Chris Preston.

Deletions/additions in 2019

Scirpoides holoschoenus added – new to county (planted)

6th Edition - Names updated to Stace IV

7th Edition – annual update

Campanula rapunculus added– new to county (status uncertain)
Dryopteris cristata deleted – record rejected
Buxus sempervirens, Pinus sylvestris – deleted common county aliens
Brachypodium rupestre deleted – validity of species uncertain
Leucjum aestivum deleted – common neophyte
Primula elatior retained – now LC at GB level, but NS
Alopecurus geniculatus, Avena pubescens, Cerastium semidecandrum, Ceratophyllum demersum, Glyceria notata, Juncus conglomeratus, Lathyrus nissolia, Myosotis laxa, Potamogeton natans, Salix purpurea, Typha angustifolia, Valerianella locusta, Vicia hirsuta, Viscum album – deleted as not VU at local level
Asplenium trichomanes, Bolboschoenus maritimus, Carex acutiformis, Cirsium eriophorum, Conopodium majus, Elodea canadensis, Koeleria macrantha, Mentha spicata, Mycelis muralis, Polygonum rurivagum, Salix triandra, Ulmus minor – added as VU at local level
Fraxinus excelsior – not added though NT at European level. Ulmus glabra retained as VU at European level.
Additional amendments made to dates (based on the new Cambridgeshire Flora), spellings, comments, GB status, etc. Additional columns added for overall monad totals and pre 2000 monad totals.

8th Edition – addition of appendix listing invasive species of concern.

9th Edition – annual update

Polypodium cambricum, Rosa agrestis (new county records), Osmunda regalis (historical record, EX) added.
Some additional historical dates revised.
Erodium cicutarium subsp dunense added as Rare
Hieracium acuminatum, last seen in 2001 deemed probably extinct

Populus nigra subsp *betulifolia* and *Ranunculus lingua* added as VU at county level.
Additional sites found for *Asplenium trichomanes*, *Athyrium filix-femina*, *Carex divulsa* subsp *leersii*, *Clinopodium ascendens*, *Erophila glabrescens*, *Hippurus vulgaris* and *Veronica montana*, so all deleted.
Agrostis capilaris x *gigantea*, *Elytrigia atherica* x *repens*, *Tragopogon* x *mirabilis* added to hybrids list and *Galium* x *pomeranicum* and *Quercus* x *rosacea* deleted. No other revision of hybrids or invasive species carried out, though selected numbers updated.

10th Edition – cumulative and annual update

2021 March – updates to GB status based on new red list and one addition (*Anisantha madritensis*).
Species for which UK has or may have international responsibility added (*Callitriche obtusangula*, *Dactylorhiza praetermissa*, *Hyacinthoides non-scripta*, *Nasturtium microphyllum* and *Polypodium interjectum*). EX changed to RE.

2021 September new earliest date for *E. multicaulis*.

2021 December - counts etc updated. *Carduus tenuiflorus* and *Parapholis strigosa* deleted as no longer scarce. *Galium palustre*, *Mycelis muralis*, *Sagittaria sagittifolia*, *Veronica anagalis-aquatica*, *Veronica beccabunga* deleted as no longer vulnerable. *Juncus conglomeratus*, *Poterium sanguisorba* subsp. *sanguisorba* added as now vulnerable. 2022 January – additional last seen dates updated following addition of final 2021 Fenland Flora records

11th Edition – revised to align with BSBI (2017) RPR guidelines.

Orchis simia moved to RE as its garden site has been destroyed. New cover image to reflect its status as a Rare Plant Register.

12th Edition – cumulative annual update in 2023 January.

Rorippa islandica deleted – probably either wrongly identified or named; not accepted for the Flora. *Ulmus minor* deleted – DDb issue.

Rosa corymbifera (scarce, vulnerable), *Rosa squarrosa* (rare, critically endangered) added – new splits of Rose taxa

Utricularia vulgaris added – monad decline

Hordelymus europaeus re-found at original site. *Ajuga chamaepitys*, *Centaurea calcitrapa* found wild in CUBG. *Colchicum autumnale* established in several college gardens.

Various county status changes including:

Herniaria glabra (becomes VU), *Mentha pulegium*, *Ranunculus arvensis* (becomes CR) decline to become rare.

Cuscuta europaea, *Dryopteris affinis* subsp. *affinis*, *Galium parisiense*, *Hippophae rhamnoides*, *Verbascum pulverulentum* no longer scarce but retained for other reasons.

