BERWICKSHIRE VICE-COUNTY RARE PLANT REGISTER

Privately circulated by M E Braithwaite, Clarilaw, Hawick, Roxburghshire, TD9 8PT

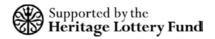
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BERWICKSHIRE VICE-COUNTY RARE PLANT REGISTER

(together with a Check List of Vascular Plants)

Michael E Braithwaite

2004

As Vice-County Recorder for
The Botanical Society of the British Isles
(Reissued as PDF with minor corrections 2011)

About BSBI

The Botanical Society of the British Isles

- Has a membership of about 3,000 amateur and professional botanists
- Is the leading charitable society promoting the study and enjoyment of British and Irish wild plants
- Maintains a network of 152 Vice-county recorders, a central database of threatened plants and a panel of referees for difficult plants
- Maintains a comprehensive scientific database that enables the list of British and Irish plants to be kept up to date
- Carries out national surveys and publishes the results, notably and most recently the acclaimed *New Atlas of the British and Irish Flora*, 2002
- Publishes authoritative identification handbooks on difficult plants such as sedges and roses
- Promotes the publication of local floras and county rare plant registers
- Holds field meetings and conferences to bring botanists together, whether amateur or professional
- Publishes journals to enable members to share their observations and the results of their studies
- Encourages the training of botanists of all ages

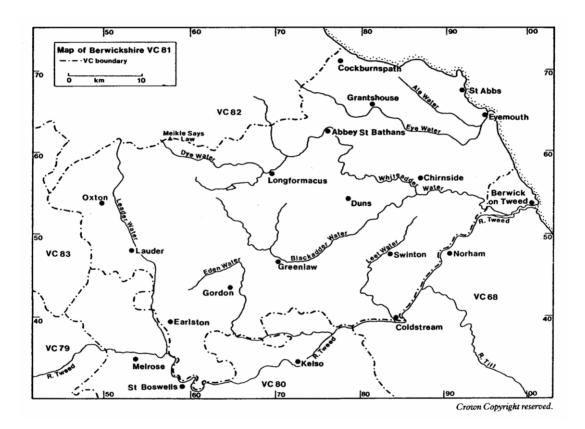
More information will be found on the BSBI web site at www.bsbi.org.uk

Membership and other enquiries may be sent to BSBI Honorary General Secretary, c/o Department of Botany, The Natural History Museum, Cromwell Road, London, SW7 5BD.

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To Arthur J Smith (1912 - 2000), so knowledgeable in all branches of natural history, who introduced me to fellow naturalists in the Scottish Borders following a chance meeting where orchids grow on 2^{nd} August 1972



The Watsonian Vice-county of Berwickshire follows the boundaries of the pre-regionalisation county of Berwickshire with the addition of small areas near Chapel on Leader and near the Monynut Water where the Vice-county follows old parish boundaries.

Author's Preface

I have had the privilege of studying Berwickshire's plants in detail for over twenty-five years, albeit as an amateur with a separate profession to follow in the working week. My interest has given me a deep respect for our wild plants, for their extraordinary ability to survive and indeed thrive in all their diversity in what is often a hostile environment with constant disturbance from mankind added to more natural forces and competition between plant species. In presenting this account of the rare and scarce plants, many of which are in decline, I have taken care to include relevant success stories to maintain a balanced perspective.

The historical record of Berwickshire's flora is a splendid legacy stemming largely from the work of Dr George Johnston and the members of the Berwickshire Naturalists' Club that he founded in 1831. Nevertheless this activity largely died out with the war in 1914 and in Berwickshire it was not until the Botanical Society of the British Isles launched its Atlas survey in 1954 that the recording tradition was reborn. The fine historical record has made it worthwhile to include in this rare plant register a full record of former plant localities and to examine the trends in these localities over time. For many scarce plants the trend of localities lost is horrendous indeed, though there are also numerous examples where locality survival has been high. The driving forces of these changes are well known and are primarily agricultural but it is still difficult to tease out just what has caused many of the individual losses.

My own perceptions of the key factors causing change have varied as the years have passed. In the 1970's I perceived the universal availability of the JCB coupled with grant incentives to be the key factor leading to the loss of so many of the remaining wet field-corners and small wetlands. By the 1980's conifer forestry under tax breaks was thought to be the greatest issue with the uplands suffering much change. The 1990's saw livestock grants favouring unrealistically high stocking densities, especially on hill land, and these were seen to be the final straw leading to the loss of localities for some moorland-edge species. In the last decade a new perceived threat has come to the fore in the unintended side-effects of action in the interests of wildlife. New amenity planting, pond creation, the fencing-off of watersides and deliberate under-grazing have all led to a catalogue of lost plant localities as well as to some notable gains. Some of the losses have admittedly been from habitats so fragmented that the loss of scarce species had become almost inevitable but others have been from good botanical sites. This is a time when there is a great need to stand back and seek to review these prescriptions for wildlife to ensure that the botanical interest is always fully considered.

Submission of Botanical Records

MEB as the current BSBI VC Recorder welcomes the submission of botanical records to him at Clarilaw, Hawick, Roxburghshire, TD9 8PT. In principle all records for Berwickshire are welcome. In practice feedback to individual recorders soon leads to an understanding of what is of mutual interest. MEB can offer help with identification and for critical taxa voucher material, limited to what is strictly necessary for identification, should be submitted where conservation considerations allow. MEB has access to BSBI's national referee service to confirm the identity of taxa requiring specialist knowledge.

All records are accepted on the understanding that the information provided by the recorder will be entered on a computer database, may be used in the production of a county flora and other publications and will be available for wildlife conservation, research and education.

BSBI botanical records for Berwickshire are periodically copied to SBBRC so there is no need for recorders to copy their records to SBBRC. If records are sent to SBBRC rather than to MEB it implies opting out of the offer of validation. Validation is a key element of botanical recording, especially for rare, scarce and difficult plants.

Introduction

The circulation of this County Rare Plant Register, or register of nationally or locally rare or scarce plants, is part of a national initiative by BSBI to disseminate key plant conservation data. It is supported by a database of the underlying data.

It is hoped that the CRPR will not only be of value in itself as a contribution towards a full flora of Berwickshire but that it will also motivate botanists to contribute further records of the taxa selected. Such records may be generated not only by revisiting the relevant sites but also by adding records from new sites whether from new fieldwork or from a review of datasets that have not been accessed in the preparation of this register, which remains in many ways a provisional record.

Rationale

The CRPR is a research document:

- It aims to document the diversity of the local flora at a point in history
- It provides a record of change in the countryside. Many of the localities of the scarcer plants have been known for two centuries and, taken collectively, their fate can provide evidence of past change in particular habitats and a basis from which to monitor future change
- It aims, taken together with similar documents from other vice-counties, to provide an overview of the national status of individual species to inform decision-makers at national and local level.

The locality data has been collected with these research objectives in mind and the relationship between recorder and landowner depends on this understanding being respected. In particular the plant locality data is based on a partial species-related survey with little associated site-related survey and is certainly not complete, neither is it warranted to be accurate. Thus, in a planning context, the absence of scarce plant records from a site can offer only limited evidence of the absence of sensitive habitats, while the presence of scarce species can do no more than point to a possible need for full habitat survey with the landowner's permission.

Access

The writer acknowledges with deep gratitude the remarkable tolerance he has enjoyed in his recording activities from landowners and land managers. Permission for access has been sought and granted for inbye land away from footpaths but has also been enjoyed as a privilege on more open land. The inclusion of records from a site must not be taken as an open invitation to visit.

Species Selection

BSBI recommends that native and archaeophyte species currently present at three sites or less in the VC be included in the register as locally rare together with those present in ten sites or less as locally scarce, together with any nationally rare or scarce species that may be more frequent. Sites at which a species may soon be expected to become extinct may be excluded for this count.

Some species have long been thought to be scarce in Berwickshire but are now known to be more widespread. Maps of such species are included to demonstrate this. To the species selected by these basic criteria there have been added those for which it is felt that Berwickshire holds unusually fine populations in a national context and for which the related habitats are of regional interest. Maps are presented for these more frequent species but only selected fine populations are detailed individually.

Data Sources

The data has been extracted from BSBI's VC 81 records held by M E Braithwaite as VC Recorder. The main elements are

1671-1969 - Card Index compiled by A G Long mainly from the two floras of G Johnston, the History of the Berwickshire Naturalists Club and field records c. 1950-69. This remains a manuscript. 1970-86, 1987-99, 2000-04 - Three boxes of manuscript Field Cards and Individual Record Cards compiled by MEB. These records are also held on a MapMate database compiled as described below under data processing.

The AGL card index includes work for the first Atlas of the British Flora 1962. Some fieldwork led to records with their localities detailed. This was by AGL, his son D G Long and other botanists who worked with him. However other fieldwork for that Atlas was recorded at hectad, or 10 km square, scale only including that of a field meeting led by F H Perring in August 1960 which was very productive and such records comprise the bulk of those listed in this register as 'Old Atlas'. Unfortunately the compilation of these records onto master cards was not wholly satisfactory and cannot be reviewed as the underlying field cards are not available. Some errors can therefore be expected. Some hectad records which are now believed to relate to adjacent VCs have been omitted from this register.

The 1970-86 recording mainly dates from MEB's appointment as VC Recorder in 1979. It was mainly targeted at a selection of key botanical sites and areas visited in an attempt to identify further sites of botanical interest. There was also a study of arable weeds. Two specialist surveys were made in this period. N T H Holmes made a very detailed baseline survey of the rivers of the Tweed basin as a whole and with the help of B A Whitton and C D K Cook a full account of the aquatic plants was made available for the first time. Later A Willmot studied the ferns during an intensive holiday visit to the VC. Certain site reports and other data have been made available from other sources, notably surveys for NCC in the 1970's by C O Badenoch, without whose encouragement MEB would have been much less likely to have started on this quest.

The 1987-99 recording was a systematic sample survey of the whole of VC 81 with the requirements of the New Atlas very much in mind. It aimed to compile as full a species list as possible for each hectad so extensive areas of similar habitat were only sampled selectively even in sites with high botanical interest, such as the Abbey St Bathans oakwoods. Relatively complete coverage was only achieved along the coast and the river corridors. Care was taken to record around towns and villages and other areas with disturbed ground. The policies of some of the largest houses were visited. Open moorland in the Lammermuirs was recorded selectively with large areas remaining unvisited. A similar sample approach was adopted to recording in general farmland, though L W Gaskell commenced a more detailed study of set-aside and arable weeds generally. Meanwhile in 1997 J J Day led a team as part of the SNH loch survey to most of the still water-bodies of the VC which added some interesting records. Valuable specialist work on the aquatic plants was carried out by C D Preston, J M Croft and S D Webster.

From 2000 the emphasis has switched to recording selected scarce species in detail and studies have been made of *Bidens cernua, Blysmus compressus, Dianthus deltoides, Juniperus communis, Minuartia verna, Rubus chamaemorus, Sagina subulata, Trichophorum* and *Vaccinium vitis-idea*. In addition general coverage has continued with visits to some areas not covered in the 1987-99 period, especially in the Lammermuirs. In 2004 R V Lansdown and T J Pankhurst carried out a sample survey of the rivers and by working in chest waders made interesting discoveries not only of aquatic plants but also and more particularly of plants of the river's edge. Meanwhile L W Gaskell has continued his studies of cultivated land and some good records have been received via SBBRC, the record centre at Harestanes.

SBBRC hold further records of some of the species in this register. These records await validation and have not been included.

Data Processing

The BSBI records to 1999 are mainly handwritten field cards and individual record cards supported by manually prepared Master Cards but are not fully indexed by species. SBBRC have now input into a Recorder Database the 1970-2000 BSBI records and most of these have now been exported to a MapMate Database held by MEB. This has provided an invaluable index to enable this register to be prepared but data management at SBBRC and the export to MapMate corrupted most of the detailed grid references and some comment was never input, so all records have been checked against the source documents and the MapMate records have been corrected as far as practicable. It is inevitable that some errors will have been overlooked or introduced in this review process. Records for 2001 onwards have been input directly into MapMate.

Species Accounts and Site Register

The species selected are listed alphabetically within two sections, stoneworts and vascular plants. A standard format has been used as follows:-

Nomenclature – Stoneworts follow Bryant, Stewart and Stace 2002, vascular plants follow the *New Atlas of the British Flora* 2002, which in turn follows Stace's *New Flora of the British Isles*, 2nd edition 1997. Critical taxa not in *Stace* follow the *Vice-county Census Catalogue*, 2003. Extinct species are given in square brackets [].

Habitat – A simple list of ten broad habitats, as adopted for MEB's BSBI VC 81 Checklist 2001, has been used as follows: Arable, Aquatic, Coast, Grassland, Moorland, Riverside, Rock, Ruderal, Wetland, Woodland.

Atlas GB – This takes data from the New Atlas to show the number of hectads for which the taxon has been recorded in Britain, but not Ireland, for the period 1987-99 together with a percentage comparison with hectads for all date classes. Native records only have been used, except for those few species which are ancient introductions or archaeophytes. This information is not available for some hybrids and subspecies or for the stoneworts but similar data from other sources is inserted where available.

Atlas Berw – This takes data from the New Atlas for Berwickshire in the same format, except that for an extinct species the number of hectads in which it was formerly present is given in square brackets [] The data is not adjusted for records made since 1999, so apparent discrepancies with the site listings will be evident. It will be found that the VC 81 hectads have, on average, declined by more than the GB hectads. This should not be taken as an indication that Berwickshire plants have done unusually badly. Rather it is a consequence of the criteria of selection of species for the register. Scarce species in Berwickshire are often species at the edges of their natural geographical distribution which were only ever known in one site in a particular hectad. Such hectads are much more likely to show change than hectads in the centre of the species distribution where it has been more frequent, having had a number of sites and having perhaps been lost the same percentage of them as in Berwickshire. A further factor is the extended historical record in Berwickshire with many of the sites having been known over a longer period than in much of Britain, particularly Scotland.

Sites – This reviews the historical record as far as it is known in the form Sites 3/10, 1/7 where 10 is the number of sites recorded up to 2004 of which 3 are believed to be extant and 7 is the number of sites recorded up to 1899 of which 1 is extant. This format recognises that localities known for a century or more are more likely to have been lost than those discovered recently, as locality loss is a function of time. In this context a site is taken as an area which would fit into a 1 km square, but not one positioned

by grid lines. Some flexibility has been allowed for corridors such as burnsides where they slightly exceed 1 km. Where the number of sites exceeds five or six the number of sites has been taken as the number of 1 km grid squares. Some species were considered widespread in the past and few if any localities were recorded. For these the former number of sites is indeterminate and is shown in the form Sites 4/+, n/a. This presentation is also applied to certain arable weeds and other plants of disturbed habitats where it is felt that the localities of the species cannot be expected to be permanent. In the context of this review the compilation of records in *Lauder and Lauderdale* 1902 is treated as relating wholly to records up to 1899.

Status – Each taxon in the register that is not extinct is allocated to one of the following status categories

British Rare – Present in 1-15 hectads in Britain in the New Atlas, 1987-1999
British Scarce – Present in 16-100 hectads in Britain in the New Atlas, 1987-1999
Berwickshire Rare – Present in 1-3 sites in the VC
Berwickshire Scarce – Present in 4-10 sites in the VC or thought likely soon to decline to 10 sites
Berwickshire Fine – Present in the VC in an abundance that is notable in a British context
Not Berwickshire Scarce – Shown by this review not to be Berwickshire Scarce
Berwickshire Neophyte – Shown by this review to be a neophyte in Berwickshire
Data Deficient – Status not clear due to under-recording

If a taxon is present both as a native or archaeophyte and as a more recent introduction it is allocated a status in accordance with the number of sites at which it is thought to be present as a native or archaeophyte. If a taxon is extinct as a native or archaeophyte but present as a more recent introduction it is shown as Berwickshire Neophyte. The status Berwickshire Fine is only used where a taxon is so frequent that it would otherwise be shown as Not Berwickshire Scarce.

Text of Species Account – This has three elements habitat notes, summary of British distribution (not Ireland) and summary of Berwickshire populations. A simplified structure is adopted for extinct species. The species captions in the *New Atlas* have been drawn on extensively.

Maps – Where these are included they are mapped at 1 km scale but the 'dots' are 1.6 km across. This reflects the recording strategy from 1970 where areas of about 2 km across, but not bounded by a fixed pattern of grid lines, have been worked and entered as the 1 km square most representative of the records made. While localities which were recorded with a grid reference of 6 or 8 figures will map correctly at 1 km scale other records may fall in a 1 km square adjacent to their true position. The larger dots reduce the impact of this inherent uncertainty.

Site Register – Fine colonies are listed separately from other extant colonies and from former colonies. Recent colonies, now extinct, are sometimes separated from other former colonies. Dubious records are either omitted or are given in round brackets (). Localities thought to be extinct are given in square brackets []. Sites falling within SSSIs or NNRs are prefixed *. Scottish Wildlife Trust reserves that are not also SSSIs are prefixed †. It may not be clear whether or not old records fall within conservation site boundaries and such records are allocated as seems most likely from their habitat requirements.

Grid Reference – This is given in the form 64 for a 10 km square, 6246 for a 1 km square, 622464 for a 100 m square or 62214647 for a 10 m square. All grid references relate to the 100 km square NT or 36: this prefix is therefore omitted. Several grid references may be given within one site or a summary grid reference only may be given for the site as a whole. Grid references are now being routinely recorded to 8 figures using a hand-held GPS receiver. In a few cases where the record is at 1 km scale and there are indications of a more precise locality an estimate at 100 m scale has been made. In such cases the estimated digits are included in round brackets (). AGL allocated historical records to a 10 km square

only but these have now have been allocated to the most likely 1 km square. The review implicit in this exercise has led to some records being placed in adjacent hectads to that in which the same records were reported for the New Atlas.

Recorder – The recorder's initials only are given for those recorders who have submitted many records. A table of their surnames is given in an appendix. The initials and surname is given for occasional recorders. Regrettably, by citing the most recent recorder, discourtesy to the original finder is inevitable.

Population/Comment – The population size is indicated, where known, and comment is added where appropriate, especially where a colony is considered a fine one. Quotations with the date 1853 refer to G Johnston's Flora of that date, *The Natural History of the Eastern Borders*.

Glossary of Abbreviations

det	determined by
p.p.	pro parte, in part

s.s. *sensu stricto*, in the strict sense

ssp. subspecies

C19 Nineteenth century, 1800 -1899

BM The herbarium of the British Museum at the Natural History Museum, London

E The herbarium of the Royal Botanic Garden, Edinburgh

BSBI Botanical Society of the British Isles, a learned society

NCC Nature Conservancy Council, a former Britain-wide governmental conservation organisation, one of the precursors of SNH in Scotland

SBBRC Scottish Borders Biological Record Centre, administered by Scottish Borders Council and located at Harestanes visitor centre near Jedburgh

SNH Scottish Natural Heritage, the governmental conservation organisation in Scotland

SSSI Site of Special Scientific Interest, sites with statutory protection, regulated in Scotland by SNH

SWT Scottish Wildlife Trust, an environmental charity

VC The Watsonian Vice-county, a unit devised for biological recording in 1852 by H C Watson that is unaffected by political changes to county boundaries

Table of the Rarity Status of the Taxa in the Rare Plant Register

A number before a taxon is the number of sites in the VC in which it is believed to be extant as a native or archaeophyte. A dash (-) is used before a critical taxon to indicate uncertainty about the number of sites.

STONEWORTS

British Scarce – 1

1 Tolypella glomerata

Berwickshire Rare - 1

1 Chara vulgaris

VASCULAR PLANTS

British Rare - 5

- 1 Centaurea cyanus (archaeophyte)
- 1 Crepis mollis
- 1 Potamogeton pectinatus x vaginatus
 - = P. x bottnicus

British Scarce - 15

- 2 Alchemilla glaucescens
- 1 Cochlearia officinalis ssp. scotica
- 4 Corallorhiza trifida
- 7 Dianthus deltoides
- 7 Fumaria purpurea
- 1 Linnaea borealis
- 1 Minuartia verna
- 3 Potamogeton alpinus x crispus
 - = P. x olivaceus

Berwickshire Rare - 84

- 1 Allium scorodoprasum
- 2 Ammophila arenaria
- 1 Anagallis tenella
- 2 Antennaria dioica
- 2 Anthriscus caucalis
- 3 Apium inundatum
- 2 Arabis hirsuta
- 1 Arenaria serpyllifolia ssp. leptoclados
- 3 Artemisia absinthium (archaeophyte)
- 1 Astragalus glycyphyllos
- 2 Bidens cernua
- 1 Blysmus rufus
- 1 Bromus hordeaceus ssp. longipedicellatus
- 3 Cakile maritima ssp. integrifolia
- 1 Carduus nutans
- 2 Carex arenaria

Berwickshire Scarce - 4

- 10 Chara globularis/virgata
- 6 Nitella flexilis/opaca
- 2 Ranunculus fluitans x peltatus
 - = R. x kelchoensis
- 3 Trichophorum cespitosum ssp. cespitosum
- 2 Potamogeton filiformis
- 9 Potamogeton lucens x perfoliatus
 - = P. x salicifolius
- 3 Rorippa islandica
- 1 Salix caprea ssp. sphacelata
- 17 Sedum villosum
- 1 Sorbus rupicola
- 1 Vicia orobus
- 1 Carex diandra
- 3 Carex divulsa ssp. leersii
- 2 Carex extensa
- 1 Carex lasiocarpa
- 1 Carex limosa
- 3 Carex pallescens
- 3 Carex pendula
- 3 Chelidonium majus (archaeophyte)
- 1 Cicuta virosa
- 1 Cryptogramma crispa
- 1 Cynoglossum officinale
- 2 Dactylorhiza incarnata ssp. pulchella
- 1 Diphasiastrum alpinum
- 3 Epilobium roseum
- 1 Erophila majuscula
- 1 Euphrasia tetraquetra

- 1 Festuca ovina ssp. ophioliticola
- 2 Fumaria bastardii
- 1 Galium sterneri
- 2 Geranium sanguineum
- 2 Glaucium flavum
- 1 Gnaphalium sylvaticum
- 1 Goodyera repens
- 3 Hippuris vulgaris
- 1 Hypericum maculatum ssp. obtusiusculum
- 3 Juneus ambiguus
- 1 Lathyrus sylvestris
- 3 Leontodon saxatilis
- 2 Littorella uniflora
- 3 Melampyrum pratense ssp. pratense
- 3 Milium effusum
- 1 Molinia caerulea ssp. arundinacea
- 2 Montia fontana ssp. variabilis
- 1 Nuphar lutea
- 3 Ophioglossum vulgatum
- 2 Phegopteris connectilis
- 3 Platanthera bifolia
- 1 Poa angustifolia
- 3 Potamogeton alpinus
- 1 Potamogeton gramineus x perfoliatus
 - = P. x nitens
- 3 Potamogeton obtusifolius
- 1 Potentilla erecta ssp. strictissima

Berwickshire Scarce - 122

- 6 Aethusa cynapium ssp. cynapium
- 7 Allium vineale
- 9 Astragalus danicus
- 5 Atriplex laciniata
- 4 Ballota nigra ssp. meridionalis
- (archaeophyte)
- 6 Blysmus compressus
- 6 Botrychium lunaria
- 11 Carex dioica
- 8 Carex distans
- 4 Carex laevigata
- 5 Carex muricata ssp. lamprocarpa
- 6 Carex remota
- 7 Carex vesicaria
- 12 Catabrosa aquatica
- 5 Catapodium marinum
- 4 Catapodium rigidum
- 6 Centaurium erythraea
- 10 Cerastium arvense
- 14 Cerastium semidecandrum
- 5 Chrysanthemum segetum (archaeophyte)
- 8 Cirsium heterophyllum

- 1 Ranunculus circinatus
- 1 Ranunculus lingua
- 1 Rubus saxatilis
- 1 Rumex maritimus
- 1 Sagina subulata
- 1 Salix myrsinifolia
- 3 Salix phylicifolia
- 2 Sanguisorba minor ssp. minor
- 2 Scabiosa columbaria
- 1 Schoenoplectus tabernaemontani
- 2 Schoenus nigricans
- 1 Scilla verna
- 1 Scutellaria galericulata
- 3 Seriphidium maritimum
- 2 Silaum silaus
- 3 Stachys arvensis (archaeophyte)
- 1 Stachys officinalis
- 2 Stellaria neglecta
- 2 Stellaria palustris
- 2 Torilis nodosa
- 3 Trientalis europaea
- 2 Ulex gallii
- 3 Viburnum opulus
- 3 Viola canina
- 1 Viola canina x riviniana = V. x intersita
- 3 Viola hirta
- 7 Clinopodium vulgare
- 9 Convolvulus arvensis (archaeophyte)
- 6 Coronopus squamatus (archaeophyte)
- 10 Dactylorhiza incarnata ssp. incarnata
- 10 Drosera rotundifolia
- 6 Echium vulgare
- 12 Eleocharis quinqueflora
- 7 Elytrigia juncea ssp. boreoatlantica
- 7 Eriophorum latifolium
- 8 Erodium cicutarium
- 4 Euonymus europaeus
- 5 Euphrasia micrantha
- 13 Euphrasia scottica
- 6 Filago minima
- 6 Filago vulgaris
- 4 Fumaria densiflora (archaeophyte)
- 5 Fumaria officinalis ssp. wirtgenii
- (archaeophyte)
- 4 Galium boreale
- 8 Galium mollugo
- 7 Galium palustre ssp. elongatum
- 9 Genista anglica

- 7 Geranium lucidum
- 7 Geranium pusillum
- 4 Glaux maritima
- 8 Gymnadenia conopsea ssp. borealis
- Hieracium ampliatum
- Hieracium argenteum
- Hieracium boswellii (H. caledonicum p.p.)
- Hieracium britanniciforme
- Hieracium cravoniense
- Hieracium deganwyense (H. subrude)
- Hieracium dicella
- Hieracium levi
- Hieracium orimeles
- Hieracium rubicundiforme (H. caledonicum p.p.)
- Hieracium sabaudum
- Hieracium schmidtii
- Hieracium strictiforme
- Hieracium subcrocatum
- 7 Honckenya peploides
- 8 Hordeum murinum ssp. murinum

(archaeophyte)

- 5 Hypericum humifusum
- 11 Hypericum maculatum x perforatum
 - = H. x desetangsii
- 4 Juncus gerardii
- 9 Lactuca virosa
- 9 Lathraea squamaria
- 4 Lemna trisulca
- 4 Leymus arenarius
- 8 Listera cordata
- 12 Listera ovata
- 11 Lycopodium clavatum
- 4 Lythrum portula
- 10 Malva moschata (possible archaeophyte)
- 10 Malva neglecta (archaeophyte)
- 10 Melica uniflora
- 4 Mentha arvensis
- 13 Montia fontana ssp. chondrosperma
- 7 Mycelis muralis
- 13 Myosotis ramosissima
- 4 Papaver dubium ssp. lecoqii (archaeophyte)
- 14 Persicaria lapathifolia

Berwickshire Fine - 13

- 13 Asplenium marinum
- 37 Campanula latifolia
- 43 Chrysosplenium alternifolium
- 32 Galeopsis speciosa (archaeophyte)
- 64 Helianthemum nummularium
- 16 Ligusticum scoticum

- 5 Polypodium interjectum
- 5 Polystichum setiferum
- 5 Potamogeton lucens
- 10 Potamogeton pusillus
- 4 Puccinellia maritima
- 11 Pyrola minor
- 8 Ranunculus auricomus
- 10 Ranunculus peltatus
- 6 Rorippa nasturtium-aquaticum
- 13 Rosa spinosissima (R. pimpinellifolia)
- 6 Rubus caesius
- 4 Rubus chamaemorus
- Rubus newtonii
- 6 Rumex conglomeratus
- 5 Sagina apetala ssp. apetala
- 6 Sagina nodosa
- 6 Schoenoplectus lacustris
- 11 Scleranthus annuus
- 4 Sedum rosea
- 11 Selaginella selaginoides
- 13 Sherardia arvensis
- 8 Sparganium emersum
- 7 Spergularia media
- 12 Spergularia rubra
- Taraxacum argutum
- Taraxacum rubicundum
- 8 Thalictrum minus
- 3 Trichophorum cespitosum ssp. cespitosum x ssp. germanicum = T. c. nothossp. foersteri
- 9 Trifolium arvense
- 11 Trifolium striatum
- 4 Triglochin maritimum
- 5 Trollius europaeus
- 10 Vaccinium oxycoccos
- 9 Valerianella locusta
- 6 Veronica anagallis-aquatica x catenata
 - = V. x lackschewitzii
- 3 Veronica catenata
- 8 Veronica polita (archaeophyte)
- 7 Vicia lathyroides
- 10 Vicia sativa ssp. segetalis (archaeophyte)
- 12 Viola tricolor ssp. tricolor
- 12 Potamogeton perfoliatus
- 40 Prunus padus
- 16 Ranunculus fluitans
- 68 Saxifraga granulata
- 31 Stellaria nemorum
- 27 Vicia sylvatica

18 Viola lutea

Not Berwickshire Scarce - 26

29 Agrimonia eupatoria

23 Anagallis arvensis ssp. arvensis

32 Berula erecta

13 Carex acuta

11 Carex otrubae

15 Carex riparia

14 Carlina vulgaris

23 Ceratocapnos claviculata

11 Cystopteris fragilis

23 Equisetum sylvaticum

9 Festuca filiformis

71 Geranium sylvaticum

16 Gymnocarpium dryopteris

Data Deficient - 10

Arctium minus

Brassica rapa ssp. campestris (archaeophyte) Circaea alpina x lutetiana = C. x intermedia

Lythrum salicaria (as neophyte, see text)

Odontites vernus ssp. serotinus

Potamogeton crispus x perfoliatus

Berwickshire Neophyte - 19

Agrostemma githago (casual)

Centaurea cyanus (also British Rare)

Centaurea scabiosa (casual, extinct native)

Ceterach officinarum

Draba muralis

Erysimum cheiranthoides

Helleborus foetidus

Hippophae rhamnoides

Lysimachia vulgaris (extinct native, see text)

Meconopsis cambrica

Extinct - 96

Agrostemma githago (archaeophyte, also

neophyte)

Allium oleraceum

Anacamptis pyramidalis

Anagallis arvensis ssp. foemina (archaeophyte)

Apium nodiflorum

Arctostaphylos uva-ursi

Atriplex glabriuscula x longipes

= A. x taschereaui (casual)

Baldellia ranunculoides

Bromus hordeaceus ssp. thominei (dubious)

Bromus racemosus (archaeophyte)

Bromus secalinus (archaeophyte)

21 Juniperus communis ssp. communis

30 Knautia arvensis

67 Lamium amplexicaule (archaeophyte)

62 Lamium confertum (archaeophyte)

32 Lamium hybridum (archaeophyte)

22 Parnassia palustris

26 Populus tremula

21 Potamogeton pectinatus

16 Ranunculus trichophyllus

22 Rosa rubiginosa

11 Salix pentandra

19 Stellaria pallida

19 Vaccinium vitis-idaea

= P. x cooperi (British Rare)

Ranunculus circinatus x fluitans (British Rare)

Ranunculus fluitans x trichophyllus

= R. x bachii (British Rare)

Rhinanthus minor ssp. stenophyllus

Rorippa amphibia (as neophyte)

Myosoton aquaticum

Plantago media (casual, extinct native)

Rorippa amphibia x sylvestris = R. x anceps

Scrophularia umbrosa

Sedum telephium

Sinapis alba

Symphytum tuberosum

Typha angustifolia

Vicia tetrasperma

Carex aquatilis

Carex muricata ssp. muricata (possible

neophyte)

[Carex punctata, error]

Carex spicata

Centaurea scabiosa (also neophyte)

Cladium mariscus

Clinopodium acinos (casual)

Coeloglossum viride

Crambe maritima

Daucus carota ssp. carota

Drosera anglica

Eleocharis multicaulis

Eleogiton fluitans
Epipactis helleborine
Epipactis palustris

Equisetum hyemale

Euphorbia exigua (archaeophyte, also former

casual)

Festuca vivipara

Filipendula vulgaris (possible neophyte)
Fumaria capreolata ssp. babingtonii
Galeopsis angustifolia (archaeophyte)
Genista tinctoria ssp. tinctoria
Gentianella amarella (dubious)
Gentianella campestris

Gentianella campestris Geranium columbinum

Gymnadenia conopsea ssp. densiflora

Hieracium oistophyllum Hieracium prenanthoides

Hieracium umbellatum ssp. umbellatum

Hordelymus europeus Huperzia selago

Hyoscyamus niger (archaeophyte) Lepidium campestre (archaeophyte)

Lotus glaber

Lysimachia vulgaris (also neophyte, see text)

Medicago minima (neophyte)

Melica nutans

Mentha pulegium (casual) Mertensia maritima Neottia nidus-avis

Nymphoides peltata (neophyte)

Oenanthe aquatica Orchis morio Osmunda regalis

Papaver argemone (archaeophyte)
Parapholis strigosa (casual)
Plantaga modia (also nombuta)

Plantago media (also neophyte) Platanthera chlorantha

Potamogeton coloratus

Potamogeton gramineus

Potentilla anglica Potentilla argentea

Potentilla tabernaemontani

Pseudorchis albida Pulicaria dysenterica Pyrola media Radiola linoides

Ranunculus arvensis (archaeophyte) Ranunculus baudotii (casual)

Ranunculus sardous Rosa micrantha (planted)

Rumex alpinus (R. pseudoalpinus)

(archaeophyte)

Rumex palustris (casual) Salsola kali ssp. kali (casual) Sambucus ebulus (archaeophyte)

Samolus valerandi Sanguisorba officinalis Saxifraga hirculus

Scandix pecten-veneris (archaeophyte)

Senecio erucifolius

Silene noctiflora (archaeophyte) Sison amomum (casual) Sium latifolium (dubious)

Smyrnium olusatrum (archaeophyte)

Sparganium natans

Symphytum officinale ssp. officinale (see text)

Teesdalia nudicaulis Thalictrum flavum

Tofieldia pusilla (record may relate to VC 68)

Trifolium fragiferum Trifolium scabrum

Utricularia intermedia agg. (U. intermedia,

U. ochroleuca, U. stygia)

Utricularia minor

Utricularia vulgaris agg. (U. australis,

U. vulgaris)

Valerianella dentata (archaeophyte)

Total number of taxa included in the Berwickshire Rare Plant Register

Stoneworts 6 (all the stoneworts in the VC)
Vascular Plants (adjusted for 6 vascular plants that have dual status)

native 328
archaeophyte 36
neophyte 18
former casual 2

SPECIES ACCOUNTS AND SITE REGISTER

STONEWORTS

Chara globularis/virgataHabitatGB10 km BerwSitesFragile/Delicate StonewortAquaticFrequent9, n/a10/+, n/a

Berwickshire Scarce

C. globularis is a lowland species of pools and pits. C. virgata is more typical of acid water in moorland habitats.

C. virgata is more widely distributed in Britain than C. globularis.

These two species have been confused by MEB, who has followed the BSBI handbook by Moore and treated them as varieties and has not determined them separately. His records are therefore of the aggregate. Both are probably somewhat under-recorded in the VC but they are not at all frequent.

Site	GR – NT	Latest Record	Recorder	Population
As C. globularis				
Mellerstain Lake, north end	650388	28.07.01	MEB, PFB	Colony
Marchmont, pond at	754490	13.07.98	MEB	Plentiful
Newton Quarry, pit in	853485	09.08.82	MEB	Colony
The quarry has since been re-opened as	nd the future of	the pit is uncertain	n, but it was still	there in 2003,
though this plant was not searched for		•		
Manderston, pond north of	808550	23.06.97	JJD	
Edington Mill, mill lade	894548	30.08.98	LWG	(det MEB)
Lamberton Moor, calcareous mire	955582	12.06.99	MEB	Colony
As C. virgata				
Cammerlaws, pond at	654503	18.06.97	JJD team	
*Coldingham Loch	894685	02.07.97	JJD	
Dronshiel Bridge, spring pools near	70405603	04.08.04	MEB det N F S	Stewart Fertile
*Mire Loch	911686	23.06.96	JJD	

Records with Chara Referee (N F Stewart) from 1985

As *C. virgata* 64, 85 **Former Colonies** See *C. vulgaris*

Chara vulgaris	Habitat	GB	10 km Berw	Sites
Common Stonewort	Aquatic	Frequent	1, n/a	2/+, n/a
Berwickshire Rare				

Still or slow-moving aquatic habitats.

Frequent in Britain.

Apparently now rare in the VC, but more frequent formerly.

Site	GR – NT	Latest Record	Recorder	Population
Newton Quarry, pit in	853485	09.08.82	MEB	Colony
The quarry has since been re-opened an	d the future of th	ne pit is uncertain	n, but it was still	there in 2003,
though this plant was not searched for				
Hutton Castle, ox bow of river				
at foot of Cabby Burn	879545	07.05.84	MEB	(det J A Moore)

Former Colonies

Common in shallow ditches, pools in turfy bogs and in slow muddy rivulets, Johnston 1853. This account is likely to include *C. globularis/virgata*.

Nitella flexilis/opaca	Habitat	GB	10 km Berw	Sites
Smooth/Dark Stonewort	Aquatic	Frequent	5, 71%	6/9, 0/3
Rerwickshire Scarce				

Still or slow-moving aquatic habitats.

The dioecious *N. opaca* is more frequent in Britain than the monoecious *N. flexilis*.

These two species have been confused by MEB, who has followed the BSBI handbook by Moore and treated them as one. His records are therefore of the aggregate. The same probably applies to JJD's records. Both are probably somewhat under-recorded in the VC but they are not at all frequent.

Site	GR – NT	Latest Record	Recorder	Population
Armet Water at Clints Hill, oxbow	431539	19.08.97	MEB	Colony, fertile
Legerwood, pond near	584439	30.06.97	JJD	
Mincie Moss, ditch	632385	10.05.99	LWG	(det MEB)
Wrunklaw, below	671583	03.06.89	MEB	Only male
plants seen				
Bowshiel Farm, pond at	784678	02.07.97	JJD	
Bowshiel Dean, pond in	782673	08.08.98	MEB	
F 61.				

Former Colonies

[Record with *Chara* Referee (N F Stewart) 64, Eye Water about a mile below Blackburn (Quixwood Moor) 7764, *Coldingham Loch 8968, *Tweed at Fishwick Mains 9149]

Tolypella glomerata	Habitat	GB	10 km Berw	Sites
Clustered Stonewort	Aquatic	Scarce	1, 100%	1/1, 0/0
British Scarce				

Water bodies with a high pH or with brackish water.

Southern and somewhat coastal in Britain.

Apparently restricted in the VC to Coldingham Loch, known for its rich aquatic flora.

Site	GR – NT	Latest Record	Recorder	Population
*Coldingham Loch	894685	02.07.97	JJD	_

VASCULAR PLANTS

Aethusa cynapium

ssp.cynapium	Habitat	Atlas GB	Atlas Berw	Sites
Fool's Parsley	Arable	1388, 84%	4, 40%	6/+, n/a
Berwickshire Scarce				

Arguably an archaeophyte in the VC. An annual of arable fields, gardens and disturbed ground. Widespread in Southern Britain.

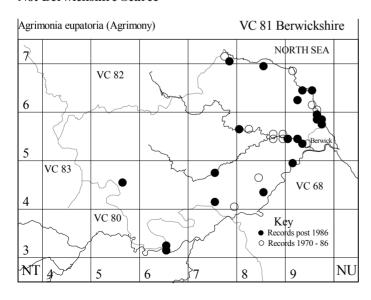
Persistent in one known arable field only, most recent records have been from disturbed ground and more or less casual. Possibly under-recorded especially in gardens, a former habitat in VC 81 and one where it is still occasional in VC 80.

Site	GR – NT	Latest Record	Recorder	Population
Persistent Colony				-
Edrom, turnips near	834559	25.09.04	MEB	Plentiful, had
been recorded here on 20.09.86 als	o as plentiful			
Other Records				
Earlston, old railway sidings	579385	26.08.95	MEB	Colony
Legerwood churchyard	594434	28.06.97	MEB, PFB	2 plants
Duns public park	785536	11.08.90	MEB	1 plant
Duns industrial estate	7953	11.08.90	MEB	1 plant
Broadmeadows, set-aside	916519	1991	JW	-

Former Colonies

[Old Atlas 66, Newton Don 7037, Reston 8862, St Abbs 9167]. 'More common to the west', 1853.

Agrimonia eupatoria	Habitat	Atlas GB	Atlas Berw	Sites
Agrimony	Grassland	1575, 84%	10, 63%	29/+, n/a
Not Berwickshire Scarce				



Grassland on basic or neutral soils.

Very widespread in England and Wales but more local in Scotland.

Populations appear to have crashed in the VC in the 30 years 1970 – 2000 leaving this species on the way to becoming a rarity. Fine populations remain only on the coast below Lamberton while small colonies are still found elsewhere near the coast and on a few grassy banks near rivers. It is now hardly ever found along roadsides or field borders.

[Old Atlas 44, 53, 73, 75, 76, 83]

Agrostemma githago	Habitat	Atlas GB	Atlas Berw	Sites as Arc
Corncockle	Arable	245, 30%	[2]	0/+, n/a
Berwickshire Neophyte				

Arable fields and ruderal habitats.

Archaeophyte. An annual formerly widespread as an arable weed in England, but now usually derived from the sowing of wildflower seed mixes.

The only recent record in the VC was of sown plants. Formerly not uncommon as a cornfield weed.

Site	GR – NT	Latest Record	l Recorder	Population
Introduced Colony EarnsCleugh House, sown bank	545518	04.08.01	MEB, LWG	Colony
Former Colonies as Archaeophyte				

[Lauderdale 53, St Abbs 9167]. 'Cornfields', 1853. Last record 1855 St Abbs, but an entry in Lauder and Lauderdale, 1902, suggests that it persisted until well after 1900.

Alchemilla glaucescens	Habitat	Atlas GB	Atlas Berw	Sites
Silky Lady's-mantle	Grassland	16, 80%	2, 100%	2/2, 0/0
British Scarce				

An attractive silvery perennial of sparse grassland with limestone boulders.

Near-threatened in Britain. The main populations are in the Ingleborough district of Yorkshire. Only discovered in the VC in 1982. One of the two colonies is a fine one.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colony				
*Hilton Bay – Lamberton	967593	01.05.00	MEB	500 plants
Excellent colony on steep sheep-grazed	sea braes at lime	estone outcrop.	The habitat is sat	tisfactory except
for railway anti-erosion measures nearb	y.			
Other Colony				
Oldoostlas	056506	16 10 00	MED DOL	50 mlam4a

16.10.99 Oldcastles 856586 MEB. PSL 50 plants Small colony on bank above former railway cutting on the Old Red Sandstone. A tiny scrap of cattlegrazed base-rich grassland.

[Allium oleraceum]	Habitat	Atlas GB	Atlas Berw	Sites
Field Garlic	Grassland	145, 44%	[2]	0/2, 0/2

A grassland plant that is local in Britain, mainly in northern England. [Lumsdaine Dean 8569, Netherbyres 9463]. Last record 1853 Dowlaw Dean.

Allium scorodoprasum	Habitat	Atlas GB	Atlas Berw	Sites
Sand Leek	Grassland	118, 65%	1, 50%	1/2, 0/0
Rerwickshire Rare				

A plant of sandy grassland, usually in some plenty where it occurs.

Near-scarce in Britain. Mainly in northern England. Possibly an introduction in the Borders, though known for two centuries at the mouth of the Whiteadder Water and more recently in Berwick, both VC 68.

Almost extinct in VC 81 in sandy grassland in a 'green lane' on the English Border.

Site Paxton Toll House lane Former Colony [Union Bridge 9351]	GR – NT 947524	Latest Record 01.05.99	Recorder MEB, PFB	Population 1 plant
Allium vineale Wild Onion Berwickshire Scarce	Habitat Grassland	Atlas GB 981, 81%	Atlas Berw 4, 80%	Sites 7/8, 4/4

The VC 81 colonies are *var. compactum* and, somewhat unusually, some are found on calcareous rocks. Other colonies occur in riverside grassland, the habitat usual in VCs 68 and 80. Studies are required to see if populations differ between the two habitats.

Widespread in southern Britain and more locally on coastal cliffs in the north.

The colonies on rocks are stable and occur at sites with other botanical interest. The riverside colonies probably represent relatively recent colonisation.

Site	GR – NT	Latest Record	Recorder	Population
Colonies on Rocks				_
Birgham Haugh Wood	798389	29.04.95	MEB	Colony
*Dowlaw Dean	867704	14.06.96	DJMcC	-
Ale and Eye Waters, junction of	939626	14.05.94	MEB, PFB	Colony
Riverside Colonies				
Lochton	7738	29.04.95	MEB	
The Lees	840390	03.05.97	MEB, PFB	
Ladykirk	88934706	21.07.04	MEB	
Recent Colony				
*Burnmouth, coast north of	9561	08.60	AGL	Extant?
Former Colony				
[Old Atlas 95]				
Ammophila arenaria	Habitat	Atlas GB	Atlas Berw	Sites
Marram	Coast	456, 81%	2, 100%	2/2, 2/2
Berwickshire Rare		,	,	

The classic sand dune plant.

Round the British coast.

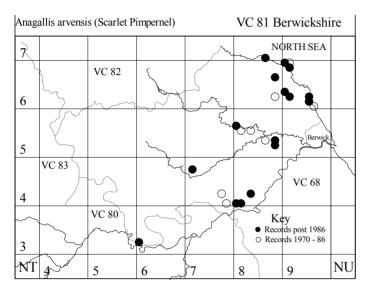
The shortage of sites in the VC indicates the shortage of sandy beaches and dunes.

Site	GR - NT	Latest Record	Recorder	Population
Fine Colony				
Coldingham Bay	9166	26.09.94	MEB	Large colony
Introduced, at least in part, to stabilise	sand			
Other Colonies				
Pease Bay	793708	09.09.00	MEB	Narrow strip
*Pease Bay	78937120	20.04.02	MEB	Small colony
[Anacamptis pyramidalis]	Habitat	Atlas GB	Atlas Berw	Sites
Pyramidal Orchid	Grassland	681, 80%	[1]	0/1, 0/1

A plant of calcareous grassland mainly found in England.

[Whitehall 8755]. Last record 1886.

Anagallis arvensis spp. arvensis	Habitat	Atlas GB	Atlas Berw	Sites
Scarlet Pimpernel	Arable	1632, 87%	6, 43%	23/+, n/a
Not Berwickshire Scarce				



Usually an arable weed, but also in bare places near the coast.

Mainly southern Britain.

Sparsely distributed in the VC and almost always found as a few plants only.

Site	GR – NT	Latest Record	Recorder	Population
Colonies in Natural Habitat				_
*St Abbs Head - Kirk Hill	916686	06.06.93	MEB	Colony, scree
- Lighthouse road	90956906	02.06.04	MEB	Colony, scree
Other Significant Colonies				
Dowlaw Dean, near head of	865700	09.09.00	MEB	
Dowlaw Dean, near	866705	03.10.98	MEB	Frequent
Burnmouth braes, near	957613	06.05.00	MEB	Frequent
[Anagallis arvensis				
ssp. foemina	Habitat	Atlas GB	Atlas Berw	Sites
Blue Pimpernel	Arable	52, 25%	[2]	0/4, 0/4

An arable weed. An archaeophyte of southern Britain. The Berwickshire records could relate at least in part to the blue variety of *Anagallis arvensis ssp. arvensis*.

[Duns, towards Hardens 7753, Penmanshiel 8067, St Abbs 9167, Highlaws, Eyemouth, rock outcrop near 9463]. Last record 1896 St Abbs.

Anagallis tenella	Habitat	Atlas GB	Atlas Berw	Sites
Bog Pimpernel	Wetland	868, 67%	1, 50%	1/2, 0/1
Berwickshire Rare				

Usually a plant of damp coastal grassland, but also in inland calcareous flushes.

Mainly western Britain.

One fine site remains in the Lammermuirs with colonies in two neighbouring flushes near a burn.

Site Fine Colonies	GR – NT	Latest Record	Recorder	Population
Wheel Burn	566512 566514	11.06.99	MEB	Good colony Good colony
Former Colony [Lochton Loch 7738]				Ţ
Antennaria dioica Mountain Everlasting Berwickshire Rare	Habitat Moorland	Atlas GB 592, 61%	Atlas Berw 2, 33%	Sites 3/11, 1/6

A plant of rocky knowes in moorland.

Northern in Britain.

Almost extinct in the VC. Much of the moorland edge where it was present has been reseeded leading to excess grazing pressure on the knowes.

Site	GR – NT	Latest Record	Recorder	Population
Byrecluch and Trottingshaws, between	6358	21.06.92	SW	Few
Killmade Burn	66336250	28.07.02	MEB	5 plants
Lumsdaine Farm	885695	23.06.88	COB	Few
Former Colonies				

[Blythe Moor 5750, Quixwood Moor 7764, Cockburnspath 7771, Penmanshiel Moor 8268, Edington Hill Moor 9057, St Abbs 9167, Lamberton Moor 9558]

Anthriscus caucalis	Habitat	Atlas GB	Atlas Berw	Sites
Bur Parsley	Grassland	408, 61%	1, 50%	2/+, n/a
Berwickshire Rare				

Found in sandy grassland.

Mainly in south-east Britain.

Almost extinct in the VC. In 1853 considered 'common'

Site Millfield, near turning to Pease Bay, sandy roadside bank Former Colony [Newton Don 7037]	GR – NT 644338 793707	Latest Record 06.09.02 04.06.92	Recorder LWG PFB, MEB	Population 1 plant 2 plants
Apium inundatum Lesser Marshwort Berwickshire Rare	Habitat Aquatic	Atlas GB 431, 46%	Atlas Berw 4, 44%	Sites 3/18, 1/7

An aquatic plant of muddy pond margins and shallow running water.

Scattered in Britain.

The remaining colonies in the VC are all more or less vulnerable as the surrounding habitat is changing.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				
Lauder Burn	516452	12.07.97	MEB	Large colony

Kippetlaw Burn	70395604, 70405603, 70405605				
	04.08.04 MEB Large col				
Other Colony					
Old Cambus Townhead Pond	802690	21.09.96	MEB	Small colony	
Recent Colony					
[Lightfield]	644412	05.07.88	MEB	Large colony,	
gone 04.08.04 to drainage					

Former Colonies

[Legerwood Pond 5843, Longformacus 6957, *Greenlaw, near 7045, Foul Burn Bridge 7151, Polwarth, burn above 7350, Blackburn Mill 7665, Bowshiel Dean 7867, Grantshouse, near Eye 8065, Penmanshiel Moor 8068, Fireburnmill 8239, Coldingham Moor 8568, Lowries Knowes Pond 8569, Horndean 9049, *St Abbs Head 9168]

[Apium nodiflorum]	Habitat	Atlas GB	Atlas Berw	Sites
Fool's Water-cress	Aquatic	1524, 91%	[3]	0/+, n/a

An aquatic plant with an English distribution only now known in the Scottish Borders at one site in VC 80. Some or all of the 1950 + records in the Old Atlas are now known to have been errors for *Berula erecta*.

[(Old Atlas 75, 76, 86)]. Last record 1853, when considered frequent.

Arabis hirsuta	Habitat	Atlas GB	Atlas Berw	Sites
Hairy Rock-cress	Rock	576, 55%	2, 25%	2/8, 0/3
Damei alcalina Dama				

Berwickshire Rare

A plant of calcareous knowes and sandy grassland.

Somewhat localised in Britain. Poorly represented in the VC.

Site	GR – NT	Latest Recor	d Recorder	Population
*Gaitheugh	59163406	07.06.01	MEB	Small colonies
	59183409			
Greenlaw Knowe, Coldingham	884648	08.06.96	MEB, PFB	Colony
Former Colonies				

[Old Atlas 63, Newton Don 7037, Old Atlas 74, 84, 85, Ale banks 9362, Burnmouth 9561]

(Arctium minus)	Habitat	Atlas GB	Atlas Berw	Sites
Lesser Burdock	Grassland	n/a	n/a	n/a
Data Deficient				

Woodland edges and rough ground.

The relative distribution and status of this species and *A. nemorosum* are still debated, see *Plant Crib* 1998. *A. minus* has been thought to be mainly found in England with *A. nemorosum* more frequent or the only *Arctium* species in Scotland. A third taxon, *A. pubens*, is even more debateable. In Berwickshire long-peduncled plants may be found within otherwise uniform populations of this biennial plant. Records of *A. minus* from the VC are unsafe due to confusion with *A. nemorosum*. In general the two taxa have not been distinguished in the field, though the larger *A. nemorosum* has been thought to be the species that is widespread in the VC. As self-fertilisation is the norm in *Arctium* chance variations can be expected to perpetuate and one such variant population with smaller than average capitula, but otherwise agreeing with *A. nemorosum*, was noted in 2004 near Lochton 77493835 (average capitulum width

27 mm, normal range in the VC 30-36 mm). There is no evidence from the VC of taxa with different ecological niches.

Former Colonies

[(Old Atlas 76, 77)]. Both records 1960.

[Arctostaphylos uva-ursi]	Habitat	Atlas GB	Atlas Berw	Sites
Bearberry	Moorland	305, 64%	[2]	0/2, 0/2

A plant of northern hills.

[Dirrington Law 6954, *Kyles Hill 7250]. Last record 1858 Kyles Hill.

Arenaria serpyllifolia

ssp. leptoclados	Habitat	Atlas GB	Atlas Berw	Sites
Thyme-leaved Sandwort	Grassland	704, 62%	1, 100%	1/3, 0/2
Berwickshire Rare				

Often with ssp. serpyllifolia in sandy grassland and waste places.

Mainly South-east England.

Only one confirmed record in the VC. Possibly under-recorded.

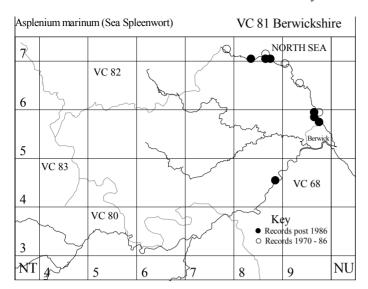
Site The Hirsel, top of ha-ha Former Colonies [Dryburgh 5931, Duns 7853, only slight	GR – NT 828409 tly unsafe]	Latest Record 01.08.93	Recorder MEB	Population Colony
Artemisia absinthium Wormwood Berwickshire Rare	Habitat Ruderal	Atlas GB 562, 56%	Atlas Berw 2, 50%	Sites 3/6, 2/4

Archaeophyte. Grows around towns and villages.

Southern Britain.

The Coldingham colony is of historic interest as it could quite conceivably date back to medicinal introductions by the friars of Coldingham Abbey. All the colonies are vulnerable to tidiness.

Site	GR – NT	Latest Record	Recorder	Population
Historic Colony				-
Coldingham Law	906657	23.07.94	MEB	30 plants
Other Colonies				_
Edington Mill	894549	02.10.99	MEB	Small colony
Burnmouth Harbour	95696102	18.11.00	MEB	Small colony.
Not seen 2004, the area had been tidied	d up.			•
Former Colonies	-			
[Dunglass Dean 7671, Edrington Mill	9353, Eyemouth	9464]		
	-	_		
Asplenium marinum	Habitat	Atlas GB	Atlas Berw	Site
Sea Spleenwort	Coast	423, 78%	3, 60%	13/13, 6/6
Berwickshire Fine		•	•	



Frost sensitive and limited to coastal rocks

Almost restricted to the west coast.

The fine coastal colonies are remarkable for the east coast and the inland colony is exceptional.

The inaccessible nature of the habitat ensures that coverage remains incomplete. Most of the localities with less recent records are thought to be still extant

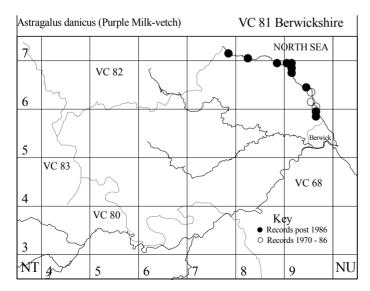
Site	GR – NT	Latest Record	d Recorder	Population
Inland Colony Ladykirk, rock clefts by Tweed	88764545 -	10.10.01	MEB	Good colony
, ,	88814555			

Known since 1838 in over-hung crevices in a massive south-facing sandstone exposure, fully 10 km from the sea. The colony is under immediate threat from the spread of ivy.

Other Colonies – some fine

*Reed Point 780720, *Cove Harbour 789716, *Midden Craig 838701, *Fast Castle to Dowlaw Dean 860710, 865709, 866708, 867708, 869706, *Lumsdaine Shore 874701, *Petticowick, near 906690, Callercove Point 933653, *Lamberton 969591, 970592, 975579

Astragalus danicus	Habitat	Atlas GB	Atlas Berw	Sites
Purple Milk-vetch	Coast	129, 53%	5, 100%	9/13, 5/7
Berwickshire Scarce				



Coastal calcareous grassland in the north and limestone in the south.

Near-scarce in Britain.

A key feature of the coastal grassland, especially at St Abbs Head NNR.

Some colonies need further survey, especially around Burnmouth. Possibly somewhat more widespread than recorded.

Site Fine Colonies	GR – NT	Latest Record	Recorder	Population
Time Colonies				
*St Abbs Head	9069	02.06.04	MEB	Fine colonies
	9167	& 18.06.04		
	9168			
	9169			

St Abbs Head from Petticowick 908690 to Horsecastle Bay 917685 was surveyed in detail on 02.06.04. The plants were just coming into full flower and were being visited very actively by bumblebees. Presence in almost 200 10m x 10m squares was recorded. Half the population is at the cliff edge where 30% of the available 10m strips are colonised, sometimes abundantly. Away from the cliffs many of the knowes are colonised, sometimes sparingly, in short grass or around rocks. About 2.5% of the land area away from the cliff edge is colonised at 10m x 10m scale. A further survey from Horsecastle Bay 917685 to Starney Bay 916676 was made on 18.06.04. The plants were already in seed. Plants away from the cliff edge had frequently not flowered, probably where they were affected by drought. Presence in 30 10m x 10 m squares was recorded. Three-quarters of the population is at the cliff edge where 15% of the available 10 m strips are colonised. No plants were recorded south of Halterem's Loup 916679. Away from the cliffs suitable knowes are only found at Horsecastle 918684: these are quite well colonised. Detailed maps of these BSBI surveys are held.

Other Colonies

*Cove	783716	27.06.98	MEB	
*Westerside Dean, foot of	88966939	28.05.03	MEB	Small colony
Redheugh	8270	15.05.99	MEB	•
*Lamberton	96675935	29.05.02	MEB	
	96935903	29.05.02	MEB	Good patch
Eyemouth Fort	943648	06.08.94	MEB	Very local
*Burnmouth Coast	9561	11.07.79	MEB, COB	-
*Fancove Head	9563	26.06.81	MEB	

Colonies not confirmed recently

Pease Bay 7970, Old Cambus, near 8070, Siccar Point 8170, Fast Castle 8670, Coldingham, cliffs near 9166, Linkim Shore 9265

Astragalus glycyphyllos	Habitat	Atlas GB	Atlas Berw	Sites
Wild Liquorice	Grassland	191, 54%	1, 14%	1/13, 1/8
Berwickshire Rare				

Grassland and woodland glades.

Near-scarce. Southern Britain.

The only extant site is vulnerable to small scale habitat change. Elsewhere its former habitat of rough grassland and woodland edge has been disturbed too much for it to survive.

Site	GR – NT	Latest Recor	rd Recorder	Population
Old Linthill, Eye Water near	NT940626	16.07.94	MEB	Good colony
In a woodland glade with <i>Thalictrum</i>	minus.			

Former Colonies

[Dunglass/Cockburnspath 7772, *Ewelairs, near Pease Bay 7871, Old Cambus, Oak Brae 8069, Siccar Point and Pease Bay, between 8070, Blanerne, west of old tower 8356, Lennel Churchyard, east of 8541, Whitehall quarry and woods 8754, Clarabad Mill, beyond 9354, Eyemouth 9464, *Burmouth, ravine above 9561, Lamberton 9757, Ross near Mordington 9660]

[Atriplex glabriuscula x longipes

= A. x taschereaui]	Habitat	Atlas GB	Atlas Berw	Sites
Taschereau's Orache	Coast	27, 69%	[1]	0/1, 0/0

Atriplex longipes and this hybrid with A. glabriuscula are scarce on beaches on the English coast. The hybrid is fertile and is more widespread than A. longipes. The habitat at Coldingham Bay is currently largely unsuitable due to visitor pressure. However this hybrid could well occur on other beaches in the VC.

[Coldingham Bay 917665 in marram at head of beach]. Last record 1977, MEB det P Taschereau.

Atriplex laciniata	Habitat	Atlas GB	Atlas Berw	Sites
Frosted Orache	Coast	295, 68%	3, 75%	5/5, 1/1
Berwickshire Scarce				

Sandy beaches.

Widespread round the British coast.

The scarcity in the VC relates to the rocky nature of the coastline. All the colonies are small and somewhat vulnerable

Site	GR – NT	Latest Record	Recorder	Population
Pease Bay	7970	27.05.89	JMuscott	
*Lumsdaine Shore	8770	07.09.96	MEB, PFB	
*St Abbs Head	9168	01.09.77	MEB	
St Abbs Harbour	920675	26.09.94	MEB	
Killiedraught Bay	935648	23.09.00	MEB	
[Baldellia ranunculoides]	Habitat	Atlas GB	Atlas Berw	Sites
Lesser Water-plantain	Aquatic	197, 36%	[4]	0/5, 0/4

A plant of pool margins and runnels, often near the coast. Scattered in Britain. [Lithtillum Loch 8040, Harcarse Tile Works, bog near 8148, Lintlaw, bog below 8258, *St Abbs Head 9168, Blinkbonny, Foulden 9356]. Last record 1915 Foulden.

Ballota nigra ssp. meridionalis	Habitat	Atlas GB	Atlas Berw	Sites
Black Horehound	Grassland	1225, 89%	3, 100%	4/4, n/a
Berwickshire Scarce				

Often found as a ruderal, especially round ruined buildings.

Archaeophyte, mainly south-east England.

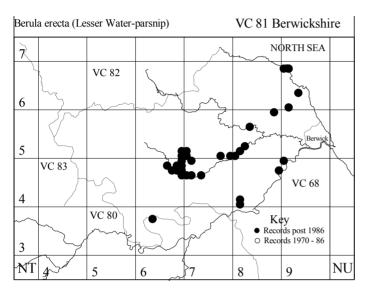
The Berwickshire colonies are of some historic interest. Some are long-established at the foot of sandstone rocks.

Site	GR – NT	Latest Record	l Recorder	Population
Fine Colony				
Green Knowes, foot of rocks	917497	30.05.03	MEB	Colonies
Other Colonies				
Birgham, lane below	794390	22.07.95	MEB	Colony
Ladykirk, foot of rocks	88944560	10.11.01	MEB	Colony
Blount Island	901478	19.09.87	MEB	•

Former Colonies

'In the neighbourhood of several of our towns and old villages', 1853

Berula erecta	Habitat	Atlas GB	Atlas Berw	Sites
Lesser Water-parsnip	Aquatic	810, 73%	9, 82%	32/+, n/a
Not Berwickshire Scarce	_			



An aquatic, usually of shallow running water.

Southern in Britain.

The colonies in the upper Blackadder Water and Fangrist Burn are luxuriant and give a character to these upland waters that is very unusual in Scotland. Indeed the altitudinal limit for the species in Britain is approached. Flowering is sparse and the species may be dependent on vegetative dispersal for survival.

Site Fine Colonies	GR – NT	Latest Recor	d Recorder	Population
*Blackadder Water and Fangrist Burn	64, 65, 74 75, 85	1987-2000	MEB, etc	Frequent and luxuriant

Other Colonies

Covehouse 6337, Haigsfield 8140, 8141, Causewaybank 8859, Ladykirk Burn 8947, Horndean Burn 9049, *Mire Loch 90976892, Eye Water 9160, 9363.

Former Colonies

[Newton Don 7037, Horse Bog 7940, *Whiteadder Water, lower 85, 95]

Bidens cernua	Habitat	Atlas GB	Atlas Berw	Sites
Nodding Bur-marigold	Aquatic	512, 58%	1,50%	2/3, 0/1
Berwickshire Rare				

Pond margins.

Southern in Britain.

The Bemersyde Moss colony appears stable. The Whitrig Pond colony may have colonised recently.

Site	GR – NT	Latest Record Recorder	Population
Fine Colony			
*Bemersyde Moss	6033	02.10.02 MEB	355 plants
	6133		
	6134		

Plants concentrated at 609338 west end north side, also around 612340 and with outliers on the south side. A detailed BSBI survey report is held.

Other Colony

Whitrig Pond 621350 03.11.03 MEB 38 plants

Some plants ligulate, with the ligules in the centre of the inflorescence.

Former Colony

[Girtrig Pond, Ladyflat 7750]

Blysmus compressusHabitatAtlas GBAtlas BerwSitesFlat-sedgeWetland131, 34%2, 50%6/12, 1/7

Berwickshire Scarce

A distinctive sedge of lowland calcareous flushes and riverside haughs subject to flooding. Concentrated in the north Pennines.

This sedge has suffered a steep decline in the VC due to the drainage and ploughing of haughs but fine colonies remain in Greenlaw Dean and by the Fangrist Burn.

Site GR-NT Latest Record Recorder Population

Fine Colonies

Greenlaw Dean and *Fangrist Burn 695470, 692474, 693482 – 699496, 701496 – 703497, 700500, 700501 2000 - 2002 MEB 1.000+ plants

A series of strong colonies by the burnsides and in moorland flushes. The habitat appears stable.

A detailed BSBI survey report 2000 is held. Additional colonies were found 24.07.02

Other Colonies

*Greenlaw Moor

- Flourishwalls Burn 720485 13.07.98 RWMC, J Waddell 50 plants A good colony in a moorland flush, but damaged by drainage c.1980 and the habitat now appears to be changing.

Marchmont - Swardon Burn 742488 13.07.98 MEB, O M Stewart 5 plants

A small burnside colony in grazed parkland. The habitat appears to be changing.

Former Colonies

[Thirlestane Castle 5348, The Retreat 7760, Blanerne House, west of 8356, Lennel 8540, Hutton Castle Mill 9054, Clarabad Mill, above and below 9354]. All on riverside haughs, none seen since C19.

Blysmus rufusHabitatAtlas GBAtlas BerwSitesSaltmarsh Flat-sedgeCoast200, 54%1, 100%1/1, 1/1

Berwickshire Rare

Saltmarsh.

North-west coasts in Britain.

Saltmarsh is one of the rarest habitats in the VC.

Site GR - NT **Latest Record Recorder Population** MEB, PFB *Ramsheugh Bay 778722 27.06.98 Small colony Botrychium lunaria Habitat Atlas GB Atlas Berw Sites Moonwort Grassland 532, 48% 2, 22% 6/23, 1/13

Berwickshire Scarce

Calcareous grassland.

Northern Britain.

Former sites have been ploughed or planted. The remaining sites are vulnerable.

Site	GR – NT	Latest Record	Recorder	Population
Threeburnford, near	453521	07.06.03	J Mercer	6 fronds
Longmuir Moss, bank near	47(3)50(9)	25.06.95	R McBeath	
Corsbie Fen, grassy mound	622450	22.06.02	MEB	5 fronds
	623450			6 fronds
*Gordon Moss, old railway	635425	1971	AGL	(Poss. extant)
Hareheugh Craigs, grassy ledge	687401	20.06.91	DGL	3 fronds
Milldown Point, grassy mound	917664	19.06.68	E O Pate	(Poss. extant)

Former Colonies

[Lauder Common 5046, Chester Hill 5246, Bemersyde Hill 5934, Spottiswoode 6050, Langton Glen 7352, Hardens Moor 7354, Raecleughhead 7453, Wellrig, Duns 7652, St David's Cairn 7763, Preston Cleugh 7957, Hoardweel Moor 7959, Penmanshiel Moor 8167, Redheugh, moor above 8269, Butterdean Mill 7963, Mayfield, moor above 8360, Coldingham Moor above Lumsdaine 8568, Warlawbank Camp, near 8662, Dowlaw Dean, head of 8670, Silverwells 8766, Lamberton Racecourse 9558]

(Brassica rapa ssp. campestris)	Habitat	Atlas GB	Atlas Berw	Sites
Wild Turnip	Riverside	n/a	n/a	? 3/3, 0/0
Data Deficient				

River banks and ruderal habitats.

Archaeophyte. Although the wild *ssp. campestris* was not mapped separately from cultivated turnip, *ssp. rapa*, in the New Atlas it was probably the more frequently recorded and, even allowing for some confusion with *B. napus*, appears to be frequent in England but scarce in Scotland.

The status of this taxon in the VC is not yet clear. Although it has been recorded from its classic riverside habitat that is also a habitat for casuals, including *B. napus*. There are no historical records at subspecies level.

Site	GR - NT	Latest Record	Recorder	Population
Tweed - Fishwick Mains May 2003)	92604944	09.08.03	MEB	One (two in
- Paxton House Whiteadder	942522	23.06.84	MEB	Good colony
- Paxton	9352	23.06.84	MEB	
Bromus hordeaceus	Habitat	Atlas GB	Atlas Berw	Sites
ssp. longipedicellatus Soft-brome	Grassland	n/a	n/a	1/1, 0/0
Berwickshire Rare	Grassiana	11/4	11/4	1, 1, 0, 0

Dry grassland and ruderal habitats.

A recently-described taxon studied in Britain by L M Spalton following its discovery in Cornwall in 1977, *Watsonia* **23**: 525-531 (2001) and already known to be quite widespread In England. It is not known whether it is native. The oldest known herbarium specimen dates from 1926. The Berwickshire record has been confirmed by L M Spalton.

Site	GR – NT	Latest Record	Recorder	Population
*Burnmouth braes, by track	957614	27.09.99	MEB	Small

[Bromus hordeaceus

ssp. thominei]	Habitat	Atlas GB	Atlas Berw	Sites
Soft-brome	Coast	48, 49%	[1]	0/1, 0/0

Very local in sandy coastal habitats in England and southern Scotland. [Cockburnspath, near 7771, BSBI field meeting]. Last record 1960.

[Bromus racemosus

(or B. commutatus)/	Habitat	Atlas GB	Atlas Berw	Sites
Smooth Brome	Arable	304, 59%	[5]	0/6, 0/6

Cultivated fields. Native in England but an archaeophyte or neophyte in Scotland, now rare in the north. Some or all records may relate *to B. commutatus*.

[Anton's Hill 7843, Cove 7871, Coldstream 8439, Penmanshiel 8067, St Abbs Head 9168, Ale Water, near 9362]. Last record 1893, Ale Water, near.

[Bromus secalinus]	Habitat	Atlas GB	Atlas Berw	Sites
Rye Brome	Arable	98, 24%	[3]	0/+, n/a

Cereal fields. An archaeophyte formerly widespread in England and local in Scotland but decreasing. [Old Atlas 64, 74, 95]. Last record 1834 'cornfields throughout Berwickshire'.

Cakile maritima

ssp. integrifolia	Habitat	Atlas GB	Atlas Berw	Sites
Sea Rocket	Coast	435, 74%	1, 50%	3/7, 1/3
Berwickshire Rare				

Coastal sand.

Round the British coast.

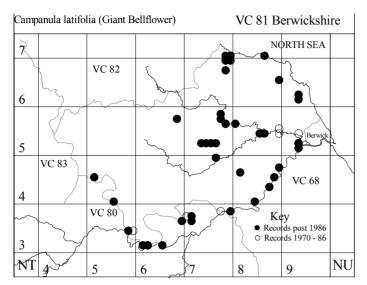
The local scarcity of this species reflects the shortage of suitable habitat and visitor pressure on what habitat there is. As there are localities to the north and south of VC 81 recent records may represent casual recolonisation.

Site	GR – NT	Latest Record	Recorder	Population
Pease Bay	7970	27.05.89	J Muscott	
*Lumsdaine Shore	87507014	09.09.00	MEB	1 plant
*Burnmouth	9660	11.07.79	MEB, COB	
Former Colonies				

Former Colonies

[Cockburnspath, shore near 7871, Coldingham Bay 9166, Linkim Shore 9265, Eyemouth 9464]

Campanula latifolia	Habitat	Atlas GB	Atlas Berw	Sites
Giant Bellflower	Woodland	669, 68%	15, 88%	37/+, n/a
Berwickshire Fine				



Woodland on rich soils, particularly elm woods.

Especially Northern England and Southern Scotland.

A regional speciality which suffered much in abundance following loss of woodland canopy after Dutch elm disease but remains widespread and has recently shown some recovery.

*Pease and †Tower Deans and Langton Woods hold notable populations.

Former Colonies [Old Atlas 44, 83]

Carduus nutans	Habitat	Atlas GB	Atlas Berw	Sites
Musk Thistle	Grassland	1040, 84%	1, 17%	1/5, 0/3
Berwickshire Rare				

Dry grassland.

England.

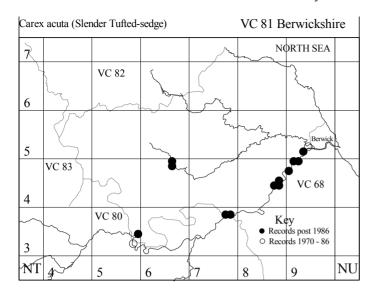
Almost extinct in the VC. The recent record may or may not be native. The losses have been due to ploughing and, possibly, eutrophication.

Site	GR – NT	Latest Record	d Recorder	Population
Ladykirk	891476	01.08.97	D Walton	1 plant
F 61 .				

Former Colonies

[Blackburnrig Wood, near 7965, Edrom 8255, Mayfield 8360, Burnmouth 9561]. Considered possible introductions by Johnston but see Swan re North Northumberland.

Carex acuta	Habitat	Atlas GB	Atlas Berw	Sites
Slender Tufted-sedge	Riverside	369, 52%	4, 57%	13/15, 2/3
Not Berwickshire Scarce				



Lowland riversides

England.

The Tweedside colonies are unusually fine for so far north. Apparently lost from the Whiteadder but good colonies have recently been found on the upper Blackadder.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				
*Tweed - Milne Graden to English Bor	der including Mi	ilne Graden, Blou	ınt Island, Fishv	vick Mains and
Paxton House	8744 - 9452	1987 - 2004	MEB	Fine colonies
Other Colonies				
*Tweed				
- Gaitheugh, above boat moorings	59(0)34(4)	07.06.01	MEB	Good colony
- Dryburgh	589320	24.07.73	NTHH	-
- Springhill	785385	22.07.95	MEB	
*Blackadder - Haliburton, above	6649	05.07.04	RVL, TJP	
	665485	01.10.04	MEB	

Former Colonies

[Old Atlas 63, (Coldingham Moor 8568), *Whiteadder Water at Edrington Castle 9453]

[Carex aquatilis]	Habitat	Atlas GB	Atlas Berw	Sites
Water Sedge	Riverside	139, 63%	[2]	0/1, 0/1

Northern riversides in Britain.

[*Gordon Moss 6342, 'several stations on the Tweed' – including *Norham, near 8947]. Last record 1915 Gordon Moss. Although still known from the upper Tweed there is some doubt as to whether the old records from the lower Tweed relate to this species or whether some, or indeed all, relate to the somewhat similar *C. acuta*.

Carex arenaria	Habitat	Atlas GB	Atlas Berw	Sites
Sand Sedge	Coast	583, 82%	2, 100%	2/3, n/a
Berwickshire Rare				

Sandy coastal grassland.

Round the British coast.

There is a shortage of habitat on the rocky coastline of the VC.

Site Pease Bay	GR – NT 792709 793708	Latest Record 09.09.00	Recorder MEB	Population Good colony Good colony
Milldown Point Former Colonies	918664	28.05.94	MEB	Small colony

[Linkim Shore 9265]. 'On sandy parts of the coast', 1853

Carex diandra	Habitat	Atlas GB	Atlas Berw	Sites
Lesser Tussock-sedge	Wetland	176, 47%	1, 33%	1/5, 1/5

Berwickshire Rare

Base-rich watery mires.

Very local in Britain.

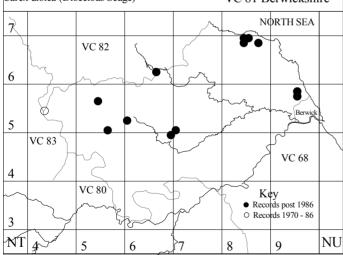
The one colony is in a botanically rich site. The former colonies have been lost to drainage.

Site	GR – NT	Latest Recor	d Recorder	Population
Fine Colony				
Longmuir Moss	472509	23.06.90	MEB	Large colony
Former Colonies				-

[*Gordon Moss 6342, Broad Bog 8168, Stuartslaw Pond 8555, Allanton, Whiteadder banks near 8654]

Carex dioica	Habitat	Atlas GB	Atlas Berw	Sites
Dioecious Sedge	Wetland	740, 67%	7, 88%	11/13, n/a
Berwickshire Scarce				

Carex dioica (Dioecious Sedge) VC 81 Berwickshire



Flushes with some base-enrichment.

Very widespread in western Scotland, north-west England and Wales but scarcer in the east.

Berwickshire has very limited suitable habitat and the few localities are all vulnerable to small-scale disturbance.

Carex dioica is strongly associated with Eleocharis quinqueflora in the VC.

Site	GR - NT	Latest Record	Recorder	Population
Clints Hill	433542	03.08.85	MEB	Good colony
Whalplaw Burn	548567	20.06.92	MEB	
Wheel Burn	5650	11.06.99	MEB	
Boondreigh Burn	602522	14.06.92	MEB	Few
Killmade Burn	6662	11.06.98	MEB	
*Fangrist Burn	699496	29.08.87	MEB, PFB	

Cleckinshaw, Greenlaw Moor	701503	04.08.90	MEB	
· ·				
Lumsdaine Dean, near	84336891, 8	84976906, 85106	908	
		02.07.04	MEB	
Lumsdaine Farm	855691	22.06.88	COB	
	877683	22.06.88	COB	
Mordington	953575	27.06.92	MEB	Fair colony
Lamberton Moor	955582	27.06.92	MEB	Few
Recent Colony				
[Lamberton Moor]	957588	17.06.80	MEB	Believed lost to
drainage				
Former Colonies				

Former Colonies

[Hardens Dam, above 7554]. 'Spongy bogs, common', 1853.

Carex distans	Habitat	Atlas GB	Atlas Berw	Sites
Distant Sedge	Coast	500, 61%	3, 100%	8/8, 1/1
Berwickshire Scarce				

Coastal habitats including cliffs, rocky shores and saltmarsh.

Around the British coast, also in inland marshes in southern England.

Occasional on the coast in the VC, but often in inaccessible locations, so probably under-recorded.

*Ramsheugh Bay Siccar Point Linkim Shore Yellow Craig *Ramfaulds	GR – NT 7772 812709 921658 922659 950645	27.06.98 02.08.03 06.08.94 06.08.94 25.06.81	Recorder MEB, PFB MEB MEB MEB MEB	Population
1	951644 954639	27.08.94	MEB	
*Scout Point	9563	16.08.93	D Patterson	
*Hilton Bay	9659	11.07.79	COB, MEB	
*Lamberton, undercliff below	9757	05.06.89	PFB	
Former Colonies				
[St Abbs Head 9169]				
Carex divulsa ssp. leersii	Habitat	Atlas GB	Atlas Berw	Sites
Leers' Sedge	Woodland	158, 64%	2, 67%	3/4, 0/1
Berwickshire Rare				

Woodland edge.

Limestone areas in southern Britain.

The Berwickshire sites are all in policy woodland and it is possible, but far from certain, that the species may have been a component of a sown amenity mix, as there is an association with *Poa chaixii* and *Luzula luzuloides*.

Site	GR – NT	Latest Record	Recorder	Population
Thirlestane Castle	534477	10.05.97	MEB	Small colony
Newton Don	71203731	18.05.02	M Tebble	Good clumps
The Lees	840390	03.05.97	MEB, PFB	Colony

Former Colonies

[Eye Water, by 8961, this record may or may not relate to this subspecies, Paxton House 9362]

Carex extensa	Habitat	Atlas GB	Atlas Berw	Sites
Long-bracted Sedge	Coast	298, 66%	2, 100%	2/2, 1/1
Berwickshire Rare				

Coastal rock pools and saltmarsh.

Western coasts in Britain.

Surprisingly well represented at Yellow Craig.

Site *Ramsheugh Bay Yellow Craig	GR – NT 778722 921662 922659	Latest Record 27.06.98 06.08.94	Recorder MEB, PFB MEB	Population Good colony Good colony
Carex laevigata Smooth-stalked Sedge Berwickshire Scarce	Habitat Woodland	Atlas GB 698, 69%	Atlas Berw 3, 75%	Sites 4/8, 1/5

Woodland edge and flushes.

Western Britain.

The Birkie Wood colonies add diversity to a rich site near the Blythe Water. The losses appear to have been due to drainage and conifer planting.

Site	GR – NT	Latest Record	l Recorder	Population
Fine Colony				
Birkie Wood	575497	11.06.99	MEB, PFB	Good colony
Other Colonies				
Blythe Water	580483	11.06.99	MEB, PFB	Good clump
Boondreigh Burn	595511	14.06.92	MEB	Small colony
Blackburnrig Wood	791658	04.09.99	MEB	Small colony
Former Colonies				

[Corsbie Bog 6043, *Gordon Moss 6342, Hoprigshiels 7468, Penmanshiel 7967, Kitchen Cleugh (probably near Penmanshiel) 76]

Carex lasiocarpa	Habitat	Atlas GB	Atlas Berw	Sites
Slender Sedge	Wetland	297, 64%	1, 100%	1/1, 1/1
Berwickshire Rare				

Loch edges, in water.

North-west Britain.

The survival of the habitat is dependent on a high water table. So the colony at Lurgie Loch, with its rich beetle fauna, is in the balance as much of the adjacent land is arable. The loch itself has gone and is largely replaced by carr woodland. The succession continues.

Site	GR – NT	Latest Record Re	ecorder	Population
*Lurgie Loch, fen	675393	19.06.99 M	EB	Good colony
	676395			Small colony

Carex limosa	Habitat	Atlas GB	Atlas Berw	Sites
Bog-sedge	Wetland	260, 61%	1, 50%	1/3, 0/2

Berwickshire Rare

Very wet peat bogs.

North-west Britain.

Almost extinct in the VC following drainage and the succession from bog to carr woodland.

Site	GR – NT	Latest Record	Recorder	Population
Brotherstone Hill	617358	09.06.89	RWMC	Few
Former Colonies				
[Corsbie Bog 6043, *Lurgie Loch 6739	9]			

Carex muricata

ssp. lamprocarpa	Habitat	Atlas GB	Atlas Berw	Sites
Prickly Sedge	Grassland	612, 73%	3, 43%	5/11, 0/3
Berwickshire Scarce				

Dry grassland.

Somewhat local.

Well represented only at Hareheugh Craigs.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colony				_
Hareheugh Craigs, steep slope	688399, 6874	00, 688400		
		22.07.00	MEB	67 plants
The plants have suffered from the redu	action in grazing	since 2000 and a	re now endange	ered
Other Colonies				
Brunta Burn, track near	5950	25.06.95	MEB	Few
Nenthorn Church	680373	20.05.95	MEB	Several
Mellowlees Bridge	6537	22.05.99	LWG	
Edingtonhill, plantation	896578	26.09.98	MEB	Few
Former Colonies				

[Dunglass Dean 7671, †Pease Dean 7970, St Helen's Church 8070, Allanton, avenue above 8653, Ayton 9261, Paxton House 9352]

[Carex muricata

ssp. muricata]	Habitat	Atlas GB	Atlas Berw	Sites
Prickly Sedge	Grassland	5, 71%	[1]	0/1, 0/1

Nationally rare. Limestone grassland in Yorkshire and Shropshire.

[Lauder, woods at castle 5347]. Last record 1878. The Berwickshire record is supported by good specimens held in **BM** where they have been satisfactorily determined by a number of experts, but the exact locality is problematic due to the apparent absence of suitable habitat either at Thirlestane Castle 5347 or Old Thirlestane 5647. The possibility of an introduction cannot be ruled out.

Carex otrubae	Habitat	Atlas GB	Atlas Berw	Sites
False Fox-sedge	Coast	1433, 87%	6, 86%	11/14, 1/2
Not Rerwickshire Scarce				

Marshes on heavy soils and flushes near the sea.

Very widespread in southern England but largely coastal in northern England and Scotland.

Occasional on the Berwickshire coast in wet places behind beaches and at two inland sites.

Site	GR – NT	Latest Record	Recorder	Population
Coastal Colonies				
*Ramsheugh Bay	773723	25.04.98	MEB	
Redheugh, below	8270	23.05.81	MEB	
*Westerside Dean, below	888695	18.06.96	MEB	
*Petticowick	90796908	27.09.02	MEB	
	90816905			
Yellow Craig	922659	06.08.94	MEB	
Eyemouth	943645	06.08.94	MEB	
	946646	27.08.94	MEB	
*Hilton Bay	968593	18.09.99	MEB	
*Ross	9660	11.07.79	COB, MEB	
*Lamberton, undercliff below	9757	05.06.99	PFB	
Inland Colonies				
Lithtillum Loch	8040	17.07.93	MEB	
*Fishwick Mains, Tweed below	926498	19.09.87	MEB, PFB	
Former Colonies				
Free 77: 100 10 0 1 1 1 1 7		0 = 40 0 111 1	D 04667	

[The Hirsel 8240, Coveyheugh and Reston, Eye below 8762, Coldingham Bay 9166]

Carex pallescens	Habitat	Atlas GB	Atlas Berw	Sites
Pale Sedge	Woodland	1085, 68%	2, 50%	3/6, 0/3
Berwickshire Rare				

Damp often shaded habitats along burns and woodland edge but in more open habitats in the west. Widespread in western Britain but more local in the east.

Very poorly represented in the VC.

Site	GR – NT	Latest Record	Recorder	Population	
Cromwells	595505	14.06.92	MEB	_	
Eastside, south of	610500	30.06.02	DGL		
Langtonlees, Wellcleugh Burn	738523	16.06.90	MEB		
Langtonlees Cleugh, south of	744524	16.06.90	MEB		
Former Colonies					
[*Gordon Moss 6342, Blackburnrig Dean 7865, Hoprigshiels 7468]					

Carex pendula	Habitat	Atlas GB	Atlas Berw	Sites as Native
Pendulous Sedge	Woodland	1296, 91%	5, 83%	3/3, 2/2
Berwickshire Rare				

Wet woodland.

Southern Britain.

Fine colonies at two sites.

Site	GR - NT	Latest Record	Recorder	Population
Fine colonies				
Dunglass Dean	7571, 7671, 77	72, 7871		
_		08.08.98	MEB	Plentiful
*Lamberton Undercliff	9757, 9758	14.07.01	MEB	Plentiful
Other Colonies				
Grantshouse, Eye Water near	810650	15.06.96	MEB	1 plant
Caldra (introduced)	773494	13.07.98	PFB	Colony
Hirsel, near gates (introduced)	837395	1993	M Jordan	1 plant
Former Colonies				
[Old Atlas 84 (probably introduced)]				
[Carex punctata]	Habitat	Atlas GB	Atlas Berw	Sites
Dotted Sedge	Coast	34, 54%	[1]	0/0, 0/0

[A specimen dated 1882 held in **BM** has been claimed as the only east coast record of a scarce sedge of the west coast, but the collector was Irish and never visited Berwickshire and the record must relate to Bournemouth, Dorset which he visited in that year not to Burnmouth, Berwickshire]

Carex remota	Habitat	Atlas GB	Atlas Berw	Sites
Remote Sedge	Woodland	1672, 89%	3, 38%	6/14, 0/5
Berwickshire Scarce				

Wet woodland.

Southern England and western Scotland.

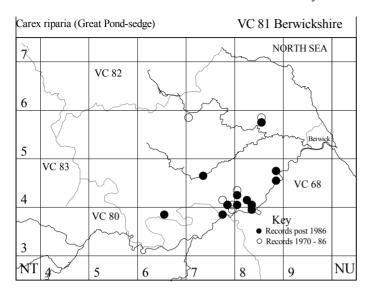
Poorly represented in the VC though pehaps somewhat under-recorded. The extent of the colonies is little known. Some colonies are very vulnerable while others, especially in and near the Wild Wood, may be extensive.

Site	GR – NT	Latest Record	Recorder	Population
Probable Fine Colonies				_
*Langtonlees	745523	14.06.90	MEB	
*Retreat	7760	05.06.98	MEB, PFB	
*Wild Wood	775604	23.06.84	MEB	
Other Colonies				
*Gaitheugh	593340	13.08.99	LWG	
Cockburn Mill	776581	02.06.90	MEB	
Blackburnrig Dean	7966	22.05.99	MEB	Small colony
Paxton	938522	23.06.84	MEB	Still there?
E Cl'				

Former Colonies

[Whitlaw 4947, Berwick Burn 7469, Gavinton 7652, Dunglass Dean 7671, Preston Haugh 7956, Sisterpath Dean 7968, Pistol Plantation 8652, Ayton 9261]

Carex riparia	Habitat	Atlas GB	Atlas Berw	Sites
Great Pond-sedge	Wetland	988, 83%	6, 67%	15/20, 0/4
Not Berwickshire Scarce				



Pondsides and margins of slow flowing streams.

Widespread in England, but scarce in Scotland.

Modestly represented in the VC, but notably frequent in the Coldstream area.

(The locality near Redpath, 707585, appears to be extinct, but it may have been an error for *C. acutiformis* which survives there).

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				
Lithtillum Loch	8040	17.07.93	MEB	
*Leet at Rough Haugh	8042	12.09.93	MEB	
*Leet at Wylie Cleugh	805435	27.07.85	MEB	

Other Colonies

Mellerstain Mill 6538, Lintmill Bridge, Blackadder at 7346, Eccles Pools 771415, Lochton Pond 774389, Bishop's Bog 785405, Horse Bog 7940, Birgham Wood 799399, 802401, The Hirsel 8241, 832407, 834401, *Leet at Coldstream 8339, Chirnsidebridge, near 856578 (this site is a fragment of the former Billie Mire), Bannock Burn 884455, Ladykirk Burn 887479

Former Colonies

[Newton Don 7037, Allanton Bridge, below 8654, Whiteadder, opposite Hutton 9054, Ale near confluence with Eye 9362]

[Carex spicata]	Habitat	Atlas GB	Atlas Berw	Sites
Spiked Sedge	Grassland	823, 79%	[1]	0/1, 0/1

Base-rich grassland in England.

[Blackburnrig 7965]. Last record 1916. This date is that of a compilation of earlier records.

Carex vesicaria	Habitat	Atlas GB	Atlas Berw	Sites
Bladder-sedge	Wetland	495, 54%	4, 67%	7/8, 1/1
D ' 1 1' C				

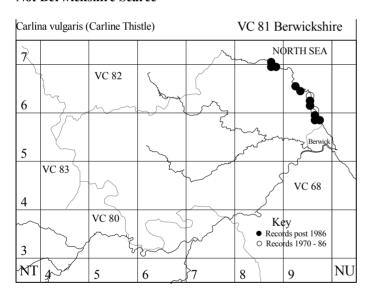
Berwickshire Scarce

Pond margins and lowland soligenous mires.

Scattered in Britain.

Poorly represented in the VC. A species, little understood until recently, that was probably once more widespread here than the records suggest. The colonies are all quite modest and potentially vulnerable, though introductions following pond creation may be expected in future.

Site	GR – NT	Latest Record	Recorder	Population
Larger Colonies				-
*Bemersyde Moss	61043373	07.09.02	MEB	Few patches
here, also elsewhere				
Lithtillum Loch	802401	17.07.93	MEB	Colonies
Other Colonies				
Grizzlefield Pond	579387	26.08.95	MEB	
Redpath Moss	599366	01.07.95	MEB	
	600366			
Eccles Pools	771413	12.07.79	COB, MEB	
Ruthven Bog Wood	823449	21.08.93	MEB	
Whitehall Pond	873554	23.08.99	MEB	
Former Colonies				
[Old Atlas 75]				
Carlina vulgaris	Habitat	Atlas GB	Atlas Berw	Sites
Carline Thistle	Coast	777, 68%	4, 80%	14/17, 4/6
Not Berwickshire Scarce				



Base-rich grassland.

Southern Britain, especially in limestone areas.

Strictly coastal in the VC, well represented on the Lamberton sea braes. The Lamberton colonies appear to have thrived in recent years following relaxation of grazing.

Site	GR – NT	Latest	Record	Recorder	Population	
Fine Colonies						
*Lamberton	9658, 9659, 97	58	2001	MEB	Fine colonies	
Near Catcairn Bushes the colonies extend to a bank facing inland, otherwise the colonies are on the sea						
braes at Catcairn Bushes, Hilton Bay, near Lamberton Skerrs and the northern part of the Lamberton						
undercliff				•		
Other Colonies						

*Lumsdaine Shore and Heathery Carr	8769, 8770, 8869	2002	MEB	Localised, a	
series of modest colonies on steep sea b	raes				
Fleurs Dean and Killiedraught Bay	9265, 9364	2001	MEB	Localised, good	
colony at Fleurs Dean 924654				_	
*Burnmouth	9561, 9562, 9563	2001	MEB	Scattered	
Well represented but not particularly fine					

well represented but not particularly fine

Former Colonies

[Old Atlas 85, Earnsheugh Camp 8969, Ale Water banks 9362]

Catabrosa aquatica	Habitat	Atlas GB	Atlas Berw	Sites
Whorl-grass	Aquatic	458, 48%	4, 67%	12/14, 1/1
Berwickshire Scarce				

Especially characteristic of the sandy mouths of burns at the sea.

Quite widespread in England but largely coastal in the north.

Now well represented in the VC in the Gordon/Greenlaw area. Long thought to have been confined to one small patch in the Tower Burn by Gordon Moss where cattle were watered. The Gordon Moss colony extended spectacularly when the ditches round the moss were cleaned. The grass seems to be spreading but many of the colonies are small and vulnerable and the trend could quickly be reversed.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				
*Gordon Moss and Tower Burn	6242, 6342	14.08.88	MEB	Fine colonies
Hareheugh Craigs	686401, 6874	101, 688401		
		01.06.94	MEB	Localised
These colonies occupy an interesting	habitat in small s	springs kept mudd	y by cattle	
Other Colonies				
Birkenside, old mill pond	572426	29.08.04	LWG	
West Morriston, new pond	604404	01.08.02	MEB	
, ditch	60504043			
Everett Moss	605433	11.07.87	MEB, PFB	Good colony,
cattle-plodged margin of moss				
Howlet's Ha	621487	12.09.87	MEB	
Corsbie Fen	62344496	22.06.02	MEB	Good habitat
Kelmscott	628488	01.06.03	LWG	
Mellerstain Lake (after cleaning)	6538	20.07.99	LWG	
Greenlaw Dean, new pond	69214753	29.06.02	MEB	
Hume Craigs	7041	13.07.98	D Wood, DJM	IcC
*Mire Loch	909689	07.93	D Patterson	Small colony
Recent Colonies				•
East Morriston, ditch	608410	22.06.87	MEB	(Gone 2002)
Former Colonies				
[Old Atlas 85]				
Catapodium marinum	Habitat	Atlas GB	Atlas Berw	Sites
Sea Fern-grass	Coast	372, 78%	1, 100%	5/5, 0/0
Berwickshire Scarce				

Dry coastal grassland and cliffs.

Coastal in Britain.

The VC has a few representative colonies. Formerly confused with C. rigidum.

Site Fine Colonies	GR – NT	Latest Record Recorder	Population
*Burnmouth Coast	955626	26.06.81 MEB	Very locally
	956620	11.07.79 MEB	abundant

*Burnmouth Coast	956623 957615	26.06.81 27.09.99	MEB MEB	
Other Colonies				
*Petticowick	907691	20.06.87	MEB, PFB	
*St Abbs Head	914693	07.07.78	RWMC	
Eyemouth	946646	27.08.94	MEB	
Catapodium rigidum	Habitat	Atlas GB	Atlas Berw	Sites
Fern-grass	Coast	994, 81%	1,50%	4/6, 1/3
Berwickshire Scarce				

Dry grassland.

England.

Poorly represented in the VC.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				
*Lamberton Coast	96615951	14.06.03	MEB	
	967597	18.09.99	MEB	Plentiful
	968589	16.10.99	MEB	
	970586	06.81	COB	
Other Colonies				
*Burnmouth Coast	95696107	02.06.01	MEB	
	95736159	02.06.01	MEB	
*Mire Loch	915686	1977	MEB	
Former Colonies				
[Linhead Braes 7871, Flemington 9460)]			

Centaurea cyanus	Habitat	Atlas GB	Atlas Berw	Sites as Arc
Cornflower	Arable	396, 45%	2, 29%	1/+, n/a
British Rare				

A former weed of arable land.

Archeophyte, now known only from one persistent site in mid-Suffolk. Isolated plants still occur widely. Once known in Berwickshire as the Blaver. A few plants have recently been seen in one arable field in the VC, others have probably originated from gardens or have been sown in municipal flower beds. Possibly still established in the seed bank of arable fields in the Edrom area.

Site	GR – NT	Latest Record	Recorder	Population
Possible Archaeophyte Colony				
Edrom Mains - Set-aside/Turnips	816556	24.07.98	LWG	Several
Other Recent Records				
Cleekhimin Burn - Burnside shingle	520523	08.08.92	MEB	1 plant
West Blanerne – Farmyard	821561	07.07.71	AGL	2 plants
Edington Mill - Oat-husk debris	896551	30.08.98	LWG	Casual
Gunsgreen - Municipal flower beds	994635	18.09.04	MEB	Mass sowing
				•

Former Records

[Gordon 6443, Newton Don 7037, Gavinton 7652, Scotston, Duns 7653, Cockburn 7757, Broomhouse Mains 8056, Lintlaw 8258, Reston 8861, Fairnieside 9461]. Clearly known more widely in the early nineteenth century.

Centaurea scabiosa	Habitat	Atlas GB	Atlas Berw	Sites as Native
Greater Knapweed	Grassland	976, 79%	1, 100%	? Nil
Berwickshire Neophyte				

Calcareous grassland.

England.

It is not clear whether this was a native of the VC. The two less-recent records could have been introductions or errors for the rayed form of *Centaurea nigra*. Recently introduced in a wildflower mix.

Site	GR – NT	Latest Record	Recorder	Population
Causewaybank, introduced	880592	06.06.98	MEB	Few
Lamberton Railway, poss. introduced	9659	05.06.80	C M Sargent, J	O Mountford
Former Colony				
[Blanerne Bridge, possibly introduced 8356, in 1962]				

Centaurium erythraea	Habitat	Atlas GB	Atlas Berw	Sites
Common Centaury	Coast	1601, 88%	4, 67%	6/12, 2/6
Rarwickshira Scarca				

Sandy or calcareous grassland.

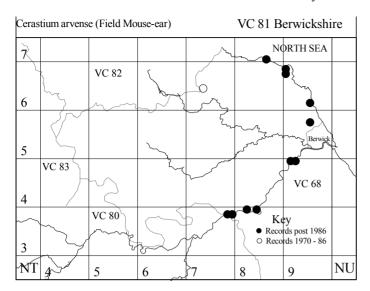
Mainly England.

Largely coastal in the VC with modest colonies. The Lamberton limestone holds much of the population.

Site	GR – NT	Latest Record	Recorder	Population		
Fine Colonies				_		
*Catcairn Bushes	96545964	09.06.00	MEB, PFB	Colony		
	(also nearby)			•		
*Lamberton Undercliff	97065858, 970	85873, 9720583	8			
	ŕ	14.07.01	MEB	Colonies		
Other Colonies						
*Cove	781717	19.09.98	MEB			
Lithtillum Wood, rides in	804406	24.07.93	MEB	12 plants		
Blount Bank	890474	24.07.93	MEB	Small colony,		
searched for in vain 21.09.04, Arrhenatherum spreading following relaxation of grazing						
Barefoots, Eyemouth	938649	06.08.94	MEB	Good colony		
Former Colonies						
[†Pease Dean 7970 Rite-about Burn al	hove Edington N	Aill 8855 Paxton	House 9351 Al	le Water banks		

[†Pease Dean 7970, Bite-about Burn, above Edington Mill 8855, Paxton House 9351, Ale Water banks 9362, Coldingham Bay 9166, St Abbs 9167]

Cerastium arvense	Habitat	Atlas GB	Atlas Berw	Sites
Field Mouse-ear	Grassland	446, 55%	6, 43%	10/20, 3/9
Berwickshire Scarce				



Sandy or calcareous grassland.

Mainly eastern in Britain.

Vulnerable in the VC with a number of small colonies none of which are very notable as the habitat is fragmented.

SiteGR – NTLatest RecordRecorderPopulationBetter ColoniesSpringhill to Birgham786383, 79938922.07.95MEBFair colonies

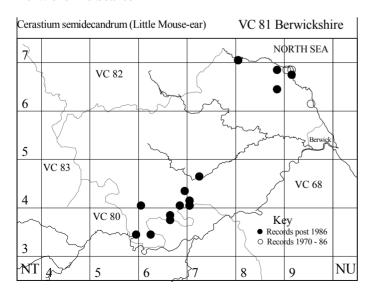
Other Colonies

Laughing Law 7364, Fireburnmill 822390, The Lees 840390, Dowlaw Dean, nr 865702, Millar's Moss 903682, 904679, Green Knowes 917496, 92024959, Mordington 953575, *Burnmouth 9561

Former Colonies

[Old Atlas 53, 77, Dirrington Law, near 6955, Abbey St Bathans 7661, Hoardweel Moor 7859, Preston Cleugh 7957, Penmanshiel 8067, Marygold 8160, Redheugh 8270, Old Atlas 84, Billy Burn 8558, Ayton, near 9260]

Cerastium semidecandrum	Habitat	Atlas GB	Atlas Berw	Sites
Little Mouse-ear	Grassland	777, 69%	7, 88%	14/+, n/a
Berwickshire Scarce				



Rocky knowes and drought-prone grassland.

Eastern in Britain.

Vulnerable in the VC with small colonies often in small habitat fragments. Formerly 'on earth-capt dikes and waste ground', 1853.

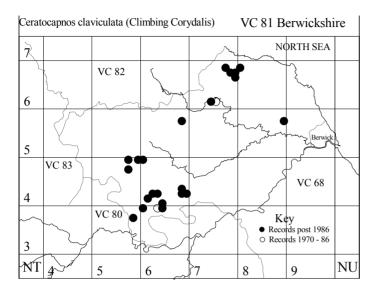
The strongholds are on the Kelso traps, especially Hume Craigs, Hume Castle, Hume Mill, Hareheugh Craigs and Butchercote Craigs. Absent from St Abbs Head but near Northfield and Millar's Moss. [Old Atlas 65]

Ceratocapnos claviculata Climbing Corydalis

Habitat Atlas GB Woodland 887, 79% Atlas Berw 8. 73%

Sites 23/26. 5/7

Not Berwickshire Scarce



Annual of dry acid woodland and rocky places.

Somewhat local in Britain.

Reasonably represented in the VC though suitable habitat is limited.

The main strongholds are around Mellerstain (including *Gordon Moss), Spottiswoode and Penmanshiel It is often rather plentiful where it occurs.

[(Cockburnspath parish 77), Stoneshiel Hill, east of 7758, Primrosehill 7857, Edingtonhill 9057]

Ceterach officinarum Rustyback **Berwickshire Neophyte**

Habitat Atlas GB Rock 815, 74%

Atlas Berw 1, 25%

Sites 1/5, 0/1

Mainly on walls.

South-west Britain.

Naturalised very locally from plantings or spores brought in along the railways and roads.

Site GR - NTLatest Record Recorder **Population** 929605 Avton Station 02.04.94 **MEB** Good colony

Recent Colony

[Smiddyhill Bridge 696612]. Lost when bridge repointed, since 1986.

Former Colonies

[Cockburnspath 7770, Renton House 8265, Hirsel Law 828424]

Chelidonium majus Habitat Atlas GB **Atlas Berw** Sites Greater Celandine Ruderal 1400, 84% 2, 29% 3/12, 0/4

Berwickshire Rare

Dry ruderal habitats around habitation.

Archaeophyte. Very widespread in England but very local in Scotland.

Very poorly represented in the VC, but possibly unrecorded in some old gardens.

Site	GR – NT	Latest Record	Recorder	Population
Birgham Haugh, lane to	793388	22.08.95	MEB	_
Lennel	85254092	21.02.04	MEB	One
Ladykirk	8845	05.08.00	J Muscott	

Recent Colony

8440 [Coldstream, east of] 24.07.93 MEB. PFB Good colony along roadside, gone by 2004, possibly following work for footpath. This colony was known in 1831.

Former Colonies

[Greenknowe Tower 6342, Newton Don 7037, Cockburnspath 7171, Duns 7853, Mandeston Mains 8054, Edrom 8255, Swinton 8347, Whitehall 8755, Old Atlas 95]

Chrysanthemum segetum	Habitat	Atlas GB	Atlas Berw	Sites
Corn Marigold	Arable	887, 52%	4, 44%	5/12, 2/7
Berwickshire Scarce				

An arable weed.

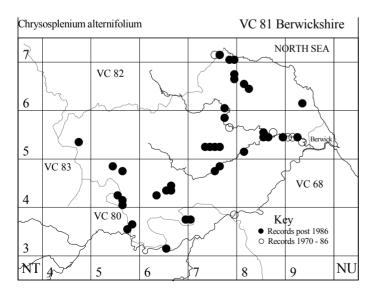
Archaeophyte, widespread in Britain.

Apparently never more than very locally plentiful in the VC. Still plentiful at just a few sites when cropping allows.

Site	GR - NT	Latest Record	Recorder	Population
Fine Colony				
Lamberton	973579	14.06.03	MEB, J Musc	cott Good colony
Other Colonies				-
Gordon, near	645427	20.07.91	COB	Good colony
Newton Don, turnips	705362	22.09.81	MEB	•
Cove Farm	78227122	06.10.01	MEB	Few
Feuarsmoor Plantation, dumped soil	915625	23.07.94	MEB	Good colony
Former Colonies				•

[Fireburnmill 8239, Craigswalls 8455, Greenhead 8661, St Abbs Head, near 9167, Fairnieside 9461, Gunsgreen 9464, also Duns 7853 as a garden weed]

Chrysosplenium alternifolium	Habitat	Atlas GB	Atlas Berw	Sites
Alternate-leaved Golden-saxifrage	Woodland	541, 68%	14, 93%	43/44, 9/9
Berwickshire Fine				



Wet wooded burnsides

Mainly Wales, North England and Southern Scotland

Particularly well represented in the VC.

Very much more widespread in VC 81 than once believed, largely confined to the flood plain by wooded rivers and burns, avoiding coastal habitats and open ground. None of the historical localities can be identified as having been lost.

[Old Atlas 65]

Cicuta virosa Cowbane	Habitat Wetland	Atlas GB 70, 50%	Atlas Berw 1, 100%	Sites 1/1, 0/0
Berwickshire Rare		,	,	, ,
Watery mires. Very localised in Britain. One fine colony in the VC.				
Site Fine Colony	GR – NT	Latest Record	Recorder	Population
Everett Moss	604431	16.06.88	MEB	Large colony
(Circaea alpina x lutetiana				
= C. x intermedia)	Habitat	Atlas GB	Atlas Berw	Sites
Upland Enchanter's-nightshade	Woodland	378, 66%	n/a	n/a
Data Deficient				

A plant of northern woods. No confirmed record for the VC. (Longformacus Woods 6957, Godscroft 7463)

Cirsium heterophyllum	Habitat	Atlas GB	Atlas Berw	Sites as Native
Melancholy Thistle	Wetland	509, 81%	5, 42%	8/19, 1/9
Berwickshire Scarce				

Base-rich wet meadows.

Northern in Britain.

Although a characteristic plant of the Scottish Borders, often associated with *Geranium sylvaticum* and *Trollius europaeus*, it is now very poorly represented in the VC. The loss of C19 localities is dramatic evidence of the loss of Berwickshire's herb-rich wet meadows.

Site	GR – NT	Latest Record	Recorder	Population			
Colonies associated with Trollius europaeus							
*Crook Burn East	699590	29.08.80	MEB	Colonies			
Lumsdaine Farm	877683	22.06.88	COB				
Other Colonies							
Hyndesidehill	61024763	22.06.02	MEB	Colony			
*Gordon Moss	631425	06.93	MEB	Colony			
Westruther (presumed introduction)	632499, 63250	009.89	MEB	Colony			
Kettleshiel Burn	7052	23.09.89	MEB				
Birgham Wood	802401	17.07.93	MEB	Colony			
Lumsdaine Farm	855691	22.06.88	COB				

Former Colonies

[Oxton 4953, Old Thirlestane 5647, Blacksmill Burn, lower 7057, Langtonlees 7352, Cockburn Law 7659, *Edin's Hall Broch, near 7760, Anton's Hill 7843, Redheugh 8270, Houndwood 8463, Ninewells 8655, Clarabad Mill 9354]

[Cladium mariscus]	Habitat	Atlas GB	Atlas Berw	Sites
Great Fen-sedge	Wetland	140, 60%	[1]	0/1, 0/1

A local plant of fens.

[Lithtillum 8040]. Last record 1853.

[Clinopodium acinos]	Habitat	Atlas GB	Atlas Berw	Sites
Basil Thyme	Grassland	240, 44%	[3]	0/3, 0/3

A plant of the English limestone. Former casual, all records from grass fields believed reseeded. [Oxendean 7755, Ecclaw and Edmonston, between 7668, Penmanshiel, near 8067]. Last record 1874 Oxendean

Clinopodium vulgare	Habitat	Atlas GB	Atlas Berw	Sites
Wild Basil	Grassland	961, 73%	4, 40%	7/15, 1/6
Berwickshire Scarce				

Dry base-rich grassland.

Southern in Britain.

Rather poorly represented in the VC. All colonies are fairly small and vulnerable. Eutrophication may be the main threat.

Site	GR – NT	Latest Record	Recorder	Population
Birkenside	558440	03.10.02	LWG	_
Chapel on Leader	563413	12.07.97	MEB	
*Gaitheugh	591344	10.08.01	DJMcC	
Dryburgh	595316	15.08.95	MEB	
Clinthill	607323	30.09.95	MEB	
Cockburn Mill	7758	27.07.73	DGL	
†Tower Dean	785703	26.09.88	MEB	

Former Colonies

[Birgham Haugh 7938, Cumledge Mill 7956, Almaheart 7857, Preston 7957, Broomhouse 8056, Old Cambus, Oak Brae 8069, Norham, opposite 8947, Alemill, Ale below 9163]

Cochlearia officinalis

ssp. scotica	Habitat	Atlas GB	Atlas Berw	Sites
Scottish Scurvygrass	Coast	50, 26%	1, 50%	1/2, 0/0
British Scarce				

A fairly distinct taxon currently recognised as a subspecies. Coastal habitats.

Mainly in the extreme north of Scotland.

A small population has recently been confirmed in the VC.

Site	GR – NT	Latest Reco	rd Recorder	Population	
Siccar Point	808708	05.04.92	MEB,PFB	Small colony	
	812708			Small colony	
Determined by Dr P Wyse-Jackson, 07.03.93. Also recorded here 06.04.56 AGL					
Former Colony					

Former Colony

[*St Abbs Head] 9169 24.4.1884 A Craig-Christie Still there?

Determined by Dr P Wyse-Jackson. Specimen held in E.

[Coeloglossum viride]	Habitat	Atlas GB	Atlas Berw	Sites
Frog Orchid	Grassland	381, 40%	[8]	0/10, 0/10

Formerly widespread in calcareous grassland throughout Britain but now local and declining. [Muircleugh 5145, Longformacus 6957, *Greenlaw, near 7045, Choicelee 7451, Blackburnrig Dean, near 7965, Redheugh 8270, Coldingham Moor 8667, Coldingham Loch, near 8968, West in Thirle 9068, Ayton, near 9261]. Last record 1947 Longformacus.

Convolvulus arvensis	Habitat	Atlas GB	Atlas Berw	Sites
Field Bindweed	Ruderal	1599, 86%	6, 50%	9/21, 2/7
Berwickshire Scarce				

Cultivated ground and ruderal habitats.

Very widespread in England but local in Scotland and mainly in the south.

Very much a follower of man in Berwickshire and only found in the close vicinity of houses or where garden material has been dumped. As it is very persistent it is likely that most of the old colonies survive.

Site	GR – NT	Latest Record	Recorder	Population
Lauder, Lauder burn near	5146	04.07.99	LWG	
Mertoun House	618317	05.08.95	MEB	
Birgham	794390	22.07.95	MEB	
Duns Industrial Estate	7953	11.08.90	MEB	
Brieryhill Kennels	816542	24.08.98	LWG	
Dunglass Wood	827421	03.08.83	MEB	
Coldstream, Leet	8339	09.07.97	MEB	
Ladykirk, west of church	888476	21.07.04	MEB	
St Abbs Head Lighthouse Garden	914691	19.09.81	MEB	
Eyemouth	943645	06.08.94	MEB	

Former Colonies

[Old Atlas 44, 53, Nenthorn 6837, Newton Don 7037, Old Atlas 74, Swinton 8347, Old Atlas 86, Hutton Castle Mill, near 9054, Ayton road, 7 miles north of Berwick 9560, Fancove Head, near 9562, Gunsgreen 9463]

Corallorhiza trifida	Habitat	Atlas GB	Atlas Berw	Sites
Coralroot Orchid	Woodland	55, 54%	2, 40%	4/8, 0/1
Berwickshire Scarce				

Grows in Sphagnum in woodland and in dune slacks.

North-east Britain.

The VC 81 sites are all undergoing habitat change as succession from wetland to woodland continues. The future for this orchid is uncertain. The populations vary markedly in numbers from year to year.

Site	GR – NT	Latest Record	Recorder	Population	
Fine Colony					
*Gordon Moss	634425, 634426, 635425				
		06.93	MEB	Variable	
Other Colonies					
Redpath Moss	599367	23.06.80	MEB	Few	
*Lurgie Loch	676395	19.06.99	MEB	Variable	
*Long Moss	855685	19.06.80	MEB	Few	
Colonies not confirmed recently					
Brotherstone Moss	6136	28.06.70	AGL	Extant?	
Silverwells	878665	12.07.79	MEB	Extant?	

Former Colonies

[Whitfield Woods, near Ale Mill 9063, Whitfield North Wood, near Ale Mill 9163]

Coronopus squamatus	Habitat	Atlas GB	Atlas Berw	Sites
Swine-cress	Arable	1120, 86%	1, 20%	6/10, 1/2

Berwickshire Scarce

A weed of cultivated ground, particularly where trampled.

South-east Britain.

Now very localised and rather scarce in VC. Eyemouth area only. Apparently more widespread in the past.

Site	GR – NT	Latest Record	Recorder	Population
Hallydown Shore, field above	927653	06.08.94	MEB	Few
Eyemouth, pavement edge	93956436	23.09.00	MEB	Few
Eyemouth, garden Northburn Road	93906430	23.09.00	MEB	Few
Eyemouth Fort, pathside	941648	06.08.94	MEB	Few
Gunsgreenhill, field gateways	952639	27.08.94	MEB	Several fields
Burnmouth Harbour, track	95786095	21.08.04	MEB, PFB	Few
Lamberton Holdings, trampled ground	963600	14.07.01	MEB	100+ plants

Former Colonies

[Old Atlas 74, Chirnside Paper Mill 8556, Old Atlas 86, Coldingham 9065]. Regarded as 'quite common' 1916.