Hylotelephium telephium, *Nitella flexilis*, *Viola odorata* var. *sulfurea* increase to become scarce.

Myosurus minimus declines to becomes county endangered

Orchis mascula increases to become county vulnerable

Himantoglossum hircinum, *Hydrocharis morsus-ranae*, *Luzula pilosa*, *Muscari neglectum*, *Rosa stylosa*, *Rumex palustris* no longer county vulnerable

13th edition 2023 December 31

CPASI species included (2023 August)

Filago lutescens, *Filago pyramidata*, *Helosciadium* [*Apium*] *inundatum*, *Hieracium grandidens*, *Scleranthus annuus* and *Silene gallica* not seen since 2003/2004 so moved to the RE appendix

Hieracium cheriense, *Linum bienne*, *Poa palustris* re-found so moved from RE appendix

Dasiphora fruticosa (alien) added

Hippuris vulgaris added due to monad decline

Dipsacus pilosus, *Epilobium roseum*, *Quercus petraea*, *Rosa stylosa* removed as no longer scarce

Rosa micrantha removed as re-found in hectads and no longer VU

Hedera helix added to invasives appendix

14th edition 2024 July

Updates 2024 January

Calystegia sepium subsp. *roseata*, *Helleborus foetidus*, *Poa infirma* removed – no longer nationally scarce

Aethusa cynapium subsp. *agrestis*, *Allium ampeloprasum*, *Lotus angustissimus*, *Mentha suaveolens*,

Thymus serpyllum, *Wolffia arrhiza* added as listed as NR or NS in Atlas 2020.

Angelica archangelica, Arum italicum subsp. neglectum, Mibora minima, Orchis militaris, Polygonatum odoratum, Vicia bithynica all NS or NR but added as RE

Echium plantagineum added as an archaeophyte, but casual in Cambridgeshire

Filago lutescens restored to main list following a belated report

Gymnocarpium robertianum (now lost), Thymus serpyllum added in main list

Torilis nodosa removed – not declining in England

Quercus ilex added to invasive species appendix

Updates 2024 July

Species showing major long term decline in Britain according to Atlas 2020 added: Fallopia convolvulus, Lolium multiflorum, Poterium sanguisorba subsp. sanguisorba, Raphanus raphanistrum subsp. raphanistrum, Silene vulgaris, Sinapis arvensis, Sisymbrium altissimum. Many are still common in the county. Only monad counts have been looked at for this edition.

15th edition 2025 January

Updates 2024 October, December, 2025 January

Various typos corrected

Lysimachia loeflingii added – newly recognised as a species. Was Anagallis arvensis subsp. arvensis f. azurea (Scarlet Pimpernel azure form)

First record date of Campanula glomerata updated

Annual update: No plants moved to RE. Hybrids and invasives updated.

Parapholis strigosa added – previously overlooked

Myosotis laxa, Vicia sativa subsp. nigra added – decline at tetrad or hectad level

Acorus calamus, Bromus arvensis, Impatiens parviflora, Melilotus indicus, Ribes nigrum, Vicia sativa subsp. sativa added – declining or rare long established aliens

Rosa spinosissima deleted – not scarce

Brassica nigra, Diplotaxis muralis, Scutellaria galericulata deleted – no longer VU at hectad level

16th edition 2026 January

Monad totals etc updated, columns ordered to match DDb output and status reviewed for 2006 - 2025

Taraxacum palustrisquameum added – determined by John Richards

Hieracium diaphanum becomes Hieracium breviglandulosum

Ornithogalum pyrenaicum no longer RE, albeit introduced

Further revised first record dates for Campanula glomerata, Himantoglossum hircinum

Addition of Symphytum x ferrariense, S. x perringianum

Wolffia columbina deleted as it is an alien. Galium odoratum, Persicaria hydropiper, Trifolium incarnatum deleted as no longer of concern

Stellaria holostea, Trifolium micranthum, Veronica montana added as declining at hectad level

Typos corrected. LC explicitly added as a county status.

GB assessments revised to the 2025 GB Red List, with 20 species added to the RPCC and two (Fallopia convolvulus and Valerianella carinata) deleted.

17th edition 2026 xxxx

Species tables converted to a separate spreadsheet

Rarity and Threat separated.

Rarity bounds revised to <0.5% of monads = Rare, 0.5-2.0% = Scarce and 2.0-3.5% = Near Scarce.

Typos corrected

Linaria repens, Papaver dubium, Taraxacum subexpallidens added – GB status overlooked

Trifolium incarnatum added - NU