[Crambe maritima]	Habitat	Atlas GB	Atlas Berw	Sites
Sea-kale	Coast	185, 71%	[1]	0/1, 0/1

A local plant of coastal shingle, mainly in the south and west, very scarce on the east coast of Britain. [*Fast Castle 8670, *Lumsdaine Shore 8770]. Last record 1836 Lumsdaine Shore. Once plentiful in that neighbourhood.

Crepis mollis	Habitat	Atlas GB	Atlas Berw	Sites
Northern Hawk's-beard	Grassland	14, 19%	1, 14%	1/8, 0/6
British Rare				

A short-lived perennial of herb-rich grassland or wood-pasture on shallow, slightly flushed, base-rich soils.

Northumberland and Durham hold much of the British population.

Apparently lost from all but one of its former sites in the VC. The necessary lightly-grazed woodland glade habitat on base-rich soils has been almost eliminated.

Site	GR - NT	Latest Reco	rd Recorder	Population
Fine Colony				
Cromwells - Brunta Burn	595505	23.05.92	MEB, PFB	100+ plants
Colony on rocky knowes. A bota	nically rich site.			

Former Colonies

[Edgarhope Wood 5449, 5450, Longformacus, Dye Water above 6857, Langton Wood 7452, Blackburnrig Dean 7965, Penmanshiel Wood, eastern part 7968, Lumsdaine, road to 8867, Ale Water 9362]. None seen since the nineteenth century except Lumsdaine, road to 1924.

Cryptogramma crispa	Habitat	Atlas GB	Atlas Berw	Sites
Parsley Fern	Rock	289, 62%	2, 50%	1/4, 1/3
Berwickshire Rare				

Acid rocks and scree.

North-west Britain. Well represented at the Black Hill. The losses from Chester Hill and Mountjoy Wood are surprising as apparently suitable scree remains.

Site Fine Colonies	GR – NT	Latest Record	Recorder	Population
Black Hill, screes	585368	09.06.95	MEB	Plentiful
	585373	09.06.95	MEB	Plentiful

Recent Colony

[Gore Bridge, old stone dyke 695424]. Lost between 1987 and 2003 during forestry operations.

Former Colonies

[Chester Hill 5246, Moutjoy Wood, Abbey St Bathans 7461, (*Dowlaw Dean 8670)]

Cynoglossum officinale	Habitat	Atlas GB	Atlas Berw	Sites
Hound's-tongue	Grassland	406, 56%	[6]	1/8, 1/6
Rerwickshire Rare				

Dry grassland, often near the coast.

South-east Britain.

Recently refound in the VC.

Site	GR – NT	Latest Reco	rd Recorder	Population
Lumsdaine Dean	86216941	21.07.01	MEB	9 plants
Former Colonies				

[Old Atlas 77, Swinton 8347, *Fast Castle 8670, Reston and Coveyheugh, between 8762, Coldingham Bay 9166, Hallydown 9264, Linkim Shore 9265, Eyemouth 9464]

Cystopteris fragilis	Habitat	Atlas GB	Atlas Berw	Sites
Brittle Bladder-fern	Rock	738, 66%	6, 40%	11/26, 3/12
Not Berwickshire Scarce				

Calcareous rocks and mortared walls.

Mainly northern England and Scotland.

Largely confined to artificial habitats in the VC. The apparent decline shown by the historical records may be interpreted to suggest, on the contrary, progressive colonisation of walls from a small native population on rock. Many of the former colonies were on buildings not visited since and may still persist. A Willmot demonstrated in 1979 how even a modest survey directed specifically at ferns can reveal additional sites

Site	GR – NT	Latest Record	Recorder	Population
Colony on Rock				
Newton Don, Stichill Linn	706375	20.05.95	MEB	
Former Colonies on Rock				

[Chester Hill, opposite side of Lauder Burn from 5246, St Abbs Head, caves below 9069, this is an intriguing record as sea caves are the habitat of a closely related rare species, C. dickieana

Chapel on Leader	5641	12.07.97	MEB
Cowdenknowes, garden steps	5737	28.07.98	MEB
Spottiswoode	601495	16.10.97	MEB
Mellerstain Policies	6439	28.07.01	MEB, PFB
Abbey St Bathans	7661	05.06.98	MEB
Milne Graden	8744	01.05.93	MEB

A Willmot records 1979

65, 74, 75, 86

Former Colonies probably on Mortared Walls

[Earnscleugh Bridge 5448, Carolside 5640, Dods Mill 5848, Greenlaw 7146, Purves Hall 7644, Eller Burn 7660, Cockburn Law 7669, Duns Castle 7754, Pease Dean 7969, Lintlaw 8258, Swinton House 8147, Maines 8856, Paxton Fern Dean 9352]

Dactylorhiza incarnata

ssp. incarnata	Habitat	Atlas GB	Atlas Berw	Sites
Early Marsh-orchid	Wetland	671, 56%	6, 60%	10/14, 2/6
Berwickshire Scarce				

Base-rich flushes.

Widespread in Britain.

Ssp. incarnata is believed to be the subspecies formerly widespread in Berwickshire.

Many sites in the VC have been lost to drainage and most others are vulnerable.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				_
Greenlaw Dean	69164757	17.06.00	MEB	20 plants
	69194755			8 plants
	693475	13.06.87		
Rumbleton Burn	699455	25.06.00	MEB	
	700454			
Greenlaw Moor	720485	24.06.95	MEB	
Lamberton Moor	951586	17.06.80	MEB	
	955582	12.06.99	MEB	Good colony
	957588	17.06.80	MEB	•
Lumsdaine Dean, head of	84376893, 84	4426896, 8446689	8, 84486896	
		02.07.04	MEB	Series of colonies
, moor near	84916910			
, moor near	85786906, 85	5796893, 8580689	6, 85806900, 8	35826896
Other Colonies				
Threeburnford, burn near	463529	27.06.04	LWG	
Butchercote Craigs	625345	04.06.95	MEB	
*Gordon Moss	635426	03.07.82	MEB	
Cockburn Mill	776581	02.06.90	MEB, PFB	
Former Colonics				

Former Colonies

[Brotherstone Moss 6136, Penmanshiel Moor 8167, Coldingham Loch, near 8968, Edingtonhill Moor 9057]

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ssp. pulchella	Habitat	Atlas GB	Atlas Berw	Sites
Early Marsh-orchid	Wetland	110, 52%	1, 100%	2/2, 0/0
Berwickshire Rare				

Base-rich flushes.

Less frequent than ssp. incarnata.

Recently found in the VC.

Site Fangrist Burn	GR – NT 69454826 69464827	Latest Record 17.06.00	Recorder MEB	Population 1 plant 2 plants
Lamberton Moor	955582	12.06.99	MEB	Probably this
[Daucus carota ssp. carota] Wild Carrot	Habitat Grassland	Atlas GB 1552, 83%	Atlas Berw	Sites 0/11, n/a

Calcareous grassland in Southern Britain and by sandy coasts in the north. The catastrophic fate of this once frequent species appears to owe more to eutrophication than to any other factor. [Old Atlas 53, 54, Newton Don 7037, Duns, near 7853, Paradise 7956, Little Swinton, lane to Butterlaw 8345, Edrom, railway 8355, Coldingham Bay 9166, Linkim Shore 9265, Lamberton Railway 9658]. 'Common in the Howe-of-the-Merse', 1853. Last record 1980 Lamberton Railway.

Dianthus deltoides	Habitat	Atlas GB	Atlas Berw	Sites
Maiden Pink	Grassland	88, 39%	4, 44%	7/15, 3/10
British Scarce				

A highly attractive tufted perennial of sandy grassland and base-rich rocky outcrops. The Scottish Borders and Northumberland comprise a major stronghold of this species. All but one of the remaining sites in the VC are vulnerable to small-scale habitat changes.

Site	GR – NT	Latest Recor	d Recorder	Population
Fine Colony				
Hareheugh Craigs	687390, 68839	9, 689399, 687	400, 688400	
		22.07.00	MEB	300+ plants
Excellent colonies on a basalt outcrop.	The habitat app	ears stable but t	he site has poten	tial for quarrying
roadstone. Detailed BSBI survey repor	t 2000 held.		_	

Other Colonies

other colonies						
Blinkbonny near Girrick	668384	00.06.90	PSL	100 plants		
Colonies on road verge and knowes	in meadow adja-	cent. The habitat i	s fragmented.			
Little Thairn near Girrick	667373	06.06.91	MEB, DGL	Few plants		
- Rock outcrops	668373	00.06.90	PSL	10 plants		
	669373					
	666383					
Muckle Thairn	665375	22.05.99	LWG	1 plant		
Hume Mill	707406	10.06.83	MEB	30 plants		
Colony on rocky knowes in meadow. The colony is small and the meadow may not have a secure future.						
Lintmill Bridge, knowes near	731462	07.03	B Edwards	Good colony		
Lintmill Bridge, old railway near	732463	07.03	B Edwards	Colony		

*Dowlaw Dean 8670 1987 SWT Unlocalised, searched for by MEB 2002, 2003 without success.

Recent Colony

[*Lumsdaine Shore 874700]. Destroyed 1990's by attempted construction of access road.

Former Colonies

[Newton Don 7037, Dunglass Dean foot 7671, Cumledge House, possibly introduced 7956, St Helens Church 8070, Houndwood 8463, St Abbs 9167, Linthill 9262]. None seen since the nineteenth century except Cumledge House 1947.

Diphasiastrum alpinum	Habitat	Atlas GB	Atlas Berw	Sites
Alpine Clubmoss	Moorland	357, 66%	1, 20%	1/9, 0/2
Berwickshire Rare				

A montane species of open habitats.

Northern in Britain.

Formerly quite widespread on the Lammermuirs, 1853, but now almost a casual.

Site	GR – NT	Latest Record	d Recorder	Population
Red Brae, Soutra, lichen-rich bank	47575674	16.06.04	MEB	1 plant
	47575675	03.07.04	MEB, PFB	1 plant

Former Colonies

[Black Hill 584372, Old Atlas 54, Dye Cottage 6458, Wrunklaw 6758, Cattleshiel Moor near Little Dirrington Law 6853, Kyles Hill 7250, Coldingham Moor 8568, Lamberton Moor 9559]. The record from Cattleshiel Moor by A Anderson in 1915 was as 'var. decipiens'. This suggests the rare taxon now known as *D. x issleri*. This attribution was supported by expert determination by Rev E S Marshall.

Draba muralis	Habitat	Atlas GB	Atlas Berw	Sites as Native
Wall Whitlowgrass	Ruderal	29, 71%	1, 50%	Nil
Berwickshire Neophyte				

Limestone rocks and as a ruderal.

Very local in Britain as a native but with a possibly native site in VC 80.

A presumed neophyte in VC 81, perhaps increasing.

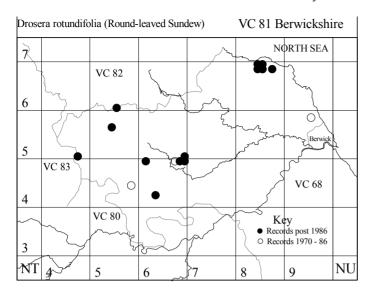
Site	GR – NT	Latest Record	Recorder	Population
Grantshouse, presumed introduced	810652	15.06.96	MEB	Colony
Fishwick Mains, sandy bank,	92514943	13.04.03	MEB	Good colony
presumed introduced	92594946			Good colony
Former Colony				
[Chapel-on-Leader, garden weed 5641]				

[Drosera anglica]	Habitat	Atlas GB	Atlas Berw	Sites
Great Sundew	Moorland	355, 59%	[1]	0/1, 0/1

A moorland plant, particularly of blanket bog in the north-west.

[Coldingham Moor between Renton Bell and the old post road 8368]. Last record 1828.

Drosera rotundifolia	Habitat	Atlas GB	Atlas Berw	Sites
Round-leaved Sundew	Moorland	1359, 78%	5, 50%	10/22, 1/5
Berwickshire Scarce				



On bare peat or active *Sphagnum* on wet moorland and bogs.

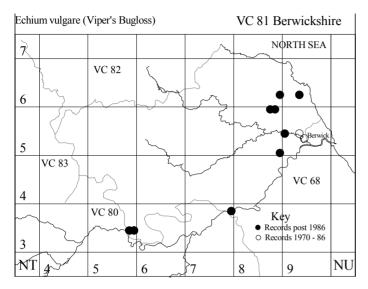
Widespread in western Scotland, north-west England and Wales but scarce in the east and south.

Now largely confined to raised bogs in the VC and at a very few other moorland localities, notably around Dowlaw Moss, but with only one locality known on the blanket bog of the Lammermuirs, testimony to its degraded state. Probably underrecorded from acid flushes in the Lammermuirs.

Site	GR – NT	Latest Record	Recorder	Population	
Fine Colonies					
*Dogden Moss	6749	04.08.04	MEB	Constant over	
	6849			all the moss	
	6949				
	6950	09.09.89	MEB		
Other Colonies					
Longmuir Moss	472505	16.07.88	MEB		
Whalplaw Burn	548567	20.06.92	MEB		
Rotten Cleugh	55806047	14.09.02	MEB	Colony in an	
area of good active blanket bog				•	
Dowlaw Moss	840691	02.07.04	MEB		
	841691				
Lumsdaine Dean, flushes near	844689, 84969	0, 852691			
		02.07.04	MEB		
*Long Moss	855685	19.06.80	MEB		
Lumsdaine Farm	855691	22.06.88	COB		
	877683	22.06.88	COB		
Recent Colonies					
[Pickie Moss]	5844	1972	R Harper	Open areas now	
reduced by spread of woodland			•	-	
[Jordanlaw Moss]	619498	12.09.87	MEB, PFB	Not refound by	
LWG in 2003 in this poor remaining moss fragment					
[*Gordon Moss]	634425	06.93	MEB	Just hanging on	
then in the only open bog area and poss	ibly lost by 2004	4			
[Lamberton Moor]	957588	17.06.80	MEB	Believed lost	
Former Colonies					

[Seenes Law, near 5559, Corsbie Bog 6043, Spottiswoode 6149, Whitrig Bog 6234, Twinlaw, below 6254, Trottingshaws, above 6458, Dronshiel Moss 7055, Penmanshiel Moss 8368, *Drone Moss 8466]

Echium vulgareHabitatAtlas GBAtlas BerwViper's BuglossRock725, 66%6, 67%Berwickshire Scarce



Dry or sandy grassland.

Mainly England.

Very persistent in small populations in the VC, but many others have been lost.

Persistent Sites

6/18, 3/12

Site	GR – NT	Latest Record	Recorder	Population
Fine Colony				-
Winfield Airfield, old runway	899507	23.09.99	MEB	Good colony
Persistent Colonies				-
*Gaitheugh, scree	591344	10.08.01	DJMcC	
3 ,	592343	02.08.89	MEB	
Birgham Haugh, limestone outcrop	799389	29.04.95	MEB	
Harper Heugh, scaur	902548	02.10.99	MEB	
Old Linthill, rock near Eye Water	939626	14.05.94	MEB	
Witches Cleugh, scaur	944539	12.05.84	MEB	
Casual Colonies				
Causewaybank Farm	880592	13.06.90	MEB	
Reston, A1 east of	8962	1997	A R Jermyn	Several
E Cl.			3	

Former Colonies

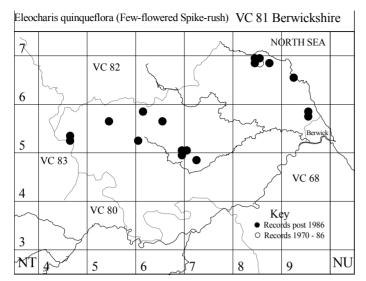
[Nenthorn 6837, Burnhouses, Harry's Hill 7558, *Dunglass Dean and Pease Bay, between 7772, Coldstream 8439, Chirnsidebridge 8556, Allanton 8654, Ninewells 8655, Hutton Hall 8954, Hutton Castle Mill 9054, Union Bridge 9351, Edrington Craigs 9453]

[Eleocharis multicaulis]	Habitat	Atlas GB	Atlas Berw	Sites
Many-stalked Spike-rush	Wetland	658, 68%	[1]	0/1, 0/1

A moorland plant of western Britain.

[Bunkle 8158]. Last record 1853. The identity of this record was confirmed by a specimen, but the locality was uncertain.

Eleocharis quinqueflora	Habitat	Atlas GB	Atlas Berw	Sites
Few-flowered Spike-rush	Wetland	841, 68%	8, 89%	12/16, 0/4
Berwickshire Scarce				



Base-rich flushes on stony or peaty soils.

Mainly northern England and Scotland.

There are two elements in the VC distribution – moorland flushes at the edges of the Lammermuirs and the few fragments of heath near the coast that show oceanic influence. Almost all the colonies are small and vulnerable to disturbance.

Strongly associated with Carex dioica in the VC.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies	OK IVI	Latest Record	Accorder	1 opulation
Lumsdaine Dean, flushes near	844689	02.07.04	MEB	
Zumbuum Zum, musmus mum		690, 852690, 8526		
	858690	., .,	,	
Lamberton Moor	955582	12.06.88	MEB	Frequent
Other Colonies				1
Threeburnford, unnamed burn near	46525306	26.06.04	MEB	
Whalplaw Burn	548567	20.06.92	MEB	
Boondreigh Burn	60165228	06.08.00	MEB	Frequent
Brock's Cleugh	61625863	28.07.01	MEB	•
Watch Water	652561	30.07.89	MEB	Good colony
Bog Park Burn, ditch off	69815084	24.07.02	MEB	-
*Fangrist Burn, flush near	69894959	24.07.02	MEB	
*Cleckinshaw, Greenlaw Moor	701503	04.08.90	MEB	
*Greenlaw Moor	720485	24.06.95	MEB	
Lumsdaine Farm	877683	22.06.88	COB	
Linkim Shore	921658	06.08.94	MEB	
Mordington, near	953575	27.06.92	MEB	Frequent
Former Colonies				

[Lightfield, north of 6441, Ewieside Bog 7668, Langstruther Bog 8167, Broad Bog 8168]

[Eleogiton fluitans]	Habitat	Atlas GB	Atlas Berw	Sites
Floating Club-rush	Aquatic	546, 61%	[1]	0/3, 0/3

An aquatic plant of moorland in western Britain. Suitable habitat remains at Dowlaw Moss but a search by MEB in 2004 failed to refind the plant.

[Falside Hill 6842, Penmanshiel Moss Burn 8268, Dowlaw Moss 8469]. Last record 1875 Falside Hill.

ssp. boreoatlantica	Habitat	Atlas GB	Atlas Berw	Sites
Sand Couch	Coast	430, 74%	2, 67%	7/8, 1/2
Berwickshire Scarce				

Coastal sand above the strandline and on the seaward side of dunes.

All round the British coast.

Poorly represented in the VC.

Site	GR – NT	Latest Record	Recorder	Population
Pease Bay	793708	09.09.00	MEB	With E. x laxa
*Lumsdaine Shore	875700	19.07.87	MEB	
Coldingham Bay, near	9166	06.08.94	MEB	
Linkim Shore	923656	06.08.94	MEB	
Callercove Point	931653	28.05.94	MEB	Sizeable colony
Killiedraught Bay	936646	06.08.94	MEB	
Eyemouth	946646	27.08.94	MEB	
Former Colony				
[*D1,1, D 7770]				

[*Ramsheugh Bay 7772]

Epilobium roseum	Habitat	Atlas GB	Atlas Berw	Sites
Pale Willowherb	Woodland	480, 51%	2, 50%	3/5, 0/0

Berwickshire Rare

Damp woodland and ruderal habitats.

Mainly southern in Britain.

Only recently confirmed in the VC.

Site	GR – NT	Latest Record	Recorder	Population
Dunglass Dean	771721	08.08.98	MEB, LWG	
Edington Mill	896548	13.09.98	LWG	
Paxton, Whiteadder Water at	93935332	11.08.01	MEB	Colony, one
plant with double flowers Former Colonies				
[Old Atlas 84, 96]				

[Epipactis helleborine]	Habitat	Atlas GB	Atlas Berw	Sites
Broad-leaved Helleborine	Woodland	840, 69%	[10]	0/19, 0/14

A woodland plant, often found in quite dense shade. Southern in Britain. Could well be refound in the VC.

[Old Atlas 53, Standalone Covert 5248, Thirlestane Castle 5347, Mertoun, wood behind church 6131, Danderhall 623328, Newton Don 7037, Castlelaw 8141, Hirsel Woods 8241, Coldstream 8439, Skaithmuir 8343, Pistol Plantation 8652, Allanton 8654, Graden 8744, Chirnside Mains Wood 8856, Edingtonhill Moor 9057, Coldingham 9065, Fishwick 9250, Broadmeadows 9154, Lamberton 9757]. Last record 1982 Standalone Covert

[Epipactis palustris]	Habitat	Atlas GB	Atlas Berw	Sites
Marsh Helleborine	Wetland	180, 40%	[2]	0/3, 0/3
Dune slacks and calcareous fens.	Southern in Britain.			

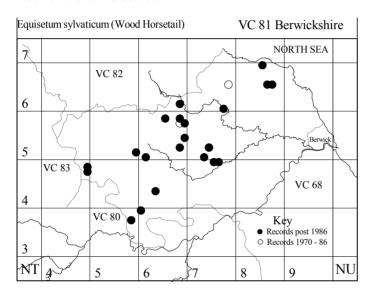
[Coldingham Moor 8568, Lamberton Moor 9558, Lamberton Toll 9757]. Last records 1853 Lamberton Moor and Coldingham Moor.

[Equisetum hyemale]	Habitat	Atlas GB	Atlas Berw	Sites
Dutch Rush	Wetland	112, 47%	[2]	0/1, 0/1

Riversides and other wet places. Northern in Britain.

[Lamberton Moor 9558, (Greystonelees and the coast, between 9660 - possible confusion with *E. telmateia*)]. Last record 1836 Lamberton Moor.

Equisetum sylvaticum	Habitat	Atlas GB	Atlas Berw	Sites
Wood Horsetail	Woodland	1155, 74%	8, 62%	23/27, n/a
Not Berwickshire Scarce				



Wet woodland and moorland.

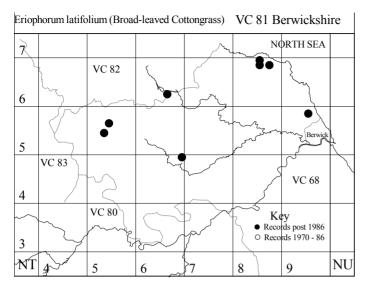
Mainly northern in Britain.

Once believed to be very poorly represented in the VC but now known to be more widespread. However there are few good colonies. Those in the Langton Woods 7452 and Press Castle Plantations 8765 are representative.

Former Colonies

[Carolside 5640, Newton Don 7037, Old Atlas 84, Edington Hill Moor 9057]

Eriophorum latifolium	Habitat	Atlas GB	Atlas Berw	Sites
Broad-leaved Cottongrass	Wetland	318, 55%	4, 100%	7/7, 1/1
Berwickshire Scarce				



Base-rich flushes.

Northern in Britain.

A few representative colonies are present in the VC. The habitat is particularly vulnerable to small scale disturbance. The historical record is very incomplete as this species was formerly poorly understood.

Site Fine Colonies	GR – NT	Latest Record	Recor	der Population
Kilmade Burn, foot of Rough Cleugh	663625	11.07.98	MEB	Good colony
Lumsdaine Dean, moor near	85106908	02.07.04	MEB	Series of colonies
	85476910			
	85796893, 85806898, 85816893			
	877683	22.06.88	COB	

This series of colonies marks a stretch of moorland that is without parallel in VC 81, its bland appearance belies its botanical interest as heath with oceanic influence

Lamberton Moor	955582	27.06.92	MEB	Frequent
Other Colonies				1
Whalplaw Burn	548567	20.06.92	MEB	
*Fangrist Burn	69894959	24.07.02	MEB	
Former colony				

[Lamberton Toll 9757]

Erodium cicutarium	Habitat	Atlas GB	Atlas Berw	Sites
Common Stork's-bill	Grassland	1320, 79%	6, 50%	8/13, 0/2
Berwickshire Scarce				

Sandy grassland.

Widespread in Britain, often coastal.

Highly localised in the VC. Many of the colonies are small and impermanent. Some are likely to be introductions.

Site	GR – NT	Latest Record	Recorder	Population
Representative Colonies				
Pease Bay and foot of Dean	790705	26.09.88	MEB	
	792705	30.04.89	MEB	
	792708	19.09.99	MEB	+/- white fld
	792709	09.09.00	MEB	Modest colony
Dowlaw Dean, near	860704	03.10.98	MEB	Good colony

Other Colonies				
West Morriston	61044161	01.08.02	MEB	3 plants
Duns, old railway	792532	09.10.99	MEB	
Birgham Haugh	794381	10.06.83	MEB	
Oatlee Hill	883694	18.06.96	MEB	Small colony
Eyemouth Industrial Estate	94816444	12.05.01	MEB	1 plant
*Lamberton Coast	9757	10.08.91	MEB	-
Former Colonies				

[Old Atlas 53, 54, Primrose Hill 7857, Dunglass Dean, mouth of 7972, Old Atlas 84, St Abbs 9167]. Considered common, 1853.

Erophila majuscula	Habitat	Atlas GB	Atlas Berw	Sites
Hairy Whitlowgrass	Coast	43, 55%	1, 100%	1/1, 0/0
Berwickshire Rare				

The rather distinctive diploid segregate of the *Erophila verna* aggregate. Perhaps most often in sandy grassland.

Under-recorded in Britain.

Only recently recognised in the VC. Very hairy, almost silvery in flower head

Site *Ramsheugh Bay	GR – NT 774722	Latest Record 25.04.98	Recorder MEB	Population Few
Erysimum cheiranthoides	Habitat	Atlas GB	Atlas Berw	Sites as Arc
Treacle Mustard	Arable	510, 55%	3, 75%	Nil
Berwickshire Neophyte				

Arable land and other disturbed ground.

Archaeophyte. Widespread in southern England, especially to the east, but very local in the north. All records in the VC appear to relate to introductions as a seed impurity.

Site	GR – NT	Latest Record	Recorder	Population	
Kirktonhill	476545	29.08.04	LWG	_	
Huntshaw Hill	566400	03.08.00	LWG		
Gledswood East Lodge, swedes near	592352	08.98	LWG		
Craighouse Quarry, turnips near	605356	30.09.95	MEB		
Former Record					
[Warlaw Bank, east of Drakemire, new grass 8261, in 1866]					

Euonymus europaeus	Habitat	Atlas GB	Atlas Berw	Sites as Native
Spindle	Woodland	1081, 86%	2, 20%	4/11, 1/7
D ' 1 1 1 C				

Berwickshire Scarce

Woodland, often on calcareous soils.

Widespread in England, but rare in Scotland.

Reduced to a few bushes in the VC as a native, but also planted. The species does not seem to survive the clear-felling of a wood.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colony				_
*Gaitheugh, by Tweed	590343	09.05.95	MEB	1 bush
	59153404	07.06.01	MEB	6+ bushes
	592341	02.08.89	MEB	
*Gaitheugh, by Tweed	593340	13.08.99	LWG	
- 100 m up Halidean on west side	59(0)34(5)	07.06.01	MEB	2 bushes
Other Colonies				
Redpath, Leader Water	580355	22.04.99	LWG	3 bushes
Birkenside. Leader Water	558440	03.10.02	LWG	4 bushes
Carolside, Leader Water	564405	27.05.95	MEB, PFB	Large bush
Howlet's Ha (possibly introduced)	622496	17.06.03	LWG	
Newton Don (introduced)	7137	18.05.02	MEB	3 bushes
	7137	18.05.02	MEB	3 bushes

Former Colonies

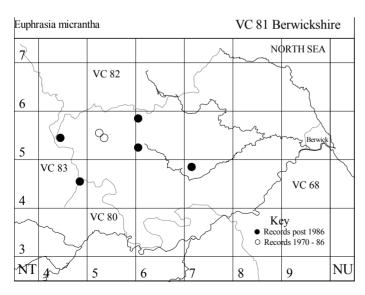
[Redpath Dean 5836, Bonkyl Lodge 7957 (possibly introduced), *Pease Dean 7969, †Tower Dean 7870, Manderston 8154 (probably introduced), Lumsdaine Dean 8669, Ladykirk and Milne Graden, between 8744 (possibly introduced), Edrington Castle, opposite 9353, Clarabad Mill 9354, Ale Water banks 9362]

[Euphorbia exigua]	Habitat	Atlas GB	Atlas Berw	Sites
Dwarf Spurge	Arable	605, 58%	[6]	0/8, 0/6

An archaeophyte of arable fields and other disturbed ground that is widespread in south and east England but declining in the north and extinct in Scotland.

[Old Atlas 53, Longformacus House 6957, possibly favoured by its botanist owner, Birgham Haugh 7938, Lumsdaine 8769, Coldingham Loch and Pilmuir, between 8967, Peelwalls and Bastleridge, between 9259, Fleurs 9165, Gunsgreen 9565]. Last record 1957 Longformacus House, last record in arable fields 1895 Coldingham Loch and Pilmuir, between.

Euphrasia micrantha	Habitat	Atlas GB	Atlas Berw	Sites
Eyebright	Moorland	376, 40%	3, 43%	5/7, 0/0
Berwickshire Scarce				

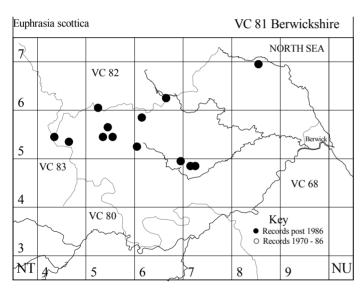


Dry moorland.

Northern in Britain.

Apparently highly localised in the VC and sensitive to muirburn.

Site Clints Hill Tanwell, near (Soonhope Burn) (Whalplaw Burn) Boondreigh Burn deep purple flowers	GR – NT 446542 484456 5255 5354 60145229	Latest Record 15.08.99 26.08.97 02.07.83 02.07.83 06.08.00	Recorder LWG MEB MEB MEB MEB	Population Det. unsafe Det. unsafe Colony with
Dye Water *Greenlaw Moor Former Colonies [Old Atlas 86, 95]	60865870 718489	28.07.01 13.07.98	MEB RWMC	Large colony
Euphrasia scottica Eyebright Berwickshire Scarce	Habitat Wetland	Atlas GB 298, 50%	Atlas Berw 5, 71%	Sites 13/13, 0/0



Base-rich moorland flushes.

Northern in Britain.

Now better recorded in the VC, but always highly localised and in vulnerable habitat.

Site Clints Hill, flush by burn on	GR – NT 433541	Latest Record 26.06.04	Recorder MEB	Population
Threeburnford, burn near	46465302	266.06.04	MEB	
(Rushy Grain)	525606	07.08.99	MEB	Possibly hybrid
E. micrantha x scottica				
Whalplaw Burn	548568	20.06.92	MEB	
Earnscleugh Water	556540	04.08.01	MEB	
Boondreigh Burn	60165228	06.08.00	MEB	
Brock's Cleugh	61625863	28.07.01	MEB	
Rough Cleugh	663625	11.07.98	MEB	
*Fangrist Burn	69894959	24.07.02	MEB	
*Greenlaw Moor	719485	13.07.98	RWMC	
	720485	24.06.95	MEB	
Lumsdaine Moor	85396915	02.07.04	MEB	

Euphrasia tetraquetra Eyebright Berwickshire Rare	Habitat Coast	Atlas GB 157, 49%	Atlas Berw 0, n/a	Sites 1/1, 0/0	
Coastal grassland. West coast of Britain. Recently found in the VC.					
Site Barefoots, Eyemouth Probable hybrid with E. nemorosa	GR – NT 93856486	Latest Record 27.07.02	Recorder V Jones, MEB	Population Good colony	
*Lambsmill Burn, mouth of	969589	21.08.04	MEB		
Festuca filiformis Fine-leaved Sheep's-fescue Not Berwickshire Scarce	Habitat Grassland	Atlas GB 469, 57%	Atlas Berw 6, 67%	Sites 9/9, 0/0	
Acid grassland on well-drained soils. Relatively widespread in Britain, but under-recorded. Under-recorded. Apparently across the Lammermuirs and on other acid grassland in the VC.					
Site	GR – NT	Latest Record	Recorder	Population	
Armet Water	431539	12.08.97	MEB	•	
Muircleugh	517457	12.07.97	MEB		
Soonhope Burn	5255	02.07.83	MEB		
Whalplaw Burn	5354	02.07.83	MEB		
Pickie Moss	5844	28.06.97	MEB, PFB		
Meikle Says Law	5860	04.07.96	MEB		
Red Scar, near	5960	04.07.98	MEB		
Killmade Burn	6662	11.07.98	MEB		
Hume Craigs	7041	13.07.98	D Wood, DJMo	cC	
Laughing Law	7364	31.05.82	A J Silverside,		
Former Colony					
[Coldingham Loch, near 8968]					
Festuca ovina ssp. ophioliticola		Atlas GB	Atlas Berw	Sites	
Sheep's-fescue Berwickshire Rare	Grassland	n/a	1, 100%	1/1, 0/0	
Calcareous grassland. Under-recorded in Britain. Still to be formally confirmed in the VC					
Site Foulden Dean, calcareous bank	GR – NT 920548	Latest Record 29.06.99	Recorder MEB	Population	
[Festuca vivipara] Viviparous Fescue	Habitat Moorland	Atlas GB 717, 90%	Atlas Berw [1]	Sites 0/1, 0/1	

A montane plant of Northern Britain.

[Blackburn Farm 7965]. Last record 1839.

Filago minima	Habitat	Atlas GB	Atlas Berw	Sites
Small Cudweed	Grassland	422, 53%	4, 44%	6/10, 0/2
Berwickshire Scarce				

Sandy grassland.

Mainly eastern in Scotland, more widespread in England.

Only the Lumsdaine Dean colonies seem at all secure. The other colonies occupy small refugia in grassland that is becoming unsuitable owing to eutrophication.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				
Lumsdaine Dean	855692	20.07.02	MEB	A series of
	856692	21.07.01	MEB	large colonies
	857693	20.05.89	MEB, PFB	
Other Colonies				
Butchercote Craigs	627345	04.06.95	MEB	
Hareheugh Craigs	689400	09.06.93	A J Smith	Good colony
†Tower Dean	793704	26.09.88	MEB	Small colony
Old Cambus Quarry, roadside to	803705	11.06.83	MEB	Still there?
Millar's Moss	903682	04.07.83	MEB	4 plants
	905682	06.07.81	MEB	Small colony

Former Colonies

[Old Atlas 76, Old Atlas 84, Broomhouse 8056, Coldingham Loch, north side 8968]. 'Common'(in suitable habitats), 1853.

Filago vulgaris	Habitat	Atlas GB	Atlas Berw	Sites
Common Cudweed	Grassland	489, 49%	4, 44%	6/10, 1/1
Berwickshire Scarce				

Sandy grassland.

Mainly eastern England.

Poorly represented in the VC. The remaining colonies are dependent on continuing disturbance to their habitat. This condition is far from secure except perhaps at Lansey Bank where there is continuing natural erosion of the sea braes, but that is also a potential danger to the site as a whole.

Site	GR – NT	Latest Record	Recorder	Population
Representative Colony				-
*Lansey Bank	833701	26.07.98	MEB	Good habitat
Other Colonies				
Airhouse Wood Quarry	475538	17.08.81	MEB	Still there?
(Hareheugh Craigs)	687399	20.06.91	DGL	F. minima?
Cockburnspath, railway yard	776716	27.06.98	MEB, PFB,	J Wadell Good
colony				
†Pease Dean, foot of	790705	26.09.88	MEB	Small colony
	793704	26.09.88	MEB	Frequent
	794706	30.04.89	MEB	5 plants

Old Cambus Quarry	801704	29.06.96	MEB
-	802705	05.04.92	MEB
Grantshouse Quarry	811652	18.08.96	MEB
Millar's Moss	903682	04.07.83	MEB

Former Colonies

[Westruther, roadside 6350, Greenlaw Moor, roadside 7349, Old Atlas 84, *Mire Loch 9168]. 'Common' (in suitable habitats), 1853.

[Filipendula vulgaris]	Habitat	Atlas GB	Atlas Berw	Sites as Native
Dropwort	Grassland	400, 69%	[2]	0/2, 0/2

A plant of the English limestone.

[Duns Park 7853 (planted), The Lees, Belches Brae 8439, Broomhouse 8056]. Last record 1893 Broomhouse (considered a possible introduction by Johnston, but see Swan re Wark Castle).

Fumaria bastardii	Habitat	Atlas GB	Atlas Berw	Sites
Tall Ramping-fumitory	Arable	249, 58%	0, n/a	2/2, 0/0
Rerwickshire Rare				

Arable weed.

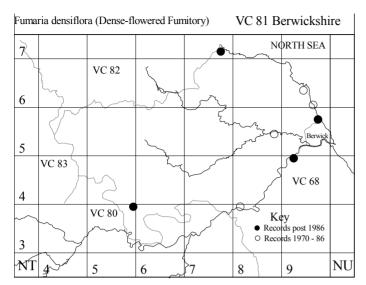
The west coast of Britain.

Recently found in the VC. Easily overlooked for other Fumaria spp.

Site	GR – NT	Latest Record	Recorder	Population
Silverwells, below	855662	03.10.02	MEB	2 plants
Broomdykes, near	88715398	11.08.01	MEB	4 plants
[Fumaria capreolata				
ssp. babingtonii]	Habitat	Atlas GB	Atlas Berw	Sites
White Ramping-fumitory	Arable	273, 55%	[1]	0/1, 0/1

Found near the coast as an arable weed or in sandy grassland. [Ayton 9260]. Last record 1878.

Fumaria densiflora	Habitat	Atlas GB	Atlas Berw	Sites
Dense-flowered Fumitory	Arable	143, 47%	2, 40%	4/8, 0/0
Berwickshire Scarce				



Archaeophyte. Arable weed.

Eastern Britain.

Small populations only are known in the VC. Although held in the seed bank these populations are not seen by any means every year. The fields at Fishwick Mains are the most constant site.

Site	GR – NT	Latest Record	Recorder	Population
Recent Records				-
West Morriston	595398	20.06.00	LWG	
Cockburnspath	77517117	14.10.99	MEB	5 plants
Fishwick Mains	92074977	30.05.03	MEB	Few
	925495	19.09.81	MEB	
	926497	19.09.87	MEB	
Lamberton, below	974574	03.07.99	MEB	
Less-recent Records				
Lithtillum Burn, near	813397	12.07.79	N F Stewart, MEB, COB	
Hutton Castle, near	885545	03.09.83	MEB	
Netherbyres, near	945635	19.09.81	MEB	
Hilton Bay, railway near	962602	11.07.79	N F Stewart, N	MEB, COB
Fumaria officinalis				
ssp. wirtgenii	Habitat	Atlas GB	Atlas Berw	Sites
Common Fumitory	Arable	n/a	5, 100%	6/6, 0/0
Berwickshire Scarce			•	•

Arable fields and other disturbed habitats.

Archaeophyte. Not mapped separately from *ssp. officinalis* in the New Atlas but mapped separately in the Critical Supplement to the Old Atlas. Mostly on light soils in eastern Britain. Apparently restricted to light soils in the east of the VC.

Site	GR – NT	Latest Record	Recorder	Population
Old Cambus West Mains	805703	29.06.96	MEB	_
Edrom, turnips near	834559	25.09.04	MEB	
Coldstream	845400	24.07.93	MEB, PFB	
Blackadder Mount, roots	866531	28.09.86	MEB	
Coldingham Law, garden at	907656	23.07.94	MEB	

Fishwick Mains	92074977 92584946	30.05.03 09.08.03	MEB MEB	
Paxton Village	934530	01.08.92	MEB	
Flemington Inn, opposite	953608	28.09.86	MEB	
Fumaria purpurea	Habitat	Atlas GB	Atlas Berw	Sites
Purple Ramping-fumitory	Arable	71, 37%	3, 100%	7/7, 0/0
British Scarce				

An endemic annual weed of cultivated ground favouring well drained soils on the Silurian. Nationally scarce. Most frequent in Cornwall, Lancashire and the Scottish Borders. Not discovered in the VC until 1998, although specifically searched for by MEB over a 20 year period

Site	GR – NT	Latest Record	Recorder	Population
Addinston, set-aside	524533	16.07.00	LWG det MEB	2 plants
Lauder Golf Course	528465	08.08.04	J Mercer det MEB	
Lurgie Craigs, set-aside	675399	19.06.99	MEB, LWG	100+ plants
	675400			
Smiddyhill Bridge, turnips	697613	19.09.98	MEB	10- plants
Cockburnspath, garden	77457110	14.10.00	MEB	1 plant
		18.07.98	MEB, PFB	10 plants
Eyemouth, W of, oil-seed rape & hedge	934644	06.05.00	MEB	500 plants
Blakie Heugh, track to,				
and near Coldingham road	949624	06.05.00	MEB	15 plants
_	950621			_

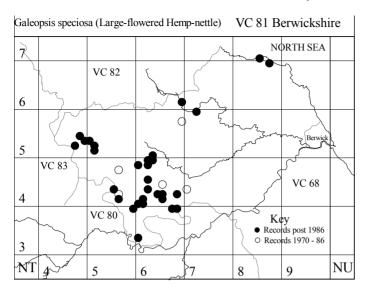
Plants from Smiddyhill Bridge and Cockburnspath have been determined by M G Daker

[Galeopsis angustifolia]	Habitat	Atlas GB	Atlas Berw	Sites
Red Hemp-nettle	Ruderal	91, 15%	[2]	0/2, 0/2

Archaeophyte. A very local ruderal plant in England.

[Cockburn Mill, Primrose Hill side of river 7758, St Helen's Church 8070] Last record 1866 Cockburn Mill.

Galeopsis speciosa	Habitat	Atlas GB	Atlas Berw	Sites
Large-flowered Hemp-nettle	Arable	402, 40%	10, 67%	32/42, 9/12
Berwickshire Fine				



Archaeophyte. Arable weed.

Rather local in Britain.

Particularly well represented in the VC, but somewhat localised. Sometimes appearing in considerable quantity. There is evidence of decline, especially in the Duns area where AGL recorded it frequently.

Strictly on the Old Red Sandstone.

Former Colonies

[Whitlaw 4947, Newton Don 7037, Whitchester 7158, Kyles Hill road 7349, Burnhouses 7558, Duns 7853, Birgham 7939, Kaysmuir 7953, Old Atlas 85]

Galium boreale	Habitat	Atlas GB	Atlas Berw	Sites
Northern Bedstraw	Rock	385, 69%	3, 38%	4/16, 3/14
Berwickshire Scarce				

Riversides and montane flushes

Northern in Britain.

Poorly represented in the VC, though formerly better represented. Indeed it was still widespread in the Merse in the early C19 as a relict of earlier botanical riches, but these gradually died out as a delayed consequence of its conversion to productive arable land.

Site	GR – NT	Latest Record	Recorder	Population
*Gaitheugh, rocks by river	590338	07.06.01	MEB	Small colony
Birgham Haugh, limestone cliff	799389	29.04.95	MEB	Colony
Fireburnmill, river retaining-wall	822390	11.06.97	MEB	Small colony
Dunglass wood, ditch by	827421	17.07.93	MEB	Small colony
				•

Former Colonies

[Newton Don 7037, Hardacres 7442, Anton's Hill 7843, Hatchednize, north of 8141, Edrom 8255, Skaithmuir Fox Covert, by 839432, Lintlaw and Hamerhall, between 8357, Lintlaw and Billie Mains, between 8458, Milne Graden Mains 8644, Allanton, west of, 8653, Scarth Craigs ? 8743, Broomdykes and Hutton Castle, between 8854, Fishwick and West Fishwick, between 9151]

Galium mollugo	Habitat	Atlas GB	Atlas Berw	All Sites
Hedge Bedstraw	Grassland	1381, 82%	6, 60%	8/24, 2/8
Berwickshire Scarce				

Calcareous grassland and woodland edge.

Very widespread in England but local and possibly introduced in Scotland.

The historical record suggests that this species is native in a Berwickshire but some of the records may relate to introductions, perhaps with grass seed. Probably under-recorded as this is just the sort of species that is missed by a survey of a sample of habitats as it may persist in undistinguished hedgerows. Such material as has been critically examined relates to *ssp. erectum*.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				•
The Hirsel	827400	01.08.93	MEB	Frequent
	828406			•
	833397	09.07.97	MEB	
Edington Mill	892548	14.07.82	MEB	Plentiful
Other Colonies				
Huntlywood, road near	613426	08.03	LWG	
Middlethird, east of	684433	07.09.87	MEB	Possibly casual,
not refound 2003				
Hirsel Law, near	836428	16.07.82	MEB	
Winfield Airfield	8950	20.08.98	LWG	
	901507	23.08.99	MEB	
Burnmouth, A1 north of	9461	27.06.92	MEB	
Casual				
Blackburnrig Dean, field near	787656	11.08.82	MEB	Casual
Former Colonies				

Former Colonies

[New Mills 5249, West Morriston and Earlston, between 5939, Newton Don 7037, Hardens Dam 7554, Langton South Lodge 7652, Gavinton 7652, Anton's Hill 7843, Cheeklaw Brae 7852, Bonkyl Lodge 7957, Preston, hill top 7959, Swinton House, north drive 8147, Edrom Mains 8155, Blanerne House, south of 8356, Blanerne Bridge, below 8356, Milne Graden Mains 8644, Cocklaw 9360]

Galium palustre	Habitat	Atlas GB	Atlas Berw	Sites
ssp. elongatum	Wetland	n/a	4, 100%	7/7, 0/0
Common Marsh-bedstraw				
Berwickshire Scarce				

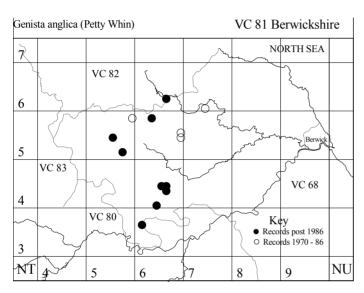
G. palustre is found in a wide variety of wetland habitats. *Ssp. elongatum* favours fen rather than marsh. The distribution of *ssp. elongatum* within the very wide distribution of the species is not known. In Berwickshire this taxon is distinct from *ssp. palustre* and is restricted to a characteristic fen habitat.

Site	GR – NT	Latest Record	Recorder	Population
Halidean Mill Moss	5934	27.07.99	LWG	
Redpath Moss	599366	01.07.95	MEB	
*Bemersyde Moss	61183382	07.09.02	MEB	
Brotherstone Moss	619366	09.08.95	MEB	
Corsbie Fen	62014491	22.06.02	MEB	
*Lurgie Loch	676395	19.06.99	MEB	
*Long Moss	854685	24.07.99	MEB	
Galium sterneri	Habitat	Atlas GB	Atlas Berw	Sites
Limestone Bedstraw	Rock	195, 71%	1, 100%	1/1, 1/1
Berwickshire Rare				

Basic rocky grassland.

North-east England and southern Scotland. Very poorly represented in the VC.

Site *Gaitheugh, rock by river	GR – NT 592342	Latest Record 15.05.93	Recorder MEB	Population Few
Genista anglica	Habitat	Atlas GB	Atlas Berw	Sites
Petty Whin	Moorland	394, 46%	5, 45%	9/32, 3/9
Berwickshire Scarce				



Dry moorland.

Especially Wales and North-east Scotland

Now very poorly represented in the VC, partly due to more intensive muirburn. All colonies except the one at East Gordon have become vulnerable. That at East Gordon has prospered following the cessation of grazing but may soon be lost to coarser vegetation unless some grazing is re-instated.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				
East Gordon, community woodland	65894411	18.05.02	DGL	Plentiful
	66234395			
	66094385			
Killmade Burn	668624	17.07.98	MEB	50 plants
Dirrington Great Law	694548	25.05.85	MEB	Muirburn has
been intensified recently. Still there?				
 near Kippetlaw Burn 	694553	25.05.85	MEB	
Other Colonies				
Hogs Law	558548	07.05.90	M Osborne	
Wheelburn Law, near	571516	27.05.00	DGL	
Dye Water, left side of	5958	15.06.70	AGL	Still there?
Brotherstone Hill	617363	09.06.89	RWMC	
Stotcleugh	634586	05.08.89	MEB	
Lightfield	643409	05.07.88	MEB	

Former Colonies

[Lauder Common 5046, Whiteburn 5947, ByreCleugh, above on left side of Dye before Shiel 5958, Westruther, moors near 6052, Twin Law, below 6254, Gordon Moss 6342, Dye Cottage 6458, Cranshaws Castle, above 6761, Greenlaw Golf Course 7045, *Greenlaw Moor 7149, *Kyles Hill 7250, Abbey Hills 7460, Cockburn Law 7659, Quixwood 7764, Cockburnspath, hills near 7768, Hoardweel, above 7859, Hoardweel Moor 7960, *Coldingham Moor 8667, Dowlaw Dean, near 8670, Lamberton Moor 9558]

[Genista tinctoria ssp. tinctoria]	Habitat	Atlas GB	Atlas Berw	Sites
Dyer's Greenweed	Grassland	553, 59%	[2]	0/3, 0/2

A plant of calcareous grassland in England.

[Whiterig 7841, Birgham Moor 7940, Birgham Wood 8040]. Last record 1961 Birgham Wood.

[Gentianella amarella]	Habitat	Atlas GB	Atlas Berw	Sites
Autumn Gentian	Grassland	568, 64%	[2]	0/1, 0/1

A plant of English limestone grassland.

[(Dye Cottages 6458), *Lamberton Shiels, sea braes 9659]. Last record 1836. Rather unsafe.

[Gentianella campestris]	Habitat	Atlas GB	Atlas Berw	Sites
Field Gentian	Grassland	394, 43%	[6]	0/11, 0/9

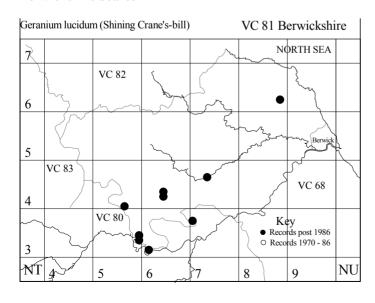
A northern species in Britain, in base-rich grassland.

[Lauder Common 5046, HorseupCleugh 6658, Longformacus, Dye Water above 6757, Cockburn Law 7659, Blackburn Mill, above 7765, Godscroft 7463, Birgham Moor 7940, Coldingham Loch 8968, Coldingham Moor 8667, Lumsdaine Dean 8669, Fast Castle 8670, *Burnmouth 9661]. Last record 1966 HorseupCleugh.

[Geranium columbinum]	Habitat	Atlas GB	Atlas Berw	Sites
Long-stalked Crane's-bill	Grassland	568, 64%	[1]	0/1, 0/1

Mainly in south-west Britain in dry grassland. [Penmanshiel, field at 8067]. Last record 1839.

Geranium lucidum	Habitat	Atlas GB	Atlas Berw	Sites (all)
Shining Crane's-bill	Rock	1235, 84%	5, 45%	7/15, 3/8
Berwickshire Scarce				



Rocks and walls.

Mainly England as a native but introduced more widely.

Just possibly native at two sites. Increasing as an introduction. The historical records also seem to include introductions.

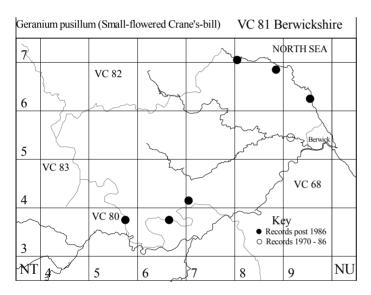
Site Paggibly Native Colonies	GR – NT	Latest Reco	rd Recorder	Population
Possibly Native Colonies *Gaitheugh	59183413	07.06.01	MEB	Large colonies
Carolside, Leader Water near	564405	27.05.95	MEB	_

Introduced Colonies

Broomhill 61523109, Gordon 646432, Newton Don 706375, Lintmill Bridge 734464, Reston 880622 Former Colonies

[Hartside Dean, behind cottage 4653, Dryburgh Abbey 5931, Cockburn Law, south side 7659, Howlett Craigs, west of Cockburn Law 7659, Cockburn Mill, near 7758, Cockburnspath 7771, Birgham Wood 7939, Blackadder Mount, near 8554, Netherbyres, opposite 9463]

Geranium pusillum	Habitat	Atlas GB	Atlas Berw	Sites
Small-flowered Crane's-bill	Grassland	913, 73%	6, 60%	7/12, 0/1
Berwickshire Scarce				



Dry grassland and rocky places.

Mainly England.

Sparse at its few localities in the VC where eutrophication is perhaps the major current threat.

Site	GR – NT	Latest Record	Recorder	Population
Cowdenknowes	5737	28.07.98	MEB, PFB	_
Girrick	6637	06.06.91	MEB	
Hume Castle	705414	13.07.98	D Wood	
Old Cambus Quarry	801704	29.06.96	MEB	
Westerside	886686	18.06.96	MEB	
Foulden W Mains, Whiteadder banks	9154	22.07.85	MEB	
Breeches Rock, near	956621	10.06.97	J Muscott	

Former Colonies

[Old Atlas 75, Cockburnspath 7771, Mouth Bridge, at foot of Langton Burn 8252, Ladykirk 8847, Paxton, hedges near 9353]

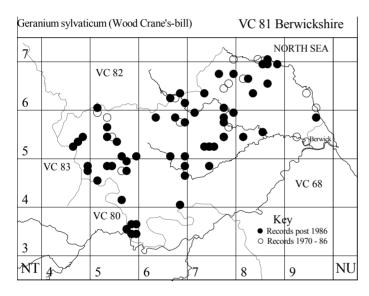
Geranium sanguineum	Habitat	Atlas GB	Atlas Berw	Sites
Bloody Crane's-bill	Coast	206, 68%	1, 100%	2/3, 0/1
Berwickshire Rare				

Sandy coastal grassland and calcareous rocks.

Mainly coastal.

One fine colony and a small one in the VC.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colony				
*Burnmouth, sea braes	95786129	02.06.01	MEB	Good colonies
Other Colony				
Coldingham Bay	91706646	25.08.01	MEB	2 patches
Former Colony				
[*Gaitheugh 5934]				
Geranium sylvaticum	Habitat	Atlas GB	Atlas Berw	Sites
Wood Crane's-bill	Woodland	512, 76%	14, 74%	71/+, n/a
Not Berwickshire Scarce				



Woodland-edge in riverside glades and meadows and on wet hill slopes.

North England and Scotland.

Although this is a characteristic plant of the Borders and is widespread in the VC there are very few representative populations in good habitat, especially where native 'wood pasture' runs down to a burn with the *Geranium* occupying glades near the water. The best colonies may be by the Blythe Water. *Var. wanneri* noted at *Gaitheugh 58093425 in 2001 with pale flowers veined pink.

Fine Colonies

Birkie Wood area, near Blythe Water 5748, 5749, Longformacus, above, near Dye Water 6758, 6857, 6957, *Abbey St Bathans area, Godscroft to Hoardweel, near Whiteadder Water 7363, 7662, 7760, 7959

Former Colonies

[Old Atlas 73]

Glaucium flavum	Habitat	Atlas GB	Atlas Berw	Sites
Yellow Horned-poppy	Coast	184, 61%	2, 67%	2/7, 2/7
Berwickshire Rare				

Sand and gravel on beaches.

Southern British coasts.

One good colony remains, near the northern limit in Britain. A single plant has been seen at a second locality. Formerly more widespread, several colonies have probably been lost to visitor pressure.

Site Fine Colony	GR – NT	Latest Recor	d Recorder	Population
*Ramsheugh Bay	774723 77817220	27.06.98	MEB, PFB	c 100 plants c 20 plants
Other Colony *Lumsdaine Shore	875701	19.07.87 07.90	MEB MEB	1 plant 1 plant
Former Colonies				

[Pease Bay 7970, Coldingham Bay 9166, St Abbs 9167, Linkim Shore 9265]

Glaux maritima	Habitat	Atlas GB	Atlas Berw	Sites
Sea-milkwort	Coast	790, 83%	2, 100%	4/6, 2/3
Berwickshire Scarce				

A variety of coastal habitats including saltmarsh and damp sand.

All round the British coast.

The Berwickshire colonies are all small with the best in the Yellow Craig area near Gunsgreen.

Site	GR – NT	Latest Record	Recorder	Population
*Ramsheugh Bay	775723	13.05.95	C Dixon	_
*Cove Harbour	7871	19.09.70	AGL	
Pease Bay	7970	27.05.89	J Muscott	
*Gunsgreen Coast	9564	27.08.94	MEB	
Former Colonies				
[St Abbs 9167, Linkim Shore 9265, Ey	yemouth 9464]			
-	-			

Gnaphalium sylvaticum	Habitat	Atlas GB	Atlas Berw	Sites
Heath Cudweed	Woodland	314, 31%	1, 9%	1/14, 0/5
Berwickshire Rare				

Dry heathy woodland-edge.

Mainly Eastern Scotland and England, but in severe decline.

Now only known in one site in the VC. Formerly quite widespread but probably lost to forestry management and grazing. Some forestry rides appear suitable habitat, but are very rarely colonised.

Site	GR – NT	Latest Record	Recorder	Population
Penmanshiel Wood, forestry ride	796682	22.07.89	MEB	3 flowering
heads, but possibly from one plant only				

Former Colonies

[Old Atlas 44, 54, Gaitheugh 5934, *Pease Dean 7969, *Kyles Hill 7250, Old Atlas 74, Harelaw Craigs, road by 7653, Old Atlas 77, †Duns Castle woods 7755, Oxendean, old quarry 7755, Grantshouse, near road 8065, Old Atlas 85, Lumsdaine Dean 8667, Silverwells 8766, Lamberton Moor 9558]

Goodyera repens	Habitat	Atlas GB	Atlas Berw	Sites
Creeping Lady's-tresses	Woodland	104, 56%	1, 17%	1/8, 0/6
Berwickshire Rare				

A pine wood specialist.

Mainly north-east Scotland and East Anglia.

Almost extinct in the VC. Formerly quite widespread, as still in VC 80, but this orchid probably only colonised or re-colonised the Borders in C19 when pine plantations were a favoured forestry option.

Site	GR – NT	Latest Reco	rd Recorder	Population
Hirsel Law, pine wood near	834426	17.07.93	MEB	2 plants where
the bramble habitat gives way to mos	s and grass			

Former Colonies

[Huntly Wood 6143, Mellerstain, north of 6440, Bunkle Wood 8059, Brockholes Plantation 8165, Lintlaw Bridge, behind cottage 8258, Skaithmuir 8343, Whitfield 9063]

Gymnadenia conopsea

ssp. borealis	Habitat	Atlas GB	Atlas Berw	Sites
Fragrant Orchid	Grassland	810, 60%	4, 40%	8/17, 3/8
Berwickshire Scarce				

Damp base-rich grassland.

Widespread in Britain.

Only certainly well-represented at two sites in the VC. Re-survey is required elsewhere. The subspecies has only been confirmed at one locality but is believed to be that formerly more widespread than *ssp. densiflora*. Most of the former sites were lost to ploughing.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				
Cromwells	595503	30.06.00	DGL	Confirmed as
this ssp., compare record for Dodds Mil	l under ssp. dens	siflora		
Killiedraught Bay	935647	06.08.94	MEB	
Other Colonies				
Lumsdaine Dean, near	84516942	02.07.04	MEB	2 spikes
Lumsdaine Farm	855691	22.06.88	COB	
	877683			
	885695			
*St Abbs Head	919683	12.07.95	K Rideout, O L	eyshon
Fleurs Dean	923653	06.08.94	MEB	Not critically
examined, compare record under ssp. de	ensiflora			
Edrington Wood	9354	10.07.79	COB, MEB	
*Lamberton Undercliff	9758	21.07.91	FGH	

Former Colonies

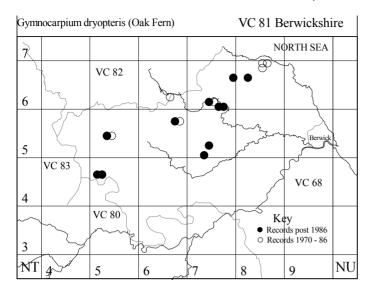
[Old Atlas 65, Dronshiel Moss 7055, Langtonlees Cleugh, by 7352, Old Atlas 74, Birgham 7939, Old Atlas 87, Edington Moor 9057, Northfield Mill Pond 9167, Lamberton Moor 9558, *Burnmouth 9561]

[Gymnadenia conopsea

ssp. densiflora]	Habitat	Atlas GB	Atlas Berw	Sites
Fragrant Orchid	Grassland	58, 46%	[2]	0/2, 0/0

More scattered than *ssp. borealis*, in similar habitats. Possibly overlooked in the VC. [Dodds Mill 5848 det Dr Francis Rose, Fleurs Dean 9265 AGL]. Last record 1960 Fleurs Dean.

Gymnocarpium dryopteris	Habitat	Atlas GB	Atlas Berw	Sites
Oak Fern	Rock	640, 66%	6, 46%	16/31, 6/15
Not Berwickshire Scarce				



Woodland banks and screes.

Northern in Britain.

Localised, but usually well represented where it does occur in the VC. Particularly fine in Eller Burn Wood

Felling has led to the loss of many woodland sites but the colonies in scree seem secure.

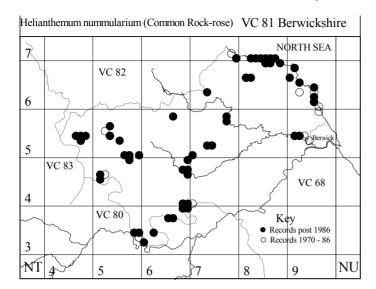
Sites

Lauder Burn 51954620, 52244657, Soonhope Burn 530546, Whalplaw Burn 537544, 53945465, Foxes Cleugh 542548, Killmade Burn 663626, Longformacus, Dye Water above 679577, 681572, 683572, 685571, Blacklea Plantation 732503, *Langtonlees 74005250, 74035257, Frampath Burn 746612, Moutjoy Wood 751615, Eller Burn Wood 762607, 763607, 768612, *Wild Wood 772604, Aikyside Wood 795609, Blackburnrig Wood 7966, Harelaw Burn 823665, *Long Moss 855685, Lumsdaine Dean 860693

Former Colonies

[Old Atlas 45, Sheriffmuir Plantation 6247, Bonaparte's Covert 6440, Hume Craigs 7041, Bents Corner 7349, Godscroft 7463, Penmanshiel Wood (wood above the tunnel, Birchy Bank, Kitchen Cleugh) 7967, Cockburn Law, north side 7660, Dunglass Dean 7671, Edmonds Dean 7767, Whitegate Wood 7860, *Pease Dean 7970, Old Atlas 85, Lemington Dean 8662, Lumsdaine Dean 8669, Edingtonhill Moor 9057, Whitfield Wood 9063, Ale Mill 9163]

Helianthemum nummularium	Habitat	Atlas GB	Atlas Berw	Sites
Common Rock-rose	Grassland	753, 75%	14, 88%	64/+, n/a
Berwickshire Fine				



Rocky calcareous grassland.

Mainly on limestone in Britain.

Splendidly represented in the VC. Selected for the cover of 'The Botanist in Berwickshire' by MEB 1990 and voted 'County Flower' by Plantlife members 2004

A number of the sites support the very local Northern Brown Argus butterfly, *Aricia artaxerxes*, whose larvae feed on this plant.

[Old Atlas 73]

Fine Colonies, a selection of

Raughy Burn 4654, Hareheugh Craigs 6840, Greenlaw Dean and above 6947, Lumsdaine Dean 8669, Foulden Braes, Whiteadder Water 9154, *St Abbs Head 9169, *Burnmouth 9561

Helleborus foetidus	Habitat	Atlas GB	Atlas Berw	Sites as Native
Stinking Hellebore	Woodland	91, 73%	1, 100%	Nil
Berwickshire Neophyte				

Rocky woodland.

Southern Britain as a scarce native, but naturalised more widely.

Neophyte. One rather fine colony as a fairly long-established introduction.

Site	GR – NT 592342	Latest Record	Recorder	Population
*Gaitheugh		09.05.95	MEB	Frequent
<i>Hieracium agg.</i>	Habitat	Atlas GB 2059, 85%	Atlas Berw	Sites
Hawkweed	Rock		20. 91%	n/a
Berwickshire Scarce (certain segreg		2037, 0370	20, 7170	11/ α

Rock outcrops and rocky banks, sometimes in woodland.

Although the aggregate is widespread and frequent in Britain the apomictic segregate species other than *H. vulgatum* and certain introduced species are more local.

D J McCosh has carried out systematic, but not exhaustive, fieldwork in the VC between 1987 and 2001 and has assessed previous records with the help of P D Sell. The records for species other than *H. vulgatum* and two introduced species *H. grandidens*, and *H. virgultorum*, are from a limited number of sites, often of other botanical interest. An account of these is given by site with the species recorded being noted. Records before 1970 are treated as former records in square brackets []. Those whose determination is unresolved are given in round brackets () and are omitted from the check list; these are *H. auratiflorum*, *H. caesiomurorum*, *H. dasythrix*, *H. riddelsdellii* and *H. rubiginosum*. Sites from which no hawkweeds have been recorded since 1970 are shown as former sites. A small selection of other sites with hawkweed records is added.

Site	GR – NT	Species Recorded
Raughty Burn	469543	orimeles
*Gaitheugh	5934	ampliatum, 590344 subcrocatum
Whalplaw Burn	536543	boswellii
Hareheugh Craigs	6840	argenteum, 687400 leyi
Greenlaw Dean	6947	[oistophyllum], 691475 rubicundiforme
Longformacus, Dye Water above	6857	cravoniense - accepted by PDS but no voucher
Hume Craigs	7041	deganwyense
Preston Bridge	786567	sabaudum
Hoardweel, Humbles Knowe	78185955	subcrocatum
Hoardweel, Devil's Dungeon	795598	sabaudum
Dunglass Dean	767717	subcrocatum
Allanton Bridge	866544	(rubiginosum)
Hutton Castle, scaurs by Whiteadder	8954	dicella, 893547 (auratiflorum)
Westerside Dean	886695	(riddelsdellii)
Lumsdaine Dean	862693	dicella
*Dowlaw Dean	8670	argenteum, [schmidtii], 867705 deganwyense,
		868705 dicella
Hutton, scaurs by Whiteadder	9054	901545 britanniciforme, 901545, 901549 dicella
Edrington Mains	944539	dicella
*St Abbs Head	9169	914685 dicella, [schmidtii]
Killiedraught Bay	935647	dicella
*Burnmouth, sea braes	9560	(dasythrix), orimeles
	958610	boswellii, britanniciforme, (caesiomurorum),
		(riddelsdellii)
*Lamberton, below	962601	deganwyense

Other Sites with unspecified species other than H. vulgatum or introduced species

Cove Harbour 784716, Foulden West Mains 9154, Lamberton Undercliff 96995884

Former Sites

[Redpath Dean 5835 prenanthoides, Langton Woodend 7552 umbellatum, Monynut Water 7363 strictiforme, Penmanshiel Wood 7968 umbellatum, Hatchednize 8041 umbellatum, Lumsdaine Farm, below 8769 subcrocatum, Ale Water 96 (boswellii), prenanthoides]

Taxonomic changes since VCCC

H. subrude records relate to H. deganwyense. H. caledonicum records relate to H. boswellii or H. rubicundiforme.

Hippophae rhamnoides	Habitat	Atlas GB	Atlas Berw	Sites as Native
Sea-Buckthorn	Coast	50, 77%	2, 67%	Nil
Berwickshire Neophyte				

Sandy coasts.

Scarce in Britain as a native but widely introduced, often regrettably as it can be very invasive. Planted increasingly in the VC, in a variety of habitats. There is a population at the foot of the Dunglass Burn, NT 7671, which is conceivably native but this falls in VC 82.

Site	GR – NT	Latest Record	Recorder	Population
Introduced Colonies				
Lemington, hedge by A1	8569	14.09.01	MEB	
Causewaybank	880592	06.06.98	MEB	
Coldingham Bay	906665	06.08.94	MEB	
*St Abbs Head, by Mire Loch	9168	1991	MEB	

Former Colony

[Pease Bay 7970]

Hippuris vulgaris	Habitat	Atlas GB	Atlas Berw	Sites
Mare's-tail	Wetland	747, 65%	3, 27%	3/14, 2/10
Berwickshire Rare				

Pools within mires or other small water bodies.

Widespread in Britain.

Poorly represented in the VC, but survey inadequate (especially Newton Don, Nisbet House, Mordington)

Site	GR – NT	Latest Record	Recorder	Population
Halidean Mill	5934	27.07.99	LWG	_
Morningbank	833477	21.08.93	MEB	
Harly Darlies, Dowlaw	83816956	14.08.04	MEB	Modest colony
partly shaded by <i>Salix</i>				•

Former Colonies

[Old Atlas 45, (53), Leader Water, by 5348, Gordon Moss 6342, Lightfield 6441, Greenlaw and Gordon, between 6945, Newton Don 7037, *Greenlaw Moor 7149, Bishop's Bog 7840, Belville, Leet near 8043, Nisbet House 7951, Lithtillum Loch 8040, Fireburnmill Pond 8239, *The Hirsel 8240, Penmanshiel Moss 8268, Mordington Hill Covert Pond 9557]

Honckenya peploides	Habitat	Atlas GB	Atlas Berw	Sites
Sea Sandwort	Coast	547, 74%	3, 75%	7/10, 3/4
Berwickshire Scarce				

Coastal shingle and sand.

All round the British Coast.

There are representative colonies where there is shingle on the Berwickshire coast.

Site	GR – NT	Latest Record	Recorder Population
*Ramsheugh Bay	775723	13.05.95	C Dixon
*Reed Point	777723	13.05.95	MEB
	779722	24.04.90	D B Smith
Pease Bay, near	79887081	20.04.02	MEB
	80007080		
*Lumsdaine Shore	8770	07.09.96	MEB, PFB
St Abbs, coast near	9167	20.08.94	J Murray, M Little
Fleurs Dean	924654	28.05.94	MEB
Eyemouth, coast north of	9364	06.08.94	MEB
Eyemouth	9464	27.08.94	MEB

Former Colonies

[*Cove 7871, Coldingham Bay 9166, *Lamberton Shiels 9659]. (There is also a problematic record – 'Longcroft Burn, where it begins to turn wild' 5252, A Kelly 1873. William Shaw, on publishing this record in 1902, adds 'a curious place for this plant')

[Hordelymus europaeus]	Habitat	Atlas GB	Atlas Berw	Sites
Wood Barley	Woodland	99, 54%	[1]	0/1, 0/1

A very local species of woods in England. [*Pease Dean 7970]. Last record 1885.

Hordeum murinum

ssp. murinum	Habitat	Atlas GB	Atlas Berw	Sites
Wall Barley	Ruderal	1357, 90%	3, 27%	8/15, n/a
Berwickshire Scarce				

Ruderal habitats and grassland with some disturbance.

Very widespread in England but limited to the east coast in Scotland.

Now strictly coastal in the VC and more or less around habitation, but formerly further inland.

Site	GR – NT	Latest Record	Recorder	Population
Cockburnspath, near	769707	18.07.98	MEB	_
Cove	7871	27.06.98	MEB, PFB, J V	Waddell
Old Cambus West Mains	804703	29.06.96	MEB	
Coldingham Bay, car park	915665	25.08.01	MEB	
*St Abbs Head - Starney path	915675	26.09.94	MEB	
Eyemouth, coast north of	9364	06.08.94	MEB	
Eyemouth	9464	27.08.94	MEB	
Burnmouth	9561	27.08.94	MEB	

Former Colonies

[Old Atlas 64, Hume Castle 7041, Old Atlas 75, 76, Grantshouse 8065, The Hirsel 8240, Old Atlas 85]

[Huperzia selago]	Habitat	Atlas GB	Atlas Berw	Sites
Fir Clubmoss	Moorland	643, 55%	[4]	0/6, 0/6

Widespread in rocky montane habitats in the north of Britain.

[Old Atlas (53), Dirrington Law 6954, Bunkle Edge 8060, Coldingham Moor 8067, Greenside Hill 8068, The Blakelaws, Penmanshiel Moor 8168, Lamberton Moor 9559]. Last records 1896, Bunkle Edge and Coldingham Moor.

[Hyoscyamus niger]	Habitat	Atlas GB	Atlas Berw	Sites
Henbane	Ruderal	282, 35%	[6]	0/10, 0/8

Sandy open ground and ruderal habitats. An archaeophyte local and declining in southern Britain but rare in Scotland and now only on the east coast. Formerly widespread in the VC near habitation, following earlier cultivation for medicinal use.

[Longcroft Water 5252, Mertoun, near, opposite Littledean Tower 6331, Cockburnspath 7771, The Hirsel 8240, Allanbank Mill 8554, Chirnside 8656, Reston, Eye near 8862, St Abbs 9167, Fairnieside 9461, Eyemouth 9464, Burnmouth 9561]. Last record 1956 Cockburnspath.

Hypericum humifusum	Habitat	Atlas GB	Atlas Berw	Sites
Trailing St. John's-wort	Arable	1266, 73%	3, 23%	5/24, 0/13
Dameialaskina Caanaa				

In well-drained habitats on moors, in woodland or in more ruderal situations.

Mainly in south and west Britain.

Now more or less casual in the VC, possibly increasing after a period of decline.

Site	GR – NT	Latest Record	Recorder	Population
Chapel on Leader, strawberry field	563415	12.07.97	MEB	_
West Morriston	595398	20.06.00	LWG	
Purvishaugh	6039	08.01	K Brownlie	
Horseshoe Plantation, near	645405	08.06.95	PSL	
Mordington	953575	09.08.91	MEB	

Former Colonies

[Old Atlas 55, Gordon 6443, Nenthorn 6837, Langtonlees, Raecleugh side 7452, Dunglass Dean 7671, Harelaw Craigs, road to 768553, Bankhead Wood 7742, Saintfoin, Birgham 7839, Preston Quarry 7959, Penmanshiel 7967, Butterdean 8064, Old Atlas 84, Chirnside, railway 8556, Silverwells 8766, *Petticowick, 9069, St Abbs Head, fields at 9069, Ayton, near Eye above 9160, Netherbyres 9463, Burnmouth School, behind 9561, Lamberton Shiels 9658]

Hypericum maculatum

ssp. obtusiusculum	Habitat	Atlas GB	Atlas Berw	Sites
Imperforate St. John's-wort	Woodland	844, 72%	1, 25%	1/4, 0/0
Berwickshire Rare				

Woodland edges.

Especially in Wales.

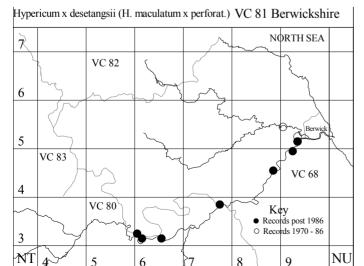
The only recent record could as easily be a casual as a remnant of a native colony. The historical records are confused by the probability of confusion with *Hypericum x destangsii*.

Site	GR – NT	Latest Record	Recorder	Population
Carfraemill	510529	28.06.92	MEB	1 good plant
Former Colonies				

[Earlston 5738, Newton Don 7037, Old Atlas 77]

Hypericum maculatum x perforatum

= H. x desetangsii	Habitat	Atlas GB	Atlas Berw	Sites
Des Etang's St John's-wort	Woodland	292, 75%	5, 100%	11/11, 1/1
Berwickshire Scarce				



Woodland edges.

Under-recorded in Britain but with much the same distribution as *H. maculatum*, the less common parent.

Now better recorded in the VC with a series of colonies about woodland close to the River Tweed. Sometimes with *H. perforatum* but not with *H. maculatum*. Often in the absence of both parents.

Site Mertoun Mill	GR – NT 609323	Latest Record 30.09.95	Recorder MEB	Population
Dalcove	652318	05.08.95	MEB	
Lochton	778386	11.09.99	MEB	
Duns, by old railway	793532	18.09.04	MEB	Backcross with
H. perforatum				
Milne Graden, road by	86994482, 870	04482, 8713439	7	
		11.09.04	MEB	
Ladykirk	8845	05.08.00	J Muscott	
Hutton Bridge	9054	14.07.84	MEB	
Fishwick Mains	92034959	09.08.03	MEB	
Paxton House	931518	03.07.99	MEB	
Union Bridge	93185164	11.08.01	MEB	
Whiteadder near Paxton	9352	23.06.84	MEB	
Juncus ambiguus	Habitat	Atlas GB	Atlas Berw	Sites
Frog Rush	Coast	110, 63%	1, 100%	3/3, 0/0
Berwickshire Rare				

The diploid segregate of the *Juncus bufonius* aggregate, with a much more limited habitat than *J. bufonius s.s.*, and virtually restricted to seepages on the seashore.

Under-recorded, scattered round British coasts.

Known in small numbers only on the coast until found in quantity by a roadside, possibly the first such record in Britain.

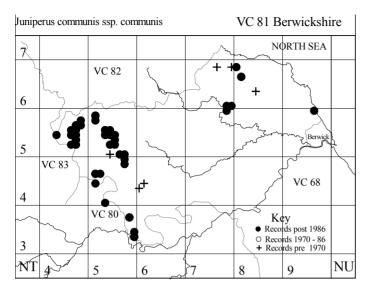
Site	GR – NT	Latest Record	Recorder	Population
Kettleshiel, B6456 near	715518	24.07.02	MEB	Abundant for
360 m of road verge				
*Petticowick	908691	26.09.94	MEB	Small colony
Eyemouth, Eye Water at	944640	23.09.00	MEB	Small colony
Juncus gerardii	Habitat	Atlas GB	Atlas Berw	Sites
Saltmarsh Rush	Coast	767, 82%	3, 100%	4/4, 1/1
Berwickshire Scarce				

Saltmarsh and coastal rock pools.

The British coast.

Restricted in the VC due to shortage of habitat.

Site *Ramsheugh Bay	GR – NT 775723 778722	Latest Record 13.05.95 19.09.98	Recorder C Dixon MEB	Population
*Heathery Carr, below	8869	18.06.96	MEB	
Yellow Craig	922659	06.08.94	MEB	
Hairy Ness	940650	06.08.94	MEB	
Juniperus communis				
ssp. communis	Habitat	Atlas GB	Atlas Berw	Sites
Juniper	Woodland	705, 69%	7, 70%	21/28, 3/6
Not Berwickshire Scarce				



A long lived shrub of birch woodland, rocky knowes and burnsides, screes and sea braes. On both acid and basic rocks.

Mainly northern England and Scotland but also on chalk and limestone in southern England.

Formerly widespread in the VC, only eight substantial colonies remain and even these largely lack regeneration. Further details of the populations and comment are recorded in BSBI VC 81 Juniper Survey, March 2003, MEB.

Juniper has recently been planted at a number of sites to reinforce native colonies. This has been accompanied by fencing to protect the plantings which has led to closed vegetation in which juniper cannot regenerate and to losses in the associated native flora. Seedlings are not as rare as is sometimes thought, but many are grazed off and mature most frequently on rock ledges as by the Whalplaw Burn.

Site Fine Colonies	GR – NT	Latest Record	Recorder	Population
Headshaw Haugh	4756 4856 4857	07.12.02	MEB	328 bushes 165 4 497
An excellent site in a moorland habitat.				
Raughy Burn	4654	18.01.03	MEB	376 bushes
	4754			3
	4655			1
	4755			_1
				381
A fine colony in a grassy habitat.				
*Aikyside Wood	7860	15.02.03	MEB	7 bushes
	7960			<u>305</u>
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			312
A colony of fine old bushes in a disturbed	ed habitat with n	nuch bracken. A	djacent to oak v	
Kelphope Burn	5157	20.02.03	MEB	302 bushes
1 1	5158			1
				303
Two dense colonies of small bushes and	l a burnside outl	ier.		·
Blythe Water	5748	25.01.03	MEB	65 bushes
•	5749			205
	5750			7
				277

A series of colonies on open ground, burnside rocks and scree in a particularly attractive woodland setting.

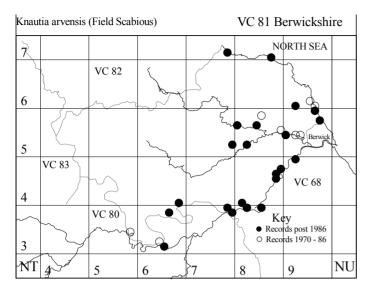
Lower Whalplaw Burn	5354 5454 5455	09.11.02	MEB	115 bushes 6 58 179				
	An excellent site with a series of colonies over 1.5 km on burnside rocks, cleughs, crags and screes.							
Threeburnford, burn near	4652	01.03.03	MEB	<u>111</u> bushes				
A little gem of a site along a burnside v	•		MED	1001 1				
Hoardweel	7859	01.03.03	MEB	108 bushes				
Mainly fine old bushes in a woodland s	site which is som	ewhat modified	and invaded by	bracken.				
Other Colonies	5.450	04.00.01	MED ING	21 1				
Earnscleugh Water	5452	04.08.01	MEB, LWG	2 bushes				
	5552			50				
	5553			10				
	5554			3				
* A : .1.	4752	01 02 02	MED	<u>65</u> 1				
*Airhouse	4752	01.03.03	MEB					
	4753			18				
Lauder Burn	5144	06.03.04	MEB	<u>19</u>				
Lauder Burn	5144	06.03.04	MEB	3				
	5246			<u> </u>				
	5246			<u> 1</u>				
Strait Loop Wood	7860	01.03.03	MEB	<u>-0</u>				
Strait Leap Wood Kedslie Hill (arguably VC 80)	5340	01.03.03	MEB MEB	<u></u>				
Upper Blythe Water	5650	11.06.99	MEB					
*Gaitheugh	5933	07.06.01	MEB	$\frac{3}{2}$				
Gartifeugii	5934	07.00.01	MED	1				
	3934			18 19 5 2 -1 -8 -7 -6 -3 2 -1 -1 -1 -1				
*Catcairn Bushes	9659	29.05.02	MEB, PFB	$\frac{3}{2}$				
Black Hill	5837	16.02.02	MEB, TTB	<u></u>				
Clints Hill	4354	01.03.03	MEB	<u></u>				
Soonhope Burn	5355	23.11.02	MEB	<u>-</u> 1				
Winding Burn	8166	16.06.96	MEB	<u>-</u> 1				
Greenside Hill	8068	23.02.02	MEB	<u>-</u> 1				
Greenside IIII	0000	23.02.02	1411710					
21 Extant Sites		Total	Estimate	2,286 Bushes				

The counts should not be taken as definitive. Half-fallen bushes are difficult to assess. Recent plantings are excluded from the counts

Former Colonies

[Edgarhope Wood 5450, Knock Hill 6144, Ewieside Hill 7668, Penmanshiel Wood 7968, Houndwood, near 8463]

Knautia arvensis	Habitat	Atlas GB	Atlas Berw	Sites
Field Scabious	Grassland	1395, 82%	11, 65%	30/+, n/a
Not Berwickshire Scarce				



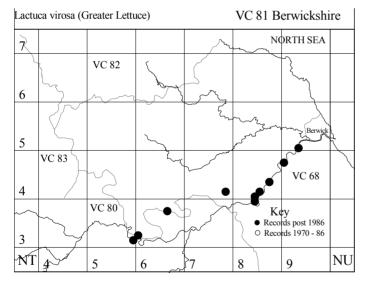
Drier and more calcareous field borders

England and south-east Scotland.

Populations appear to have crashed in the VC in the 30 years 1970 – 2000 leaving this species on the way to becoming a rarity. Only found by fields where there is a good bank alongside. An example of a good population is by the Tweed at Fishwick Mains 9249.

Former Colonies [Old Atlas 53, 54, 55, 74, 86]

Lactuca virosa	Habitat	Atlas GB	Atlas Berw	Sites
Great Lettuce	Grassland	519, 80%	6, 75%	9/13, 3/7
Berwickshire Scarce				



Dry places.

East England.

The colonies in the VC may or may not be native but the great majority are very long-established in a most characteristic habitat on massive sandstone rock exposures near the Tweed.

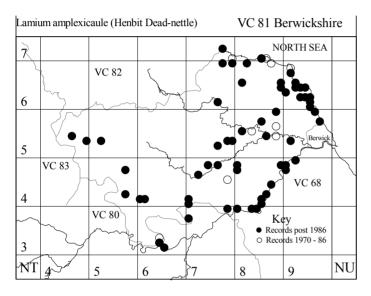
Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				
Clinthill, bank and cliff	605324	29.11.98	MEB	100 plants
Coldstream, above and below road	845400	27.03.03	MEB	Large colony
	84523997	22.09.04	MEB	
Chain Bridge, cliff above	931505	23.08.99	MEB	Good colony
Other Colonies				
Dryburgh, cliff	595316	27.04.99	LWG	12 plants
Muckle Thairn, bare knowes	665375	22.05.99	LWG	6 plants
Puncheon Bridge, disturbed ground	788417	29.05.99	MEB	Few

Lennel Church, ruin	85734117	21.02.04	MEB	3 plants
Milne Graden, cliff	87384379	17.04.04	MEB	Colony
Blount Island	901478	19.09.87	MEB	-

Former Colonies

[Old Ladykirk, lane west of 8847, Holywell Haugh 8946, Ayton road, 6 miles from Berwick 9560, *Burnmouth, shore near 9560]

Lamium amplexicaule	Habitat	Atlas GB	Atlas Berw	Sites
Henbit Dead-nettle	Arable	1024, 68%	17, 94%	67/+, n/a
Not Berwickshire Scarce				

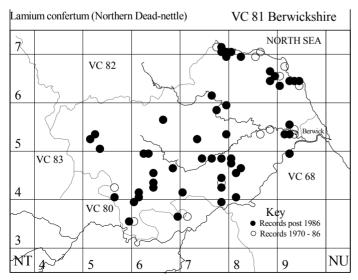


Arable weed.

Archaeophyte. Southern and eastern England, eastern Scotland.

Now known to be well represented in the VC in arable fields on light soils and in gardens, perhaps increasing.

Lamium confertum	Habitat	Atlas GB	Atlas Berw	Sites
Northern Dead-nettle	Arable	203, 51%	16, 89%	62/+, n/a
Not Berwickshire Scarce				



Arable weed

Archaeophyte. Mainly near the Scottish coast.

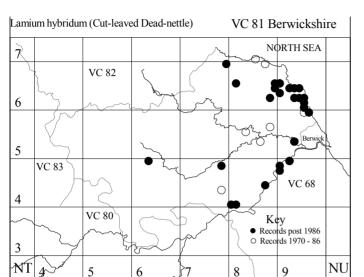
Now known to be very well represented in the VC, despite being near the southern limit of its restricted range. Sometimes on a peaty soil at the limits of cultivation. Usually in small numbers and with an uncertain future.

Lamium hybridum Cut-leaved Dead-nettle Habitat Arable

Atlas GB 879, 76% Atlas Berw 7, 78%

Sites 32/+, n/a

Not Berwickshire Scarce



Arable weed.

Archaeophyte. East England.

Now known to be moderately represented near the coast despite being near the northern limit of its range. Restricted to light soils. Usually in small numbers and with an uncertain future.

Former Colonies [Old Atlas 44]

Lathraea squamaria Toothwort **Berwickshire Scarce**

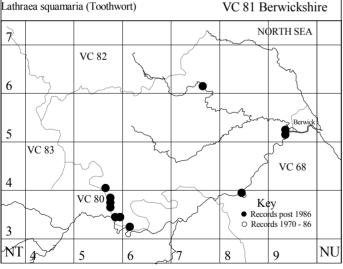
Habitat Atlas GB Woodland 401, 63%

Atlas Berw

Sites

9/12, 3/4 5, 63%

Lathraea squamaria (Toothwort)



Parasitic on a variety of trees, here in VC 81 typically on *Ulmus glabra*, Prunus avium, Populus spp. and Taxus baccata.

England.

Several good colonies in the VC. The outlook for this species is reasonable due to its ability to colonise a variety of tree species in a parkland setting.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				_
*Gledswood, on Ulmus	586342	09.05.95	MEB	Colony
, on <i>Ulmus</i>	587342	09.05.95	MEB	2 colonies
	591340	07.06.01	MEB	2 colonies
*Butterwell Wood, on Ulmus or Corylu	ıs 769614	19.05.95	DGL	Colony

Paxton House, on Taxus	933522	01.05.95	MEB, PFB	Superb colony	
Other Colonies					
Carolside, near, on <i>Ulmus</i>	564405	27.05.95	MEB, PFB	Colony	
Earlston, public park, on Prunus avium	570382	27.05.95	MEB	Colony	
Cowdenknowes, on Taxus	5737	1998	A Scott-Plummer 2 colonies		
Redpath, Leader Water, on Ulmus	578363	22.04.99	LWG	Colony	
Mertoun Bridge, on Populus	611321	12.04.00	F Evans	Colony	
The Lees, on <i>Populus alba</i>	843390	03.05.97	MEB, PFB	Colony	
Former Colonies					
[Lochton 7738, Lennel 8540, Milne Graden 8744]					

Lathyrus sylvestris	Habitat	Atlas GB	Atlas Berw	Sites
Narrow-leaved Everlasting-pea	Woodland	251, 56%	1, 100%	1/1, 1/1

Berwickshire Rare

Sunny slopes.

Southern half of England.

Arguably native in the VC, but at least long-established at one site.

Site	GR – NT	Latest Record	Recorder	Population Good colony
Harper Heugh or Cripple Nick	902548	02.10.99	MEB	
Lemna trisulca Ivy-leaved Duckweed Berwickshire Scarce	Habitat Aquatic	Atlas GB 860, 74%	Atlas Berw 2, 33%	Sites 4/7, 1/2

Ponds and ditches.

Mainly England.

Poorly represented in the VC. Although relatively widespread within Gordon Moss not very plentiful there or elsewhere.

Site *Gordon Moss	GR – NT 634426 634427 635426 638424	Latest Record06.87	Recorder MEB	Population
Greenlaw Dean	69194750	17.06.00	MEB	
†Hen Poo	778546	24.06.97	MEB	
*Mire Loch, St Abbs Head	9168	1977	MEB	
Former Colonies [Old Atlas 53, 84, Heughhead Pond 8762]				

Leontodon saxatilis	Habitat	Atlas GB	Atlas Berw	Sites as Native
Lesser Hawkbit	Grassland	1223, 77%	3, 100%	3/3, 0/0
Berwickshire Rare				

Dry base-rich grassland.

England and some more northern coasts.

Two native colonies only known in the VC [both since found to be errors for a small form of *L. hispidus*]

Site	GR - NT	Latest Record	Recorder	Population
Native Colonies [errors, see above]				
*Burnmouth Harbour	956610	27.09.99	MEB	Small colony
	956611			Small colony
	957611			Good colony
*Hilton Bay	967593	16.10.99	MEB	Good colony
*Lamberton Shore	968589	16.10.99	MEB	Small colony
Introduced Colony [correct]				
Mellerstain, lawn	649388	28.07.01	MEB	Large colony
[Lepidium campestre] Field Pepperwort	Habitat Grassland	Atlas GB 439, 49%	Atlas Berw	Sites 0/4, 0/4

Arable fields on light soils and ruderal habitats. An archaeophyte still widespread in southern England but declining. Rare in the north. The former localities in the VC appear to have been in a range of habitats from arable fields to sandy river banks and dry rocky grassland.

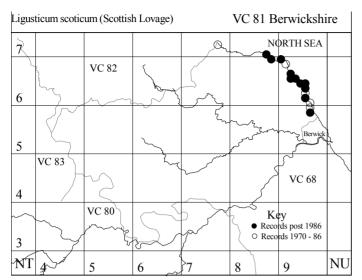
[Cockburn Law, near 7659, Dunglass Dean, near 7671, Lumsdaine Dean 8669, Norham Bridge, Tweed banks near 8947]. Last record 1893 Norham Bridge.

Leymus arenarius	Habitat	Atlas GB	Atlas Berw	Sites
Lyme-grass	Coast	340, 79%	2, 100%	4/4, 0/0
Berwickshire Scarce				

Coastal sand.

Round much of the British coast but rare on the south coast and in north-west Scotland. Present in the few places on the Berwickshire coast where there is sand. Curiously there are no C19 records.

Site	GR – NT	Latest Record	Recorder	Population
*Ramsheugh Bay	7772	1990	G Hardy	
*Cove Harbour	784716	27.06.98	MEB, PFB, J	Waddell
Pease Bay	792709	09.09.00	MEB	
Coldingham Bay	916665	26.09.94	MEB	
Ligusticum scoticum	Habitat	Atlas GB	Atlas Berw	Sites
Scots Lovage	Coast	269, 68%	3, 60%	16/17, 5/6
Berwickshire Fine				



Coastal rocks and boulder beaches.

Scottish coast

Well represented in the VC, although near the southern limit of its range.

Sites

*Reed Point 779722, *Lumsdaine Shore 874702, 875700, 875701, *Heathery Carr 888695, *Petticowick 906690, *St Abbs Head 916685, 917680, 919682, Yellow Craig 921663, Linkim Shore 928653, Callercove Point 931652, Eyemouth 9464, *Burnmouth Coast 9660, 956618, 9562, 9563, 951643, 951645, 952642, 954639, 954641, *Lamberton Coast 9658, 9659.

Former Colony

[Pease Bay and Siccar Point, between 8070]

Linnaea borealis	Habitat	Atlas GB	Atlas Berw	Sites
Twinflower	Woodland	32, 34%	1, 17%	1/7, 1/6
Duitiah Casusa				

British Scarce

A clonal perennial of pine woods, less commonly under birch or amongst rocks.

Nationally scarce. Most frequent in north-east Scotland.

Very possibly an introduction to the VC c. 1800. One colony only survives in the VC.

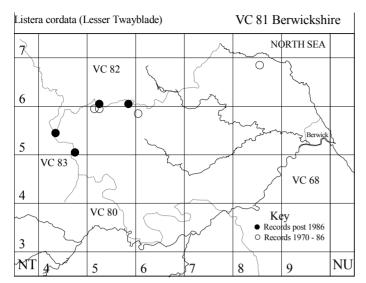
Site	GR - NT	Latest Record	Recorder	Population
Bonaparte's Covert – Mellerstain	646406	23.05.98	DGL, R McBea	th 56 paces in
circumference				

Large colony in birch wood, formerly a pine plantation. The birches are ageing and an electric power line has partly opened up the canopy but without immediate adverse effect. First recorded 1834. Measured at 80 paces in circumference in 1869, 84 paces in 1886 and 56 paces in 1988. In 1999 D Kohn and P S Lusby of the Royal Botanic Garden, Edinburgh transplanted 38 shoots from this colony within the same wood. After 3 years only 4 shoots survived and none had thrived. It is curious that no sites were chosen in more suitable habitat under pines.

Former Colonies

[Birkhill 5642, Huntly Wood 6143, Fans 6141, Duns Strip 6956, 7056, Bunkle Wood 8158, Fawcett Wood 8063]. None seen since c.1945 Bunkle Wood.

Listera cordata	Habitat	Atlas GB	Atlas Berw	Sites
Lesser Twayblade	Moorland	454, 55%	2, 20%	8/21, 0/8
Berwickshire Scarce				



Moorland on north-facing slopes and in mosses, almost always in *Sphagnum*.

Northern in Britain.

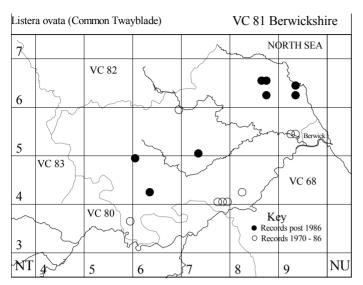
There is little suitable habitat in the Lammermuirs, partly because the VC lies on the drier south side of the hills but the multiplicity of losses suggests that muirburn has led to the progressive loss of habitat.

Site	GR – NT	Latest Record	Recorder	Population
Clints Hill	434540	21.06.90	DGL	Plentiful
Longmuir Moss	472508	23.06.90	MEB	2 plants
Kelphope Burn, hill above	5159	02.08.85	MEB	
Rushy Grain, steep bank	524602	07.08.99	MEB	
Crib Law	5259	02.08.85	MEB	
Wester Black Burn	582608	04.07.98	MEB, PFB	
Greencleugh	607583	08.07.79	MEB	
*Long Moss, Coldingham Common	855685	13.07.79	MEB	

Former Colonies

[Mellerstain Wood, east end 6440, Wrunklaw Moor 6759, Hule Moss 7149, Kyles Hill 7250, Langtonlees 7353, Dod Hill 7367, Cockburn Law 7659, Preston Cleugh, above 7958, Blackburnrig Dean 7965, Bunkle Wood 8158, Harelawside Wood 8165, Press Plantations 8665, Silverwells 8766, Lamberton Moor 9558]

Listera ovata	Habitat	Atlas GB	Atlas Berw	Sites
Common Twayblade	Woodland	1354, 72%	4, 29%	12/36, 3/20
Berwickshire Scarce				



An orchid of open woodland.

Widespread in Britain.

The paucity of ancient woodland, other than steep deans, limits the habitat for this species. It has declined and become vulnerable, but is probably still somewhat underrecorded.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				•
*Gordon Moss	631425, 63242	3, 632424, 6334	26, 637425	
		1988 - 1993	MEB	
Press Castle	869653	08.06.96	MEB, PFB	
	871652			
Killiedraught Bay	935647	06.08.94	MEB	
Other Colonies				
Redpath Moss	599367	10.07.77	MEB	
Spottiswoode	603498	16.07.95	DGL	
Longformacus, near	699590	29.08.80	MEB	
Kyles Hill	732506	23.07.90	MEB	
Bishop's Bog	777401	12.07.79	MEB, COB	
Horse Bog	7940	12.07.79	MEB, COB	
Dunglass Wood	828421	27.07.85	MEB	
Reston, garden of Ashdale	878621	16.06.96	MEB	
Foulden Burn, near	921549	10.07.79	MEB, COB	
Ayton Mains	938626	02.05.94	MEB	

Former Colonies

[Old Atlas 54, Flass Old Wood 6251, Fawside, behind 6545, Newton Don 7037, Hardacres, south of 7442, Old Atlas 77, †Duns Castle, north of Hen Poo 7755, Oxendean 7755, Middlefield road end 7851, Peelrig strip 7952, Blackburnrig Wood 7965, Penmanshiel Wood 7968, Blakelaws, bog between 8168, Swinton 8347, Houndwood 8463, *Redheugh and Dowlaw, between 8470, Coveyheugh 8662, Milne Graden 8744, Silverwells 8766, Fishwick 9250, Broadmeadows 9154, Ale Mill 9163, Clarabad Mill 9354, Lambsmill Burn 9354, Ayton road, 4 miles from Berwick 9658]

Littorella uniflora	Habitat	Atlas GB	Atlas Berw	Sites
Shoreweed	Aquatic	972, 77%	2, 40%	2/10, 1/8
Berwickshire Rare				

Loch and reservoir margins. Mainly north and west Britain.

The VC is very short of suitable water bodies. Possibly under-recorded.

Site	GR - NT	Latest Record	Recorder	Population
Watch Water	653563	30.07.89	MEB	Well scattered
	660563	16.09.89	MEB	
Millar's Moss	904681	26.09.94	MEB	Small colonies

Former Colonies

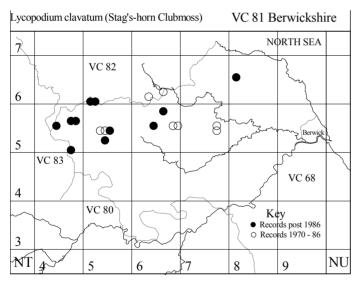
[Edmonds Dean Pond 7767, Primrosehill Pond 7857, Old Cambus Townhead, Pond 8069, Dowlaw Moss Burn 8469, Coldingham Moor 8568, Lowries Knowes Pond 8569, Press Plantations 8665, *Coldingham Loch 8968]

[Lotus glaber]	Habitat	Atlas GB	Atlas Berw	Sites
Narrow-leaved Bird's-foot-trefoil	Grassland	242, 47%	[1]	0/1, 0/1

A grassland species of south-east Britain.

[Coldingham Loch and the sea, between 8968]. Last record 1836. Possible confusion with *L. corniculatus* suffering fungus attack.

Lycopodium clavatum	Habitat	Atlas GB	Atlas Berw	Sites
Stag's-horn Clubmoss	Moorland	496, 52%	4, 31%	11/+, n/a
Berwickshire Scarce				



Moorland, less often on mossy woodland banks.

Widespread in the north of Britain.

Very sparse in the Lammermuirs, usually in what little old heather can be found. The fine, freely-sporing colony at Red Brae appears to be giving rise to isolated, short-lived plants on grazed moorland to the east.

Site	GR – NT	Latest Reco	ord Recorder	Population
Fine Colonies				
Armet Water, forestry road	447555	15.08.99	LWG	quite frequent
Red Brae, Soutra, lichen-rich bank	47565671	16.06.04	MEB	c. 12 good
natches many with plentiful fertile from	onds			-

Other Colonies

Longmuir Moss, by 473509, Headshaw Burn 47935661, 48255634, Lammerlaw Burn 512603, 515605, Crib Law 52156054, Earnscleugh Water 549523, 556540, Watch Water 645558, HorseupCleugh 663581, Killmade Burn 664627, Grantshouse Quarry 812653.

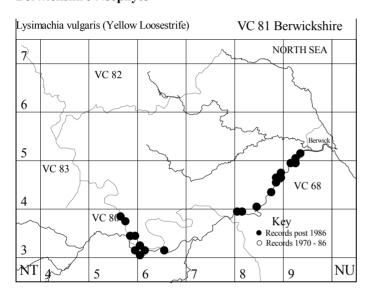
Recent Colonies, 1970 - 86

Foxes Cleugh 542548, Crow Cleugh 636610, 636611, Dirrington Lees 689552, †Duns Castle 779553, 779558

Former Colonies

[Hartside 4454, Lauder Common 5046, Old Atlas 53, Little Law, Dye below 5958, Old Atlas 64, Rathburne, near bridge at 6857, Kippetlaw Burn 6955, Kyles Hill 7250, Bents Corner 7349, Hardens Hill 7354, Cockburn Law 7659, Cleugh Cottage 7958, Coldingham Moor 8568]. 'Common on all our moors', 1853.

Lysimachia vulgaris	Habitat	Atlas GB	Atlas Berw	Sites
Yellow Loosestrife	Riverside	889, 84%	6, 75%	22/25, 0/3
Berwickshire Neophyte				



Watersides and fens

Very widespread in England but local in Scotland and only in the south.

Only known to Johnston, 1853, at Swinton and believed extinct there then. Not known from Tweedside until 1924, *Leaderfoot 5734. It is now constant along the *Tweed and in the lower *Leader. Its colonisation so late is unexpected and probably represents vegetative spread following introduction by wildfowl or man. To treat any of the old colonies as extinct natives is unsatisfactory as it is then difficult to explain why it did not spread to the Tweed at an early date.

Former Colonies

[Boondreigh Water 5747 in 1902, *Pease Dean 7970 in 1881, Swinton, Sowmire near 8347 in 1829]. The Boondreigh Water record, *Lauder and Lauderdale* 1902, could indicate a recent introduction that later spread to the Leader 53, where it was recorded in 1924 and thus to Leaderfoot 5734 by the same year.

Lythrum portula	Habitat	Atlas GB	Atlas Berw	Sites
Water Purslane	Aquatic	817, 64%	3, 43%	4/14, 3/12
Berwickshire Scarce	_			

Muddy edges of ponds where the water table fluctuates.

Mainly south and west Britain.

Very sparse at its few sites in the VC. Current fashions do not favour this species as few ponds are left open to stock.

Site	GR – NT	Latest Record Record	ler Population
Rumbleton, near	689460	25.06.97 MEB	
Greenlaw Moor	719493	13.07.98 RWMC	
Old Cambus Townhead Pond	802689	21.09.96 MEB	Fair colonies

802690

Lowries Knowes Pond 852697 09.11.96 MEB

Former Colonies

[Harelaw Craigs 7654, Hen Poo 7754, Quixwood 7764, †Tower Dean 7870, Preston 7957, Pease Dean 7970, Old Cambus Dean 8070, Bunkle Wood 8158, Langstruther Bog 8167, Lemington Dean 8663, Muirmontrig and Stoneshiel, between 8759]

(Lythrum salicaria)	Habitat	Atlas GB	Atlas Berw	Sites
Purple-loosestrife	Wetland	1439, 85%	[8]	0/12, 0/9
Data deficient				

Very widespread in wet ground in the south and west of Britain.

In 2004 RVL and TJP found this plant to have colonised the banks of the Tweed in several places in tall riparian vegetation and recorded it near Leaderfoot 5834 and Milne Graden 8744. It is not known whether the records relate to the VC 81 side of the river or not.

[*Gordon Moss 6342, Preston, dam head 7956, Mungoswalls Farm 8152, Edrom 8255, Simprim 8445, Craigswalls Bog 8455, Houndwood 8463, Chirnside 8556, Paxton House, pond 9351, Coldingham Parish 96, *Catcairn Bushes, flush 966599 (or 9660)]. Last record 1979 Catcairn Bushes, but recorded by MEB only on the basis of plants not in full flower and rather possibly an error. Searched for there at later dates without success.

Malva moschata	Habitat	Atlas GB	Atlas Berw	Sites
Musk Mallow	Grassland	1190, 83%	5, 38%	10/35, 1/20
Berwickshire Scarce				

A perennial of roadsides, hedgebanks and ruderal habitats.

Native and widespread in much of England and Wales but local and introduced to the north. Most of the Berwickshire colonies have the appearance of garden cast-outs or deliberate introductions, though some of them appear to have seeded over a modest area and to have spread down rivers. There is little suggestion today of a population of long standing and the frequency of white-flowered colonies in the past is itself suggestive of garden origin. However the historical record suggests that colonies had a greater permanency in the past.

Site	GR – NT	Latest Record	Recorder Population
Earlston	5738	26.08.95	MEB
Clinthill	605324	29.11.98	MEB
Dalcove	651319	22.04.95	MEB
Muckle Thairn	665375	22.05.99	LWG
Middlemoor Plantation, dumped	69494244	05.04.03	MEB, PFB, J Waddell
Charterhall Wood, below	7547	13.07.98	PFB
Fireburnmill	821393	11.10.97	MEB
The Lees	840390	03.05.97	MEB, PFB
Causewaybank Gravel Pit, sown	880592	06.06.98	MEB
Hutton Bridge to Cripple Nick	9054	14.07.84	MEB

Former Colonies

[Chapel on Leader 5641, Mertoun 6131, Newton Don 7037, Langton Woods 7552, Old Atlas 76, Oxendean Pond 7755, Cockburn Bridge 7757, Cockburn Mill 7758, Primrose Hill 7857, Birgham 7939, Preston Farmhouse, below 7957, Broomhouse 8056, Castlelaw 8141, Brockholes Dean, foot of 8165, *Hirsel Woods 8241, Blanerne 8356, Coldstream, near 8439, Auchencrow, near 8560, Coveyheugh, Eye

near 8662, Whitehall 8755, Hutton Castle Mill 9054, Fishwick Mains 9149, West Foulden 9154, Edrington Mill 9354, Coldingham, near 9065, Ayton 9261]

Malva neglecta	Habitat	Atlas GB	Atlas Berw	Sites
Dwarf Mallow	Grassland	858, 71%	6, 67%	10/17, n/a
Berwickshire Scarce				

An annual of dry ruderal habitats.

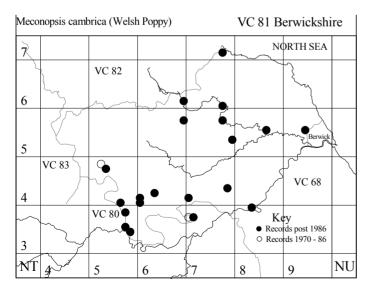
Archaeophyte. Widespread in England except in the west but local and eastern in Scotland. This species has sometimes colonised more natural habitats than the other *Malva spp*. in the VC.

Site	GR – NT	Latest Record	Recorder	Population
Hume Castle	705414	13.07.98	D Wood	_
Lochton	775385	23.09.95	MEB, PFB	
Birgham House, near	794390	22.07.95	MEB	
Coldstream	842396	12.08.97	MEB	
Causewaybank Farmstead	8759	06.06.98	MEB	
Hutton Bridge to Cripple Nick	9054	14.07.84	MEB	
Victoria Jubilee Bridge	912607	23.07.94	MEB	
Foulden West Mains	9154	22.07.85	MEB	
Horn Burn, mouth of	918603	23.07.94	MEB	
Edrington Castle	9353	23.08.99	MEB	

Former Colonies

[Old Atlas 63, Dunglass Burn, near mouth of 7671, Cockburnspath, near 7771, Duns, Preston road 7854, Pease Bay 7970, Old Atlas 86, *Mire Loch 9168]. 'Waste ground near villages and onsteads more especially near the coast', 1853

Mecanopsis cambrica	Habitat	Atlas GB	Atlas Berw	Sites
Welsh Poppy	Woodland	1227, 85%	11, 73%	20/23, 0/0
Berwickshire Neophyte				



Woodland and ruderal habitats.

Although scarce in Britain as a native, mainly in Wales, this species is a garden escape through much of Britain.

Neophyte in Berwickshire. The orange-flowered form is becoming frequently naturalised as well as the normal yellow-flowered form, as just south of Earlston on the Redpath road.

Former Colonies [Old Atlas 45, 55]

[Medicago minima]	Habitat	Atlas GB	Atlas Berw	Sites as Native
Small Medick	Grassland	32, 52%	[2]	Nil

As a native this is a scarce grassland plant of East Anglia, but is more widespread as a casual. [Dryburgh 5931, Cumledge Mill 7956]. Last record 1946 Dryburgh, as a wool alien.

Melampyrum pratense

ssp. pratense	Habitat	Atlas GB	Atlas Berw	Sites
Common Cow-wheat	Woodland	1141, 67%	2, 40%	3/8, 1/5
Berwickshire Rare				

Acid woodland and moorland.

Widespread but more so in the west of Britain.

There are only representative colonies in the Abbey St Bathans oak woods, which have not been adequately surveyed recently. Losses are thought to have followed conifer planting and muirburn.

Site	GR - NT	Latest Record	Recorder	Population
Headshaw Haugh, in heather	4756	19.07.97	MEB, PFB	_
Soonhope Burn, in heather	5255	02.07.83	MEB	
*Retreat Wood, under oak wood	7760	05.06.98	MEB, PFB	
Provious Survey COR et al. a 107	n			

Previous Survey – COB et al, c 1970

[*Shannabank Wood 7662, *Wild Wood 7760, *Butterwell Wood 7761, *Elba 7860]

Former Colonies

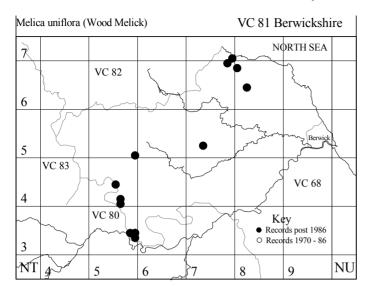
[Longformacus 6857, Monynut 7363, *Aikyside 7960, Penmanshiel 7967, Grantshouse, near 8065, Houndwood 8463]

[Melica nutans]	Habitat	Atlas GB	Atlas Berw	Sites
Mountain Melick	Woodland	233, 57	[3]	0/4, 0/3

A grass of base-rich gorges in the northern hills.

[*Gaitheugh 5934, *Langtonlees Cleugh 7352, Dunglass Dean 7671, Blackburnrig Dean 7965]. Last record 1931 Langtonlees Cleugh.

Melica uniflora	Habitat	Atlas GB	Atlas Berw	Sites
Wood Melick	Woodland	1277, 85%	7, 78%	10/16, 3/7
Berwickshire Scarce				



A woodland grass.

Widespread in southern Britain.

Very modestly represented in a few old woodland sites in the VC. None of the populations are known to be particularly fine though those at Gaitheugh and Langtonlees require survey. Possibly somewhat underrecorded.

Site	GR – NT	Latest Record	Recorder	Population
Representative Colonies				-
*Gaitheugh	58113393	07.06.01	MEB	
-	59703425			
*Langtonlees	73965237	09.10.00	MEB	
Other Colonies				
Birkenside	558440	03.10.02	LWG	
Chapel on Leader	564405	27.05.95	MEB, PFB	
Brunta Burn	595505	23.05.92	MEB	
†Tower Dean	784699	30.04.89	MEB	
*Pease Dean	785699	15.04.00	MEB	
	791701	30.04.89	MEB, PFB	
Redclues Cleugh	8068	22.05.99	MEB	
Atton Dean	828646	04.05.96	MEB	

Former Colonies

[Old Atlas 45, Cowdenknowes 5737, Dunglass Dean 7671, Edmonds Dean 7767, Penmanshiel Wood 7967, 7969, Blackburnrig Dean 7965, (Broomhill 8055)]

Mentha arvensis	Habitat	Atlas GB	Atlas Berw	Sites
Corn Mint	Arable	1324, 67%	1, 9%	4/14, 1/1
Berwickshire Scarce				

Arable fields, woodland rides and wet pasture.

Widespread in England, more scattered in Scotland.

Now very poorly represented in the VC. This once widespread Berwickshire species has been almost eliminated from arable fields, a habitat in which it is still widespread in England. The reason for this disproportionate decline is not known.

Site	GR - NT	Latest Record	Recorder	Population
The Bield, wet pasture near	69914232	12.08.03	MEB	Colony
Lithtillum Wood, rides	804406	24.07.93	MEB	Frequent
	803408	14.08.04	MEB	Frequent

Dunglass Wood, rides	825418	24.07.93	MEB	Plentiful
Blackadder Mount, arable	866531	28.09.86	MEB	Plentiful

Former Colonies

[Old Atlas 45, 53, 73, 74, Gavinton 7652, Edrom 8255, Swinton 8347, Old Atlas 86, Union Bridge 9351, Old Atlas 96]

[Mentha pulegium]	Habitat	Atlas GB	Atlas Berw	Sites
Pennyroyal	Ruderal	19, 8%	[1]	0/1, 0/1

Native and introduced in wet ruderal habitats in England.

[Billie Mire and Auchencrow, between 8659]. Last record 1853, probably casual.

[Mertensia maritima]	Habitat	Atlas GB	Atlas Berw	Sites
Oysterplant	Coast	71, 32%	[2]	0/4, 0/4

Shingle beaches on northern coasts.

[Greenheugh Point 7970, *Ewelairs, Pease Bay 7970, *2 miles east of Pease Dean 8170, *Dowlaw and Redheugh, between 8470, * Lumsdaine Shore 8770]. Last record 1913, Pease Bay.

Milium effusum	Habitat	Atlas GB	Atlas Berw	Sites
Wood Millet	Woodland	1104, 79%	3, 38%	3/8, 1/4
Berwickshire Rare				

Damp woodland.

Widespread in England and the Scottish Central Belt.

Very poorly represented in the VC but successfully introduced to policy woodlands.

Site	GR – NT	Latest Record	Recorder	Population
Native Colony				
Penmanshiel Wood	797683	22.07.89	MEB	Scarce
Presumed Introduced Colonies				
Anton's Hill, policies	784434	29.05.99	MEB	Plentiful
Swinton House, policies	813473	10.06.93	MEB	Plentiful
Former Colonies				

[Thirlestane Castle 5347, Bemersyde 5933, Old Atlas 75, Blackadder Woods 8554, Old Atlas 86]. Several of these may represent introductions.

Minuartia verna	Habitat	Atlas GB	Atlas Berw	Sites
Spring Sandwort	Coast	92, 66%	1, 33%	1/5, 1/5
British Scarce				

Short grassland and scree on limestone and rock rich in heavy metals. Locally widespread in central northern England, rare in Scotland.

One fine colony in the VC.

Site	GR – NT	Latest Reco	ord Recorder	Population
Fine Colonies				
*St Abbs Head				
- Petticowick West	908691	25.05.02	MEB	750 plants
- Petticowick East	909690			370

- Kirk Hill	915686	50
- Lighthouse Road	91136915	6
- Minuartia Mound	91196925	80
		1 256 Plants

The largest populations are on talus slopes, but these plants are mainly short-lived and the rock ledges hold larger plants that ensure the long-term survival of the species.

Former Colonies

[*Coast between Dowlaw and Redheugh 8470, *Dowlaw Dean 8670, *Earnsheugh 891691, Eyemouth Fort, north of 9464]. No records from these sites after 1839.

Molinia caerulea	Habitat	Atlas GB	Atlas Berw	Sites
ssp. arundinacea	Wetland	n/a	1, 100%	1/1, 0/0
Purple Moor-grass				
Berwickshire Rare				

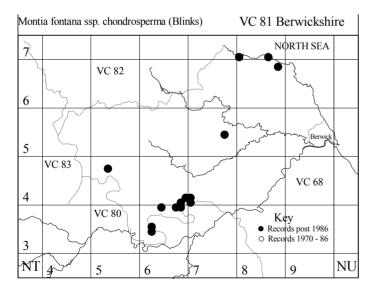
Fens and watercourses

Berwickshire Scarce

Much more local than *ssp. caerulea*, but widespread in northern and western Britain.

Only recorded once in the VC. Probably under-recorded but scarce.

Site	GR – NT	Latest Record	Recorder	Population
*Gordon Moss	636425	14.08.88	MEB (det P J	O Trist)
				•
Montia fontana				
ssp. chondrosperma	Habitat	Atlas GB	Atlas Berw	Sites
Blinks	Grassland	206, 55%	6, 86%	13/14, 0/0



Open habitats that are damp in winter but dry out in summer.

England and southern Scotland.

Now known to be well represented in the VC, especially on the rocky knowes of the Kelso traps, but most colonies are small and vulnerable to eutrophication.

Sites

Lauder 534476, Brotherstone Hill 620356, Butchercote Craigs 627345, Mellerstain, garden paths 647390, Lurgie Craigs 675396, Hareheugh Craigs 687399, 688400, Hume Craigs 699416, Hume Mill 707406, Duns Castle, yard 77735448, Old Cambus Quarry 802705, *Dowlaw Dean 865701, Westerside 888686.

Former Colonies

[West in Thirle 904687 det S M Walters]

Montia fontana ssp. variabilis	Habitat	Atlas GB	Atlas Berw	Sites
Blinks	Grassland	126, 40%	1, 100%	2/2, 0/0

Berwickshire Rare

Open habitats that are more or less permanently damp.

Under-recorded. The British distribution merely reflects where botanists have worked who recognise this taxon.

Apparently the scarcest of the three subspecies recorded in the VC.

Site	GR – NT	Latest Record	Recorder	Population
Fans	61534174	11.07.02	MEB	Small colony
	617418	23.05.87	MEB	Not seen 2002
Halliburton, near	680478	26.06.88	MEB	
Mycelis muralis	Habitat	Atlas GB	Atlas Berw	Sites
Wall Lettuce	Woodland	1099, 84%	4, 57%	7/10, 1/1
Berwickshire Scarce				

Mycelis muralis (Wall Lettuce) VC 81 Berwickshire NORTH SEA 7 VC 82 6 5 VC 83 VC 68 4 VC 80 Key Records post 1986 O Records 1970 - 86 NU 9 5 6 8

Shaded rocky habitats.

Widespread in much of England but localised in Scotland.

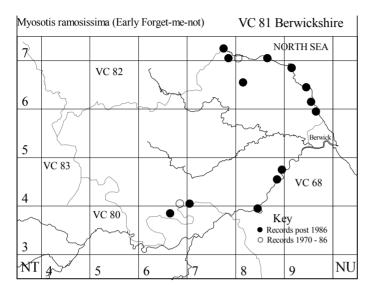
Rather poorly represented in the VC and seldom in wholly natural habitats. Possibly an introduction. First records: The Hirsel 1872, Cockburnspath 1936.

Site	GR – NT	Latest Record	Recorder	Population
Newton Don	7137	20.05.95	MEB	-
*The Hirsel	832407	01.08.93	MEB	
Coldstream	842396	12.08.97	MEB	
Milne Graden	87804432	17.04.04	MEB	
Ladykirk, foot of Bannock Burn	88434547	21.07.04	MEB	One
Harper Heugh	904549	02.10.99	MEB	
Tweedhill House	932512	03.07.99	MEB	

Former Colonies

[Kyles Hill 7250, Abbey St Bathans, wall near Eller Burn 7661, Cockburnspath 7771]

Myosotis ramosissima	Habitat	Atlas GB	Atlas Berw	Sites
Early Forget-me-not	Grassland	854, 72%	8, 67%	13/20, 2/7
Berwickshire Scarce				



Dry infertile open habitats.

Eastern and lowland Britain.

Modestly represented in the VC and thought to be declining, mainly due to eutrophication.

Sites

Girrick 667383, Hareheugh Craigs 6840, Hume Mill 707406, *Ramsheugh Bay 774722, †Tower Dean 786703, Grantshouse 811652, The Lees 840390, *Dowlaw Dean 865701, Ladykirk 88434547, 891475, *St Abbs Head 915686, Eyemouth Industrial Estate 94816444, *Burnmouth 957611, *Catcairn Bushes, 96615947, 96765905.

Recent Colony

[Old Cambus Quarry 803705, in 1983]

Former Colonies

[Newton Don 7037, Hume Castle 7041, Dunglass Dean, foot of 7671, Linkim Shore 9265, Ale Water banks 9362, Partanhall 9561]. The Old Atlas has records from 53, 54, 55 but these are thought to have been based on an unsafe statement in *Lauder and Lauderdale* that this species is 'more or less common in Leader Vale'.

Myosoton aquaticum	Habitat	Atlas GB	Atlas Berw	Sites as Native
Water Chickweed	Riverside	747, 81%	1, 100%	Nil
Berwickshire Neophyte				

Damp woods and watersides.

Widespread in England reaching Yorkshire but rare and often casual elsewhere.

Presumably casual only in the VC, though one apparently long-established colony is known in VC 80.

GR – NT 832389	Latest Record	d Recorder MEB	Population 1 plant
Habitat Woodland	Atlas GB	Atlas Berw	Sites 0/9, 0/5
	832389	832389 11.10.97 Habitat Atlas GB	832389 11.10.97 MEB Habitat Atlas GB Atlas Berw

A declining woodland orchid, especially found under beech and hazel.

[*Langtonlees Cleugh 7452, Gavinton 7652, Dunglass Dean 7671, Redclues Cleugh 8068, Houndwood 8463, Silverwells 8766, Ayton Little Dean 917625, Netherbyres 9463]. Last record 1985 Ayton Little Dean.

Nuphar lutea	Habitat	Atlas GB	Atlas Berw	Sites as Native
Yellow Water-lily	Aquatic	908, 80%	2, 50%	1/1, 1/1
Berwickshire Rare				

An aquatic of less-acid still waters.

Widespread in southern England and on the west in northern England and Scotland.

Represented in the VC at one locality only as a native but also introduced.

Site	GR – NT	Latest Record	Recorder	Population
Native Colony				
*Coldingham Loch	894685	02.07.97	JJD	Large
Introduced Colonies				_
Mellerstain Lake	652386	28.07.01	MEB, PFB	Large
Hen Poo, Duns Castle	778546	24.06.97	MEB	Large
Former Colonies				-

[Gledswood, pond at 5934, Nenthorn, Eden above 6737, Kames, pond at 7845, Netherbyres, pond at 9463]. All introductions.

[Nymphoides peltata]	Habitat	Atlas GB	Atlas Berw	Sites as Native
Fringed Water-lily	Aquatic	19, 8%	[2]	Nil

Very localised as a native in East Anglia, but widely introduced.

[†Hen Poo, Duns Castle 7754, Foulden New Mains 9156]. Introduced only, last record 1881 Hen Poo

Odontites vernus ssp. serotinus	Habitat	Atlas GB	Atlas Berw	Sites
Red Bartsia	Arable	n/a	0, 0%	0/1, 0/1
Data Deficient				

This species is present in the VC as two subspecies: *ssp. vernus* and *ssp, serotinus*, possibly with intermediates. These have in general not been recorded separately. The species, which is not scarce, is believed to be represented mainly by *ssp. vernus. Ssp. serotinus* could be scarce and is known only from a gathering in 1868, Greenlaw 7146 det Britt Snogerup, herb **E**.

[Oenanthe aquatica]	Habitat	Atlas GB	Atlas Berw	Sites
Fine-leaved Water-dropwort	Wetland	286, 57%	[2]	0/3, 0/3

Last record 1845. Local in England in slow-moving water. [Bishop's Bog 7840, Lithtillum Loch 8040, *Hirsel Lake 8240]

Ophioglossum vulgatum	Habitat	Atlas GB	Atlas Berw	Sites
Adder's-tongue	Grassland	1024, 69%	3, 38%	3/16, 0/10
Berwickshire Rare				

A very inconspicuous short fern of damp grassland, open woodland and dune slacks. Widespread in England but local and coastal in Scotland.

Had been feared lost from the VC but recent records indicate that it is probably somewhat under-recorded, though scarce. Drainage and re-seeding of grassland account for many losses.

Site	GR – NT	Latest Record	Recorder	Population
Bedshiel, near, damp grassland	678517	04.06.88	MEB	200+ fronds
Newton Don, grass bank in park	711374	09.06.95	MEB	2 good colonies
Bunkle Castle, bank in grass field	801593	15.05.98	LWG	Several patches
Former Colonies				

[Muircleugh 5045, Lauder Common 5046, Chester Hill, near 5246, Earlston, near 5738, Wrunklaw Fort 6758, Langtonlees Cleugh, near 7452, Wellrig, Duns 7652, †Pease Mill 7970, St Helens Church 8070, Milne Graden Mains 8644, Broomdykes, Pistol Plantation 8652, Silverwells 8766, Buskinburn 8966]

[Orchis morio]	Habitat	Atlas GB	Atlas Berw	Sites
Green-winged Orchid	Grassland	479, 51%	[1]	0/1, 0/0

An orchid of dry base-rich grassland mainly in southern England. [Lamberton Moor 9558]. Last record 1942.

[Osmunda regalis]	Habitat	Atlas GB	Atlas Berw	Sites
Royal Fern	Wetland	483, 65%	[3]	0/2, 0/2

A fern of wetland and wet woodland largely near the west coast of Britain. [(Spottiswoode 6149), Flass Old Wood 6251, Coldingham Moor 8668]. The Spottiswoode and Flass Old Wood records seem to relate to the same locality. Last record 1885 Flass Old Wood.

[Papaver argemone]	Habitat	Atlas GB	Atlas Berw	Sites
Prickly Poppy	Arable	342, 39%	[3]	0/3, 0/1

Arable fields on light soils. An archaeophyte still widespread in parts of southern England but now declining. Now very local in Scotland. Formerly a scarce cornfield weed in the VC. [Old Atlas 75, Dunglass Dean, near 7671, Gunsgreen 9463]. Last record 1960 Gunsgreen.

Papaver dubium ssp. lecoqii	Habitat	Atlas GB	Atlas Berw	Sites
Yellow-juiced Poppy	Arable	396, 68%	3, 100%	4/5, 0/0
Berwickshire Scarce				

A weed of arable and disturbed ground.

Archaeophyte. Mainly southern England.

The Berwickshire localities are the most northerly in Britain with recent records. As historical records might only be lacking due to confusion with *ssp. dubium* there is no direct evidence to support the strong suspicion that this taxon has colonised the VC relatively recently, perhaps with the coming of the railway.

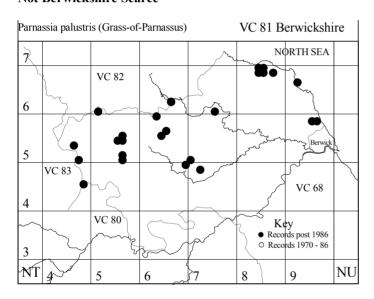
Site	GR – NT	Latest Record	Recorder	Population	
Oxton, ruderal round village	498531	19.07.97	MEB, PFB	Colonies	
	498534				
The first Berwickshire record was in th	e Oxton area in	1960			
Chirnside House Hotel, vegetable gdn	884567	28.09.86	MEB	Few	
This garden is now the site of a private house and the habitat was not present in 1999					
Edrington Castle	897562	12.06.99	MEB	Few	
Foulden Village, ruderal	925558	12.06.99	MEB	Few	

Paxton, field corner	933537 05.06.99		MEB	Few	
[Parapholis strigosa]	Habitat	Atlas GB	Atlas Berw	Sites	
Hard-grass	Coast	254, 72%	[1]	0/1, 0/0	

Upper parts of salt-marshes. Widespread on English coasts, scarce in Scotland. Destroyed at Ramsheugh Bay by vehicles working on sewer.

[*Ramsheugh Bay 778721]. Last record 1984.

Parnassia palustris	Habitat	Atlas GB	Atlas Berw	Sites
Grass-of-Parnassus	Wetland	677, 62%	13, 87%	22/+, n/a
Not Berwickshire Scarce				



Base-rich flushed grassland and duneslacks.

Widespread in Scotland and northern England.

The Berwickshire distribution of this species gives a good indication of the very limited extent of the interesting but decidedly vulnerable habitat in which it grows here, towards the east of its British range. Many of the colonies are small with perhaps the best lying near Lumsdaine Dean, Fangrist Burn and Killmade Burn.

The coastal colony at Yellow Craig has flowering stems that are shorter than average but it does not correspond to *var. condensata*.

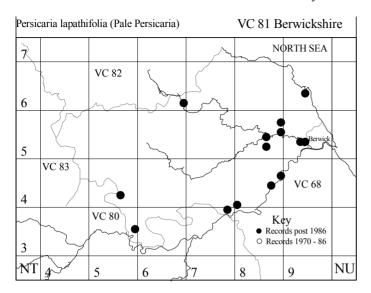
Sites

Longmuir Moss 472508, Lauder Common 485453, Tanwell 487453, Lammerlaw Burn 515605, Earnscleugh Water 556540, 56905538, Wheel Burn 564517, 566514, Stotcleugh 632590, Watch Water 645558, 651562, Killmade Burn 663626, *Fangrist Burn 69894959, 69934962, 701503, 702503, *Greenlaw Moor 720485, Hen Toe Bridge 754600, Lumsdaine Dean, near 8468, 8469, 8569 frequent, Lumsdaine Farm 877683, Yellow Craig 920663, 922662, Lamberton Moor 955582, *Lamberton Shore 968589.

Former Colonies

[Lauder Hill 5147, Lightfield 6441, Bishop's Bog 7840, Swinton Parish 84]. 'Common on our moors', 1853.

Persicaria lapathifolia	Habitat	Atlas GB	Atlas Berw	Sites
Pale Persicaria	Arable	1560, 82%	8, 57%	14/22, 1/1
Berwickshire Scarce				



Damp places in arable fields and by watersides.

Very widespread in England and Wales but more local in Scotland.

It appears that this has always been a local plant in the VC, but it is now very sparse indeed, with a number of the records relating to single plants only.

Sites

Birkenside 562422, Gledswood East Lodge 592352, Smiddyhill Bridge 696613, Lochton Loch 784393, Lithtillum Loch 803409, *Allanton Bridge 86485459, Blackadder Bank 867526, *Milne Graden 87764417, 87944461, *Ladykirk 896460, Edington Mill 896551, Edingtonhill 897578, *Edrington Castle, Whiteadder near 9353, *Cawderstanes, Whiteadder near 940532, Netherbyres 945635

Former Colonies

[Old Atlas 55, Gordon 6443, Longformacus 6957, Old Atlas 74, Cockburnspath Tower, near 7869, Swinton 8347, Hirsel Law 8242, Penmanshiel, near 8067]

Phegopteris connectilis	Habitat	Atlas GB	Atlas Berw	Sites
Beech Fern	Woodland	765, 75%	1, 20%	2/9, 1/4
Berwickshire Rare				

Most typical of sessile oak woods also in scree and cleughs.

Widespread in northern and western Britain.

The VC lies very much at the limit of its range and it is poorly represented. Several sites have been affected by the degradation of woodland.

Site	GR - NT	Latest Record	Recorder	Population
Fine Colony				
Eller Burn Wood, steep wet north-	76226070	30.09.00	MEB	
facing slopes	- 76366073			Several very
large patches, sometimes growing with	Gymnocarpion	dryopteris		
Other Colony				
*Wild Wood	772604	23.05.98	MEB	Colony
Former Colonies				

[Old Atlas 65, Langtonlees, lower part 7452, Mountjoy 7561, Old Atlas 77, Elba 7860, Blackburnrig Dean 7965, Bunkle Wood 8158]

Plantago media	Habitat	Atlas GB	Atlas Berw	Sites as Native
Hoary Plantain	Grassland	991, 80%	1, 20%	0/10, 0/2
Berwickshire Neophyte				

Calcareous grassland.

Very widespread in England but scarce in Scotland where it is often an introduction.

Formerly both in natural grassland and on old lawns where it may have introduced with grass seed or have been a relict of former meadows.

Site	GR – NT	Latest Record	Recorder	Population
Introduced Colony				_
Causewaybank, former gravel pit	880592	06.06.98	MEB	Sown colony
Recent Colony				
[Duns Castle Lawn	778543	16.05.86	MEB	Looked for
several times since including May 2004	and believed los	st to lawn fertilis	er and weedkille	er combined with
modern mowing practice].				

Other Former Colonies

[Thirlestane Castle lawn 5347, Old Atlas 63, Longformacus, probably Longformacus House lawn 6957, Newton Don, possibly park 7037, Nisbet Hill 7950, Charterpath Bridge 8141, Swinton House lawn 8147, Fireburnmill 8239, Bluestoneford 8755]. 'Frequent', 1853. Last record as presumed native 1964 Charterpath Bridge.

Platanthera bifolia	Habitat	Atlas GB	Atlas Berw	Sites
Lesser Butterfly-orchid	Woodland	342, 36%	1, 20%	3/8, 2/5
Rerwickshire Rare				

A woodland-edge orchid found on a variety of soil types.

Local in Britain, most frequent in the north-west.

Almost reduced to one colony, that at Gordon Moss.

Site	GR - NT	Latest Recor	d Recorder	Population	
Fine Colony					
*Gordon Moss, SWT reserve	631425, 6324	423, 632425, 632	2426, 632427, 63	33426, 633427,	
	634424, 634425, 634426, 635425, 635426, 637424				
		1987-1993	MEB	Good colonies	
The orchid thrives in the woodland rides opened up by SWT along the 100 m grid.					
Other Colonies			· ·		
*Greenlaw Moor	719487	26.06.00	COB	2 spikes	
*Long Moss, Coldingham Common	855685	19.06.80	MEB	Not seen later	
Former Colonies					
[Thirlestane Castle 5347, ByreCleugh 6258, Quixwood, by 7764, Reston and Reston Mains,					

[Thirlestane Castle 5347, ByreCleugh 6258, Quixwood, by 7764, Reston and Reston Mains, between 8861, *Lamberton Shiels, below 9658]

[Platanthera chlorantha]	Habitat	Atlas GB	Atlas Berw	Sites
Greater Butterfly-orchid	Grassland	626, 54%	[3]	0/4, 0/4

Grassland and woodland-edge. Its distribution is more southern than that of *P. bifolia*. [Langtonlees, near 7352, Houndwood, above 8463, Coldinghan Loch 8968, Edingtonhill Moor 9057]. Last record 1873 Edingtonhill Moor.

Poa angustifolia	Habitat	Atlas GB	Atlas Berw	Sites
Narrow-leaved Meadow-grass	Grassland	498, 59%	1, 100%	1/1, 0/0
Berwickshire Rare				

Dry grassland and ruderal habitats

Mainly south-east England, but under-recorded.

Only recently recognised in the VC and probably under-recorded. The lack of historical records reflects confusion with P. pratensis

Site Ladykirk, top of river wall	GR – NT 886455	Latest Record 29.05.93	Recorder MEB	Population Small colony
Polypodium interjectum	Habitat	Atlas GB	Atlas Berw	Sites
Intermediate Polypody	Woodland	988, 82%	3, 60%	5/5, 0/0
Berwickshire Scarce				

On rock and as an epiphyte.

Mainly south and west Britain.

Scarce, but probably somewhat under-recorded. The lack of historical records reflects confusion with P. vulgare.

Site	GR – NT	Latest Record	Recorder	Population
*Gaitheugh	5934	01.11.74	RWMC	
Dunglass Dean, on fallen tree	767717	08.08.98	MEB	
*Pease Dean	7970	07.79	A Willmot	
Dowlaw Dean	863701	03.10.98	MEB	
Linkim Shore	930652	06.08.94	MEB	Small colony
Polystichum setiferum	Habitat	Atlas GB	Atlas Berw	Sites as Native
Soft Shield-fern	Woodland	1067, 85%	4, 57%	5/6, 2/3
Berwickshire Scarce				

Woodland on basic soils.

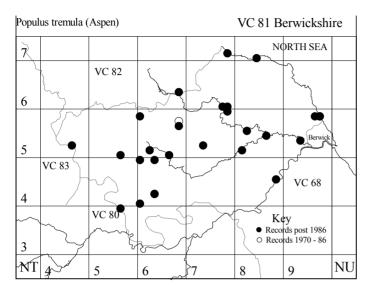
Mainly south-west Britain.

Near the limit of its range in the VC and most at home near the coast.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				•
†Tower Dean	785698	07.79	A Willmot	
	788704	26.09.88	MEB	Good colony
*Pease Dean	7869	07.79	A Willmot	Frequent
	7970			•
Pease Dean, hedge near	793701	07.79	A Willmot	
Other Native Colonies				
Temple Hall, Buskin Burn	897660	17.06.96	MEB	Small colony
Alemill	914636	1976	R McBeath	•
Lambsmill Burn	9354	06.96	MEB	With possible
hybrids with <i>P. aculeatum</i>				_
Introduced Colonies				
Mellerstain House policies	651384	07.79	A Willmot	
Manderston House garden	810547	07.79	A Willmot	
Former Colony				

[Dunglass Dean 7671]. This species could well still be present there.

Populus tremula	Habitat	Atlas GB	Atlas Berw	Sites
Aspen	Woodland	1914, 85%	10, 71%	26/+, n/a
Not Berwickshire Scarce				



A strongly-suckering dioecious tree of moist or sandy soils and rock outcrops.

Widespread in Britain and now frequently planted for amenity.

Almost all the native colonies in Berwickshire are single clones and thus single-sexed. The colonies are very persistent.

Sites that are probably Native

Threeburnford 46665290, Edgarhope 5650, Carolside 565397, Blythe Water 56805065, Spottiswoode 605498, Dye Water 60865870, Flass Wood 622513, *Gordon Moss 630424, Hurdlaw 662505, Rathburne 682567, 683572 (possibly planted in part), Langtonlees 739523, *Retreat 7760, Cove Harbour 784716, Elba 787603, *Rammel Cove 84227015, *Lamberton Undercliff 96975879, 97065860

Former Colonies

[Newton Don 7037, Abbey St Bathans, opposite 7562, (Coldstream 8439)]. Possibly planted.

Potamogeton alpinus	Habitat	Atlas GB	Atlas Berw	Sites
Red Pondweed	Aquatic	231, 43%	2, 67%	3/5, 1/3
Berwickshire Rare				

In silt in still or slow-moving water.

Northern in Britain.

Always scarce in the VC and only recently refound.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colony in Natural Habitat				
Lauder Burn	516452	12.07.97	MEB	Good colony
Colonies in Ponds				
Earnscleugh Water, pond near	545518	04.08.01	MEB, LWG	Small colony,
possibly introduced				
Nenthorn House, pond at	673371	25.08.95	MEB	Large colony.

The pond is built on an ox bow of the Eden Water, from which there are historical records of this species, so it may well be a native colony

Former Colonies

[*Gordon Moss 6342, Hume Castle, moor near 6842]

Potamogeton alpinus x crispus

= P. x olivaceus	Habitat	Preston GB	Atlas Berw	Sites
Graceful Pondweed	Aquatic	20, n/a	2, 33%	3/+, 0/1
British Scarce	-			

Lowland mesotrophic rivers.

This hybrid is only known away from the Tweed and its tributaries in the Rivers Earn and Ythan and the River Teifi in Wales.

Recent recording appears to suggest a decline in the VC since the 1970's but further survey is required to test this hypothesis.

Site	GR – NT	Latest Record	Recorder	Population
*Blackadder - Kimmerghame	803508	26.09.98	LWG	
*Whiteadder - Edrington Mill	894548	02.10.99	MEB	
*Tweed - Fishwick Mains	92634985	09.08.03	MEB	

Previous Survey – NTHH 1971-74

Former Colony

[*Leet - Castlelaw 8141]

[Potamogeton coloratus]	Habitat	Atlas GB	Atlas Berw	Sites
Fen Pondweed	Aquatic	68, 47%	[1]	0/1, 0/0

A scarce plant of base-rich waters mainly in East Anglia but still present in VC 80. [(*Gordon Moss 6342), Bishop's Bog 7840]. Last record 1853 Bishop's Bog.

Potamogeton crispus x perfoliatus

= P. x cooperi	Habitat	Preston GB	Atlas Berw	Sites
Cooper's Pondweed	Aquatic	9, 25%	[2]	0/2, 0/0
Data Deficient				

Lowland water bodies, often somewhat eutrophic.

This hybrid is persistent very locally in Britain.

Not recently confirmed in the VC.

Site	GR – NT	Latest Record	Recorder	Population
*Blackadder - Reedy Loch	8253	1973	NTHH	
*Whiteadder – Paxton footbridge	9453	04.08.67	AGL, DGL det	CDP
Former colony [Chirnside, Whiteadder near 8654]				
Potamogeton filiformis	Habitat	Atlas GB	Atlas Berw	Sites
Slender-leaved Pondweed	Aquatic	100, 62%	2, 100%	2/3, 2/2
British Scarce				

Shallow base-rich waters.

Northern in Britain with only one English locality.

Close to the limit of its British range in the VC.

^{*}Tweed (both banks) - Leaderfoot 5734, 5834, Mertoun 6231, Birgham 7938, Tweedmill 8643

^{*}Blackadder and lower Whiteadder – Nisbet Hill 8050 to Paxton 9453 (11 1km squares)

Site	GR – NT	Latest Record	Recorder	Population
Representative Colony				•
*Coldingham Loch	894685	02.07.97	JJD	
- near boat house	895683	25.06.92	P M Hollingsw	vorth
Other Colony			-	
Millar's Moss	905682	26.09.94	MEB	Suffering from
grazing by pinioned wildfowl				
Former Colonies				
[Old Cambus Dean, pond 8070, *Mire	Loch 9168]			
	-			
[Potamogeton gramineus]	Habitat	Atlas GB	Atlas Berw	Sites
Various-leaved Pondweed	Aquatic	257, 54%	[2]	0/2, 0/2

A mainly northern plant of relatively shallow water. The hybid *P. x nitens*, which has this species as one parent, persists in the VC.

[Bishop's Bog 7840, *Coldingham Loch 8968]. Last record 1906 Coldingham Loch.

Potamogeton gramineus x perfoliatus

= P. x nitens	Habitat	Atlas GB	Atlas Berw	Sites
Bright-leaved Pondweed	Aquatic	148, 59%	1, 100%	1/1, 0/0
Rarwickshira Rara				

Mesotrophic water bodies.

This hybrid is scattered over northern Britain.

One locality only in the VC.

Site *Coldingham Loch	GR – NT 894685	Latest Record 05.10.96	Recorder MEB	Population
Potamogeton lucens	Habitat	Atlas GB	Atlas Berw	Sites
Shining Pondweed	Aquatic	270, 59%	3, 75%	5/5, 1/1
Berwickshire Scarce				

Slow-moving calcareous waters.

Mainly south-east England.

Notably well-represented in the Tweed river system. Not fully surveyed in the VC, but the pattern of recent records is not dissimilar to that of NTHH 1971.

Site	GR – NT	Latest Record	Recorder	Population
*Tweed				_
- Milne Graden	87724409	11.09.04	MEB	
- Ladykirk	894464	21.08.93	MEB	
- Blount Bank	8947	24.07.93	MEB	
- Green Knowes, Fishwick Mains	918496	09.08.03	MEB	
- Paxton House	9351	03.07.99	MEB	
- · · · · · · · · · · · · · · · · · · ·				

Previous Survey – NTHH 1971

^{*}Tweed (both banks) – Lennelhill 8642, Horndean 9049, Fishwick Mains 9249, 9350, Paxton House 9351

Former colony

[Fireburnmill 8239]

Potamogeton lucens x perfoliatus

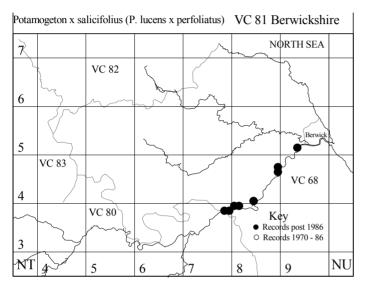
= *P. x salicifolius*Willow-leaved Pondweed

Habitat Atlas GB Atlas Berw Sites
4, 80%

4, 80%

9/+, n/a

British Scarce



Slow-moving calcareous waters.

This hybrid has declined greatly in southern Britain.

Exceptionally well-represented as part of the Tweed aquatic flora though somewhat localised. Despite some recording gaps in NT84 recent survey suggests a similar distribution to that recorded in the 1970's.

Site	GR – NT	Latest Record	Recorder	Population
*Tweed				-
- Springhill	785385	22.07.95	MEB	
- Birgham Haugh	795388	22.08.95	MEB	
- Carham, opposite	806394	11.06.97	MEB	
- Lithtillum Burn, mouth of	813394	12.08.97	MEB	
- Coldstream	845400	24.07.93	MEB	
- Ladykirk	894464	21.08.93	MEB	
- Blount Bank	8947	24.07.93	MEB	
- Union Bridge	93195137	11.08.01	MEB	
	93195159			
- Paxton House	9351	03.07.99	MEB	
D • C NEITH 1071				

Previous Survey – NTHH 1971

*Tweed (both banks) – Carham 8038 to Paxton House 9351 (26 1km squares)

Former Colonies

[*Leet Water 83]

Potamogeton obtusifolius	Habitat	Atlas GB	Atlas Berw	Sites
Blunt-leaved Pondweed	Aquatic	312, 52%	3, 60%	3/6, 0/1
Berwickshire Rare				

Fairly acid standing waters. Somewhat local in Britain Its distribution in the VC is limited by the shortage of suitable habitat.

Site	GR – NT	Latest Record	Recorder	Population
Cranshaws Pond	681619	02.07.97	JJD	
Greenlawdean Pond	704470	19.09.98	MEB	
†Hen Poo, Duns Castle	778546	24.06.97	JJD	Correct?

Earlier collections from this locality have been rejected by CDP

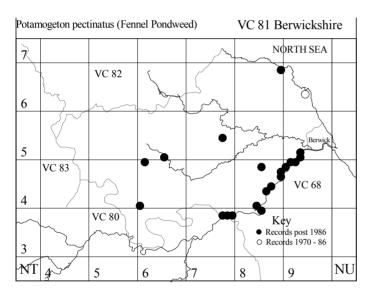
Recent Colony

*Gordon Moss 6342, lost since 1974 by woodland succession closing over bog pools

Former Colonies

[Hardens Dam 7554, Edmonds Dean 7767]

Potamogeton pectinatus	Habitat	Atlas GB	Atlas Berw	Sites
Fennel Pondweed	Aquatic	910, 78%	7, 70%	21/+, n/a
Not Rorwickshire Scarce				



Eutrophic ponds and streams.

Widespread in England but local in Scotland and mainly in the Tweed basin and the central belt.

A characteristic member of the aquatic flora of the lower *Tweed but scarce elsewhere in the VC.

Colonies away from River Tweed

West Morriston Ponds 604404, Spottiswoode Loch 610493, Cammerlaws Pond 654503, †Hen Poo, Duns Castle 7754, Newton Quarry 853485, *Coldingham Loch 894685, Eyemouth, Eye near 9463

Previous Survey – NTHH 1971

*Tweed – Birgham 7938 to Paxton House 9452 (35 1km squares)

Former Colonies

[*Leet Water 83, Lumsdaine Pond 8768, Old Cambus 8070]

Potamogeton pectinatus x vaginatus

= P. x bottnicus	Habitat	Preston GB	Atlas Berw	Sites
Bothnian Pondweed	Aquatic	3, n/a	1, 33%	1/6, 0/0
British Rare				

Lowland rivers on a gravelly substratum.

The origin of this hybrid as that between *P. pecinatus* and the non-British *P. vaginatus* has only been elucidated in Britain since the publication of the New Atlas. It was previously considered a variety of

P. x suecicus. It occurs in the rivers Till and Tweed. *Watsonia* **22**: 69-82 (1998) CDP et al. Not adequately surveyed in the VC since 1971 but certainly rare.

Site	GR – NT	Latest Reco	ord Recorder	Population
*Tweed				
- St Thomas's Island, south side	92234933	01.10.03	MEB	Good colony
Previous Survey – NTHH 1971				

*Tweed (both banks) – Tweedmill 8643, Ladykirk 8845, 8946, 9047, Fishwick Mains 9249, Union Bridge, above 9350

Potamogeton perfoliatus	Habitat	Atlas GB	Atlas Berw	Sites
Perfoliate Pondweed	Aquatic	700, 66%	7, 88%	12/+, n/a
Berwickshire Fine				

Potan	nogeton perf	oliatus (Per	foliate Pond	lweed)	VC 81 B	erwickshi	re
7				\rangle_{\sigma_{\sigma_{\sigma}}}	NO NO	ORTH SEA	
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NT	4	5	6	7	8	9	NU

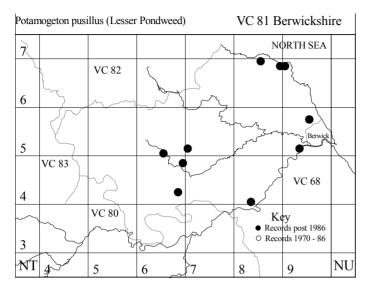
Larger water bodies, usually mesotrophic or eutrophic.

Widespread in Britain but local.

Particularly well-represented as part of the *Tweed aquatic flora, also at *Coldingham Loch 8968. Apparently lost from the *Whiteadder since the 1970's but still in the *Blackadder.

Previous Survey – NTHH 1971-74 *Tweed – Fireburnmill 8338 - English Border 9452 (22 1km squares), *Blackadder and lower Whiteadder – Kimmerghame 8152 to Paxton 9453 (6 1km Squares). [Old Atlas 64]

Potamogeton pusillus	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Lesser Pondweed	Aquatic	493, 61%	5, 45%	10/+, n/a
Berwickshire Scarce				



Standing and slow-moving waters that are mesotrophic or eutrophic.

Rather local in Britain and absent from much of the uplands and northwest Scotland

The recent VC records are all from still water with the possible exception of a record from Paxton House which could be from a pond or from the Tweed. This contrasts strikingly with NTHH records (compare *Zannichellia palustris*)

Site	GR – NT	Latest Record	Recorder Population
Cammerlaws Pond	654503	18.06.97	JJD
Bellitaw	6842	09.07.03	MEB, J Waddell
Greenlaw Dean, oxbow	69304807	17.06.00	MEB
Polwarthmoss Burn, pond near	707513	24.07.02	MEB
* HirselLake	8240	25.06.97	JJD
Lowries Knowes, pond at	851697	14.08.04	MEB
*Coldingham Loch	894685	25.06.98	P Hollingsworth
Millar's Moss	905682	25.06.92	P Hollingsworth
Paxton House	9351	25.07.90	COB
Mordington, pond near	953575	10.08.91	MEB

## Previous Survey - NTHH 1971 Tweed, 1973 Whiteadder

#### Former colonies

[Buxley Pond 808551, *Mire Loch 9168]

[Potentilla anglica]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Trailing Tormentil	Moorland	843, 67%	[5]	0/6, 0/5

Dry grassland. Widespread in south-western Britain.

[(Cockburnspath 7771), Bishop's Bog, near 7840, Little Swinton Bogs, near 8245, Coldingham, one mile north of 9067, Lamberton Moor 9458]. Last record 1916 Coldingham, one mile north of.

[Potentilla argentea]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Hoary Cinquefoil	Grassland	160, 49%	[1]	0/1, 0/0

Sandy grassland, especially in East Anglia.

[Coldstream, near Leet Water 8439]. Last record 1959. (The records from Stichill are best placed in VC 80 where it still grows).

^{*}Tweed (both banks) - Birgham 7938 to Paxton 9452 (28 1km squares)

^{*}Blackadder and lower Whiteadder – Nisbet 7949 to Edrington 9354 (8 1km squares)

# Potentilla erecta

ssp. strictissima	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Tormentil	Moorland	113, 71%	1,50%	1/2, 0/0
Berwickshire Rare				

#### Moorland.

Apparently more northern and western in its distribution than *ssp. erecta*, but under-recorded. This taxon has not been searched for systematically in the VC. In addition to the two records below MEB remembers Mrs M Little finding this plant on Coldingham Common around 1980, and much delaying the progress of a party in the process. This memory led to the re-finding of the plant in that vicinity.

Site	GR – NT	Latest Record	Recorder	Population
*Long Moss	8568	24.07.99	MEB	
Former Colony				
[Old Atlas 75, E B Bangerter 1960]				

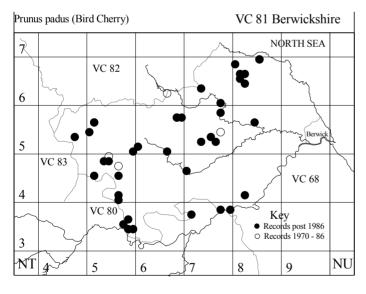
[Potentilla tabernaemontani]	Habitat	Atlas GB	Atlas Berw	Sites
Spring Cinquefoil	Grassland	74, 58%	[1]	0/1, 0/1

A very local plant of limestone rock exposures.

[Netherbyres Mill, half way between Ayton and Eyemouth 9362]. Last record 1866.

Prunus padus	Habitat	Atlas GB	Atlas Berw	Sites
Bird Cherry	Woodland	875, 80%	12, 80%	40/+, n/a

#### Berwickshire Fine



Moist woodland and burnsides.

Especially characteristic of northern England and southern Scotalnd. Now widely introduced.

Still prominent in the landscape when in flower in May in a few places in the VC, as by the lower Leader Water, about *Abbey St Bathans and about Grantshouse. Some of the records are introductions, including those from the Merse. The native distribution is likely to become obscured by such introductions.

[Pseudorchis albida]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Small-white Orchid	Grassland	132, 34%	[2]	0/1, 0/1

Somewhat calcareous upland grassland, mainly in northern Scotland. [Langtonlees Cleugh, by 7352]. Last record 1867.

Puccinellia maritima	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Common Saltmarsh-grass	Coast	584, 74%	2, 67%	4/6, 2/4
<b>Berwickshire Scarce</b>				

Saltmarsh.

Round much of the British coast.

Very poorly represented in the VC due to the almost complete absence of saltmarsh.

Site	GR – NT	Latest Record	Recorder	Population
*Ramsheugh Bay	7772	27.06.98	MEB, PFB	-
*Cove Harbour	781717	19.09.98	MEB	
	784717	27.06.98	MEB	
Yellow Craig	921662	06.08.94	MEB	
-	922659			
Hairy Ness	940650	06.08.94	MEB	
[Pulicaria dysenterica]	Habitat	Atlas GB	Atlas Berw	Sites
Common Fleabane	Riverside	1379, 91%	[4]	0/5, 0/4

Damp grassland and watersides throughout lowland England, but rare in Scotland. Survives in VC 68 on the south bank of the Tweed.

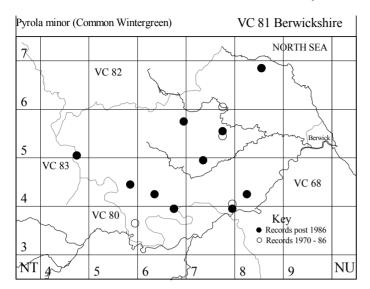
[*Coldstream, Leet Water ½ mile above 8339, Ladykirk, Holywell Haugh near 9048, Horndean 9049, Tibby Fowlers Glen 9453, Lamberton, old coal pit near 9757]. Last records 1916 Horndean, Ladykirk, Coldingham (compilation).

[Pyrola media]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Intermediate Wintergreen	Woodland	77, 30%	[7]	0/14, 0/14

Heathland in north-east Scotland, often with *Arctostaphylos*. The records for the VC cannot all necessarily be considered safe because of possible confusion with *P. minor* but the majority at least seem sound. The records from Dirrington Law and Greenlaw Moor, former *Arctostaphylos* sites, are particularly notable.

[Longformacus, Dye banks 6857, Dirrington Law 6954, *Greenlaw Moor 7249, *Abbey St Bathans, above school house 7562, Kitchen Cleugh, probably near Penmanshiel 76, Dunglass Dean 7671, *Aikyside Wood 7960, Blackburnrig Dean 7965, Redclues Cleugh 8068, Bank House, opposite 8165, Brockholes Wood 8165, Howpark Dean 8266, Houndwood 8463, Dowlaw Dean, moor near the entrance to 8569, Edingtonhill Moor 9057]. Last record 1913 Abbey St Bathans.

Pyrola minor	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Common Wintergreen	Woodland	254, 46%	10, 67%	11/44, 1/28
Berwickshire Scarce				



Mossy habitats in woods and on scrubby moorland.

Mainly northern England and Scotland, but not in the extreme north and west.

Well-represented in the VC but localised and vulnerable.

Nevertheless the historical record demonstates that the species has an ability to colonise new habitats.

The lack of coincidence between the historical records and recent records is startling. As open mossy ground under mature plantations may be colonised, changes reflecting the availability of this habitat are not unexpected. Nevertheless the statement 'in almost every fir plantation in the west of Berwickshire', 1853, is far from true today even if 'fir' is interpreted as pine. Moreover it is most surprising that Lurgie Loch 1965 is the first record from a moss, now the habitat for fully half the population. This is eloquent testimony to vegetation succession in the Berwickshire mosses.

Site	GR – NT	Latest Record	Recorder	Population
Longmuir Moss	4750	25.06.95	DGL	_
Pickie Moss	5844	28.06.97	MEB, PFB	
Redpath Moss	599367	23.06.80	MEB	
*Gordon Moss	634426	06.93	MEB	
*Lurgie Loch	676395	19.06.99	MEB	
Longformacus, plantation near	692576	05.05.97	MEB	
Polwarth Wood	735496	01.08.98	MEB	
*Retreat South Wood	7760	1970	COB	
†Hen Poo, Duns Castle	779551	11.08.90	MEB	
Birgham Wood	796399	22.07.95	MEB	Good colonies
	798401	21.08.83	MEB	
Dunglass Wood	824420	24.07.93	MEB	
*Long Moss	855685	24.07.99	MEB	

#### Former Colonies

[Standalone Plantation 5248, Spottiswoode, Whiteburn 5948, Huntlywood 6243, Lightfield, woods near 6441, Newton Don 7037, Longformacus strip 7056, Bents Corner, below 7349, Langtonlees Cleugh 7452, Langton Woods 7552, Jeanie's Wood 7555, Bankhead Wood 7742, Duns Law 7854, Kays Moor 7955, Blackburnrigg Wood 7965, Lithtillum Loch, north of 8040, Manderston 8154, Bunkle Wood 8158, Brockholes Wood 8165, Greenburn Plantation 8351, Greenwood 8364, Swinton and Simprim, between 8446, Blackadder Plantations 8554, Houndwood 8463, *Dowlaw Dean 8670, Milne Graden 8744, Silverwells 8766, Mains Wood 8856, Edingtonhill Moor 9057, Whitfield Wood 9063, Foulden Hag Wood 9157, Edrington Mill 9353, Ayton Woods 9361]

[Radiola linoides]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Allseed	Grassland	221, 40%	[2]	0/2, 0/2

Bare peaty or sandy ground, mainly southern and western coasts.

[Birgham Moor 7940, Dowlaw 8570]. Last record 1853, both sites. Considered extinct by 1878.

[Ranunculus arvensis]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Corn Buttercup	Arable	157, 19%	[4]	0/4, 0/2

Arable fields on light soils. An archaeophyte formerly widespread in central and southern England but now very local. Almost extinct in Scotland. Formerly a scarce cornfield weed in the VC. [Whitchester 7259, Old Atlas 76, Swinton 8347, Paxton 9353]. Last record 1966 Whitchester.

Ranunculus auricomus	Habitat	Atlas GB	Atlas Berw	Sites
Goldilocks Buttercup	Woodland	1054, 79%	6, 60%	8/17, 1/5
Berwickshire Scarce				

## Woodland on basic soils.

An apomictic species of which the segregate agamospecies are not yet described for Britain. Widespread in England but more local in Scotland and rare in the north.

Very poorly represented in the VC, but probably somewhat under-recorded perhaps because the recorder tends to work deans and riverside woodland near the waterside while this species favours drier ground on the banks above. COB survey suggest that it is still to be found quite widely in the Abbey St Bathans oak woods. This species may persist on north-facing slopes following the loss of woodland cover, as at Hareheugh Craigs.

GR – NT	Latest Record	Recorder	Population
4753	17.04.99	MEB	
565475	26.04.97	MEB	
5747	01.06.97	MEB	
594323	27.04.99	LWG	
687401	01.06.94	MEB	
738528	17.05.92	DGL	
740523	19.05.95	DGL	
928543	28.04.84	MEB	
9351	25.07.90	COB	
	4753 565475 5747 594323 687401 738528 740523 928543	4753       17.04.99         565475       26.04.97         5747       01.06.97         594323       27.04.99         687401       01.06.94         738528       17.05.92         740523       19.05.95         928543       28.04.84	4753       17.04.99       MEB         565475       26.04.97       MEB         5747       01.06.97       MEB         594323       27.04.99       LWG         687401       01.06.94       MEB         738528       17.05.92       DGL         740523       19.05.95       DGL         928543       28.04.84       MEB

#### Previous Survey – COB et al, c 1970

[*Shannabank Wood 7662, *Butterwell Wood 7661, *Retreat Wood 7760, *Elba 7860]

#### **Former Colonies**

[Longformacus 6957, Preston Bridge 7856, *Pease Dean 7970, Grantshouse 8065, Whitehall 8755]

[Ranunculus baudotii]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Brackish Water-crowfoot	Aquatic	202, 55%	[1]	0/1, 0/0

An aquatic of coastal pools, mainly in England. [Millar's Moss 903682]. Last record 1954.

Ranunculus circinatus	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Fan-leaved Water-crowfoot	Aquatic	277, 48%	1, 14%	1/8, 0/1
Berwickshire Rare				

Base-rich waters.

Widespread in central and southern Britain, but rare in northern England and Scotland. Recent attempts to confirm the continued presence of this species have been unsuccessful.

Site	GR – NT	Latest Recor	d Recorder	Population
Bogpark Burn	697503	09.09.89	MEB	Lost?
	698511			

## **Previous Survey – NTHH 1973**

*Blackadder - Greenlaw 7046, 7146, Caldra 7749, Nisbet Hill 7950, 8050

#### **Former Colonies**

[*Blackadder - Greenlaw Dean, upper part 6947, Eye Water - near East Reston and Aytonlaw 9061, Foulden East Mains, mill dam 9156]

## (Ranunculus circinatus x

fluitans)	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Greenlaw Water-crowfoot	Aquatic	n/a	n/a	? 3/3, 0/0
Data Deficient				

#### Base-rich waters.

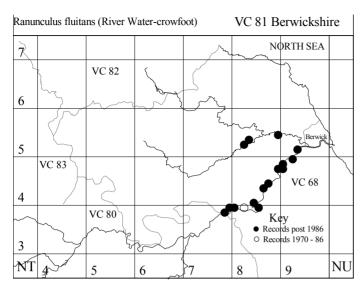
Only known in Britain from the Blackadder Water.

The discovery of this plant was published by N T H Holmes and B A Whitton, *Submerged Bryophytes and Angiosperms of the River Tweed*, Trans Bot Soc Edin **42**, 383-395. Plants of a hybrid water-crowfoot were found in the *Blackadder by TJP at Nisbet Hill 7950 06.07.04. The area was visited by MEB on 01.10.04 who found probable hybrid plants at several places from 79935025 to 80025014 and again at Kelloe at 83605332 where *R. fluitans* was also present. However, while the few ultimate leaf segments suggested *R. fluitans* as one parent, there were no characters to suggest *R. circinatus* as the second parent and the plants were considered rather more likely to be the better known *R. x bachii* with *R. trichophyllus* as the second parent. CDP is unable to suggest how the parentage could be discerned in the absence of some leaves typical of *R. circinatus*. The status of this taxon therefore remains unresolved.

#### Survey – NTHH 1973

Recorded as growing with *R. circinatus*. His records of that species were *Blackadder – Greenlaw 7046, 7146, Caldra 7749, Nisbet Hill 7950, 8050

Ranunculus fluitans	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
River Water-crowfoot	Aquatic	243, 65%	6, 60%	16/+, n/a
Berwickshire Fine	_			



Large rivers with a stable, base-rich substrate.

Relatively widespread in England and Wales but local in Scotland.

Collectively the Berwickshire colonies may represent 20% of the Scottish population. There is an apparent major contraction in the range of this species in the VC since the 1970's. The related *R. pencillatus* has not declined. More survey is needed to establish whether this change is real or whether it reflects under-recording of *R. fluitans*.

Site	GR – NT	Latest Record	Recorder	Population
Representative Colonies	OK-111	Latest Record	Recorder	1 opulation
*Tweed				
- Springhill	785385	22.07.95	MEB	
- Carham, opposite	806394	11.06.97	MEB	
- Fireburnmill	820390	18.06.83	MEB	Probably extant
- Coldstream	848401	24.07.93	MEB	
- Tweedmill	86934334	11.09.04	MEB	
- Blount Bank	8947	24.07.93	MEB	
- Blount Island	901477	19.09.87	MEB	
- St Thomas's Island	92354934	01.10.03	MEB	
- Green Knowes	926498	19.09.87	MEB	
*Blackadder (may relate to R. x kelchoe	ensis)			
- Mouth Bridge	8252	25.09.04	MEB	Several places
- Kelloe Bridge	8352	25.09.04	MEB	Several places
*Whiteadder (may relate to R. x kelchoo	ensis)			•
- Edington Mill	8954	30.08.98	LWG	
Other Colonies				
(*Tweed - Paxton House)	9351	03.07.99	MEB	Cut material
only seen, source not clear				
(*Whiteadder - Cockburn)	771583	28.04.90	MEB	Possibly this,
two taxa noted of which one was R. per	ıcillatus.			

## **Previous Survey – NTHH 1971-74**

#### **Former Colonies**

Older records of *R. fluitans* have been taken as *R. pencillatus*, the more frequent taxon, as the two taxa were not distinguished by AGL and others.

^{*}Tweed (both banks) – Leaderfoot 5734 to Dalcove 6531 (16 1km Squares), Birgham 7938 to English Border 9452 (35 1km squares)

^{*}Blackadder and lower Whiteadder – Greenlaw 7046 to Paxton 9453 (21 1km squares)

## Ranunculus fluitans x peltatus

= R. x kelchoensis	Habitat	<b>Preston GB</b>	Berw	Sites
Kelso Water-crowfoot	Aquatic	6	2, 100%	2/2, 1/1
British Rare	•			

Rivers with a base-rich substrate.

This hybrid, named after the town of Kelso where it was discovered by Andrew Brotherstone, is best represented in Britain in the Teviot and Whiteadder. First collected in the Whiteadder in 1841.

Site	GR – NT	Latest Record	Recorder	Population
*Whiteadder Water, Allanton	862547	14.06.91	CDP, J M Croft	-
	864546			
*Blackadder Water, Allanton	864545	14.06.91	CDP, J M Croft	
*Whiteadder Water, Paxton	938534	01.06.91	CDP, J M Croft	Double flowers

## (Ranunculus fluitans x trichophyllus

= R. x bachii)	Habitat	Preston GB	Berw	Sites
Wirtgen's Water-crowfoot	Aquatic	10	[1]	0/2, 0/0
Data Deficient				

R. x bachii is the name used for the hybrid between R. fluitans and either R. aquatilis or R. trichophyllus which is known from a few base-rich rivers in England and was formerly known from the Eye Water. See also the discussion under R. circinatus x fluitans.

[Eye Water – East Reston and Ayton Law, between 9060, Ayton Paper Mill, sluice feeding 9260 both det S D Webster]. Last record 1900.

Ranunculus lingua	Habitat	Atlas GB	Atlas Berw	Sites as Native
Greater Spearwort	Aquatic	344, 64%	2, 33%	1/6, 0/4
Berwickshire Rare				

Base-rich fens and pool-edges.

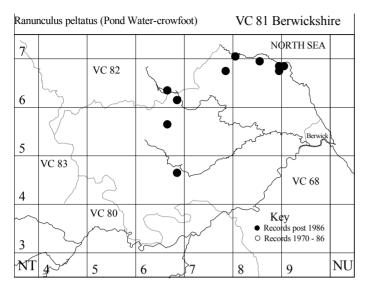
Local in Britain as a native, but now widely introduced as an ornamental.

Poorly represented in the VC.

Site	GR – NT	Latest Record	Recorder	Population
Native Colony				
*Bemersyde Moss	612330	25.08.95	LWG	
Introduced Colony				
†Hen Poo, Duns Castle	778546	24.06.97	MEB	
Recent Colony				
*Gordon Moss	6342	1976	A Somerville	Probably lost to
woodland encroachment over bog pools				
Former Colonies				

[Mellerstain, Eden near 6538, Bishop's Bog 7840, Lithtillum Loch 8040, Craigswalls Bog 8455]

Ranunculus peltatus	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Pond Water-crowfoot	Aquatic	558, 56%	6, 75%	10/12, 0/1
Berwickshire Scarce				



Shallow water in still or slow-moving water-bodies.

Widespread but somewhat local in Britain north to central Scotland, rare north of there.

Limited in the VC to the few waterbodies that do not have dense riparian vegetation, often relating to a fluctuating water-level.

Historically treated as a variety of *R. aquatilis* and not recorded separately in Berwickshire until 1916, though a herbarium specimen of 1859 exists.

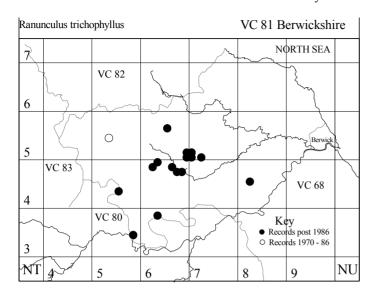
Site	GR – NT	Latest Record	Recorder	Population
Watch Water Reservoir	6656	07.79	R C L Howitt	-
*Whiteadder Water, oxbow by,				
below Whiteadder Reservoir	6663	11.07.98	MEB	
Cranshaws Pond	681619	02.07.97	JJD	
Rumbleton, near	689460	25.06.97	MEB	
Bowshiel Pond	784678	02.07.97	JJD	
Old Cambus Quarry, pond by	806706	24.06.97	MEB	This pond has
recently been adversely affected by dist	urbance related t	to the adjacent tu	rnip factory	
Lowries Knowes, pond at	852697	10.08.96	MEB	The edges of
this pond has less open mud following i	ecent relaxation	of grazing and tl	his species was r	not evident in
2004			-	
West Loch	892679	05.10.96	MEB	
*Coldingham Loch	894685	25.06.98	P Hollingswort	h
Millar's Moss	9068	25.06.92	P Hollingswort	h
Former Colonies			_	
[Legerwood Pond 5843, Lamberton Mo	or 9558]			
	_			

[Kanunculus sardous]	Habitat	Atlas GB	Atlas Berw	Sites
Hairy Buttercup	Arable	288, 52%	[2]	0/2, 0/2

An annual of damp coastal pasture in southern Britain.

[Penmanshiel, grass field 8067, Dowlaw, field near 8670, Coldingham, cornfield 9065]. Last record 1874 Coldingham.

Ranunculus trichophyllus	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Thread-leaved Water-crowfoot	Aquatic	631, 56%	7, 70%	16/19, 0/0
Not Berwickshire Scarce				



Still or slow-moving waters.

Widespread in lowland Britain, but more coastal in the north.

Lost from the main arable areas in the VC and present only in modest quantity in its extant sites. The small burns in which it is found are vulnerable to operations to enhance the drainage of adjacent land.

Not recorded by NTHH as an aquatic of the rivers in the 1970's, confirming that this is a species of small burns.

### Sites

Whalplaw burn 5354, Birkenside 5543, Gledswood 5834, Howlett's Ha 6248, Mincie Moss 632385, Kelmscott 636494, Watch Water 653563, Halliburton 677478, Dogden moss, near 6847, *Fangrist Burn 69765070, 701502, Bogpark Burn 698511, Polwarthmoss Burn 70245118, 705512, Langton Burn 7250, Little Swinton 826457

#### **Former Colonies**

[Cranshaws Pond 6861, Woodend 7551, Lowries Knowes Pond 8569]

### Rhinanthus minor

ssp. stenophyllus	Habitat	Atlas GB	Atlas Berw	Sites
Yellow-rattle	Grassland	159, 24%	0, 0%	0/1, 0/0
Data Deficient				

This species is present in the VC as two subspecies: *ssp. minor* and *ssp. stenophyllus*, possibly with intermediates. These have in general not been recorded separately. The species, which is not scarce, is believed to be represented mainly by *ssp. minor*. *Ssp. stenophyllus* could be scarce and is known only from a gathering in 1962 by Blanerne Bridge 8356, det F H Perring.

(Rorippa amphibia)	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Great Yellow-cress	Riverside	396, 80%	0/0, n/a	?, 0/0
Data Deficient				

Emergent vegetation beside rivers and lochs.

Widespread in central and southern Britain.

Recently recorded in or near the VC as a probable recent colonist.

In the summer of 2004 RVL and TJP found this plant to have joined the group of species native to England that have recently colonised the Tweed. They recorded it at the river's edge near *Milne Graden 8744 and *Norham 9048. It is not known whether the records relate to the VC 81 side of the river.

## Rorippa amphibia x sylvestris

= R. x anceps	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
A Hybrid Yellow-cress	Riverside	21, 42%	0/0, n/a	1/1, 0/0
Berwickshire Neophyte				

Riversides and pond margins.

Scattered in England, extending to Scotland. Under-recorded

In the summer of 2004 RVL and TJP recorded *R. x anceps* on the banks of the Tweed near *Leaderfoot 5834, *Coldstream 8539, *Milne Graden 8744 and *Norham 9048. It is not known whether the records relate to the VC 81 side of the river. A plant with similar leaves to *R. x anceps* was found by MEB at Gledswood 58683421 on 01.10.04, which surprisingly, on the basis of its fruit, appeared to be a form of *R. palustris*. However a colony of the hybrid was later found near Coldstream. It is not known whether this taxon was introduced or arose by hybridisation between its parents in the area. It now appears to be established independent of its parents.

Site *The Lees, haugh below	<b>GR – NT</b> 85463906 85473894	Latest Record 09.10.04	Recorder MEB	<b>Population</b> Colony
Rorippa nasturtium-aquaticum Water-cress Berwickshire Scarce	<b>Habitat</b> Aquatic	<b>Atlas GB</b> 1276, 76%	Atlas Berw 3, 60%	<b>Sites</b> 6/8, 0/0

Ponds, ditches and along burns.

More widespread in Britain than *R. microphylla*. Through much of England but more coastal in Scotland. Largely coastal in the VC. Historically not separated from *R. microphylla*, so there are no records before 1960. Now known to be much less frequent in the VC than *R. microphylla*.

Site	GR – NT	Latest Record	Recorder	Population	
(*Allanton, Blackadder at confluence)	864545	14.06.91	CDP	Not safe at this	
season when well-formed fruit may not	have been ava	ilable			
Causewaybank Gravel Pit	8859	30.09.98	LWG		
West Loch	892679	05.10.96	MEB		
Millar's Moss	905682	26.09.94	MEB		
*Mire Loch	910689	25.06.92	CDP		
	913687	26.09.94	MEB		
Coldingham Bay, burn near	9166	06.08.94	MEB		
*Gunsgreen Coast	9564	27.08.94	MEB		
Former Colonies					
[Old Atlas 77, 95, from field cards 196	0]				

Rorippa islandica	Habitat	Atlas GB	Atlas Berw	Sites
Northern Yellow-cress	Riverside	35, 85%	0, n/a	3/3, 0/0

**British Scarce** 

Seasonally inundated mud.

A recently recognised taxon now known from scattered disjunct British localities.

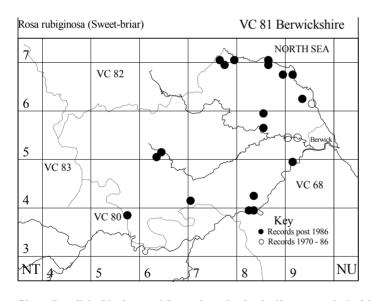
Although first found in the VC in 2001 the main colonies were not found until 2003, further colonies may await discovery but suitable habitat is rare and further survey has so far been unsuccessful.

Site	GR – NT	Latest Record	Recorder	Population
<b>Good Colonies</b>				_
*Bemersyde Moss, seasonal pool	608337	03.11.03	MEB	100 plants
Whitrig Bog, seasonal pools	61933484	03.11.03	MEB	50 plants
2 6, 1	62033480			30 plants
Other Colonies				•
Whitrig Pond, muddy margin	62063503	03.11.03	MEB	3 plants
Mellerstain Pond, barish margin	65033860	28.07.01	MEB, PFB	Few plants
[Rosa micrantha]	Habitat	Atlas GB	Atlas Berw	Sites as Native
Small-flowered Sweet-briar	Woodland	244, 61%	[1]	Nil

A shrub of scrub in southern England. It is debateable whether the northern localities are native or chance introductions with hedging stock. The locality of the only record strongly suggests an introduction with hedging stock.

[Skinlaws Toll, between Greenknowe and Bassendean 6245]. Last record 1880.

Rosa rubiginosa	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Sweet-briar	Woodland	214, 59%	10, 77%	22/31, 0/5
Not Berwickshire Scarce				



Calcareous habitats, but increasingly planted.

Away from its headquarters on the English limestone this species is especially well represented near the coast of north-east England and southeast Scotland.

The Berwickshire populations are all small and many may be self-sown from gardens. Nevertheless the concentration of records near the coast suggests that the species is at least naturalised there and could be native. An example of a good colony is that in *Dowlaw Dean.

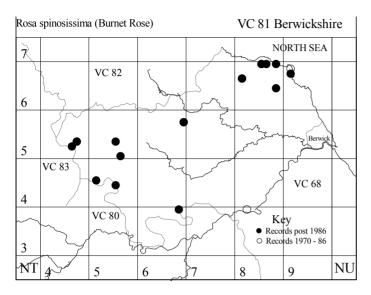
#### Sites, Possibly Native and Introduced – including some hybrids

Earlston 575383, Westruther 633501, Wedderlie 643511, Hume Craigs 7041, Cockburnspath 769707, Chesterfield 779699, †Tower Dean 7769, Pease Bay 7970, Fireburnmill 822393, Coldstream, Leet 8339, Hirsel Law 8342, Chirnside Bridge 8556, Billie Mains 857591, Lumsdaine Dean 860693, *Dowlaw Dean 868706, West Loch 892679, Hutton Bridge 9054, Fishwick Mains 9149, St Abbs 9167, Foulden Burn 921549, Ayton Mains 9362, *Burnmouth 9561.

#### Former Colonies

[Lauder roadsides 5247, Nenthorn 6837, Duns Mill road 7852, Gavinton, railway 7752, Middlefield, railway 7751, Broomhouse 8056, Lennel 863423, Edrington, road to 9354, Sunwick 8952, *Ross and Lamberton Shiels, between 9659]

Rosa spinosissima	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites as Native
Burnet Rose	Rock	591, 63%	7, 64%	13/20, 1/7
Berwickshire Scarce				



Coastal habitats, also inland especially on calcareous rock outcrops.

Round much of the British coast but especially in the west. Inland especially in northern England and southern Scotland.

The widely scattered inland colonies of this suckering shrub are perhaps of more interest than the coastal colonies, which are poor relative to other areas. The coastal sites near St Abbs, Burnmouth and Lamberton are imperfectly known. It is also found in hedges as an introduction.

#### **Probable Native Sites**

*Airhouse Wood 47635376, Muircleugh 51634584, Earnscleugh Water 55665399, Birkenside 558440, Blythe Water 56835068, Hareheugh Craigs 688399, Winding Burn 815665, Lumsdaine Dean 85716922, 86256938, 86366951, 86386966, Greenlaw Knowe 884648, *Westerside Dean 887692, St Abbs Coast 9167

#### **Former Probable Native Colonies**

[Old Atlas 75, Bowshiel Dean 7867, Penmanshiel Wood 7968, Coveyheugh 8662, Ale Water 9362, *Burnmouth 9561, *Lamberton Shiels, below 9659]

Rubus caesius	Habitat	Atlas GB	Atlas Berw	Sites
Dewberry	Woodland	1059, 79%	2, 50%	6/8, 2/4
Berwickshire Scarce				

Woodland and scrub, mainly on basic soils, sometimes in fens.

Widespread in England but rare in Scotland.

All the Berwickshire records are from wet places on basic soils. Possibly under-recorded, particularly along the lower Whiteadder Water.

Site Fire Colomb	GR – NT	Latest Record	Recorder	Population
Fine Colony *Lamberton Shiels, undercliff	96945888	21.08.04	MER PFR	det G H Ballantyne
Edinociton Sinois, underenii	97025877	21.00.01	11122, 112	det 3 11 Banantyne
Other Colonies				
*Gaitheugh	5834	02.08.89	MEB	
*Pease Dean	7970	1976	COB	
Clarabad Wood	926542	03.05.99	MEB	
*Burnmouth, bank	95776096	21.08.04	MEB, PFB	det G H Ballantyne
	95796094			-

*Ross, burnside 96146052 21.08.04 MEB, PFB det G H Ballantyne

Good patch, left bank of burn

**Former Colonies** 

[*Redheugh and Dowlaw, sea banks between 8370, Ale Water banks 9362]

Rubus chamaemorus	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Cloudberry	Moorland	294, 75%	1, 50%	4/7, n/a
<b>Berwickshire Scarce</b>				

## Montane blanket bog.

Widespread in upland Britain, but absent from much of the west coast.

The blanket bog of the Lammermuirs is much degraded, mainly as a result of muirburn, and active bog is reduced to highly localised patches. Cloudberry survives in three main colonies not far from each other, mostly on fairly degraded bog, with some outliers. Some of these outliers may be lost but there is a degree of uncertainty about their exact localities.

Site	GR – NT	Latest Record	l Recorder	Population
Main Colonies				
Rotten Cleugh	559605, 56060	)5, 561605, 5626	604, 563604, 564	1604, 564605,
	565603	14.09.02	MEB	
Meikle Says Law	575611, 57561	12, 576611, 5766	512	
Meikle Says Law	583614, 58461	14, 585613, 5856	514, 586613	
•		05.10.02	MEB	
Other Colony				
Little Says Law	59416134	19.09.02	MEB	20 m square
•	595612	05.10.02	MEB	-
Older Records				
Shiel, opposite on bank	5858	15.06.70	AGL	
Little Reds Cleugh	587589	08.07.79	MEB per keep	er, not seen MEB
Wester Black Burn	5860	15.06.70	AGL	
Rubus fructicosus agg.	Habitat	Atlas GB	Atlas Berw	Sites
Bramble	Woodland	2485, 96%	19, 95%	n/a
N/a		•	•	

Woodland and rough grassland.

Although the aggregate is very widespread and abundant in Britain many of the apomictic segregate species are more local.

Fieldwork by A Newton in 1978 and 1984 and G H Ballantyne 1985-2000 has been sufficient to establish the segregate species frequent in Berwickshire. All the species found are at least relatively widespread except *R. newtonii*, a recently described species with a restricted distribution. It is at present known only from Northumberland VCs 67, 68, Roxburghshire VC 80, Berwickshire VC 81 and East Lothian VC 82. Within this area it is relatively frequent and is known from 23 hectads. The Berwickshire records are thus of local interest and are given below.

Site	GR – NT	Latest Record	Recorder	Population
R. newtonii				
Hectad	73	1985-2000	G H Ballantyne	<b>;</b>
Hectads- mainly roadsides	77, 84	1984	A Newton	
Aytonwood House, near	9161	15.07.00	G H Ballantyne	<b>;</b>

Rubus saxatilis	Habitat	Atlas GB	Atlas Berw	Sites
Stone Bramble	Woodland	506, 64%	1, 33%	1/4, 1/4
Berwickshire Rare				

Wooded cleughs.

Widespread in the uplands.

The absence of suitable cleughs in the Lammermuirs has meant that this species has always been poorly represented in the VC.

Site	GR - NT	Latest Record	Recorder	Population
*Langtonlees Cleugh	74035227	30.09.00	MEB	2 patches, both
small, on wet cliff face				
Former Colonies				

[Redpath Dean 5836, Blackburnrig Dean 7965, Bowshiel Dean 7867]

[Rumex alpinus]	Habitat	Atlas GB	Atlas Berw	Sites
Monk's Rhubarb	Grassland	91, 49%	[1]	0/1, 0/1

A patch-forming perennial. An archaeophyte long-established near farm buildings following earlier cultivation especially in eastern Scotland from Fife to Inverness. Very local elsewhere. There is only the one record for the VC.

[Boondreigh Water (then known as East Water, being the eastern boundary of Lauder parish), a large clump in a glade near 5647]. Last record 1874.

Rumex conglomeratus	Habitat	Atlas GB	Atlas Berw	Sites
Clustered Dock	Riverside	1578, 89%	1, 11%	6/+, n/a
Berwickshire Scarce				

Wet meadows and muddy riversides.

Very widespread in lowland England but in Scotland mainly restricted to the central belt.

Almost extinct in the VC. The almost complete absence of cattle plodging at the edge of water courses in the lowlands may have removed a key habitat for this species. However the species is only readily distinguished from the widespread *R. sanguineus* when the fruit are formed (though the pedicel length is a useful character), so it may be somewhat under-recorded. The extent of the colony along the Leet Water is not adequately recorded.

Site	GR – NT	<b>Latest Record</b>	Recorder	Population	
Recent Records					
*The Hirsel, Leet Water	821413	01.08.93	MEB		
*Fishwick Mains, Tweed	92334946	09.08.03	MEB	1 plant	
Older Records					
†Duns Castle	7754	09.07.79	MEB party		
Bishop's Bog	785404	12.07.79	COB		
*The Hirsel, Leet Water	832407	15.05.83	MEB		
(Lazybeds Plantation)	890570	04.06.81	MEB	Locally abundant,	
but this habitat and abundance together with the season suggests a probable error for R. sanguineus					
Chesterfield	9354	10.07.79	COB		
• • • • • • • • • • • • • • • • • • • •					

#### **Former Colonies**

[Old Atlas 53, 63, 73, 77, *Coldstream, Leet Water 8439, Lithtillum Loch 8040, Horndean Burn 9049, Old Atlas 96]. 'Frequent', 1853.

Rumex maritimus	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Golden Dock	Wetland	224, 56%	1, 100%	1/1, 1/1
Berwickshire Rare				

Pond margins and wet hollows.

Local in the English Midlands, but increasing as it is favoured by eutrophication.

The Berwickshire site is believed to hold the only extant native Scottish population.

Site GR-NT Latest Record Recorder Population
Lithtillum Loch, pond at 80344095 14.08.04 MEB Few only,
apparently reduced since 1993. The pond is relatively recent and may have only temporarily restored the habitat lost when the old loch was drained.

[Rumex palustris]	Habitat	Atlas GB	Atlas Berw	Sites
Marsh Dock	Wetland	144, 61%	[1]	0/1, 0/0

Marshes and ditches, mainly in the fens of East Anglia and the Somerset Levels. One record only in the VC, perhaps casual.

[Legerwood Pond 5843]. Last record 1960.

Sagina apetala ssp. apetala	Habitat	Atlas GB	Atlas Berw	Sites
Fringed Pearlwort	Coast	833, 72%	5, 100%	5/6, 0/0
Berwickshire Scarce				

Dry moorland and ruderal habitats.

More southern in its distribution than *ssp. erecta* and somewhat eastern and coastal in Scotland. Scarce at all its few localities in the VC. There is an absence of early records of this critical taxon.

Site Old Cambus Quarry	<b>GR – NT</b> 801704 8570	Latest Record 29.06.96 18.07.98	MEB	Population
Dowlaw Westerside	8868	18.07.98 18.06.96	MEB, PFB MEB	
*St Abbs Head				
- Petticowick	908691	26.09.94	MEB	
- Mire Loch, by	914686	20.06.87	MEB, PFB	
- Kirk Hill	916686	06.06.93	MEB	
Lamberton Moor	955581	10.08.91	MEB	
Former Colony [*Fancove Head 9562]				
Sagina nodosa	Habitat	Atlas GB	Atlas Berw	Sites
Knotted Pearlwort	Wetland	588, 51%	4, 36%	6/10, 1/3
Berwickshire Scarce				

Open damp calcareous habitats.

Widespread but local and declining in Britain. Particularly frequent in the Pennines.

Apparently very scarce in the VC, but this is a late-flowering species that is most inconspicuous at the height of the recording season and may be somewhat under-recorded in the base-rich flushes of the Lammermuirs.

Site	GR – NT	Latest Record	Recorder	Population
Clints Hill	433542	03.08.85	MEB	
Wheel Burn	566512	01.09.91	MEB	
	566514			
Greenlaw Kaims	704506	04.08.90	MEB	
*Greenlaw Moor	720485	04.08.02	MEB, PFB	
Lumsdaine Dean, head of	845688	23.06.88	COB	
Mordington, near	953575	09.08.91	MEB	
Lamberton Moor	955582	10.08.91	MEB	

#### Former Colonies

[Old Atlas 66, Langtonlees 7352, (Abbey St Bathans Post Office Wood 7562), Bishop's Bog 7840, Swinton, near 8347, Old Atlas 85, Bee Edge 9064, Gunsgreen 9563]. 'Common in turfy and boggy ground with a gravel or sandy bottom', 1853.

Sagina subulata	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Heath Pearlwort	Coast	397, 60%	[3]	1/7, 0/6
Berwickshire Rare				

Open sandy or gravelly places, especially on the coast.

Widespread along much of the western seaboard, but local and northern in the east.

Long believed extinct in the VC, but refound in 2002 at a site where it was not previously known. It should be looked for again near Lumsdaine Dean and along the cliff top between Redheugh and Dowlaw.

Site	GR – NT	Latest Reco	rd Recorder	Population
*St Abbs Head				
- Knowes	911691	04.06.02	MEB, PFB	177 Plants
- Lighthouse Road	91216922			15
- Path near Lighthouse	91376916			<u>2</u>
-				194

The main colonies are on bare somewhat peaty patches.

#### Former Colonies

[Old Atlas 77, Drakemire 8060, Penmanshiel moor, old roadsides 8167, Redheugh Farm 8270, Dowlaw Dean, old roads near 8667, Millbank, banks of the Ale 9362, Catch-a-penny Quarry 96]

Salix caprea ssp. sphacelata	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Goat Willow	Woodland	23, 49%	1, 100%	1/1, 0/0
British Scarce				

Wet places along rocky burnsides at intermediate and higher altitudes.

Local in Scotland, most recent records from the Southern Uplands. Under-recorded.

One record only from the VC of this subspecies, which was submitted for the Atlas as a presumed introduction in ignorance of the fact that the locality is within the limits of the likely distribution of this sub-montane taxon. It is now considered more probably native, but further survey is required.

<b>Site</b> Chapel on Leader, riverside	<b>GR – NT</b> 563413	Latest Record 12.07.97	Recorder MEB	<b>Population</b> 1 bush
Salix myrsinifolia	Habitat	Atlas GB	Atlas Berw	Sites
Dark-leaved Willow	Woodland	137, 65%	1, 50%	1/2, 0/1
Berwickshire Rare				

Wet places along rocky burnsides at intermediate altitudes. Locally in northern England and Scotland, except much of the Highlands. Almost extinct in the VC.

Site	GR – NT	Latest Record	Recorder	Population
Winding Burn	815665	16.06.96	MEB	1 bush
Former Colonies				
[*Gordon Moss 6212]				

*Gordon Moss 6342

Salix pentandra	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites as Native
Bay Willow	Wetland	459, 66%	8, 67%	11/17, 1/6
Not Berwickshire Scarce				

Salix	Salix pentandra (Bay Willow)			VC 81 Berwickshire			
7				<u></u>	NO	ORTH SEA	
7	<u> </u>	VC 82	(			<b>1</b>	
6	مح	~~~	A POWER TO THE PARTY OF THE PAR	~~ <u>~</u>			
		•	(		Or	Berwick	,
5		0		•	كمحمم		2
	VC 83	~	<b>4</b> ~~		<b>)</b>	VC 68	\
4				~ 0	<u> </u>		
~~	~_	VC 80			Ko	y rds post 1986	
3						rds 1970 - 86	
NT	4	5	6	7	8	9	NU

Predominantly in fens, planted in other habitats.

Widespread in northern England and southern Scotland, local further north and introduced more widely.

Well represented in the VC. particularly at Longmuir Moss, Bemersyde Moss, Gordon Moss and Lurgie Loch. The map includes some planted bushes. Formerly more frequent at least to the east of the VC.

## Sites

#### **Native Colonies**

Longmuir Moss 4750, *Bemersyde Moss 612330, Mincie Moss 632385, *Gordon Moss 6342, Horseshoe Plantation 645405, *Lurgie Loch 676395, Middlethird Bog 6843, Redpath, Longformacus 707585, *Langtonlees 741527, Bishop's Bog 785404, Lithtillum Loch 8040.

## **Former Native Colonies**

[Penmanshiel Wood 7968, Winding Dean 8166, Penmanshiel Moss 8268, Houndwood 8463, Crosslaw 8768, Old Atlas 95]

Salix phylicifolia	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Tea-leaved Willow	Wetland	263, 58%	3, 100%	3/3, 1/1
Berwickshire Rare				

Upland burnsides on base-rich soils.

Widespread in the uplands of northern England and Scotland, but avoiding the coast.

Very modestly represented in the VC.

Site	GR – NT	Latest Record	Recorder	Population
Representative Colony				
Longmuir Moss	472505	23.06.90	MEB	Colony
Other Bushes				
*Gordon Moss	635424	30.09.91	MEB party	2 bushes
HorseupCleugh	668584	03.06.89	MEB	1 bush
[Salsola kali ssp. kali]	Habitat	Atlas GB	Atlas Berw	Sites
Prickly Saltwort	Coast	180, 51%	[2]	0/3, 0/2

Widespread on sandy coasts except where lost to visitor pressure.

[Pease Bay 7970, *Lumsdaine Shore 8770, Coldingham Bay 9166]. Last record 1960, Pease Bay.

[Sambucus ebulus]	Habitat	Atlas GB	Atlas Berw	Sites
Dwarf Elder	Ruderal	919, 76%	[5]	0/6, 0/5

Roadsides and hedgerows. An archaeophyte widespread in England and Wales but very scarce in Scotland. All the VC records are close to habitation where it may have been cultivated. [Longformacus Churchyard 6957, Langton 7552, Preston 7957, *The Hirsel, Leet near 8240, The Lees 8439, Coldingham 9065]. Last record 1956 Longformacus.

[Samolus valerandi]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Brookweed	Coast	577, 67%	[2]	0/2, 0/2

Rivulets near the sea and springs, mainly northern and eastern Scotland. [Bishop's Bog 7840, *Gunsgreen 9563]. Last record 1924 Gunsgreen.

Sanguisorba minor ssp. minor	Habitat	Atlas GB	Atlas Berw	Sites
Salad Burnet	Coast	923, 77%	2, 67%	2/4, 1/3
Berwickshire Rare				

Chalk and limestone grassland.

Almost confined to England and Wales, where it is widespread on suitable soils.

The Berwickshire population represents almost the northern limit for this species in Britain.

Site *Burnmouth Coast	<b>GR – NT</b> 956610 956611 957611	Latest Record 27.09.99	<b>Recorder</b> MEB	<b>Population</b> Frequent
*Hilton Bay	967593 96725941 96965933	16.10.99 14.06.03 09.06.00	MEB MEB	Strong colonies Good colony Good colonies
<b>Former Colonies</b> [Coldingham Loch 8968, Ale Water ba	inks 9362]			
[Sanguisorba officinalis] Great Burnet	<b>Habitat</b> Wetland	<b>Atlas GB</b> 750, 79%	Atlas Berw [4]	<b>Sites</b> 0/4, 0/3

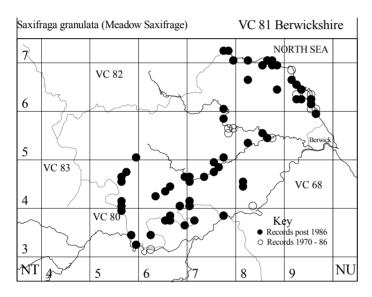
Widespread in flushed grassland and riverbanks in central and northern England. Rare in Scotland. Last record 1978, Bemersyde Moss.

Site	GR – NT	Latest Record	l Recorder	Population
Recent Colony				
[*Bemersyde Moss]	612330	11.08.78	MEB	Searched for in
vain by LWG and MEB especially 200	12. The site is no	ow shaded by no	nlars	

Former Colonies

[Lochton, island below 7738, Birgham Haugh 7938, Ale Mill, above 9163].

Saxifraga granulata	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Meadow Saxifrage	Grassland	663, 68%	16, 94%	68/+, n/a
Berwickshire Fine				



Rocky base-rich knowes and banks.

Widespread but local in Britain.

Very well represented in the VC. There are fine colonies in many places on the coast, on banks by the Whiteadder, Blackadder and Leader Waters and on the rock outcrops of the Kelso traps.

[Old Atlas 65]

[Saxifraga hirculus]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Marsh Saxifrage	Moorland	6, 30%	[1]	0/1, 0/1

A rare plant of base-rich hill flushes. The one site suffered from over-collecting but was lost after sheep drains were cut through it.

[Langtonlees, Cattleshiel Moor 7352]. Last record 1886 (this species was also recorded on 11.08.1898 as Blackshiels, 3 miles beyond, F C Crawford. This places it near the Lothians watershed by Soutra where it could have been in VC 81, 82 or 83, but VC 82 is the most likely).

Scabiosa columbaria	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites as Native
Small Scabious	Grassland	565, 70%	2, 33%	2/5, 0/3
Berwickshire Rare				

Chalk and limestone grassland.

Widespread in suitable habitats in England but rare in Scotland.

There are no longer representive colonies in the VC.

Site	GR - NT	Latest Record Recorder	Population
Native Colonies			
Hareheugh Craigs, craig near	693399	28.10.95 MEB	Few

Foulden Dean 920548 29.06.99 MEB Apparently reduced from population seen in 1979. There has been some degrading of the habitat following the construction of an access track to allow the rebuilding of the adjacent bridge over the Whiteadder.

**Introduced Colony** 

Causewaybank 880592 06.06.98 MEB In sown mix

**Former Colonies** 

[Nenthorn, below 6837, Lochton, Tweed near 7738, Tibby Fowlers Glen 9454]

[Scandix pecten-veneris] Habitat Atlas GB Atlas Berw Sites
Shepherd's-needle Arable 166, 21% [4] 0/+, n/a

Archaeophyte of arable fields on light soils in south-east England. Extinct in Scotland. [(Lauder 5247), Swinton House, garden weed 8347, St Abbs 9167, Foulden 9255, Ross, above 9660]. Last record 1960 Ross. 'A common cornfield weed', 1853.

Schoenoplectus lacustris	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites as Native
Common Club-rush	Riverside	919, 76%	5, 83%	6/12, 1/2
Rerwickshire Scarce				

Slow or standing water.

Widespread in central and south-eastern England but more local and more western in the north. Present as a native in the VC in a series of colonies by the Leet Water and lower Whiteadder Water that lend a distinctive character to these watersides. (This species becomes more frequent towards and around the mouth of the Whiteadder in VC 68). There is a surprising mismatch between recent records and those of the detailed survey of NTHH.

Site	GR – NT	Latest Record	Recorder	Population	
*Leet Water				-	
- Rough Haugh	804422	12.09.93	MEB		
- Wylie Cleugh	805435	27.07.85	MEB		
- Coldstream	8339	09.07.97	MEB		
*Whiteadder Water					
- Whitelaw	8253	28.05.98	LWG		
- Hutton Bridge to Cripple Nick	9054	14.07.84	MEB		
- Foulden West Mains	9154	05.06.99	MEB		
Previous Survey - NTHH 1973					
*Whiteadder Water – Kelloe 8353, Whitehall 8754, Edrington 9354, Paxton 9353, 9453					
Possibly Introduced Colony					
†Hen Poo, Duns Castle	778546	24.06.97	MEB		

**Former Colonies** 

[Bishop's Bog 7840, Nisbet Mill, below 8050, Fireburnmill, pond near 8239]

# Schoenoplectus

tabernaemontani	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Grey Club-rush	Riverside	502, 71%	1, 100%	1/1, 0/0
Berwickshire Rare				

Muddy watersides, especially near the sea.

Local inland and on the coast in southern Britain, scarcer and almost exclusively coastal in Scotland. There is an almost no suitable coastal habitat in the VC, so its near-absence is not unexpected.

Site	GR – NT	Latest Record	Recorder	Population
Morningbank, pond at	833477	21.08.93	MEB	Colony
This is a scruffy wetland fragment that	at may be the rer	nains of an ox-bow	pond on the	river and could be
part of the former wetland known as t	he Sowmire.			

Schoenus nigricans	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Black Bog-rush	Coast	517, 67%	2, 40%	2/6, 1/2
Berwickshire Rare				

Base-rich flushes and fens.

Very widespread in western Scotland but local elsewhere.

The Berwickshire colonies are significant in relation to the very localised east coast populations.

Site	GR – NT	Latest Record	Recorder	Population	
Fine Colonies					
*Ramfaulds	954639	27.08.94	MEB	Strong colonies	
Lamberton Moor	954584	12.06.99	MEB	Large colony	
Recent Colony					
Lamberton Moor	957588	17.06.80	MEB	There were	
several flushes in this area at that time, evidently fragments of a former rich area of heath with oceanic					
influence					

## **Former Colonies**

[*Gordon Moss 6342, Old Atlas 84, Lumsdaine, moor below 8769, *Ross, ravine above 9660, Lamberton Toll, field below 9757 (possibly VC 68)]

Scilla verna	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Spring Squill	Coast	261, 84%	1, 100%	1/1, 1/1
Berwickshire Rare				

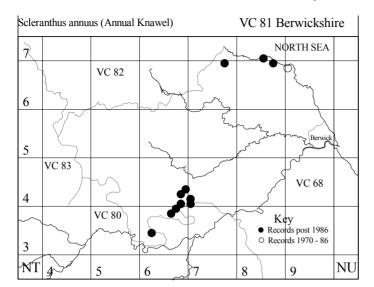
Maritime heath on sea cliffs.

From the Scilly Isles to Shetland but rare on the east coast.

The Berwickshire site is vulnerable beside a recently developed golf course.

Site	GR – NT	Latest Record	Recorder	Population
*Ramfaulds	951643, 95164	4, 952642, 9526	543	
		03.05.97	MEB	Strong colonies
A detailed map of this survey is held by	y BSBI.			_

Scleranthus annuus	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Annual Knawel	Grassland	317, 32%	6, 60%	11/+, n/a
Berwickshire Scarce				



Rocky knowes and sandy soil.

Widespread but local and declining in Britain.

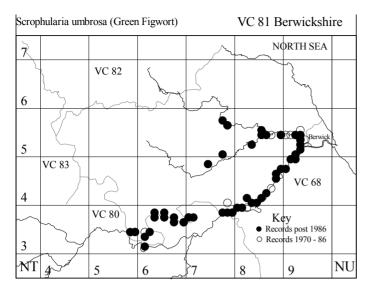
The Berwickshire sites lie mainly on the Kelso traps. They are small and very vulnerable to eutrophication and under-grazing. No longer found as an arable weed.

Site	GR – NT	Latest Record	Dagandan	Danulation
				Population
Butchercote Craigs	626346	09.06.95	MEB	
Girrick	667383	09.06.95	MEB	
Lurgie Craigs	675396	19.09.99	MEB	
Hareheugh Craigs	688401	19.06.99	MEB	
Bellitaw Craigs	694434	18.07.87	MEB	
C	695435			
	69464336	09.07.03	MEB	1 plant, habitat
degraded since 1987.				• ,
Hume Craigs	700415	13.07.98	D Wood, DJ	McC Possibly in
other localities on these craigs				•
Hume Castle	705414	10.06.83	MEB	
Stockbridge, near	770694	18.07.98	MEB	
Telegraph Hill, Dowlaw	855704	18.07.98	MEB, PFB	
Lumsdaine Farm	872699	23.06.98	COB	
Millar's Moss	903682	04.07.83	MEB	
E C-1				

## **Former Colonies**

[Old Atlas 45, 53, Duns Castle 7754, Dowlaw Dean 8670, Burnmouth, behind school 9561]. 'Common', 1853, when it was most frequent as an arable weed; 'uncommon now', 1916.

Scrophularia umbrosa	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Green Figwort	Riverside	120, 61%	10, 91%	52/52, 2/2
Berwickshire Neophyte				



Riversides and other wetland.

Increasing within its very patchy distribution in Britain, and possibly a relatively recent colonist.

First recorded in the VC in 1850 on the Whiteadder at Edrington and by 1874 plentiful on the Eden Water. 'Common' by 1960. Now very frequent and often plentiful in suitable habitats and still increasing. Berwickshire holds about 10% of the British population.

[Longformacus 6957, as *S. auriculata*, but probably either this or planted]

Scutellaria galericulata	Habitat	<b>Atlas GB</b>	<b>Atlas Berw</b>	Sites
Skullcap	Wetland	1338, 76%	1, 20%	1/5, 0/1
Berwickshire Rare				

Various wetland habitats

Very widespread in England, Wales and and western Scotland but scarce in eastern Scotland. Very poorly represented in the VC.

Site	GR – NT	Latest Record	Recorder	Population	
*Hirsel Lake	8240	25.06.97	JJD		
Recent Colony					
Drakemire, mire to east of burn	803632	27.09.82	MEB	Revisited since	
including 2004, mire fragment very small and seemingly unsuitable, not present in new pond					
Former Colonies			_		

[Bemersyde Moss 6133, Old Atlas 75, Sisterpath Mill 7548, Penmanshiel Wood, below 7968, Butterdean, bog by 8064]

Sedum rosea	Habitat	Atlas GB	Atlas Berw	Sites
Roseroot	Coast	388, 74%	3, 75%	4/5, 4/5
Dowysialzahina Caanaa				

#### Berwickshire Scarce

Sea cliffs and montane rock ledges.

Widespread in north-west Scotland but very local elsewhere.

Quite frequent on sea cliffs from St Abbs Head to Fastcastle, also a little away from the sea in Dowlaw Dean. These coastal colonies are much the furthest south on the east coast of Britain.

Site Fine Colonies	GR – NT	Latest Record	d Recorder	Population	
*Dowlaw Dean to Fastcastle	865703, 865709, 866708, 867708, 868706, 869706				
		1998-2004	MEB, CD		

The Dowlaw Dean colonies extend a few hundred metres up the dean from the waterfall at the sea cliff

*Westerside Dean and Heathery Carr 888695, 88996940, 891694, 89326915

*St Abbs Head - Petticowick 905690 MEB

- near Lighthouse 912693, 914692 1977, 1992 MEB

## **Former Colony**

[*Lamberton and Burnmouth, on the rocks between 95]

Sedum telephium	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites as Native
Orpine	Grassland	790, 66%	2, 22%	? Nil
Damerialeshina Naamberta				

### Berwickshire Neophyte

Woodland edge and hedgebanks.

Widespread in Britain but many colonies are naturalised garden outcasts.

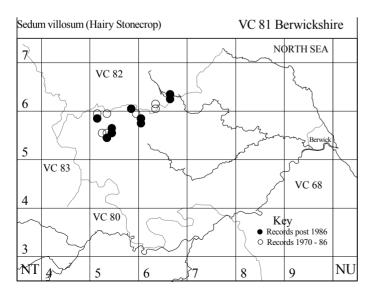
Neophyte and just possibly also native in the VC. Some records relate to *ssp. fabaria*. All the records relate to more or less isolated clumps, often in undistinguished habitat, and at least some must be considered to be garden material dumped or carried down river.

Site	GR - NT	Latest Record	Recorder	Population
*Gaitheugh, riverside	592342	02.08.89	MEB	
Girrick	667383	18.08.02	LWG	
Buckrig	79234424	21.10.01	MEB	
Birgham Wood, roadside	799395	08.03	LWG	(798398 MEB)
Brockholes Wood	814655	18.08.96	MEB	
Dunglass Wood	827422	09.04.93	MEB	

#### Former Colonies

[East Morriston, roadside 6041, Gordon, roadside 6443, Bents Corner and Polwarth, between 7349, Burnhouses, burnside 7558, Cockburnspath 7771, Castlelaw, wall 8141, Coldingham, roadside 9065, Edrington 9354, Eyemouth, one mile north of 9364]

Sedum villosum	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Hairy Stonecrop	Wetland	95, 45%	3, 27%	11/25, 0/10
<b>British Scarce</b>				



Relatively acid hill flushes dominated by bryophytes.

Local with its headquaters in the Southern Uplands.

A regional speciality well represented in the VC in the Lammermuirs but the colonies on lower ground all appear to have been lost to drainage and other changes to its fragile habitat. The Lammermuir populations were not localised until C20.

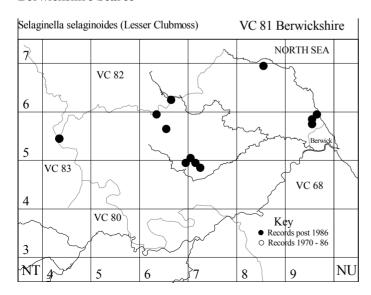
In the hills of the western Borders this species is often found in seepages down steep hillsides, while in Berwickshire, with its drier climate, its habitats are all essentially on the level.

Site	GR – NT	Latest Record	Recorder	Population
Kelphope Burn	512587	02.08.85	MEB, PFB	-
	513584	02.08.85	MEB, PFB	
Soonhope Burn	531555	02.07.83	MEB	
Soonhope Burn, upper	536592	02.08.85	MEB, PFB	
Longcroft	535545	20.06.92	MEB	
Whalplaw Burn	541551	20.06.92	MEB	
	547566			
	547567			
Wester Black Burn	583605	04.07.98	MEB	
Dye Water	586590	08.07.79	MEB	
Green Cleugh	60455738	28.07.01	MEB	
	60565758			
	60725815			
	60735812			
Dye Water	606583	08.07.79	MEB	
Crow Cleugh	636609	05.07.83	MEB	
	636610			
Killmade Burn	66556311	20.07.00	MEB	
	665629	11.07.98	MEB	

#### Former Colonies

[Lauder Hill 5045, Crib Law, below 5259, ByreCleugh, above 6057, Greenlaw and Lightfield, between 6844, Hume Craigs 7041, Hule Moss 7149, Whitchester and Longformacus, between 7157, Duns and Longformacus, hill top between 7254, Langtonlees, Cattleshiel Moor 7352, Ecclaw Hill 7567, Pease Bridge woods 8068, Greenside Hill 8068, Langstruther Bog 8167, Laverock Law 8567]

Selaginella selaginoides	Habitat	Atlas GB	Atlas Berw	Sites
Lesser Clubmoss	Wetland	754, 78%	7, 88%	11/13, 2/3
Rerwickshire Scarce				



Base-rich flushes.

Very widespread in north and west Scotland but more local elsewhere.

Poorly represented in the VC where its sites are small and vulnerable to small-scale disturbance.

Site	GR – NT	Latest Record	Recorder	Population
Clints Hill	43395414	26.06.04	MEB	Plentiful
Stotcleugh	632590	05.08.89	MEB	
Watch Water	651562	30.07.89	MEB	Small colony
Killmade Burn	66(3)62(5)	20.07.00	MEB	Good colony
*Fangrist Burn	69894959	24.07.02	MEB	Very few
Cleckinshaw	701503	04.08.90	MEB	-
*Greenlaw Moor	720485	13.07.98	RWMC	
Dowlaw Burn	852691	18.04.90	DGL	
Lumsdaine Dean, moor by	85266907	02.07.04	MEB	
-	85476910			
Mordington	953575	10.08.91	MEB, PFB, D	Walton
Lamberton Moor	955582	10.08.91	MEB, PFB	
*Hilton Bay	968592	03.02.91	DGL	
Former Colonies				
[Foulburn Bridge 7151, Penmanshiel Moor 8268]				
	-			

[Senecio erucifolius] Habitat Atlas GB Atlas Berw Sites
Hoary Ragwort Grassland 1090, 85% [5] 0/12, 0/12

Very widespread in grassland in England but extinct as a native in Scotland.

[Mellerstain 6439, Haddonrig 74, Sunnyside 74, Orange Lane 7742, Grizzlerig 7842, Anton's Hill 7843, Swinton Bridgend 825467, Coldstream 8439, Norham Bridge 8947, Clarabad and Edrington Mill, between 9354, English Boundary Lane 9453, Edrington and Cocklaw, between 9454]. Last record 1969 Swinton Bridgend.

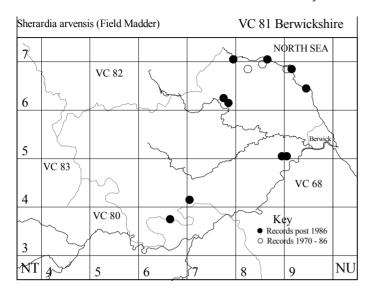
Seriphidium maritimum	Habitat	Atlas GB	Atlas Berw	Sites
Sea Wormwood	Coast	153, 69%	1, 33%	3/4, 1/2
Berwickshire Rare				

Upper saltmarsh and coastal shingle.

Rather local and mainly in south-east England.

Modestly represented in the VC.

Site Rough Heugh, on sea stac *Petticowick, shingle and sea stac *Gunsgreen, coast near, shingle Former Colony [Dunglass, seaside near 7671]	<b>GR – NT</b> 805709 90636905 953641	<b>Latest Record</b> 07.81 27.09.02 27.08.94	Recorder COB MEB MEB	Population  Area 3m x 3m  Fair colony
Sherardia arvensis Field Madder Berwickshire Scarce	<b>Habitat</b> Grassland	<b>Atlas GB</b> 1175, 71%	Atlas Berw 7, 47%	<b>Sites</b> 13/+, n/a



Dry grassland, dunes and arable fields.

Widespread but decreasing in southern Britain but scarcer in Scotland.

The Berwickshire population appears to be in sharp decline, probably due to eutrophication of its habitat.

Site	GR - NT	Latest Record	Recorder	Population
Fine Colony				
Muckle Thairn, sandstone outcrop	665375	22.05.99	LWG	Widespread

#### **Other Sites**

Hume Craigs 7041, Abbey St Bathans, set-aside 777622, Blackerstone, set-aside 784613, †Pease Dean 790705, Penmanshiel 8268, Lumsdaine Dean 8569, Dowlaw Dean, field near 865700, Winfield Airfield 892508, Hutton Stone Quarry 903509, Millar's Moss, bank near 903682, *St Abbs Head 915686, Eyemouth Industrial Estate 94816444.

#### **Former Colonies**

[Old Atlas 54, 55, Langtonlees 7452, Harelaw Craigs 7654, Dunglass Dean 7671, Duns Law 7854, Grantshouse 8065, Edrom Mains 8155, Old Atlas 84, 94, Lamberton Shiels 9757]. 'Common', 1853.

Silaum silaus	Habitat	Atlas GB	Atlas Berw	Sites
Pepper-saxifrage	Grassland	703, 73%	2, 29%	2/13, 0/7
Berwickshire Rare				

Damp neutral grassland.

Widespread in England but rare in Scotland.

Apparently in danger of extinction in the VC.

Site	GR – NT	Latest Record	Recorder	Population
*Bemersyde Moss	609338	08.10.03	LWG	Still doing fine
Skaithmuir Fox Covert, field edge	838431	17.07.93	MEB	Just surviving

#### Former Colonies

[Lauder Common, Fir Stell 5046, Gledswood, near Halidean 5934, Dryburgh and Mertoun, between 6032, Nenthorn Bridge 6837, Old Atlas 75, Bunkle 8059, Haigsfield, Duns to Coldstream road near 8140, Simprim 8445, Ladykirk, near 8847, Fleurs 9165, Hallydown 9264]

[Silene noctiflora]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Night-flowering Catchfly	Arable	238, 35%	[8]	0/6, 0/0

An arable weed of light soils in south-east England where it is an archaeophyte.. Almost extinct in Scotland.

[Old Atlas 73, Cockburnspath 7771, Cheeklaw 7852, Horse Bog, near 7940, Edrom Mains 8155, Fireburnmill 8239, West Blanerne 8256, Foulden 9255]. Last record 1971 West Blanerne.

Sinapis alba	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
White Mustard	Arable	574, 53%	3, 43%	7/+, n/a
Berwickshire Neophyte				

Arable fields and waste ground.

Archaeophyte. Sometimes cultivated. Widespread in central and southern England but scarce and eastern in the north.

Apparently still being introduced both as a planted crop and as a seed impurity and sometimes establishing a long-lived seed bank but now ultimately failing to persist. Formerly common as a cornfield weed, 1853.

Site	GR – NT	Latest Record	Recorder	Population
Huntshaw Hill, planted	566400	03.08.00	LWG	_
(Cowdenknowes)	580364	28.06.00	LWG	Field card is
double-scored, the meaning of this is u	nclear			
Dryburgh, set-aside	586328	13.08.99	LWG	
Clinthill, planted	601322	15.07.02	LWG	
	603323	30.09.95	MEB	
Mertoun Mill	605324	30.09.95	MEB	
	609323			
Nether Huntlywood, planted	628435	28.07.01	MEB	
Duns, building site	792537	27.09.99	MEB	
Former Colonies				

Former Colonies

[Georgefield 8243, Simprim, sown near 8444, Northfield, strawberry field 914674, Old Atlas 95]

[Sison amomum]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Stone Parsley	Grassland	656, 83%	[2]	0/1, 0/1

Scrubby grassland in south-east England. Extinct in Scotland. Perhaps only a former casual in the VC. [(Duns – one plant 7853), *Hirsel Lake 8240]. Last record 1834.

[Sium latifolium]	Habitat	Atlas GB	Atlas Berw	Sites
Greater Water-parsnip	Wetland	62, 24%	[2]	0/1, 0/1

A scarce fen species of south-east England. Extinct in Scotland.

[(Lithtillum Burn 8040), Whitehall Haugh, right hand bank of ditch 8754]. Last record 1893, Whitehall Haugh. Rather unsafe.

[Smyrnium olusatrum]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Alexanders	Coast	701, 86%	[1]	0/1, 0/1

Cliffs and grassy habitats near the sea. An archeophyte formerly cultivated and still very widespread, naturalised near the coast in southern Britain but rare in the north. Formerly persistent in just one locality in the VC.

[Dunglass, coast near 7772]. Last record 1917, but first recorded as early as 1777.

Sorbus rupicola	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Rock Whitebeam	Woodland	59, 60%	1, 100%	1/1, 1/1
<b>British Scarce</b>				

Calcareous rocks.

Very localised but widespread in Britain.

The Gaitheugh colony is a fine one.

Site	GR – NT	Latest Record	Recorder	Population	
*Gaitheugh	592342	02.08.89	MEB, PFB	Good mature	
population, trees up to about 4m in height, known here since 1874.					

Sparganium emersum	Habitat	Atlas GB	Atlas Berw	Sites
Unbranched Bur-reed	Aquatic	946, 66%	4, 40%	8/15, 1/3
Berwickshire Scarce				

Slow-moving or still waters.

Very widespread in southern Britain but more local in Scotland.

Surprisingly poorly represented in the VC.

Sparg	anium emer	sum (Unbra	nched Bur-i	reed)	VC 81 B	erwickshi	re
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4	VC 83	•	0		کر کے	VC 68	
3		VC 80				rds post 1986 rds 1970 - 86	
МT	4	5	6	7	8	9	NU

Site	GR - NT	Latest Record	Recorder	Population
Lauder Burn	516452	12.07.97	MEB	
(*Bemersyde Moss)	6134	16.05.78	MEB	Correct?
*Gordon Moss, canalised burn	635425	03.07.82	MEB	
*Macks Mill, Eden Water	660447	25.06.88	MEB	
*Hardiesmill Place, Eden Water	661402	12.09.87	MEB	
Kettleshiel Bridge, Kettleshiel Burn	700518	16.09.89	MEB	
*Mouth Bridge, Blackadder Water	825529	13.09.98	LWG	
*Blackadder Bridge	8654	28.09.98	LWG	
Edington Mill, mill lade	8954	30.08.98	LWG	
E 01.				

#### **Former Colonies**

[*Greenknowe, Eden near 6444, Old Atlas 74, Choicelee, dam by Langton Burn 7451, Ladyflat, Howe Burn 7750, †Hen Poo, Duns Castle 7754, Old Cambus Townhead 8069, Old Atlas 84, Mordington Whins, pond near 9557]

[Sparganium natans]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Least Bur-reed	Aquatic	234, 46%	[3]	0/4, 0/4

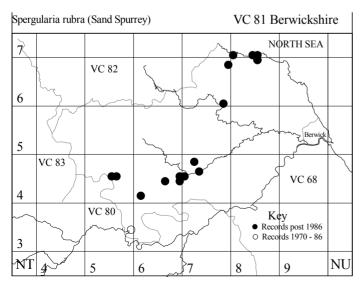
Locally frequent at the edges of small water bodies in north-west Britain.

[*Gordon Moss 6342, *Coldingham Loch, ditch at top of 8968, Northfield Mill pond 9167]. 'Old peat pits and ponds in the Lammermuirs', 1853. There has been some confusion with *S. emersum* and these are the most acceptable records. Last record 1982 Gordon Moss, pool at 633423, MEB, a poor nonflowering plant, perhaps an error for depauperate *S. emersum*. Looked for more recently, but pool completely shaded over by trees and plant gone. Last previous record 1880 Gordon Moss.

Spergularia media	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Greater Sea-spurrey	Coast	494, 75%	2, 67%	7/7, 0/0
Berwickshire Scarce				

Saltmarshes and other maritime habitats. Almost all round the British coastline. The limited representation in the VC reflects the very rocky coastline. The lack of historical records reflects confusion with *S. marina*.

Site *Ramsheugh Bay Siccar Point	<b>GR – NT</b> 778722 81247094	Latest Record 27.06.98 02.08.03	Recorder MEB, PFB MEB	Population
*St Abbs Head possibly at Horsecastle Bay	9168	1977	MEB	1 large plant,
Yellow Craig	921662 922659	06.08.94	MEB	
Hairy Ness	940650	06.08.94	MEB	
*Fancove Head	954639	16.08.93	D Patterson	
*Gunsgreen Coast	954641	27.08.94	MEB	
Spergularia rubra	Habitat	Atlas GB	Atlas Berw	Sites
Sand Spurrey	Grassland	904, 65%	6, 55%	12/+, n/a
<b>Berwickshire Scarce</b>				



Sandy and gravelly habitats.

Rather locally frequent in Britain.

Modestly represented in the VC. The future of this species is uncertain. It is being lost from natural sandy grassland but is colonising roadsides and other ruderal habitats.

#### Sites

Boon Bridge 557455, Scott's View 5934, Fans 61604174, Macks Mill 66144474, Greenlaw, A 6105 near 6945, 7045, Flourishwalls, A 6105 near 722486, Lintmill Bridge 7346, Elba 785604, Penmanshiel, road to 7966, Glen Fin 790689, Old Cambus Quarry 801704, Dowlaw 84997005, 850700, Lumsdaine Dean 85586922, 85636920.

#### **Former Colonies**

[Old Atlas 45, 65, 75, Coldingham 9066]

Stachys arvensis	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Field Woundwort	Arable	786, 55%	2, 22%	3/15, 1/12
Berwickshire Rare				

#### Arable fields.

Archaeophyte. Widespread but declining in southern Britain but scarce in Scotland. Now poorly represented in the VC, but formerly frequent at least near the coast.

Site	GR – NT	<b>Latest Record</b>	Recorder	Population
Dowlaw Dean, arable by	866705	03.10.98	MEB	Small colony
Fleurs Dean, arable near	924653	06.08.94	MEB	
Breeches Rock, arable near	957619	25.05.97	JM	

#### **Former Colonies**

[Lauder, Crofts 5247, Trefountain and Abbey St Bathans, between 7562, Trefountain, Monynut Water below 7562, Cockburn Mill, Primrose Hill side 7758, Cockburnspath, gardens 7771, Penmanshiel Wood 7968, Old Cambus Townhead 8069, Old Cambus West Mains 8070, Chirnside 8656, Eye Water, banks of 9160, Hallydown 9264, Ale Water, banks of 9362, Gunsgreen 9463, Lamberton, below 9757]

Stachys officinalis	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Betony	Grassland	1341, 85%	[6]	1/8, 1/6

#### **Berwickshire Rare**

Grassland and woodland edge.

Very widespread in England and Wales but very scarce in Scotland.

Almost extinct in the VC.

Site	GR – NT	Latest Recor	d Recorder	Population
Greenwood	835642	08.02	A McBride	3 plants
In an area recently cleared of trees				

#### In an area recently cleared of trees.

#### Former Colonies

[Longformacus 6957, Newton Don 7037, Old Atlas 77, Grantshouse 8065, Penmanshiel 8067, Houndwood 8463, Whitehall 8755, Edrington Craigs 9453, (Coldingham Parish 96)]

Stellaria neglecta	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Greater Chickweed	Riverside	533, 69%	2, 67%	2/3, 0/0
Damerialeakina Dana				

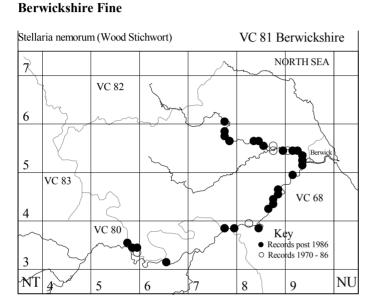
#### Berwickshire Rare

Damp shaded habitats.

Widespread only in south-west Britain. Rare in Scotland.

Vulnerable and close to extinction in the VC. The lack of historical records reflects confusion with *S. media.* 

*Carham, damp ground by Tweed opp. West Loch, damp ground Former Colony [Coldingham, wood by shore 9166]	<b>GR – NT</b> 805392 893679	<b>Latest Record</b> 11.06.97 05.10.96	Recorder MEB MEB	Population 1 patch Small colony
Stellaria nemorum Wood Stichwort	<b>Habitat</b> Woodland	<b>Atlas GB</b> 317, 73%	Atlas Berw 10, 100%	<b>Sites</b> 31/+, n/a

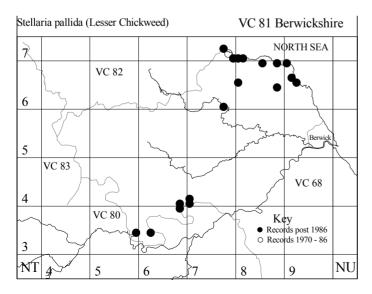


Wet streamside woodland.

Northern England and southern Scotland.

Something of a regional speciality, well represented in the VC where it is a constant component of riverside woodland on the *Tweed and *Whiteadder but, curiously, it appears to be absent from the Blackadder, Leader, Eden, Leet and Eye Waters. This may be evidence of reliance on vegetative reproduction.

Stellaria pallida	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Lesser Chickweed	Grassland	424, 70%	9, 100%	19/19, 0/0
Not Berwickshire Scarce				



Sandy soils and rocky knowes.

Locally widespread on sandy soils as in East Anglia, scarce elsewhere.

The populations on rocky knowes are something of a regional speciality and are vulnerable to eutrophication and relaxation of grazing. The coastal populations are more stable and can thrive even in areas with high visitor pressure by virtue of their very early flowering.

The lack of historical records reflects confusion with *S. media*.

#### **Sites**

Bemersyde Hill 596343, Butchercote Craigs 623342, 626346, Hareheugh Craigs 687399, 688400, 689401, Hume Craigs 7041, Hume Mill 707406, Edin's Hall 772406, Dunglass Dean 774720, *Ramsheugh Bay 774722, 776722, Pease Bay 79277072, 79397085, 79547082, Greenheugh Point 800708, Old Cambus Quarry 802705, St Helen's Church 804706, Grantshouse 809655, Siccar Point 811708, Lowries Knowes 851696, 854697, *Westerside Dean 882695, Greenlaw Knowe 884648, *St Abbs Head 905690, 908691, 908692, Coldingham Sands 91596666, Linkim Shore 92306555.

Stellaria palustris	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Marsh Stitchwort	Wetland	161, 41%	2, 67%	2/3, 2/2
Berwickshire Rare				

Fens, especially with open standing water.

Local, most frequent in East Anglia. Scarce in Scotland.

The Lurgie Loch colonies have so far proved surpisingly resilient in the face of the loss of open water habitat and its conversion to fen and carr woodland.

Site	GR - NT	Latest Record	d Recorder	Population
Fine Colony				_
*Lurgie Loch	675393	19.06.99	MEB	Fine colonies
	676394			
	676395			
	679396			
Other Colony				
*Gordon Moss	635425	06.93	MEB	Few
Former Colony				
[Lithtillum Loch 8040]				
[Symphytum officinale				
ssp. officinale]	Habitat	Atlas GB	Atlas Berw	Sites
Common Comfrey	Riverside	1079, 85%	[1]	0/1, 0/1

Banks of water-courses and in marshes.

Formerly cultivated as a medicinal plant. Widespread in central and southern England, local and possibly introduced further north.

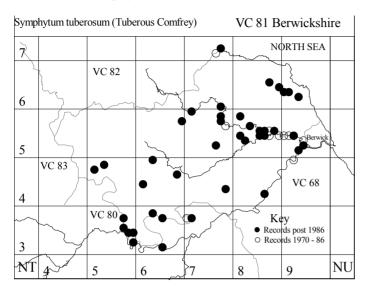
The historical records of *S. officinale* include records of a purple-flowered variety (as the *S. patens* of Sibthorp and Abbot). These are probably early records of *S. x uplandicum*. Eliminating these and other indeterminate records leaves Kyloe, bank of Blackadder near 1831 as the only record. A study of herbarium specimens in **BM** for the VC has only revealed specimens suggestive of *S. x uplandicum*. This situation is odd in view of the wider occurrence of *S. officinale* in neighbouring VCs and its very widespread use as a medicinal plant.

Specimens can be gathered by the Tweed amongst *S. x uplandicum* that correspond with the critical characters of *S. officinale*, but they seem to be merely part of a continuous series of intermediates that all relate to *S. x uplandicum*. It may then be that any former *S. officinale* has been 'hybridised out of existence' in the VC. True *S. officinale* is often cream-flowered and MEB has never seen a creamflowered *Symphytum* in Berwickshire. Though the above view is shared with RWMC, not all botanists agree that *S. officinale* is absent from the lower Tweed. In 2004 RVL and TJP considered there to be more *S. officinale* present than *S. x uplandicum*.

#### **Former Colony**

[*Kelloe, bank of the Blackadder 8453]

Symphytum tuberosum	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Tuberous Comfrey	Riverside	300, 74%	14, 88%	48/49, 8/9
Berwickshire Neophyte				



Riverbanks and more ruderal habitats.

Very widespread and increasing in eastern Scotland and the Central Belt. Scarce and introduced elsewhere.

This curious distribution may be evidence of relatively recent colonisation in Britain following introduction as a medicinal plant to those areas where *S. officinale* is not native. Something of a regional speciality, plentiful by the *Tweed and *Leader near Leaderfoot, by the *Whiteadder and Eye Waters but local and more ruderal elsewhere.

There is evidence of colonisation in the historical record. It was regarded as rare and known only from the lower Whiteadder 95, 1834, also found as a ruderal at Westruther 6350, 1831, Newton Don 7037, 1874 and Longformacus 6957, 1882. The first Tweed record was Union Bridge 9351, 1875.

Taraxacum officinale agg.	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Dandelion	Grassland	2736, 98%	23, 100%	n/a
N/a				

Grassland and ruderal habitats.

Although the aggregate is very widespread and abundant in Britain many of the apomictic segregates are more local.

Field meetings led by A J Richards in 1979 and C C Haworth in 1986 have been sufficient to establish the segregate species frequent in Berwickshire. No rare species have been recorded but two of the six species recorded in section *Erythrosperma*, the lesser dandelions of dry places, are mainly southern species of calcareous grassland. Their presence is of interest. They are likely to be locally scarce and their records follow.

Site	GR – NT	Latest Record	Recorder	Population
T. argutum Bluestoneford T. rubicundum	8754	1986	C C Haworth	
*St Abbs Head	9169	1986	C C Haworth	
[Teesdalia nudicaulis] Shepherd's Cress	<b>Habitat</b> Rock	<b>Atlas GB</b> 216, 41%	Atlas Berw	<b>Sites</b> 0/1, 0/1

A very local annual of sand and gravel, declining in most areas. [Gaitheugh 5934]. Last record 1877.

[Thalictrum flavum]	Habitat	Atlas GB	Atlas Berw	Sites
Common Meadow-rue	Wetland	408, 61%	[2]	0/1, 0/1

A southern fenland plant perhaps extinct as a native in Scotland.

[(Dunglass Dean 7671), Netherbyres 9463]. Last record at Netherbyres 1845 and considered probably destroyed by 'recent improvements' before 1853. Last record at Dunglass Dean 1886. The Dunglass Dean record has its problems; the species is unlikely in the dean itself, where indeed T. minus is recorded, and while is possible nearby that would most probably place the record in VC 82. It is therefore considered unsafe

Thalictrum minus	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Lesser Meadow-rue	Coast	353, 70%	3, 60%	8/12, 5/9
Berwickshire Scarce				

Sandy habitats and calcareous rocks.

Relatively widespread but rather local in Britain. Most frequent on the coast.

Moderately represented in the VC.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				
*Dowlaw Dean, amongst rocks	86527033, 865	97042, 8677706	0, 8687061 and	elsewhere
		2002 - 2004	MEB	Good colonies
Coldingham Bay, sandy banks	917664	06.08.94	MEB	Large colony
Other Colonies				
*Gaitheugh, wet rock face	593340	13.08.99	LWG	Small colony
There are also records from 590338, 59	1339 MEB which	ch may or may no	ot be the same co	olony.
*Lumsdaine Shore	875700	07.09.96	MEB	
*West in Thirle Bay	903690	09.05.81	MEB	
Old Linthill, bank above Eye Water	940626	16.07.94	MEB	Modest colony
*Ramfaulds, Eyemouth	950646	27.08.94	MEB	
*Burnmouth, sea braes	95696172	02.06.01	MEB	Small clump
Former Colonies				

[Cockburnspath, shore 7970, Pease Bay, shore near 7970, *Redheugh and Dowlaw, between 8370, Ale Mill, Ale below 9163]. The coastal colonies could well survive.

[Tofieldia pusilla]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Scottish Asphodel	Moorland	106, 68%	[1]	Probably VC 68

Last record 1671. A plant of calcareous flushes in the hills of northern Scotland with an outlier in Teesdale. The former occurence at the Scottish Border is extraordinary but well documented. A recent review by MEB suggests that the former locality is most likely to have been in England VC 68 at Loughend, north of Berwick-upon-Tweed NT9855, see Watsonia, 25: 207-208 (2004).

Torilis nodosa	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Knotted Hedge-parsley	Grassland	388, 54%	1, 50%	2/6, 1/5
Berwickshire Rare				

Dry grassland.

Predominantly south and south-east England. Rare in Scotland.

Always rare in the VC.

Site	GR – NT	Latest Record	Recorder	Population
Purvishaugh	6039	2000	K Brownlie	det. MEB
*St Abbs Head	91576865	25.05.02	MEB	4 plants only,
previously strong colony almost overwhelmed following colonisation by <i>Sedum album</i> .				

Former Colonies

[Bogend 7949, Hallydown 9264, Gunsgreen Hill 9463, Eyemouth 9464]

#### Trichophorum cespitosum

ssp. cespitosum	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Lesser Deergrass	Moorland	7, 58%	0	3/3, 0/0
British Rare				

Peatland flushes that are slightly base-enriched.

Rare but under-recorded. A taxon probably better treated as a full species.

Though only discovered in the VC in 2000, few, if any, additional localities can be expected as the habitat is rare. The lack of historical records reflects confusion with *ssp. germanicum*.

Site	GR - NT	Latest Record	Recorder	Population
Longmuir Moss, flush in raised bog	47185044	01.07.00	MEB	Good colony
extending across the boundary with VC	C 83.			
*Dogden Moss, flush in raised bog	67754934	29.06.02	MEB	Small colony
	68884963			Good colonies
	68944956			
	69074937			

## Trichophorum cespitosum ssp. cespitosum x ssp. germanicum

= T. c. nothossp. foersteri	Habitat	Atlas GB	Atlas Berw	Sites
Swan's Deergrass	Moorland	n/a	n/a	5/5, 0/0
Berwickshire Scarce				

#### Active raised bogs.

This largely sterile hybrid between *ssp. cespitosum* and *ssp. germanicum* has only been recognised in Britain since 1999 but is now known to be rather widespread in its very specific habitat, which appears to be too wet to support either of its parents.

Quite well represented in the VC. The lack of historical records reflects confusion with ssp. germanicum.

Site	GR – NT	Latest Record	Recorder	Population
Longmuir Moss, raised bog	47195048, etc	01.07.00	MEB	Plentiful
*Dogden Moss, raised bog	6749, 6849, 69	49		
		02.07.04	MEB	Plentiful,
occasionally proliferous.				
*Dogden Moss, raised bog	67754943	01.07.00	MEB	One large
clump of backcross with ssp. cespitosus	m, fertile.			
*Long Moss, raised bog	855683	24.07.99	MEB	
Trientalis europaea	Habitat	Atlas GB	Atlas Berw	Sites
Chickweed Wintergreen	Wetland	764, 71%	1, 17%	3/8, 3/8
Berwickshire Rare				

Birch and pine woods.

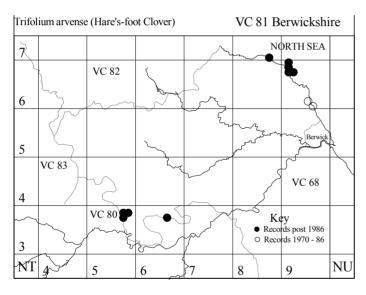
Eastern Scotland north of the Forth. Local elsewhere. Modestly represented in the VC.

Site	GR – NT	Latest Recor	rd Recorder	Population
Fine Colony				
*Long Moss	855685	16.06.01	R.Woodall	Widespread
Other Colonies				
Blackburn Wood, pine wood	779650	11.08.82	MEB	Poor colony
*Drone Moss	845669	19.06.80	MEB	Good colony
- ~				

#### **Former Colonies**

[Hartside 4454, Birkhill 5642, Spottiswoode 6149, Rawburn, near march with Evelaw south of 6754, Penmanshiel Moor behind Greenside Hill 8168, Press Plantation 8665, Silverwells 8766]

Trifolium arvense	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Hare's-foot Clover	Grassland	851, 70%	3, 30%	9/24, 2/10
Rerwickshire Scarce				



Sandy places and rocky knowes.

Widespread in lowland Britain, more local in the north.

Poorly represented in the VC. No substantial colonies remain except possibly on the coast just south of St Abbs village where it has not been looked for recently.

Site	GR - NT	Latest Record	Recorder	Population
Cowdenknowes, Leader Water near	5737	28.07.98	MEB, PFB	Casual
Earlston, near Turfford Burn	5738	26.08.95	MEB	Casual
Earlston Industrial Estate	580386	31.07.01	LWG	
Hundy Mundy	665374	18.08.02	LWG	
Lumsdaine Shore	874700	19.07.87	MEB	
*St Abbs Head	915693	12.07.95	O Leyshon	Eelicar Rock
	916686	06.06.93	MEB	Few
St Abbs Harbour	920674	26.09.94	MEB	Small colony
*Burnmouth	9561	11.07.79	MEB, COB	
*Ross	9660	11.07.79	MEB, COB	

#### **Former Colonies**

[Longcroft 5252, *Gordon Moss 6342, Old Atlas 74, Harelaw Craigs, road to 7753, Cockburn Ford, wall above 7757, Cockburnspath 7771, Preston Bridge 7856, Cove 7871, †Pease Dean 7970, Siccar Point 8170, Old Atlas 84, 85, Coldingham Bay 9166, Netherbyres 9463, Old Atlas 95]

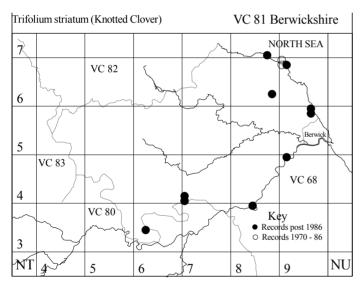
[Trifolium fragiferum]	Habitat	Atlas GB	Atlas Berw	Sites
Strawberry Clover	Riverside	464, 61%	[3]	0/4, 0/4

Damp calcareous grassland in south and east England. Rare in Scotland. [*Dunglass and Pease Bay, coast between 7772, Bluestoneford to Edington Mill, north side of Whiteadder 8855, 8954 (2+ sites), *Gunsgreen 9563]. Last record 1893 Gunsgreen.

[Trifolium scabrum]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Rough Clover	Grassland	242, 60%	[1]	0/1, 0/0

Sandy or rocky grassland near southern coasts. Rare in Scotland. Possibly overlooked in the VC. [Harelaw Craigs, road to 7753, (Cockburnspath/Dunglass Dean 7771)], Last record 1960 Harelaw Craigs.

Trifolium striatum	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Knotted Clover	Grassland	548, 64%	6, 75%	11/+, n/a
Berwickshire Scarce				



Rocky knowes.

Local and southern in Britain.

Moderately well represented in the VC and a characteristic but scarce component of the coastal grasslands and those of the Kelso traps.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				
Hume Craigs	7041	13.07.98	DW, DJMcC	Local
Millar's Moss	903682	04.07.83	MEB	Rather plentiful
*St Abbs Head - Petticowick	909692	04.07.83	MEB	Scarce
- Mire Loch	913686	25.06.92	CDP	
- Kirk Hill	916686	06.06.93	MEB	Abundant
Other Colonies				
Butchercote Craigs	626346	04.06.95	MEB	Few
Hume Mill	707406	16.05.98	MEB	
Old Cambus Quarry	8070	23.05.81	MEB	
The Lees	840390	03.05.97	MEB, PFB	
Reston	884624	03.07.96	A R Jermyn	

Green Knowes, Fishwick Mains	91724972 91804969	30.05.03	MEB	Modest colonies
*Catcairn Bushes	96675934	09.06.00	MEB	2 small colonies
Former Colonies				

[Harelaw Craigs, road to 7753, Ayton 9261]. 'Occasional throughout the district', 1853.

Triglochin maritimum	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Sea Arrowgrass	Coast	675, 80%	2, 100%	4/4, 2/2
Berwickshire Scarce				

Saltmarsh and flushed coastal rocks.

All round the coast of Britain.

Very poorly represented in the VC due to lack of saltmarsh.

Site *Ramsheugh Bay Yellow Craig	<b>GR – NT</b> 7772 921662 922659	<b>Latest Record</b> 27.06.98 06.08.94	Recorder MEB. PFB MEB	Population
Eyemouth *Burnmouth, coast	922639 945640 9563	27.08.94 16.08.93	MEB D Patterson	
Trollius europaeus Globe-flower Berwickshire Scarce	<b>Habitat</b> Wetland	<b>Atlas GB</b> 537, 63%	Atlas Berw 4, 36%	<b>Sites</b> 5/23, 1/18

Berwicksnire Scarce

Wet basic grassland and flushes. Rocky riversides.

Northern England and Scotland.

Now poorly represented and vulnerable in the VC, but a species once characteristic of Berwickshire's wet meadows.

Site	GR – NT	Latest Reco	rd Recorder	Population
Representative Colony				
*Crook Burn, Redpath	699590	14.05.86	MEB	Good colony
Other Colonies				
Threeburnford	46465302	26.06.04	MEB	Small colony
	466529	27.06.04	LWG	Small colony
Washing Burn	519476	27.05.03	J Mercer	6 clumps
Redpath Moss	601366	01.07.95	MEB	Small colony
Lumsdaine Farm	877683	22.06.88	COB	•

**Former Colonies** 

[Hartside, bog towards 4753, Lauder, Loanside 5247, Thirlestane 5647, Lightfield 6441, Hardacres, south of 7442, Blackburnrig Dean 7965, Bunkle Wood 8158, Penmanshiel Moss Moor 8167, Howpark Dean 8266, Swinton, Leet at 8347, Billy Mains, plantation above 8459, Coldingham Moor 8667, Dowlaw Dean, near 8669, Silverwells 8766, Hutton Hall and Broomdykes, roadside between 8854, Edington Moor 9057, Foulden West Mains 9155, Lamberton Moor 9558]

Typha angustifolia	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites as Native
Lesser Bulrush	Aquatic	532, 68%	1, 50%	Nil
Berwickshire Neophyte				

Edges of still waters.

Widespread in England except the north. Rare and mainly introduced in Scotland.

The colony at the Hen Poo is considered a long-established introduction.

Site	GR - NT	Latest Record	Recorder	Population
Introduced Colony		21060=		
†Hen Poo, Duns Castle	778546	24.06.97	MEB	
Former Introduced Colony				
[Newton Don 7037]				
Ulex gallii	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Western Gorse	Moorland	793, 85%	1, 17%	2/6, 0/0
Berwickshire Rare				

Acidic heaths.

Western Britain north to Galloway. Rare and sometimes introduced elsewhere.

The several historical records indicate that this is a species native to Berwickshire, now endangered. The lack of historical records does not wholly relate to confusion with *U. europaeus* as this species was known in Northumberland to Berwickshire botanists.

Site	GR – NT	Latest Record	Recorder	Population
Middlethird, roadside bank	683437	05.04.03	MEB, PFB	1 only left after
bank damaged by snowplough, previous	ously 4 bushes.	Probably native as	a relict of form	er adjacent
moorland				
Dammanahial mailway hamle	70626711 7	10626712 7062671	c	

Penmanshiel, railway bank 79636711, 79636712, 79636716

19.06.02 MEB Large colony.

Possibly introduced when the railway cutting replaced the former tunnel after its collapse in the 1980's. The failure of J Hardy to find this plant in C19 is significant, as he knew the plant and lived nearby.

**Former Colonies** 

[Soutra Hill 4756, Hardens Hill 7354, Preston, road near 7857, Dunside Hill, Dye near 6358]

[Utricularia intermedia agg.]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Intermediate Bladderwort	Aquatic	278, 67%	[1]	0/3, 0/3

Shallow peaty water in north-west Scotland.

[*Lurgie Loch 6739, Penmanshiel Moss 8268, Langstruther Bog 8167]. Last record 1853, all sites.

[Utricularia minor]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Lesser Bladderwort	Aquatic	346, 55%	[2]	0/3, 0/3

Shallow bog pools especially near the west coast.

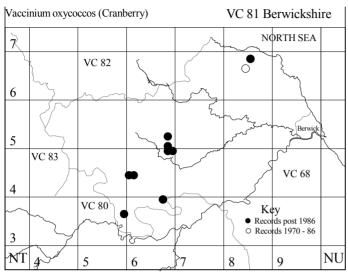
[*Gordon Moss 633424, Penmanshiel Moss 8268, Langstruther Bog 8167, Coldingham Moor 8568]. Last record 1974 Gordon Moss.

[Utricularia vulgaris agg.]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Greater Bladderwort	Aquatic	391, 53%	[4]	0/5, 0/5

Neutrient poor waters. Local in Britain.

[*Gordon Moss 6342, Leitholm Loch 74, Girtrig Pond 7750, Bishop's Bog 7840, *Allanton Bridge, Blackadder below 8654]. Last record 1902 (publication date) Allanton Bridge.

Vaccinium oxycoccos	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Cranberry	Wetland	523, 72%	5, 71%	10/13, 4/5
Berwickshire Scarce				



Amongst *Sphagnum* in raised bogs and other moorland habitats.

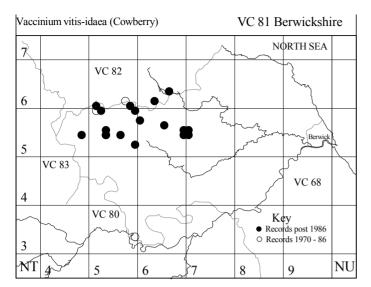
From Wales to mid-Scotland.

Moderately represented in the VC.

'I can remember a time when a small quantity of native cranberries were annually sold in Berwick', GJ 1853

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				
*Dogden Moss	6849, 6949	04.08.04	MEB	locally plentiful,
but by no means constant across the m	oss			
*Long Moss, Coldingham Common	855685	16.06.01	R Woodall	
Other Colonies				
Redpath Moss	599366	01.07.95	MEB	
Corsbie Bog	611442	11.07.87	MEB, PFB	
*Lurgie Loch	676395	19.06.99	MEB	Scarce
Dirrington Little Law	682527	04.06.88	MEB	
*Drone Moss	845669	19.06.80	MEB	
Former Colonies				
[Whitrig Bog 6234, Brotherstone Bog	6136, Old Atlas	75]		

Vaccinium vitis-idaeaHabitatAtlas GBAtlas BerwSitesCowberryMoorland721, 77%5, 71%19/20, 2/3Not Berwickshire Scarce



Moorland, birch and pine woods.

Throughout upland Britain.

Very poorly represented in the VC. The decline of this species in Berwickshire exemplifies the long-term impact of muirburn on moorland, especially on thin sheets of blanket bog. This species has been almost entirely eliminated from large areas of the Lammermuirs and the sites of the two remaining large colonies are suspected to have been little burnt until recently. However this experience is not mirrored elsewhere.

Site Fine Colonies	GR – NT	Latest Record	Recorder	Population
Crib Law	524597 etc	22.11.03	MEB	6 x 100m sq.
Dirrington Great Law	6954, 6955, 70	13.02.04	MEB	19 x 100m sq.

#### Other Sites

*Gaitheugh 591338, Mountmill Burn 4854, Kelphope Burn 5159, Lammerlaw Burn 5160, Whalplaw Burn 5354, Longcroft Hill 53705591, Earnscleugh Water 56575463, Wester Black Burn 579610, Meikle Says Law 583607, 59835938, 59885933, 59975901, Boondreigh Burn 599521, Green Cleugh 604573, Crow Cleugh 636611, Watch Water 6556, Berrybank Wood 668633

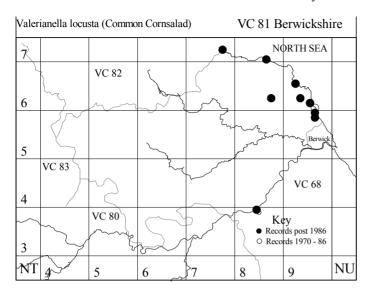
## **Former Colony**

[*Abbey St Bathans, Whiteadder near 7561]

[Valerianella dentata]	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Narrow-fruited Cornsalad	Arable	168 28%	[5]	0/7 0/6

Arable ground on chalk and sandy soils. An archaeophyte local and declining in south-eastern Britain. In the north formerly coastal but now largely extinct. Once quite widespread as a cornfield weed in the VC. [Lochton 7738, Cockburnspath 7771, Marygold 8150, East Reston 9061, Ayton 9261, Hallydown 9264, Redhall 9462]. Last record Cockburnspath 1916 (compilation).

Valerianella locusta	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Common Cornsalad	Grassland	933, 68%	5, 50%	9/19, 3/8
Berwickshire Scarce				



Sandy places, less frequently rocky knowes with pockets of erosion.

Widespread but mainly southern in Britain.

The habitat for this species has declined in the VC due to agricultural and other development. For example, the Linkim Shore colony appears to be under threat where fertiliser run-off has aided the spread of perennial species. However this, and *V. carinata*, are sown in gardens as a salad crop and may escape. Some records may be of such introductions.

Site	GR – NT	Latest Record	Recorder	Population
Fine Colonies				
*Dowlaw Dean	86727049	15.05.04	MEB	
*Burnmouth, sea braes	957611	06.05.00	MEB	

#### **Other Colonies**

#### **Former Colonies**

[Leader, Lauder area 5247, Mertoun Suspension Bridge 6131, *Gordon Moss 6342, Nenthorn 6837, Newton Don 7037, Old Atlas 74, Crawheel, Whiteadder – perhaps Hoardweel 7959, Cheeklaw House 7852, Ayton, near 9261, Ale Water, near 9263, Union Bridge 9351, Netherbyres, Eye near 9463]

#### Veronica anagallis-aquatica x catenata

= V. x lackschewitzii	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Hybrid Water-speedwell	Aquatic	66, 52%	1, 50%	6/7, 0/1
Rerwickshire Scarce				

#### Riversides and pond margins.

This hybrid is mapped in the New Atlas as occuring mainly in Hampshire, but is probably much under-recorded elsewhere.

Only recently recognised in the VC, a first for Scotland, but apparently not rare here and probably elsewhere in Scotland.

Site	GR – NT	Latest Record	Recorder	Population
Bog Park Burn	69765073	24.07.02	MEB	
	69775068			
Polwarthmoss Burn	70315115	24.07.02	MEB	
Greenlaw Kaims, flush by	70395071	24.07.02	MEB	
Dunglass Wood	826412	08.08.93	MEB	
Little Swinton, pond by	826457	21.08.93	MEB	
Ladykirk	896460	21.08.93	MEB	

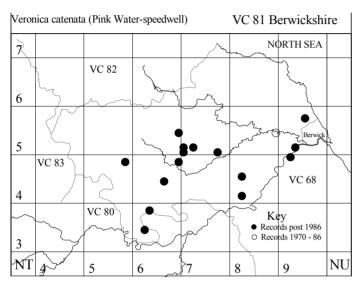
^{*}Ramsheugh Bay 774722, The Lees 840390, Reston 875621, Linkim Shore 92306555, Old Linthill 938626, *Lamberton 9658, 965597, 9660

**Former Colony** 

[Paxton, pond at 9252 30.07.1889 P W Maclaggan]

Specimen in E re-determined by CDP.

Veronica catenata	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Pink Water-speedwell	Aquatic	725, 76%	7, 78%	(3)/+, $n/a$
Berwickshire Scarce				



Riversides and pond margins.

Widespread in England except in the north. Very local in Scotland.

This species may have increased, though GJ wrote 'There is also a pink-flowered variety (of *V. anagallis-aquatica*). This I find occasionally intermixed with the plant in its ordinary state in localities which have a sandy bottom', 1853. However its populations have been found to have been confused with those of its hybrid with *V. anagallis-aquatica*, which seems to be more frequent than this parent.

Site	GR – NT	Latest Record	Recorder	Population
Colonies critically assessed not to be	the hybrid			
Mincie Moss	63183844	07.09.02	MEB	
Little Swinton, pond by	82594577	22.08.02	MEB	Fine colony
*St Thomas's Island	92164951	01.10.03	MEB	-

#### Colonies which may include colonies of the hybrid

Pyatshaw Burn 584483, Whitrig Bog 620348, Butchercote Craigs 6234, *Macks Mill, Eden Water at 660447, 661443, Kippetlaw Burn 690547, Langton Burn 720517, Howe Burn 775506, *The Hirsel, Leet Water at 821412, *Hutton Castle 893547, *Union Bridge 933510, Mordington, pond at 953575

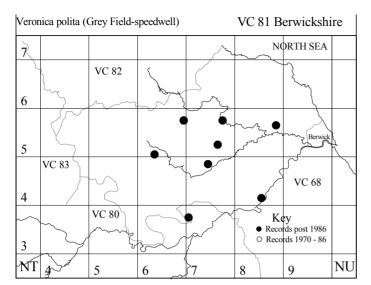
#### Colonies now believed to have been recorded in error for the hybrid

(*Greenlaw Moor, burns and flushes near 698486, 700502, 700515, 701512, 703507, 704507, 704508)

#### Former Colonies

[Hatchednize, pond 8041, *Edrom 8255, Coldstream 8439, Old Atlas 96]

Veronica polita	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Grey Field-speedwell	Arable	793, 64%	6, 75%	8/+, n/a
Berwickshire Scarce				



An archaeophyte or neophyte of gardens and arable fields.

Widespread in southern England but more local and declining in the north and in Scotland.

Mainly a weed of long-established gardens in the VC. As aptly described by GJ 'in similar places to *V. agrestis*. The two frequently grow together', 1853. It is today considerably scarcer than *V. agrestis*.

Site Westruther Longformacus, garden Newton Don, walled garden Marchmont, walled garden Langton, old bridge near Cockburn Mill Lennel Lennel, path in new cemetry Chirnside House Former Colonies [Old Atlas 96]	GR – NT 632503 692573 707374 744484 765522 775578 852410 85784122 884567	Latest Record 09.09.89 16.09.89 06.05.90 13.07.98 14.04.90 02.06.90 09.04.93 21.02.04 26.09.98	Recorder MEB	Population Few Good colony
Viburnum opulus Guelder-rose Berwickshire Rare	<b>Habitat</b> Woodland	<b>Atlas GB</b> 1607, 87%	Atlas Berw 5, 56%	Sites as Native 3/11, 2/9

#### Calcareous woodland.

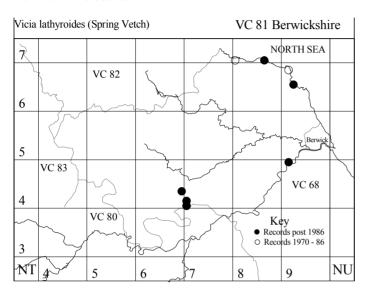
Very widespread in England and Wales but more local in Scotland. Almost extinct as a native in the VC, but now much in fashion for planting.

Site	GR – NT	Latest Record	Recorder	Population
Native Colonies				
Boondreigh Water	560456	05.97	DGL	
*Langtonlees	741523	19.05.95	DGL	
*Wild Wood	771604	08.05.95	R McBeath	
	775604	19.05.95	PSL	
Planted				
Howlet's Ha	622496	17.06.03	LWG	
Greenlaw	7146	02.09.97	MEB	Extensive
Birgham Wood	802401	17.07.93	MEB	
Eyemouth	9464	27.08.94	MEB	

#### **Former Colonies**

[Cowdenknowes 5737, Newton Don 7037, Harelawside Wood 8165, Peelrig Strip 799529, Blackburnrig Dean 7965, Sisterpath Dean 7968, Winding Dean 8166, Greenwood 8364, Bee Edge, Ale below 8964]

Vicia lathyroides	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Spring Vetch	Grassland	290, 57%	5, 63%	7/18, 1/7
<b>Berwickshire Scarce</b>				



Rocky knowes and sandy grassland.

Local and rather coastal in lowland Britain.

Quite an elusive early-flowering annual. The Berwickshire populations are believed to be small and variable in size from year to year, but more detailed survey is required to establish whether this is so.

Site	GR – NT	Latest Record	Recorder	Population
Representative Colonies				•
Hume Craigs	7041	16.05.98	MEB	
*St Abbs Head	9168	1977	MEB	
Other Colonies				
Bellitaw Craig	695435	18.07.87	MEB	
Hume Castle	704413	16.05.98	MEB	Site degraded
during Castle restoration				
Hume Mill	707406	16.05.98	MEB	
*Dowlaw Dean	865701	15.05.99	MEB, PFB	
(Green Knowes, Fishwick Mains	917497	09.05.87	MEB	Possible error)
Linkim Shore	9265	28.05.94	MEB	•

Former Colonies (some of these records could relate to V. sativa ssp. nigra)

[Harelaw Craigs, below 7753, Dunglass Dean, foot of 7671, *Cove, horse roads near 7871, *Pease Bay, north-west of 7970, Lithtillum, near 8040, Old Cambus Quarry 803705, Swinton 8347, *Earnsheugh Camp 8969, Edington Hill Wood 9057, Ayton, near Eye 9261, Ale Water banks 9362]

Vicia orobus	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Wood Bitter-vetch	Grassland	97, 45%	1, 14%	1/15, 0/12
British Scarce				

Base-rich rocky but grassy banks.

Wales, southern Scotland and the Inner Hebrides. Rare elsewhere.

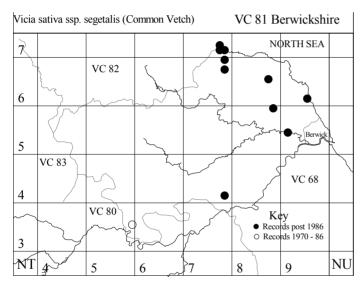
This species has declined dramatically across the whole of southern Scotland. The one remaining Berwickshire site is overgrazed and thus vulnerable.

Site	GR – NT	Latest Record	Recorder	Population
Wester Burn, HorseupCleugh	660586	05.08.89	MEB	12 + plants
	664584			2 plants

#### **Former Colonies**

[Lauder, near 5247, ByreCleugh 6258, Dye Cottage 6458, Ellemford 7260, Old Atlas 75, 77, Rigg Wood, above Eye 7765, Grantshouse and Penmanshiel, two sites between 7966, 8065, Howpark Dean 8266, Houndwood 8463, Hillend, north of 8664, Hillend, east of 8763, Blackpotts 9067]

Vicia sativa ssp. segetalis	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Common Vetch	Grassland	1258, 96%	5, 83%	10/10, 0/0
Berwickshire Scarce				



Grassy places in the lowlands.

Archaeophyte. Formerly cultivated for fodder. Britain north to the central belt in Scotland. Unevenly recorded but the most widespread of the *V. sativa* subspecies.

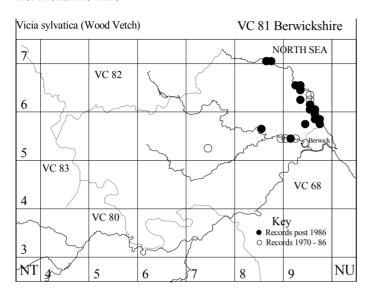
Unlike *ssp. nigra* which is widespread though very local in the VC, this taxon is mainly found near the coast where it can be frequent in rather scruffy grassland. It is probably under-recorded. The historical records include *ssp. sativa* which has also been cultivated.

Site	GR – NT	Latest Record	Recorder	Population
Craighouse, rape field	596355	13.10.81	MEB	-
Cockburnspath	77517117	14.10.00	MEB	
Dunglass Dean, A1 near	775720	27.06.98	MEB	
Cove, near	783717	27.06.98	MEB, PFB	
Bowshiel	7867	08.08.98	MEB	
Tower Bridge, old A1	7869	26.07.98	MEB	
Puncheon Bridge	788417	29.05.99	MEB	
Press Castle	871654	08.06.96	PFB	
Causewaybank Gravel Pit	880592	13.06.90	MEB, PFB	
Foulden, Whiteadder Braes	9154	05.06.99	MEB	
*Burnmouth Sea Braes	95726111	02.06.01	MEB	

#### **Former Colonies**

^{&#}x27;The cultivated variety is grown principally for cutting for green food for horses, to supply the vacancy between the first and second cuttings of red clover, and for harvest food during their then incessant labour', 1853.

Vicia sylvatica	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Wood Vetch	Woodland	312, 50%	4, 36%	27/37, 21/28
Rerwickshire Fine				



Woodland edge and cliffs.

Widespread but very local throughout Britain

Very well represented in the VC. This species is spectacular in many places on the sea braes and is also fine on banks along the lower Whiteadder. Nevertheless there have been widespread losses with the species apparently extinct in seven hectads.

#### Former Colonies

[Lauder and Stow, roadside between 5147, Redpath Dean 5836, Dryburgh 5931, Old Atlas 65, Newton Don 7037, Dunglass Dean, entrance to Berwick Burn ravine 7577, *Pease Dean 7970, Redclues Cleugh 8068, St Abbs 9167, Ale Water banks 9362]

Vicia tetrasperma	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Smooth Tare	Grassland	975, 83%	2, 100%	2/2, 0/0
Berwickshire Neophyte				

Hedgerows, scrub and rough grassland.

Very widespread in England, except the north. Scarce and possibly introduced in Scotland. The Berwickshire colonies are both associated with development and are considered to be colonists.

Site	GR – NT	Latest Record	Recorder	Population
<b>Introduced Colonies</b> Little Louise Plantation, old railway	824545	30.09.98	LWG	_
Newton Quarry	853485	20.08.03	MEB	
Viola canina	Habitat	Atlas GB	Atlas Berw	Sites
Heath Dog-violet	Grassland	483, 47%	2, 50%	3/4, 0/0
Berwickshire Rare				

Moorland rock outcrops, gravels and coastal sand, all only where there is base-enrichment. Local and somewhat coastal throughout Britain.

Rare and vulnerable in the VC. The lack of historical records reflects confusion with V. riviniana.

Site	GR – NT	Latest Record	Recorder	Population
Hareheugh Craigs	688401	03.06.00	MEB, RWMC	1 large plant

*St Abbs Head	912691	27.05.00	MEB, PFB	2 plants
*Hilton Bay	9659	1990	G Hardy det A	J Richards
Former Colony				

[Hectad 45 Anon det S M Walters, 1958]

#### Viola canina x riviniana

= V. x intersita	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites	
A Hybrid Dog-violet	Grassland	n/a	n/a	1/1, 0/0	
Rerwickshire Rare					

Similar habitats to *V. canina* but apparently somewhat more versatile.

This hybrid was not mapped in the New Atlas.

In VC 80 this hybrid may be found with or without *V. canina* and may be resisting habitat change where *V. canina* is declining to extinction. Further Berwickshire populations may await discovery.

Site	GR – NT	Latest Record	Recorder	Population
Hareheugh Craigs	687399	03.06.00	MEB	Patch 35 cm sq.
	688401	03.06.00	RWMC	Patch 20 cm sq.
Viola hirta	Habitat	Atlas GB	Atlas Berw	Sites
Hairy Violet	Grassland	713, 74%	3, 50%	3/9, 1/7
Berwickshire Rare				

Calcareous grassland.

Widespread in southern England, scarce elsewhere.

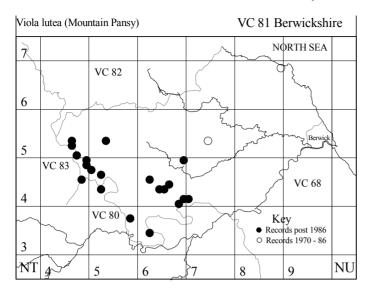
Always scarce in the VC, but now rare.

Site	GR - NT	Latest Record	l Recorder	Population
Representative Colony				
*Hilton Bay	967593	16.10.99	MEB	Good colony
also seen on railway here in 1980				
Other Colonies				
*Gaitheugh	592343	15.05.93	MEB	Modest colony
*Burnmouth, sea braes	956611	27.09.99	MEB	Small colony
Recent Colony				
[Ale Water, crag on east side]	920632	1978	MEB	Possibly shaded
out, not refound in 1990's				-

#### **Former Colonies**

[Dryburgh and Mertoun, between 6032, Primrose Hill 7857, Ladykirk and Milne Graden, between 8845, Bluestoneford, below 8755, Ross 9660,]

Viola lutea	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Mountain Pansy	Grassland	334, 62%	8, 57%	18/36, 2/16
Berwickshire Fine				



Slightly base-rich grassland on rocky knowes

Widespread in Wales, northern England and Scotland, but not the Highlands.

A regional speciality best represented in the centre and west of the Scottish Borders and now mainly in the west of the VC, but formerly also in the east. Apparently always yellowflowered in the VC except at a site near Threeburnford at which are found a few of the purple-flowered plants frequent in neighbouring VCs.

#### Sites

Hartside 464538, Threeburnford, burn near 465529, Longmuir Moss, by 472501, 473508, Lauder Common 4845, Whitlaw 494491, Lauder Common 502473, Chester Hill 524467, Lauder Burn 52544379, Whalplaw Burn 530538, Black Hill 586373, Corsbie Fen 622450, 623450, Butchercote Craigs 623342, Gordon 646435, Gordon Common 658436, Hareheugh Craigs 688401, 688402, Greenlaw Kaims 696499, Hume Craigs 698417, 7041.

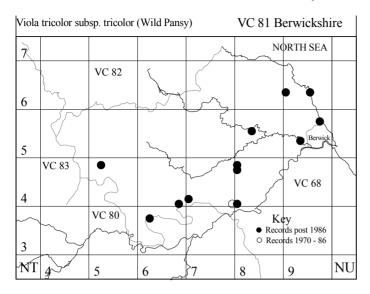
## **Recent Colonies**

[Raecleugh Head Hill 745535 (1979), Coldingham Loch, near 8968 (1980)]

#### **Former Colonies**

[*Airhouse Wood 4753, Bruntaburn, above 5059, Blythe 5750, Newton Don 7037, Ecclaw, above 7567, Cockburn Law 7659, Duns Law 7854, Ewieside 7768, Preston Cleugh 7957, Bunkle Edge 8060, Warlawbank 8362, *Fast Castle, just above 8570, Fast Castle, 2 miles south of 8769, *Earnsheugh Camp 8969, Ayton 9260, Habchester 9458]

Viola tricolor ssp. tricolor	Habitat	Atlas GB	Atlas Berw	Sites
Wild Pansy	Grassland	942, 56%	5, 50%	12/+, n/a
Berwickshire Scarce				



Sandy grassland, sandy arable fields.

Widespread in Britain but local and scarce in many areas.

Poorly represented in the VC, partly due to the lack of suitable habitat near the sea but also due to eutrophication, *V. tricolor* is declining and is becoming vulnerable. It is interesting to note in contrast that *V. arvensis* appears well able to compete in fertilised arable fields

The paucity of historical records reflects the former treatment as a form of *V. arvensis*.

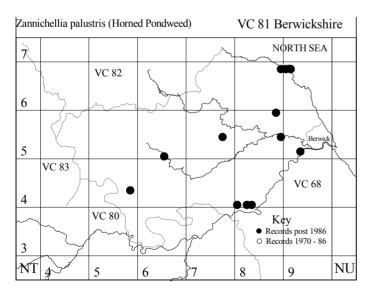
#### Sites

Lauder, near 522482, Covehouse, set-aside 627379, Hareheugh Craigs 689400, Hume Craigs 7041, Birgham Wood 796400, 802401, Longbank 808478, Harcase 809487, Edrom 834559, Whitfield 906637, Paxton 934530, Gunsgreen 9563, Lamberton 972575.

#### Former Colonies

[Gavinton 7652, Coldstream, near 83, Swinton 8347, Old Atlas 86, Fancove Head 9562]

Zannichellia palustris	Habitat	Atlas GB	<b>Atlas Berw</b>	Sites
Horned Pondweed	Aquatic	734, 61%	8, 73%	11/+, n/a
Not Berwickshire Scarce				



Shallow water, often eutrophic.

Widespread in central and eastern England. More local to the north but perhaps increasing.

The recent VC records are all in still water with the possible exception of a record from Paxton House which could be from a pond or from the Tweed. This contrasts strikingly with NTHH records (compare *Potamogeton pusillus*)

#### **Colonies**

Legerwood Lake 584436, Cammerlaws Pond 654503, †Hen Poo, Duns Castle 778546, Lithtillum Loch 8040, *Hirsel Lake 827404, 834401, Causewaybank Gravel Pit 880592, Edington Mill Lade 894548, *Coldingham Loch 894685, Millar's Moss 9068, *Mire Loch 911686, Paxton House 9351

#### Previous Survey - NTHH 1971 Tweed, 1973 Whiteadder

- *Blackadder and lower Whiteadder Kimmerghame 8152 to Paxton 9453 (15 1 km squares)
- *Tweed Birgham 7938 to Paxton House 9452 (26 1 km squares)

#### **Former Colony**

[Langton Burn, near mouth 8252]

## **Table of Recorders**

#### **Key to Initials of Recorders**

COB	Christopher Badenoch	RVL	Richard Lansdown
MEB	Michael Braithwaite	AGL	Dr Albert Long
PFB	Patricia Braithwaite	DGL	Dr David Long
RWMC	Dr Roderick Corner	PSL	Philip Lusby
JJD	John Day and	DJMcC	David McCosh
his SNH Scottish Lock	Survey team	TJP	Timothy Pankhurst
LWG	Luke Gaskell	CDP	Dr Christopher Preston
NTHH	Dr Nigel Holmes		

Other Recorders			
G H Ballantyne	George Ballantyne	J Muscott	Jackie Muscott
K Brownlie	Kathleen Brownlie	A Newton	Alan Newton
J M Croft	Jane Croft	M Osborne	Michael Osborne
C Dixon	Clive Dixon	E O Pate	Mrs Pate
B Edwards	Bryan Edwards	D Patterson	David Patterson
F Evans	Fran Evans	K Rideout	Kevin Rideout
F G Hardy	Dr Gavin Hardy	A Scott-Plummer	Alexa Scott-Plummer
R Harper	Scottish Wildlife Trust	A J Silverside	Dr Alan Silverside
C C Haworth	Christopher Haworth	A J Smith	Arthur Smith
P M Hollingsworth	Dr Peter Hollingsworth	A Somerville	Dr Alastair Somerville
R C L Howitt	Mr Howitt	N F Stewart	Nicholas Stewart
E H Jackson	Helen Jackson	O M Stewart	Olga Stewart
A R Jermyn	Reginald Jermyn	SWT Survey	Scottish Wildlife Trust
V Jones	Vincent Jones	M Tebble	Mary Tebble
M Jordan	Mrs Jordan	K A Velander	Dr Kathy Velander
O Leyshon	Owen Leyshon	J Waddell	Jeff Waddell
M Little	Margaret Little	D Walton	Denise Walton
R Maskew	Roger Maskew	S R Warman	Stephen Warman
R McBeath	Ronald McBeath	S Williams	Sheena Williams
A McBride	Angus McBride	A Willmot	Alan Willmot
J Mercer	Dr Jon Mercer	J Winham	John Winham
D Methven	Douglas Methven	D Wood	David Wood
J Murray	Jean Murray	R Woodall	Robert Woodall

## **Unacknowledged Recorders and Determiners**

Other recorders, in addition to the above, have helped on field meetings or have contributed records which do not happen to have qualified for inclusion in this register. These include all recorders up to about 1960. Members of the BSBI Referee Panel have helped with many individual plant determinations and have generally not been acknowledged in this register.

Heartfelt thanks are extended to all who have contributed records to BSBI or verified them, whether individually listed here or not.

# Table of Sites of Special Scientific Interest (SSSIs) and Scottish Wildlife Trust Reserves

(With GRs to 1 km – all NT, but some marginal 1 km squares omitted. Default GR underlined)

## * SSSIs

**Abbey St Bathans Woods** - Brush Wood and Godscroft Wood <u>7363</u>, 7463, Bankend Wood 7562, Shannabank Wood 7562, <u>7662</u>, Butterwell Wood <u>7661</u>, 7761, Retreat Wood 7760, Wild Wood 7760, Elba 7860, Aikyside Wood Junipers 7960, Aikyside Wood 7961

Airhouse Wood 4753

Bemersyde Moss 6032, 6132, 6133

**Burnmouth Coast** – Ramfaulds 9564, Scout Point 9563, Fancove Head 9562, Burnmouth Braes 9561, Burnmouth Harbour 9560, Ross 9660, Hilton Bay 9659, Lamberton Shiels, below <u>9658</u>, 9758, Lamberton, English Border below 9757, Lamberton Undercliff 9757, 9758

Coldingham Loch 8968

Crook Burn East, Dyeshaugh 6958, 6959

**Drone Moss** 8466, 8467

**Gateheugh (Gaitheugh)** – Leaderfoot 5734, Gledswood 5834, Gateheugh (Gaitheugh) 5933, <u>5934,</u> Bemersyde, below 5833

Gordon Moss 6342

**Greenlaw Moor** – Dogden Moss 6749, <u>6849</u>, 6949, Greenlaw Kaims 6850, 6950, <u>7050</u>, 7051, Fangrist Burn <u>6949</u>, 7049, Greenlaw Moor 7048, 7049, 7148, 7149, <u>7150</u>, 7151, 7248, Hule Moss 7149, Kyles Hill 7249, 7250, 7251

**The Hirsel** – Dundock Wood 8039, 8040, 8139, <u>8140</u>, Hirsel Lake 8240, The Hirsel, Leet at 8141, 8240, 8241

Langtonlees Cleugh 7352, 7452

Long Moss, Coldingham Common 8568

Lurgie Loch 6739

Pease Bay Coast – Ramsheugh Bay 7772, Cove 7871, Pease Bay (part) 7971

Pease Dean - Pease Dean, lower 7970, Pease Dean, upper 7969

**St Abbs to Fastcastle** – Midden Craig 8370, Rammel Cove 8470, Telegraph Hill 8570, Fast Castle 8670, Dowlaw Dean 8670, Lumsdaine Shore <u>8770</u>, 8769, Westerside Dean 8869, Earnsheugh 8969, Petticowick 9068, <u>9069</u>, St Abbs Head 9169, Kirk Hill 9168, Mire Loch 9168, Starney Bay 9167

**Tweed River** (the cSAC, which is wider than the SSSI) – River Tweed, Whiteadder and Blackadder Waters, Leet Water, Eden Water, Leader Water. (Does not include some burns such as Fangrist Burn 6948 outwith Greenlaw Moor SSSI. Does not include Eye and Ale Waters which are a separate catchment)

## † SWT Reserves not SSSIs

**Duns Castle** (reserve by agreement) – Witches Hill 7754, St Mary's Glade 7755, Hen Poo 7754, Colonel's Walk 7755, Mill Dam 7855

Pease Dean (part outwith SSSI owned by SWT) – Tower Dean 7869, 7870, 7970

## **Table of All Sites of Botanical Interest**

#### Introduction

All sites of botanical interest are listed localised to a 1 km grid square whatever the size of the site, which may be much greater than or much less than a 1 km square. No attempt is made to define site boundaries and the nature of the habitat is only indicated at a broad level. Sites are graded but it must be understood that a simple grading of this kind cannot pretend to balance the botanical interest of disparate sites adequately, particularly where they differ in scale and in the degree of fragmentation of the habitats of interest. The botanical interest in relation to vascular plants and charophytes only has been considered. Other wildlife and landscape interests have not been taken into account. The grading is very much from a county rather than a national standpoint. For some habitats that have been all but eliminated in Berwickshire the choice is limited indeed.

^{*} indicates SSSI designation of at least part of the site. † indicates a SWT Reserve that is not a SSSI.

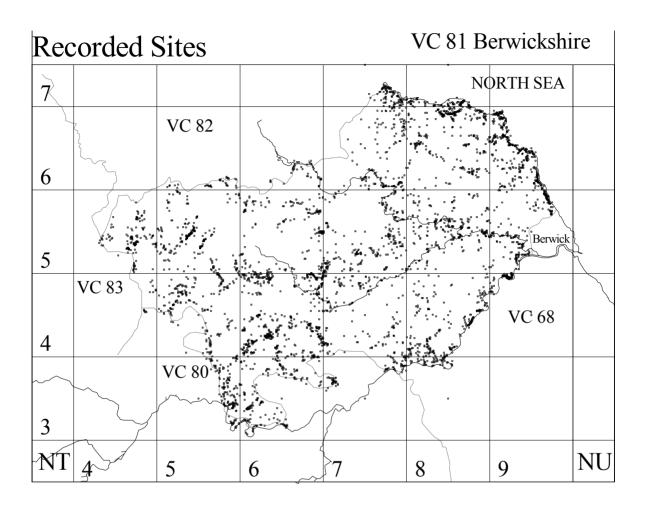
GR - NT		Site	Habitat
		<b>Outstanding Sites - 7</b>	
4750		Longmuir Moss	Fen and raised bog
5934	*	Gaitheugh	Riverside oak wood
6849	*	Dogden Moss	Raised bog
7352	*	Langtonlees Cleugh (Cuddy Wood) and Well Cleugh	Cleugh woodland and moorland edge
7760	*	Wild Wood, Edin's Hall	Alder wood
9169	*	St Abbs Head	Coastal grassland and rocky knowes
9659	*	Hilton Bay	Calcareous grassland
		Excellent Sites - 11	
5749		Blythe Water and Birkie Wood	Grassland, woodland and juniper scrub
6342	*	Gordon Moss	Carr woodland
6840		Hareheugh Craigs	Rocky knowes
6949	*	Fangrist Burn	Burnside and flushes
7970	*	Pease Dean	Dean woodland
8568	*	Long Moss	Valley mire
8569		Lumsdaine Dean and Dowlaw Moss	Moorland with oceanic influence
8670	*	Dowlaw Dean and Fast Castle	Coastal grassland and cliff
8968	*	Coldingham Loch	Aquatic vegetation
9561	*	Burnmouth Braes	Calcareous grassland and cliff
9564	*	Ramfaulds	Maritime heath
		Fine Sites - 43	
4652		Threeburnford, burn near	Grassland, flushes and juniper scrub
4756		Headshaw Haugh	Moorland edge and juniper scrub
5158		Kelphope Burn	Juniper scrub and flushes
5455		Whalplaw Burn	Juniper scrub and flushes
5651		Wheel Burn	Hill burn and flushes
5834	*	Gledswood	Riverside woodland
5936		Redpath Moss	Carr woodland
3730		100puiii 11055	Carr woodiand

5950		Cromwells	Wood pasture
6043		Everett Moss	Fen
6133	*	Bemersyde Moss	Fen, open water and seasonal pools
6358		Dye Water, upper	Hill burn and flushes
6440		Bonaparte's Covert	Birch wood
6662		Killmade Burn	Hill burn and calcareous flushes
6739	*	Lurgie Loch	Fen and carr woodland
6947		Greenlaw Dean	Haugh grassland and calcareous grassland
7040		Hume Mill	Rocky knowes
7363	*	Brush Wood and Godscroft Wood	Oak wood
7364		Crooked Bank, Monynut (Lothian Region)	Oak Wood
7562	*	Bankend Wood	Oak wood
7662	*	Shannabank Wood	Oak wood
7671		Dunglass Dean	Dean woodland
7758		Cockburn, Whiteadder near	Riverside scrub
7761	*	Retreat Wood	Oak wood
7772	*	Ramsheugh Bay	Coastal grassland and saltmarsh
7860	*	Elba	Oak wood
7870	†	Tower Dean	Dean woodland and grassland
7961	*	Aikyside Wood	Oak wood and juniper scrub
8370	*	Siccar Point to Fastcastle	Coastal grassland and heath
8466	*	Drone Moss	Raised moss and carr woodland
8654		Allanton, Blackadder and Whiteadder at	Aquatic vegetation
8770	*	Lumsdaine Shore	Coastal grassland
8946	*	Ladykirk, Tweed near	Aquatic vegetation
8947	*	Ladykirk Bridge, Tweed below	Aquatic vegetation
9149	*	Green Knowes, Fishwick Mains	Aquatic vegetation
9154		Foulden Braes	Calcareous grassland
9249	*	St Thomas's Island, Tweed at	Aquatic vegetation
9254		Foulden Dean	Calcareous grassland
9254		Clarabad Wood	Riverside woodland
9265		Linkim Shore and Fleurs Dean	Coastal grassland
9266		Yellow Craig	Brackish pools and flushes
		_	Coastal grassland
9364		Killiedraught Bay	_
9558	*	Lamberton Moor Lamberton Undercliff	Moorland with oceanic influence
9758	•	Lamberton Undercitii	Coastal grassland and cliff
		C - 1 C'4 - 40	
1251		Good Sites - 48 Clints Hill	Hill burn and calcareous flushes
4354			
4654	*	Raughy Burn	Juniper scrub
4753	*	Airhouse Wood and Quarry	Birch wood fragment and juniper scrub
5246		Chester Hill and Lauder Burn	Scree, grassland and aquatic vegetation
5259		Crib Law	Sub-montane heath

5355		Soonhope Burn	Hill burn
5553		Earnscleugh Water	Hill burn and juniper scrub
5646		Boondreigh Water	Grassland and scrub
5660		Rotten Cleugh	Blanket bog
5837		Black Hill	Scree and grassland
5844		Pickie Moss	Carr woodland
6052		Boondreigh Burn	Hill burn
6134		Whitrig Bog	Seasonal pools
6136		Brotherstone Moss	Carr woodland
6234		Butchercote Craigs	Rocky knowes and flushes
6245		Corsbie Fen	Fen and grassland
6637		Muckle Thairn and Little Thairn	Dry grassland
6638		Girrick Meadow	Rocky knowes
6658		HorseupCleugh, Wester Burn near	Rocky knowes
6857		Heron's Hole, Longformacus	Riverside woodland
6945		Rumbleton Burn	Fen and calcareous flushes
6951		Bog Park Burn and Polwarthmoss Burn	Burnside
6959	*	Crook Burn East	Wet grassland
7037		Newton Don Policies	Grassland and riverside woodland
7041		Hume Craigs	Rocky knowes
7150	*	Greenlaw Moor	Moorland at low altitude
7248	*	Flourishwalls Burn, Greenlaw Moor	Calcareous flushes
7553		Langton Wood	Woodland
7661	*	Butterwell Wood	Oak wood
7754	†	Hen Poo	Ornamental lake and fen
7859		Hoardweel	Riverside rocks and juniper scrub
7871	*	Cove Harbour and Ewelairs	Coastal grassland and cliff, sandy
			beach
7939		Carham, rocks opposite	Limestone cliff
7939		Birgham Wood	Woodland on former moorland
7970		Pease Bay	Sandy beach and coastal grassland
8240	*	Hirsel Lake	Ornamental lake
8241	*	The Hirsel, Leet near	Riverside woodland and grassland
8369		Harly Darlies	Pools and carr woodland
8569		Lowries Knowes	Pond with fluctuating water level
8869	*	Westerside Dean	Coastal grassland and cliff
9054		Harper Heugh or Cripple Nick	Inland cliff
9149		Green Knowes, Fishwick Mains	Dry grassland
9166		Coldingham Bay and Milldown Point	Sandy coast
9262		Ale Water	Dean woodland
9351	*	Union Bridge, Tweed near	Aquatic vegetation
9352		Paxton House, Tweed near	Aquatic vegetation
9362		Ayton to Netherbyres, Eye between	Riverside woodland and scrub
9454		Tibby Fowlers Glen and Witches Cleugh	Grassland and scrub
9557		Mordington Whin Covert Pond	Pond and calcareous flushes

	<b>Moderately Good Sites - 87</b>	
4545	Tanwell, Lauder Common near	Calcareous flushes
4946	Lauder Common	Moorland and grassland
5152	Carfraemill, Leader at	Burnside and scrub
5160	Lammerlaw Burn	Hill burn
5639	Carolside	Riverside woodland
5640	Carolside Woods	Riverside woodland
5737	Cowdenknowes	Riverside woodland
5835	Redpath, Leader at	Riverside woodland
5848	Pyatshaw Meadow	Wet grassland
5861	Meikle Says Law	Blanket bog
6057	Green Cleugh	Flushes
6138	Racecourse Plantation	Pine plantation on former moorland
6144	Corsbie Bog	Raised bog and birch wood
6149	Jordanlaw Moss	Raised bog fragment
6247	Sherriff Moor	Wet moorland edge
6251	Flass Wood	Wet birch wood fragment
6338	Mincie Moss	Fen
6441	Lightfield Meadow	Wet moorland edge
6443	Gordon Meadow	Rocky knowes
6538	Mellerstain Lake	Ornamental lake
6556	Watch Water Reservoir	Reservoir
6643	Gordon Common, East Gordon	Former moorland, now planted
6648	Halliburton, Blackadder above	Wet grassland
6739	Lurgie Craigs, near	Scarce arable weeds
6751	Millknowe Burn	Wet grassland
6847	Halliburton, Blackadder below	Haugh and dry grassland
6954	Dirrington Great Law	Sub-montane heath
7041	Hume Castle	Rocky knowes
7047	Greenlawdean Pond	Aquatic vegetation
7050 *	Greenlaw Kaims	Dry grassland
7056	Dronshiel	Wet grassland and pools
7250	Kyles Hill and Backlea Plantation	Former moorland, now planted
7346	Lintmill Bridge, knowes near	Rocky knowes
7349	Blaeberry Plantation	Woodland on former moorland
7455	Hell's Cleugh	Grassland and flushes
7457	Kidshielhaugh Wood	Dean woodland
7461	Frampath Burn	Dean woodland
7468	Hoprigshiels Wood	Alder wood
7660	Ellerburn Wood	Woodland
7756	Oxendean Burn	Dean woodland
7840	Bishop's Bog	Fen
7856	Almaheart to Preston Bridge	Riverside woodland
7938	Birgham Haugh Wood	Riverside woodland
7940	Horse Bog	Fen
7966	Blackburnrig Dean	Dean woodland fragments

7968		Penmanshiel Wood	Oak wood cleughs
8040		Lithtillum Loch	Pond and fen
8043		Wylie Cleugh and Rough Haugh	Haugh grassland and riverside
8068		Redclues Cleugh	Oak wood cleugh
8069		Old Cambus Townhead Pond	Pond with seasonal pools
8070		Old Cambus Quarry	Dry valley grassland
8155		Edrom Mains	Scarce arable weeds
		Bunkle Wood	
8158 8165			Birch wood fragment Grassland and scrub
		Grantshouse Quarry	Burnside and scrub
8166		Winding Burn	Dean woodland
8264		Atton Dean	
8355		Edrom, near	Scarce arable weeds
8361		Greenburn, head of dean near	Wood pasture
8453		Kelloe	Riverside woodland
8548		Newton Quarry or Hutton Stone Quarry	Grassland, scrub and pool
8554		Blackadder Mount, Blackadder near	Riverside woodland
8655		Ninewells	Riverside woodland
8665		Press Castle Plantations	Woodland
8670		Dowlaw Dean, near	Scarce arable weeds
8744		Milne Graden Dean	Dean woodland
8755		Whitehall and Bluestoneford	Riverside woodland and grassland
8855		Bite-about Wood	Dean woodland
8859		Causewaybank Sandpit	Pool and grassland, land reclamation
8868		Westerside	Dry grassland
8947		Ladykirk Burn	Burnside
8947		Ladykirk Meadow	Calcareous grassland
8954		Edington Mill Lade and Haugh	Haugh grassland and aquatic
			vegetation
8957		Lazybeds Plantation	Alder wood fragment
9049		Horn Dean	Burnside
9057		Edington Hill Plantation	Birch wood fragment
9065		Coldingham Law	Dry grassland
9068		Millar's Moss	Dry grassland and pond
9249		Fishwick Mains	Scarce arable weeds
9265		Fleurs Dean, near	Scarce arable weeds
9352		Paxton Linn Dean	Dean woodland
9354		Lambsmill Burn	Dean woodland
9364		Eyemouth, near	Scarce arable weeds
9453		Edrington Castle	Riverside woodland
9560		Chester Hill, Burnmouth	Calcareous grassland
9563	*	Scout Point to Fancove Head	Coastal grassland and cliff
9659		Lamberton Railway	Calcareous grassland
9757		Lamberton, near	Scarce arable weeds
1131		Dainiosi ton, noui	Sure urusio woods



It would be good to prepare a coincidence map of all the sites of rare and scarce species, but as a second best a map of all recorded sites for all taxa is presented above. By setting the scale of the 'dots' to 150 m those that represent areas that are 1 km in size or larger become inconspicuous and the texture of the map is largely seen to be made up of the numerous sites that represent 6 and 8 fig GRs recorded to localise special plants, many of them the rare and scarce plants of this rare plant register.

The coast, the rivers and the hill burns are, as might be expected, some of the features that stand out most in this map. Others are the Berwickshire mosses, the coastal moorland near Dowlaw, the grassland on the rocky knowes of the Kelso traps and the woodlands of the Hirsel estate.

# Analysis of the Historical Data in the Rare Plant Register

In this analysis section the site survival data in the CRPR is brought together for those taxa with a good historical record to give comparisons between broad habitats. Stoneworts are excluded as none of the taxa have a good historical record. Discussion follows of the factors underlying the trends shown for each habitat by reference to a selection of individual taxa in the CRPR.

#### Scarce Taxa Survival at Hectad and Site Scale – by date class and habitat

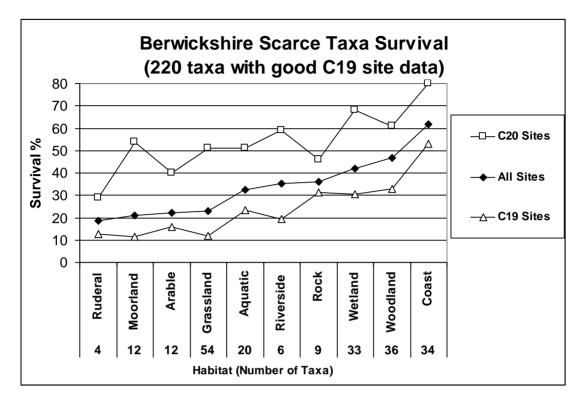
The site survival data in the CRPR is summarised below for those taxa with a good historical record and is compared with hectad survival data from the New Atlas. It has been necessary to exclude those taxa, including the more critical taxa, which have only been recorded at all adequately in recent years if at all, as their inclusion would bias the results. 220 scarce taxa have an adequate record.

		Hectad S	urvival %	Site Survival %		
No of Taxa	Habitat	GB Atlas	Berw Atlas	C19 Sites	C20 Sites	All Sites
4	Ruderal	56	20	13	29	19
12	Moorland	62	20	11	54	21
12	Arable	53	19	16	40	22
54	Grassland	62	25	12	51	23
20	Aquatic	58	32	23	51	32
6	Riverside	71	35	19	59	35
9	Rock	60	43	31	46	36
33	Wetland	59	41	31	68	42
36	Woodland	65	45	33	61	47
34	Coast	70	61	53	80	62
220	Total / Av.	62	34	24	54	34

The survival percentage for a group of taxa is calculated as the average of the survival percentages of individual taxa.

#### Site Survival

The information on site survival from the above table is shown below in chart format



The losses at site scale show horrendous trends

- Two-thirds of all recorded sites of rare and scarce species have been lost
- Three-quarters of all C19 recorded sites of rare and scarce species have been lost
- Half of all C20 recorded sites (sites from which there are no C19 records) of rare and scarce species have been lost

The apparent disparity between the losses of the C19 sites and the C20 sites relates in large part to the different periods over which the sites have been subject to change. Taking the C19 records to date roughly from 1850, on average, and the C20 to date roughly from 1960, on average, the loss per decade can be calculated and is shown in the table below, where % Site Loss = (100 – Site Survival %):

		% Sit	e Loss	% Site Loss	per Decade
Sample	Habitat	C19 Sites	C20 Sites	C19 Sites	C20 Sites
4	Ruderal	88	71	13	27
12	Moorland	89	46	13	14
12	Arable	84	60	12	20
54	Grassland	88	49	13	15
20	Aquatic	77	49	9	15
6	Riverside	81	41	10	12
9	Rock	69	54	7	18
33	Wetland	69	32	8	9
36	Woodland	67	39	7	12
34	Coast	47	20	4	5
220	Total / Av.	76	46	9	14

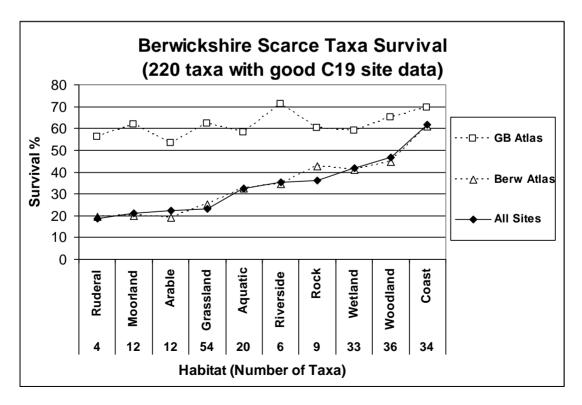
The site loss per decade is rather sensitive to the validity of the dates chosen as averages of the dates of the underlying records. These averages are based on a subjective perception, so the results are not very accurate and the small samples in the ruderal, rock and riverside habitats suggest that little reliance should be placed on the results for these habitats. For the other habitats there are some where the loss per decade is seen to be broadly constant over two centuries, namely moorland, grassland, wetland and coast, and some where the loss per decade has broadly doubled in recent years, namely arable, aquatic and woodland. These trends are not inconsistent with widely-held perceptions.

These date class comparisons may help in an understanding of the limitations of the New Atlas maps. Areas with fewer historical records will show less change than areas with many historical records. This applies even within Berwickshire where the eastern half of the county was better recorded in the 1800's than the western half. The same principle applies to taxa with few historical records throughout their range due to taxonomic identification difficulties: these too will show little change.

Berwickshire lost most of its woodland and wetlands well before 1800 and less extensive losses have followed since. Nevertheless the woodlands are now so fragmented that losses are once again accelerating. On the other hand the grassland and arable floras were relatively intact in 1800 and it is since then that the losses have been savage indeed. But whereas the grassland losses are relatively evenly spread over time the arable losses have accelerated since 1960 with the universal use of weedkillers.

The moorland losses relate to a small group of mainly highland plants that are further discussed below under habitat survival.

**Hectad Survival**The information on hectad survival from the same table is shown below in chart format



There is little correlation between the Berwickshire experience and the Britain-wide experience for the same taxa. This is not really unexpected as very few of the taxa that are rare or scarce in Berwickshire are more than locally rare or scarce in Britain as a whole and it is only taxa that are locally scarce that are at much risk of hectad extinctions.

The very close coincidence between the Atlas hectad losses in Berwickshire and the site losses for the same species must reflect the fact that, for many locally scarce species, most of the hectads in which a species has been recorded have only ever had one site, so the loss of a site equates to a hectad extinction. Nevertheless the degree of coincidence is rather surprising as the site survival could be expected to be less than the hectad survival. One reason for the high coincidence is related to the fact that the survival percentage is calculated as the average of that percentage for each taxon in the group. Taxon extinctions from the VC as a whole have a survival of 0 % at both hectad and site scale and where VC extinctions are frequent, as in this scarce taxon dataset, they influence the overall percentage strongly. Another factor is that the site survival is calculated on all sites known up to 2004, whereas the New Atlas hectad survival is calculated on records up to 1999 only. The extra survey work on rare and scarce species in the five years 2000 - 2004 has thrown up a significant number of new sites that compensates to some extent for the lower survival of historical localities at site scale.

Given the extent to which our knowledge of the changing distribution of the flora at national level is dependent on Atlases at hectad scale, it is reassuring to find support for the contention that changes at hectad scale really do correlate well with site losses, at least in areas where survey work at hectad scale has been adequate in both of the date classes to be compared. This suggests that the analysis of trends at national level could often be best directed to an appropriate selection of well-recorded taxa.

#### Factors underlying the trends in scarce taxon survival – by habitat

Trends are discussed for each of the ten broad habitats used. The taxa per habitat are taken from the 364 native and archaeophyte taxa in the CRPR.

#### Ruderal – 4 taxa, 4 with a good historical record

These four taxa are all archaeophytes. The former status of *Lepidium campestre* is something of an enigma while the others, *Artemisia absinthium, Chelidonium majus* and *Hyoscyamus niger*, were cultivated as medicinal plants. These once occurred about towns and villages but have largely been tidied away. The high losses are no surprise. There are still ruderal habitats around towns and villages but their character has changed and they now support a different set of scarce plants that are mainly neophyte garden escapes.

#### **Moorland** – 19 taxa, 12 with a good historical record

Species with high losses include *Arctostaphylos uva-ursi*, *Drosera anglica*, *D. rotundifolia*, *Genista anglica*, *Listera cordata*, *Saxifraga hirculus* and all the clubmosses. These are largely Highland species. *Ulex gallii* has also suffered. They have been unable to withstand the combined assault of high sheep numbers and regular muirburn. Recent study in the VC of the more resilient *Vaccinium vitis-idea* has underlined the impact of these two driving forces of change in the hills. The biggest surprise is perhaps the survival of only 10 out of 22 sites at any date for *Drosera rotundifolia*. While there will inevitably have been under-recording over the extensive moorland of the Lammermuirs, this is definitely not a species often encountered today on the open moorland and must be sought on Dogden Moss where it still abounds. From the point of view of scarce plants the botanical interest of the Lammermuirs is largely in relation to flushes and to scrub in the cleughs and is referred to under those habitats.

#### **Arable** – 32 taxa, 12 with a good historical record

It is frustratingly difficult to elucidate the history of our arable weeds. There are several reasons for this of which two are notable. Firstly they were not the sort of species that C19 botanists recorded localities

for: it was generally thought adequate to note them as frequent or infrequent, perhaps with a comment that a species was found mainly near the coast, if that was the case. Secondly there is an extent to which the site concept is inappropriate for arable weeds, even if interpreted as a moving 1 km square. This reflects the fact that the scarcer species may only be seen in any particular field when cropping is suitable, which in some fields may be just once in ten years or so. This makes it very difficult to re-survey in any meaningful way.

Despite these frustrations it is all too evident that the arable weeds as a class are doing badly. The ten extinctions alone is testimony to this. Then the fact that the appearance of scarce species is dependent on cropping is itself further evidence of decline, as the seed bank is inevitably depleted in the years when a species is unsuccessful. Indeed sites of botanical interest for scarce arable weeds have only been listed with misgivings as there can be no expectation of weed-rich fields, just the chance of a few specimens of interest by the headlands. Nevertheless one can be too negative about the survival prospects of scarce arable weeds. Just occasionally the most glorious display of an uncommon species is still to be found and the seed bank will then be fully replenished. Recent examples include a yellow carpet of *Chrysanthemum segetum* near Lamberton, a field of oil-seed rape with plentiful *Fumaria purpurea* at the margin near Eyemouth and sown *Phacelia* with a spectacular contrasting understory of *Galeopsis speciosa* near Gordon. These were all accidents as far as the farmers were concerned, and it is perhaps better so.

The irregular appearance of arable weeds is a major reason for the inclusion of species with 30 or more sites in this CRPR. These records have been collected over 25 years and it might be that the number of fields in which the species succeeded in any one year was ten or less, and in that sense they are indeed scarce.

#### Grassland – 92 taxa, 54 with a good historical record

This is a rather disparate group with some taxa that favour basic soils and some that favour acid soils. The better soils of Berwickshire are most often nearly neutral, with just small pockets of base-richness, so good grassland sites often have taxa present with differing soil reaction requirements. Nevertheless it is the taxa that favour basic soils that have suffered most, if only because such land is that which is the most valuable agriculturally and has been ploughed. In general it is the acid hill pasture and a few rocky knowes that remain but fine calcareous grasslands fortunately still survive on the sea braes.

Four groups may be picked out as being in decline. Firstly there are some relatively tall plants of calcareous soils which have fared particularly badly. These are *Carduus nutans, Daucus carota, Knautia arvensis, Senecio erucifolius* and *Silaum silaus*. Up to about 1960 these plants could be found in field headlands, but they have since largely disappeared, seemingly in response to eutrophication. Secondly there is a group of meadow species which suffered at a much earlier date, mainly by ploughing, which include *Coeloglossum viride, Genista tinctoria, Plantago media* and *Stachys officinalis*. Thirdly there are the plants of dry sandy soils which used to be found around the edges of rocky knowes and in more open fields. They include *Cerastium arvense, Dianthus deltoides, Filago minima, Filago vulgaris, Geranium columbinum, Geranium pusillum, Scleranthus annuus* and *Sheradia arvensis*. These have been steadily whittled away by ploughing and eutrophication. Finally the almost complete loss of scrubby grassland and wood pasture has endangered species such as *Astragalus glycyphyllos* and *Crepis mollis*. On a more positive note *Viola lutea* is still quite plentiful in hill grassland towards the west of the VC.

Recent initiatives to conserve grassland plants have been far from wholly successful. Thus at Hareheugh Craigs reduced grazing has favoured hawkweeds and *Dianthus deltoides* but *Myosotis ramosissima*, *Stellaria pallida* and *Viola lutea* have been all but eliminated in just a few years.

#### **Aquatic** – 41 taxa, 20 with a good historical record

It is the plants of small water bodies that have suffered most. These include *Apium inundatum, Eleogiton fluitans, Lythrum portula, Ranunculus peltatus, Sparganium natans* and all the *Utricularia* species. The water bodies themselves have often been lost but, even where they survive, eutrophication and unsympathetic management continue to take their toll. Recently there has been a fashion to exclude stock from all watersides and plants that require muddy margins are in catastrophic decline.

Meanwhile the aquatic plants of the Tweed and its tributaries have survived remarkably well, or so it appears. This is, however, a habitat that is still under-recorded as the casual botanist walks in wellies and it takes chest waders and proper permission from angling interests for a full survey to be possible. Nigel Holmes carried out a heroic survey of all 1 km stretches of the rivers in the 1970's, but, as it has only been repeated on a sample basis, there is insufficient data from which to be sure of current trends. Nevertheless there is a strong suspicion that many of the *Potamogeton* taxa are much more localised than in the past. This is a cause for concern as the wealth of *Potamogeton* and aquatic *Ranunculus* taxa in the Tweed are one of the botanical glories of Berwickshire, especially in view of the presence of rare hybrids.

#### **Riverside** – 12 taxa, 6 with a good historical record

While there has been much change in the riparian flora of the Tweed and its tributaries, with colonisation both by aliens from afar and by species native not far to the south in England, there have only been moderate losses of scarce taxa. *Pulicaria dysenterica* has been lost and *Schoenoplectus lacustris* has declined as ox-bows, creeks and ditches have been replaced by drains. *Rumex conglomeratus* has also suffered severely, probably another casualty of the absence of cattle with access to watersides. There have meanwhile been notable success stories including the spread of *Scrophularia umbrosa* and *Symphytum tuberosum* but study of the history of these species in Britain suggests that both are most probably relatively recent introductions rather than natives. British natives continue to colonise the riverside of the Tweed, such arrivals include *Glyceria maxima*, *Lysimachia vulgaris*, *Lythrum salicaria*, *Rorippa amphibia* and *Rorippa x anceps*.

#### Rock – 26 taxa, 9 with a good historical record

The scarce species of this habitat are mainly hawkweeds, *Hieracium spp.*, which have suffered some losses but survive well on scaurs by the Whiteadder and on the sea braes. The others are a miscellany that includes *Echium vulgare*, which is virtually confined to rock-ledges in Berwickshire as there is no suitable coastal habitat and *Galium boreale*, once quite widespread in the Merse but long since driven back to similar rocky refugia.

#### Wetland – 43 taxa, 33 with a good historical record

The number of scarce wetland taxa is not a particularly high proportion of Berwickshire's wetland plants as a whole which is reassuring to some degree. The worst losses predictably relate to those taxa that were formerly found in the lowland wetlands of the Merse which have long since been drained and greatly degraded or lost entirely. Species affected include *Rumex maritimus*, *Scutellaria galericulata*, *Sium latifolium* and *Stellaria palustris*. Meanwhile *Blysmus compressus* and *Cirsium heterophyllum* have been driven back to a few more upland sites. A trend that has become increasingly worrying is the fencing off of the few remaining wet field corners in the hope that this will benefit wildlife. From a botanical standpoint the reverse has been the case as dominant species such as *Deschampsia cespitosa*, *Filipendula ulmaria* and *Juncus effusus* have reduced diversity by ousting the carices and near-scarce species such as *Hydrocotyle vulgaris and Valeriana dioica*. Hill species have suffered varying fortunes: *Sedum villosum* has been lost from the whole of the eastern half of the VC as the smaller stretches of moorland have disappeared while *Vaccinium oxycoccus*, most commonly found on deep peat, has survived much better.

#### **Woodland** – 50 taxa, 36 with a good historical record

Woodland taxa too have experienced varying fortunes. Particularly hard-hit have been the orchids *Epipactis helleborine, Listera ovata, Neottia nidus-avis* and *Platanthera bifolia* together with *Gnaphalium sylvaticum* and *Pyrola minor*. These are mobile species dependent on specialist habitats and seem unable to cope with woodland that lacks areas of over-mature trees or glades, and the small scale of the remaining ancient woodland fragments much reduces the chance of suitable small pockets of habitat remaining after clear felling in which such species can survive until the canopy is re-established. Meanwhile several of the local specialities with fine populations have done well: *Chrysosplenium alternifolium* and *Stellaria nemorum* near water and also *Campanula latifolia* and *Vicia sylvatica* on woodland banks, though *Vicia sylvatica* remains especially notable in its alternative habitat on the sea braes. Even *Lathraea squamaria* still thrives locally as it has adapted to policy woodland and seems now to be more catholic in its choice of hosts than of old. The carr woodland that has developed on drying wetlands has become the home of several of the hard-hit scarce woodland species, notably *Listera ovata*, *Platanthera bifolia* and *Pyrola minor*.

Juniper, *Juniperus communis*, is something of a special case. In many ways it is more a species of open moorland and scree than of woodland, though it is at home in hill cleughs and in the scrub of riverside rocks. There is a lack of well-localised moorland records from C19 so it is somewhat unclear over what period the formerly extensive juniper scrub disappeared from the hills by muirburn and the grazing of seedlings. Alarmingly many of the remnant junipers have recently been fenced off and reinforced with plantings rather than seeking to manage the hillsides as a whole to foster regeneration. In the enclosures the vegetation associated with the juniper is ungrazed and it soon looses some of its diversity and becomes too rank to allow juniper regeneration. This change may lead to the loss of other scarce plant taxa. If the fencing is seen as a short-term need in order to re-establish a mixed-age population prior to the management of more extensive areas something of lasting value may yet be achieved.

If there is a problem with maintaining native populations of juniper it is nothing to the problems of other scarce native trees and shrubs. Planting of *Prunus padus, Salix pentandra* and *Viburnum opulus* is now frequent in habitats quite different to the native ones and regrettably some of the plantings are in seminatural habitats such as juniper sites.

#### Coast – 45 taxa, 34 with a good historical record

Much of the Berwickshire coast is cliff or steep grassy braes with very little in the way of sandy beaches and next to no saltmarsh. Even shingle beaches are scarce. The survival statistics are perhaps more favourable than the reality as the scarcity of habitat means that resilient species such as *Ammophila arenaria*, that abound elsewhere on the British coast, qualify as scarce and show little change. Sand and shingle habitats have suffered with the loss of *Mertensia maritima* and with *Glaucium flavum* now in danger. Even *Cakile maritima* has been more or less reduced to a casual, perhaps by visitor pressure. Meanwhile *Carlina vulgaris* is thriving below Lamberton under one of the more successful grassland conservation initiatives as does *Astragalus danicus* at St Abbs Head while *Asplenium marinum*, *Sedum rosea* and *Thalictrum minus* prosper in largely inaccessible habitats.

Recently coastal plants have found an alternative habitat along the verges of salt-treated roads and there is now the curious situation where a species such as *Juncus ambiguus*, until recently believed to be confined to two tiny coastal colonies, has appeared in great abundance alongside a hill road near Kettleshiel.

#### **Key to the Taxon Entries**

The **Latin Name** and **English name** of each taxon is given and before the Latin name there are three columns, these relate to **Date**, **Status** and **2km² 70+**. A few taxa have two entries, as where a taxon is extinct as a native but present as an introduction. Taxa in **bold** are listed in the Rare Plant Register.

#### Date

- 1916 Dates in the range 1671 -1969 indicate the date of the last record of the taxon in Berwickshire. Except for some critical taxa, for which survey may be inadequate, such an entry implies that the taxon is believed to be extinct
- **1969-** Indicates that the taxon has been recorded before 1970 but that the date of the record is not known
- 1970+ Indicates that the taxon has been recorded 1970-1999 and is not known to be extinct
- **1980** Dates in the range 1970-1999 indicate the date of the last record of the taxon in Berwickshire where the taxon is now believed to be extinct
- **2002** Dates in the range 2000-2004 indicate the date of the first Berwickshire record of a taxon not previously recorded there, or the first record of a taxon since before 1970 if made after 1999. These records are those that were not available for the New Atlas, though some were available for the Census Catalogue
- ? Indicates that the taxonomic identity of the underlying records is uncertain

#### Status

There are four status categories for taxa in the Census Catalogue. For taxa present in more than one status category only the longest established is listed. An *before the status indicates that the status listed differs from that in the Census Catalogue.

- Native Accepted by the Census Catalogue as native in Berwickshire
- **Arc** A naturalised alien accepted by the Census Catalogue as an archaeophyte in Great Britain (introduced before 1500), but not necessarily introduced so long ago in Berwickshire
- **Neo** A naturalised alien accepted by the Census Catalogue as a neophyte in Great Britain (introduced after 1500)
- **Cas** Present in Berwickshire only as a casual alien that cannot maintain itself by seeding or vegetative spread. This status includes planted taxa as well as those introduced unwittingly or by dumping

There are six minor status categories for taxa not in the Census Catalogue

- Sp A species for which one or more subspecies are included in the Check List
- **Seg** A subspecies not listed in the Census Catalogue for reasons related to the taxonomic uncertainty of the records
- **Agg** An aggregate of more than one species as detailed (the individual species may or may not be listed separately)
- Var A variety or other segregate outwith the scope of the Census Catalogue
- **Hort** A horticultural alien outwith the scope of the Census Catalogue
- **Adv** An adventive alien outwith the scope of the Census Catalogue

#### 2km² 70+

The number of tetrads, grid squares 2km x 2km, in which the taxon has been recorded between 1970 and 2004. Note that this date class differs from that of 1970+ as used in the date column. Note also that this tetrad frequency is not one of the frequencies used in the Rare Plant Register.

As survey has been of a sample of localities only the tetrad frequency for widespread taxa is very much less than the total number of tetrads in which they are thought to be present in the VC. For scarce native and archaeophyte taxa, on the other hand, the tetrad frequency is much more nearly complete, as these taxa have been selectively searched for.

? before a frequency indicates that the taxonomic identity of the underlying records is uncertain

		2km²		
Date	Status	70+	Latin Name	<b>English Name</b>
1970+	Neo	23	Abies alba	European Silver-fir
1970+	Cas	10	Abies grandis	Giant Fir
1970+	Cas	5	Abies procera	Noble Fir
1970+	Neo	7	Acaena novae-zelandiae	Pirri-pirri-bur
1970+	Neo	21	Acer campestre	Field Maple
1970+	Cas	3	Acer cappadocicum	Cappadocian Maple
1970+	Neo	31	Acer platanoides	Norway Maple
1970+	Neo	112	Acer pseudoplatanus	Sycamore
1970+	Native	156	Achillea millefolium	Yarrow
1970+	Native	58	Achillea ptarmica	Sneezewort
1970+	Cas	1	Acnidia tuberculata	Acnidia
1970+	Neo	1	Aconitum lycoctonum ssp. vulparia	Wolf's-bane
1970+	Neo	14	Aconitum napellus	Monk's-hood
1970+	Neo	6	Acorus calamus	Sweet-flag
1970+	Native	36	Adoxa moschatellina	Moschatel
1970+	Arc	36	Aegopodium podagraria	Ground-elder
1970+	Cas	85	Aesculus hippocastanum	Horse-chestnut
1970+	Native	5	Aethusa cynapium ssp. cynapium	Fool's Parsley
1970+	Native	28	Agrimonia eupatoria	Agrimony
2001	Cas	1	Agrostemma githago	Corncockle
1855	Arc	0	Agrostemma githago	Corncockle
1970+	Native	13	Agrostis canina	Velvet Bent
			Agrostis canina agg. (A. canina,	
1970+	Agg	29	A. vinealis)	Velvet Bent
1970+	Native	133	Agrostis capillaris	Common Bent
1970+	Arc	3	Agrostis gigantea	Black Bent
1970+	Native	115	Agrostis stolonifera	Creeping Bent
1970+	Native	7	Agrostis vinealis	Brown Bent
1970+	Native	34	Aira caryophyllea	Silver Hair-grass
1970+	Native	71	Aira praecox	Early Hair-grass
1970+	Native	78	Ajuga reptans	Bugle
1970+	Native	53	Alchemilla filicaulis ssp. vestita	Hairy Lady's-mantle
1970+	Native	86	Alchemilla glabra	Smooth Lady's-mantle
1970+	Native	2	Alchemilla glaucescens	Silky Lady's-mantle
1970+	Neo	6	Alchemilla mollis	Garden Lady's-mantle
1959	Neo	0	Alchemilla tytthantha	Russian Lady's-mantle
1970+	Native	28	Alchemilla xanthochlora	Intermediate Lady's-mantle
1970+	Native	23	Alisma plantago-aquatica	Water-plantain

1970+	Native	69	Alliaria petiolata	Garlic Mustard
1970+	Neo	3	Allium carinatum	Keeled Garlic
1853	Native	0	Allium oleraceum	Field Garlic
1970+	Neo	45	Allium paradoxum	Few-flowered Garlic
1777	Neo	0	Allium schoenoprasum	Chives
1970+	Native	2	Allium scorodoprasum	Sand Leek
1970+	Native	62	Allium ursinum	Ramsons
1970+	Native	6	Allium vineale	Wild Onion
1970+	Var	2	Allium vineale var. compactum	Wild Onion
1970+	Native	92	Alnus glutinosa	Alder
1970+	Neo	9	Alnus incana	Grey Alder
1970+	Neo	1	Alopecurus aequalis	Orange Foxtail
1970+	Native	92	Alopecurus geniculatus	Marsh Foxtail
1970+	Native	91	Alopecurus pratensis	Meadow Foxtail
1970+	Native	2	Ammophila arenaria	Marram
1970+	Neo	10	Amsinckia micrantha	Common Fiddleneck
1886	Native	0	Anacamptis pyramidalis	Pyramidal Orchid
1970+	Native	19	Anagallis arvensis ssp. arvensis	Scarlet Pimpernel
1896	Arc	0	Anagallis arvensis ssp. foemina	Blue Pimpernel
1970+	Native	1	Anagallis tenella	Bog Pimpernel
1970+	Arc	44	Anchusa arvensis	Bugloss
1961	Cas	0	Anchusa officinalis	Common Alkanet
1965	Neo	0	Anemone apennina	Blue Anemone
1970+	Native	52	Anemone nemorosa	Wood Anemone
1970+	Native	128	Angelica sylvestris	Wild Angelica
1892	Cas	0	Anisantha diandra	Great Brome
1970+	Arc	52	Anisantha sterilis	Barren Brome
1970+	Native	3	Antennaria dioica	Mountain Everlasting
1957	*Cas	0	Anthemis arvensis	Corn Chamomile
1960	*Cas	0	Anthemis cotula	Stinking Chamomile
1970+	Native	155	Anthoxanthum odoratum	Sweet Vernal-grass
1970+	Native	2	Anthriscus caucalis	<b>Bur Parsley</b>
1970+	Native	111	Anthriscus sylvestris	Cow Parsley
1970+	Native	22	Anthyllis vulneraria ssp. vulneraria	Kidney Vetch
2003	Neo	1	Antirrhinum majus	Snapdragon
1970+	Native	30	Aphanes arvensis	Parsley-piert
1970+	Native	48	Aphanes australis	Slender Parsley-piert
1970+	Native	5	Apium inundatum	Lesser Marshwort
1853	Native	0	Apium nodiflorum	Fool's Water-cress
1970+	Neo	5	Aquilegia vulgaris	Columbine
1970+	Native	47	Arabidopsis thaliana	Thale Cress
1970+	Neo	2	Arabis caucasica	Garden Arabis
1970+	Native	3	Arabis hirsuta	Hairy Rock-cress
1970+	Cas	1	Araucaria araucana	Monkey-puzzle
?	Native	0	Arctium minus	Lesser Burdock
1970+	Native	98	Arctium nemorosum	Wood Burdock

1858	Native	0	Anatostankulos suo suo:	Doorskouwy
		0	Arctostaphylos uva-ursi	Bearberry
1969	Neo	0	Aremonia agrimonioides	Bastard Agrimony
1968 1970+	Neo	0	Arenaria balearica	Mossy Sandwort
1970+	Native Native	1 43	Arenaria serpyllifolia ssp. leptoclados	Thyme-leaved Sandwort
			Arenaria serpyllifolia ssp. serpyllifolia	Thyme-leaved Sandwort Thrift
1970+	Native	17	Armeria maritima ssp. maritima	
1970+	*Neo	1	Armoracia rusticana	Horse-radish
1970+	Native	111	Arrhenatherum elatius	False Oat-grass
1970+	Var	5	Arrhenatherum elatius var. bulbosum	Onion Couch
1970+	Arc	3	Artemisia absinthium	Wormwood
1970+	Arc	20	Artemisia vulgaris	Mugwort
1970+	Neo	22	Arum maculatum	Lords-and-ladies
1916	Cas	0	Asarum europaeum	Asarabacca
1970+	Native	28	Asplenium adiantum-nigrum	Black Spleenwort
1970+	Native	9	Asplenium marinum	Sea Spleenwort
1970+	Native	36	Asplenium ruta-muraria	Wall-rue
1970+	Native	41	Asplenium trichomanes ssp. quadrivalens	Maidenhair Spleenwort
1919	Cas	0	Aster novae-angliae	Hairy Michaelmas-daisy
?	Neo	? 2	Aster novi-belgii	Confused Michaelmas-daisy
2002	N.	1	Astilbe cinensis x japonica x rosea	D. J. D. L L L L J
2002	Neo	1	= A. x arendsii	Red False-buck's-beard
1970+	Native	10	Astragalus danicus	Purple Milk-vetch
1970+	Native	2	Astragalus glycyphyllos	Wild Liquorice
1961	Cas	0	Astrantia major	Astrantia
1970+	Native	126	Athyrium filix-femina	Lady Fern
1970+	Native	9	Atriplex glabriuscula	Babington's Orache
1070±	Nativo	1	Atriplex glabriuscula x longipes	Tagahanaanta Onasha
1970+ 1967	Native Cas	1 0	= A. x taschereaui	Taschereau's Orache Garden Orache
			Atriplex hortensis	
1970+	Native	5	Atriplex laciniata	Frosted Orache
1970+	Neo	12	Atriplex littoralis	Grass-leaved Orache
1970+	Native	79	Atriplex patula	Common Orache
1970+	Native	45	Atriplex prostrata	Spear-leaved Orache
1970+	Neo	4	Aubrieta deltoidea	Aubretia
1970+	Arc	27	Avena fatua	Wild Oat
1970+	Cas	8	Avena sativa	Oat
1874	Cas	0	Avena strigosa	Bristle Oat
1915	Native	0	Baldellia ranunculoides	Lesser Water-plantain
1970+	Arc	4	Ballota nigra ssp. meridionalis	Black Horehound
1970+	Neo	6	Barbarea intermedia	Medium-flowered Winter-
1970± 1922	Cas	0	Barbarea iniermeaia Barbarea verna	cress American Winter-cress
1922	Cas Native		Barbarea verna Barbarea vulgaris	Winter-cress
		43	e	
1970+	Native	149	Bellis perennis Berberis darwinii x empetrifolia	Daisy
1970+	Cas	1	= B. x stenophylla	Hedge Barberry
17/07	Cas	1	– Б. х менорпуни	Trouge Darberry

1970+	Neo	3	Berberis vulgaris	Barberry
2001	Cas	1	Berberis vilgaris Berberis wilsoniae	Mrs Wilson's Barberry
1970+	Native	22	Berula erecta	Lesser Water-parsnip
1970+	Cas	1	Beta vulgaris ssp. vulgaris	Root Beet
1970+	Neo	34	Betula pendula	Silver Birch
1970+	Native	106	Betula pubescens ssp. pubescens	Downy Birch
1970+	Native	3	Bidens cernua	Nodding Bur-marigold
1970+	Native	61	Blechnum spicant	Hard Fern
1970+	Native	6	Blysmus compressus	Flat-sedge
1970+	Native	3	Blysmus rufus	Saltmarsh Flat-sedge
1893	Neo	0	Borago officinalis	Borage
1970+	Cas	7	Borago officinalis	•
1970+		5		Borage
	Native		Botrychium lunaria	Moonwort
1970+	Native	66	Brachypodium sylvaticum	False-brome
1970+	Seg	24	Brassica napus ssp. oleifera	Oil-seed Rape
1970+	Seg	1	Brassica napus ssp. rapifera	Swede
1807	Cas	0	Brassica nigra	Black Mustard
1970+	Neo	4	Brassica oleracea	Cabbage
?	Arc	? 3	Brassica rapa ssp. campestris	Wild Turnip
2004	Cas	1	Brassica rapa ssp. rapa	Turnip
1956	Cas	0	Briza maxima	Great Quaking-grass
1970+	Native	67	Briza media	Quaking-grass
1970+	Neo	1	Bromopsis erecta	Upright Brome
1970+	Native	35	Bromopsis ramosa	Hairy Brome
1970+	Native	48	Bromus hordeaceus ssp. hordeaceus	Soft-brome
1970+	Native	1	Bromus hordeaceus ssp. longipedicellatus	Soft-brome
1960	Native	0	Bromus hordeaceus ssp. thominei	Soft-brome
1963	Neo	0	Bromus lepidus	Slender Soft-brome
1893	*Arc	0	Bromus racemosus	Smooth Brome
1834	Arc	0	Bromus secalinus	Rye Brome
1970+	Neo	6	Buddleja davidii	Butterfly-bush
1970+	Neo	16	Butomus umbellatus	Flowering Rush
1970+	Cas	15	Buxus sempervirens	Box
1970+	Native	3	Cakile maritima ssp. integrifolia	Sea Rocket
1970+	Cas	5	Calendula officinalis	Pot Marigold
-,,,		-	<i>5,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</i>	Intermediate Water-
1970+	Native	27	Callitriche hamulata	Starwort
1970+	Native	18	Callitriche hermaphroditica	Annual Water-starwort
			•	Various-leaved Water-
1970+	Native	7	Callitriche platycarpa	starwort
1970+	Native	72	Callitriche stagnalis	Common Water-starwort
1970+	Native	96	Calluna vulgaris	Heather
1970+	Native	141	Caltha palustris	Marsh Marigold
1970+	Neo	8	Calystegia pulchra	Hairy Bindweed
1970+	*Neo	34	Calystegia sepium ssp. sepium	Hedge Bindweed
1970+	Neo	12	Calystegia silvatica	Large Bindweed
•			/	

1931	Cas	0	Camelina sativa	Gold-of-pleasure
1961	Cas	0	Campanula glomerata	Clustered Bellflower
1970+	Native	37	Campanula latifolia	Giant Bellflower
1916	Neo	0	Campanula patula	Spreading Bellflower
1970+	Cas	3	Campanula persicifolia	Peach-leaved Bellflower
1970+	Neo	1	Campanula poscharskyana	Trailing Bellflower
1970+	Neo	1	Campanula rapunculoides	Creeping Bellflower
1960	*Neo	0	Campanula rapunculus	Rampion Bellflower
1970+	Native	126	Campanula rotundifolia	Harebell
1970+	Arc	107	Capsella bursa-pastoris	Shepherd's-purse
1970+	Native	39	Cardamine amara	Large Bitter-cress
1970+	Neo	3	Cardamine corymbosa	New Zealand Bitter-cress
1970+	Native	93	Cardamine corymoosa Cardamine flexuosa	Wavy Bitter-cress
1970+	Native	51	Cardamine hirsuta	Hairy Bitter-cress
1970+	Native	140	Cardamine pratensis	Cuckoo-flower
1970+	Native	57	Carduus crispus ssp. multiflorus	Welted Thistle
1970+	Native	1	Carduus crispus ssp. muitijiorus Carduus nutans	Musk Thistle
1970+	Native	17	Carduus nuians Carduus tenuiflorus	Slender Thistle
1970+	Native	17	Carex acuta	Slender Tufted-sedge
1970+ 1970+	Native	25	Carex acutiformis	_
1970+	Native	0		Lesser Pond-sedge
1913		2	Carex aquatilis	Water Sedge
	Native Native	33	Carex arenaria Carex binervis	Sand Sedge
1970+				Green-ribbed Sedge
1970+	Native	38	Carex caryophyllea	Spring Sedge
1970+	Native	23	Carex curta	White Sedge
1970+	Native	1	Carex diandra	Lesser Tussock-sedge
1970+	Native	11	Carex dioica	Dioecious Sedge
1970+	Native	9	Carex distans	Distant Sedge
1970+	Native	80	Carex disticha	Brown Sedge
1970+	Native	3 56	Carex divulsa ssp. leersii Carex echinata	Leers' Sedge
1970+	Native			Star Sedge
1970+	Native	5	Carex extensa	Long-bracted Sedge
1970+	Native	91	Carex flacca	Glaucous Sedge
1970+	Native	63	Carex hirta	Hairy Sedge
1970+	Native	24	Carex hostiana	Tawny Sedge
1970+	Native	1	Carex hostiana $x$ viridula = $C$ . $x$ fulva	A hybrid Sedge
1970+	Native	4	Carex laevigata	Smooth-stalked Sedge
1970+	Native	1	Carex lasiocarpa	Slender Sedge
1970+	Native	1	Carex limosa	Bog-sedge
1970+	Native	6	Carex muricata ssp. lamprocarpa	Prickly Sedge
1878	Native	0	Carex muricata ssp. muricata	Prickly Sedge
1970+	Native	82	Carex nigra	Common Sedge
1970+	Native	12	Carex otrubae	False Fox-sedge
1970+	Native	72	Carex ovalis	Oval Sedge
1970+	Native	4	Carex pallescens	Pale Sedge
1970+	Native	80	Carex panicea	Carnation Sedge

1970+	Native	22	Carex paniculata	Greater Tussock-sedge
1970+	Native	9	Carex pendula	Pendulous Sedge
1970+	Native	48	Carex pilulifera	Pill Sedge
1970+	Native	45	Carex pulicaris	Flea Sedge
1882	Native	0	Carex punctata	<b>Dotted Sedge</b>
1970+	Native	7	Carex remota	Remote Sedge
1970+	Native	15	Carex riparia	<b>Great Pond-sedge</b>
			Carex riparia x vesicaria	
1970+	Native	1	= C. x c somadens is	A hybrid Sedge
1970+	Native	81	Carex rostrata	Bottle Sedge
1970+	Native	3	$Carex\ rostrata\ x\ vesicaria = C.\ x\ involuta$	A hybrid Sedge
1916	Native	0	Carex spicata	Spiked Sedge
1970+	Native	20	Carex sylvatica	Wood-sedge
1970+	Native	9	Carex vesicaria	Bladder-sedge
1970+	Native	31	Carex viridula ssp. brachyrrhyncha	Long-stalked Yellow-sedge
1970+	Native	29	Carex viridula ssp. oedocarpa	Common Yellow-sedge
1970+	Native	8	Carlina vulgaris	Carline Thistle
1970+	Neo	16	Carpinus betulus	Hornbeam
1970+	Cas	10	Castanea sativa	Sweet Chestnut
1970+	Native	11	Catabrosa aquatica	Whorl-grass
1970+	Native	4	Catapodium marinum	Sea Fern-grass
1970+	Native	5	Catapodium rigidum	Fern-grass
1970+	Cas	1	Cedrus atlantica	Atlas Cedar
1970+	Cas	1	Cedrus deodara	Deodar
1970+	Cas	2	Cedrus libani	Cedar of Lebanon
1970+	Neo	4	Centaurea cyanus	Cornflower
1970+	Arc	1	Centaurea cyanus	Cornflower
1970+	Neo	5	Centaurea montana	Perennial Cornflower
1970+	Native	136	Centaurea nigra	Common Knapweed
1970+	Var	1	Centaurea nigra var. radiata	Common Knapweed
1970+	Cas	2	Centaurea scabiosa	Greater Knapweed
1962	Native	0	Centaurea scabiosa	Greater Knapweed
1970+	Native	6	Centaurium erythraea	<b>Common Centaury</b>
1970+	Neo	11	Centranthus ruber	Red Valerian
1970+	Native	11	Cerastium arvense	Field Mouse-ear
1970+	Native	23	Cerastium diffusum	Dark-green Mouse-ear
1970+	Native	170	Cerastium fontanum	Common Mouse-ear
1970+	Native	88	Cerastium glomeratum	Sticky Mouse-ear
1970+	Native	15	Cerastium semidecandrum	Little Mouse-ear
1970+	Neo	9	Cerastium tomentosum	Snow-in-summer
1970+	Native	18	Ceratocapnos claviculata	Climbing Corydalis
1970+	Neo	3	Ceratophyllum demersum	Rigid Hornwort
1970+	Cas	1	Cercis siliquastrum	Judas Tree
1970+	Neo	2	Ceterach officinarum	Rustyback
1970+	*Neo	3	Chaenorhinum minus	Small Toadflax
1970+	Native	54	Chaerophyllum temulum	Rough Chervil
•			- ··· · · · · · · · · · · · · · · · · ·	

1970+	Cas	13	Chamaecyparis lawsoniana	Lawson's Cypress
1970+	Cas	1	Chamaecyparis pisifera	Sawara Cypress
1853	Neo	0	Chamaemelum nobile	Chamomile
1970+	Native	153	Chamerion angustifolium	Rosebay Willowherb
1970+	Arc	3	Chelidonium majus	<b>Greater Celandine</b>
1970+	Native	95	Chenopodium album	Fat-hen
1970+	Arc	16	Chenopodium bonus-henricus	Good-King-Henry
1968	*Cas	0	Chenopodium glaucum	Oak-leaved Goosefoot
1873	*Cas	0	Chenopodium polyspermum	Many-seeded Goosefoot
1970+	Hort	2	Chenopodium quinoa	Quinoa
1970+	Cas	3	Chenopodium rubrum	Red Goosefoot
1833	*Cas	0	Chenopodium urbicum	Upright Goosefoot
1970+	Cas	1	Chenopodium vulvaria	Stinking Goosefoot
1970+	Arc	6	Chrysanthemum segetum	Corn Marigold
			•	Alternate-leaved Golden-
1970+	Native	37	Chrysosplenium alternifolium	saxifrage
				Opposite-leaved Golden-
1970+	Native	104	Chrysosplenium oppositifolium	saxifrage
1970+	Neo	12	Cicerbita macrophylla ssp. uralensis	Common Blue-sow-thistle
1962	*Cas	0	Cichorium intybus	Chicory
1970+	Native	1	Cicuta virosa	Cowbane
?	Matica	?	Circaea alpina x lutetiana	Upland Enchanter's-
•	Native		= C. x intermedia	nightshade
1970+	Native	41	Circaea lutetiana	Enchanter's-nightshade
1970+	Native	173	Cirsium arvense	Creeping Thistle
1970+	Native	9	Cirsium heterophyllum	Melancholy Thistle
2001	Neo	1	Cirsium oleraceum	Cabbage Thistle
1970+	Native	151	Cirsium palustre	Marsh Thistle
1970+	Native	152	Cirsium vulgare	Spear Thistle
1853	Native	0	Cladium mariscus	Great Fen-sedge
1970+	Neo	2	Claytonia perfoliata	Spring Beauty
1970+	Neo	27	Claytonia sibirica	Pink Purslane
1970+	Neo	3	Clematis vitalba	Traveller's Joy
1874	Native	0	Clinopodium acinos	Basil Thyne
1970+	Native	7	Clinopodium vulgare	Wild Basil
1970+	Native	14	Cochlearia danica	Danish Scurvygrass
1970+	Native	19	Cochlearia officinalis ssp. officinalis	Common Scurvygrass
1970+	Native	1	Cochlearia officinalis ssp. scotica	Scottish Scurvygrass
1947	Native	0	Coeloglossum viride	Frog Orchid
1970+	Cas	2	Colchicum autumnale	Meadow Saffron
1970+	Arc	40	Conium maculatum	Hemlock
1970+	Native	91	Conopodium majus	Pignut
1931	Cas	0	Conringia orientalis	Hare's-ear Mustard
1970+	*Arc	11	Convolvulus arvensis	Field Bindweed
1970+	Neo	1	Conyza canadensis	Canadian Fleabane
1970+	Native	7	Corallorhiza trifida	<b>Coralroot Orchid</b>

1970+	Cas	1	Coriandrum sativum	Coriander
1970+	Neo	1	Cornus alba	White Dogwood
1970+	Neo	4	Cornus sanguinea	Dogwood
1970+	Neo	7	Cornus sericea	Red-osier Dogwood
2000	Cas	1	Coronopus didymus	Lesser Swine-cress
1970+	Arc	5		Swine-cress
1970+	Native	62	Coronopus squamatus Corylus avellana	Hazel
19/0+	Native	02	Cotoneaster frigidus x salicifolius	пагеі
1970+	Cas	1	= C. x watereri	Waterer's Cotoneaster
1970+	Neo	13	Cotoneaster horizontalis	Wall Cotoneaster
1970+	Neo	1	Cotoneaster integrifolius	Small-leaved Cotoneaster
1970+	Cas	1	Cotoneaster rehderi	Bullate Cotoneaster
1970+	Neo	13	Cotoneaster simonsii	Himalayan Cotoneaster
1970+	Cas	2	Cotoneaster sternianus	Stern's Cotoneaster
1962	Neo	0	Cotula squalida	Leptinella
2004	Cas	2	Crambe hispanica	Oil-seed Crambe
1836	Native	0	Crambe maritima	Sea-kale
1970+	Neo	2	Crassula helmsii	New Zealand Pigmyweed
1970+	Cas	2	Crataegus laevigata	Midland Hawthorn
1970+	Native	134	Crataegus monogyna	Hawthorn
1770	Ivative	134	Crataegus monogyna x laevigata	Tia willom
2004	Cas	5	= C. x media	Hybrid Hawthorn
1970+	Neo	1	Crepis biennis	Rough Hawk's-beard
1970+	Native	70	Crepis capillaris	Smooth Hawk's-beard
1970+	Native	1	Crepis mollis	Northern Hawk's-beard
1970+	Native	66	Crepis paludosa	Marsh Hawk's-beard
17,0	1 (00)		Crocosmia aurea x potsii	111111111111111111111111111111111111111
1970+	Neo	8	= C. x crocosmiiflora	Montbretia
1970+	Neo	1	Crocosmia paniculata	Aunt-Eliza
			Crocus angustifolius x flavus	
2004	Cas	3	= C. x stellaris	Yellow Crocus
2004	Neo	3	Crocus tommasinianus	Early Crocus
2004	Cas	4	Crocus vernus	Spring Crocus
1970+	Native	141	Cruciata laevipes	Crosswort
1970+	Native	3	Cryptogramma crispa	Parsley Fern
1970+	Cas	1	Cryptomeria japonica	Japanese Red-cedar
1970+	Cas	1	Cupressus macrocarpa	Monterey Cypress
			Cupressus macrocarpa x Chamaecyparis	
1070	0		nootkatensis = X Cupressocyparis	
1970+	Cas	1	leylandii	Leyland Cypress
1959	Cas	0	Cuscuta campestris	Yellow Dodder
1889	Cas	0	Cuscuta epithymum	Dodder
1970+	Neo	28	Cymbalaria muralis ssp. muralis	Ivy-leaved Toadflax
1970+	Neo	4	Cymbalaria pallida	Italian Toadflax
2001	Native	1	Cynoglossum officinale	Hound's-tongue
1970+	Native	128	Cynosurus cristatus	Crested Dog's-tail
1970+	Native	7	Cystopteris fragilis	Brittle Bladder-fern

1970+	Neo	1	Cytisus multiflorus	White Broom
1970+	Native	81	Cytisus scoparius ssp. scoparius	Broom
1970+	Native	143	Dactylis glomerata	Cock's-foot
1970+	Native	39	Dactylorhiza fuchsii	Common Spotted-orchid
			Dactylorhiza fuchsii x maculata	
1970+	Native	2	= D. x transiens	A hybrid Marsh-orchid
			Dactylorhiza fuchsii x purpurella	
1970+	Native	1	= D. x venusta	A hybrid Marsh-orchid
1970+	Native	12	Dactylorhiza incarnata ssp. incarnata	Early Marsh-orchid
2000	Native	2	Dactylorhiza incarnata ssp. pulchella	Early Marsh-orchid
1070	<b>N</b> T 4:	2	Dactylorhiza incarnata x purpurella	A 1 1 1 1 1 A 6 1 1 1 1 1
1970+	Native	2	= D. x latirella	A hybrid Marsh-orchid
1970+	Native	32	Dactylorhiza maculata ssp. ericetorum	Heath Spotted-orchid
1907	Native	0	Dactylorhiza maculata x Gymnadenia	A hybrid Orchid
1907	Native	U	conopsea = X Dactylodenia legrandiana Dactylorhiza maculata x purpurella	A hybrid Orema
1970+	Native	6	= D. x formosa	A hybrid Marsh-orchid
1970+	Native	44	Dactylorhiza purpurella ssp. purpurella	Northern Marsh-orchid
1970+	Native	33	Danthonia decumbens	Heath-grass
1970+	Neo	10	Daphne laureola	Spurge-laurel
1970+	Cas	1	Datura stramonium	Thorn-apple
1980	Native	0	Daucus carota ssp. carota	Wild Carrot
1970+	Native	127	Deschampsia cespitosa ssp. cespitosa	Tufted Hair-grass
1970+	Native	93	Deschampsia flexuosa	Wavy Hair-grass
1961	*Cas	0	Descurania sophia	Flixweed
1970+	Native	7	Dianthus deltoides	Maiden Pink
1970+	Native	100	Digitalis purpurea	Foxglove
1970+	Native	2	Diphasiastrum alpinum	Alpine Clubmoss
1960	Neo	0	Diplotaxis muralis	Annual Wall-rocket
1970+	Neo	25	Dipsacus fullonum	Wild Teasel
1970+	Neo	46	Doronicum pardalianches	Leopard's-bane
1770	1100	40	Doronteum paraattanenes	Plantain-leaved Leopard's-
1970+	Neo	6	Doronicum plantagineum	bane
1970+	Neo	2	Draba muralis	Wall Whitlowgrass
1828	Native	0	Drosera anglica	Great Sundew
1970+	Native	12	Drosera rotundifolia	Round-leaved Sundew
1970+	Native	88	Dryopteris affinis	Scaly Male-fern
1970+	Seg	1	Dryopteris affinis ssp. borreri	Scaly Male-fern
1970+	Native	26	Dryopteris carthusiana	Narrow Buckler-fern
	- 1010-110		Dryopteris carthusiana x dilatata	
1970+	Native	3	= D. x deweveri	A hybrid Buckler-fern
1970+	Native	139	Dryopteris dilatata	Broad Buckler-fern
1970+	Native	148	Dryopteris filix-mas	Common Male-fern
2002	Neo	1	Echinops exaltatus	Globe-thistle
1970+	Native	10	Echium vulgare	Viper's Bugloss
1853	Native	0	Eleocharis multicaulis	Many-stalked Spike-rush
1970+	Native	75	Eleocharis palustris ssp. vulgaris	Common Spike-rush

1970+	Native	14	Eleocharis quinqueflora	Few-flowered Spike-rush
1875	Native	0	Eleogiton fluitans	Floating Club-rush
1970+	Neo	34	Elodea canadensis	Canadian Waterweed
2004	Neo	1	Elodea nuttallii	Nuttall's Waterweed
1970+	Native	17	Elymus caninus	Bearded Couch
1970+	Native	5	Elytrigia juncea ssp. boreoatlantica	Sand Couch
2000	Native	1	Elytrigia juncea $x$ repens = $E$ . $x$ laxa	A hybrid Couch
1970+	Native	76	Elytrigia repens	Common Couch
1970+	Var	1	Elytrigia repens var. aristata	Common Couch
1970+	Native	44	Empetrum nigrum ssp. nigrum	Crowberry
1970+	Neo	26	Epilobium brunnescens	New Zealand Willowherb
1970+	Neo	53	Epilobium ciliatum	American Willowherb
			Epilobium ciliatum x montanum	
1970+	Native	1	= E. x interjectum	A hybrid Willowherb
1970+	Native	117	Epilobium hirsutum	Great Willowherb
			Epilobium hirsutum x parviflorum	
1888	Native	0	= E. x subhirsutum	A hybrid Willowherb
1970+	Native	61	Epilobium montanum	Broad-leaved Willowherb
1970+	Native	81	Epilobium obscurum	Short-fruited Willowherb
1970+	Native	72	Epilobium palustre	Marsh Willowherb
1970+	Native	27	Epilobium parviflorum	Hoary Willowherb
1970+	Native	3	Epilobium roseum	Pale Willowherb
1982	Native	1	Epipactis helleborine	<b>Broad-leaved Helleborine</b>
1853	Native	0	Epipactis palustris	Marsh Helleborine
1970+	Native	122	Equisetum arvense	Field Horsetail
			Equisetum arvense x fluviatile	
1970+	Native	3	= E. x litorale	Shore Horsetail
1970+	Native	82	Equisetum fluviatile	Water Horsetail
1836	Native	0	Equisetum hyemale	Dutch Rush
1970+	Native	76	Equisetum palustre	Marsh Horsetail
1970+	Native	21	Equisetum sylvaticum	Wood Horsetail
1970+	Native	9	Equisetum telmateia	Great Horsetail
1970+	Neo	8	Eranthis hyemalis	Winter Aconite
1970+	Native	54	Erica cinerea	Bell Heather
1970+	Native	44	Erica tetralix	Cross-leaved Heath
1970+	Neo	1	Erigeron glaucus	Seaside Daisy
1970+	Neo	2	Erinus alpinus	Fairy Foxglove
1970+	Native	36	Eriophorum angustifolium	Common Cottongrass
1970+	Native	7	Eriophorum latifolium	<b>Broad-leaved Cottongrass</b>
1970+	Native	38	Eriophorum vaginatum	Hare's-tail Cottongrass
1970+	Native	8	Erodium cicutarium	Common Stork's-bill
1970+	Native	16	Erophila glabrescens	Glabrous Whitlowgrass
1970+	Native	1	Erophila majuscula	Hairy Whitlowgrass
1970+	Native	11	Erophila verna	Common Whitlowgrass
1970+	Agg	50	Erophila verna agg. (all E. spp.)	Common Whitlowgrass
1960	Cas	0	Eruca vesicaria ssp. sativa	Garden Rocket

1970+	*Neo	4	Erysimum cheiranthoides	Treacle Mustard
1970+	*Neo	5	Erysimum cheiri	Wallflower
2002	Neo	1	Erythronium dens-canis	Dog's-tooth-violet
1970+	Cas	1	Escallonia macrantha	Escallonia
1970+	Native	5	Euonymus europaeus	Spindle
1905	Cas	0	Euonymus latifolius	Large-leaved Spindle
1970+	Native	19	Eupatorium cannabinum	Hemp-agrimony
1970+	Neo	1	Euphorbia cyparissias	Cypress Spurge
1970+	Neo	1	Euphorbia dulcis	Sweet Spurge
1916	Neo	0	Euphorbia esula	Leafy Spurge
1957	Cas	0	Euphorbia exigua	Dwarf Spurge
1895	Arc	0	Euphorbia exigua	Dwarf Spurge
1970+	Arc	44	Euphorbia helioscopia	Sun Spurge
1951	Cas	0	Euphorbia lathyris	Caper Spurge
1970+	Arc	29	Euphorbia peplus	Petty Spurge
1970+	Native	12	Euphrasia arctica ssp. borealis	Eyebright
1970+	Native	4	Euphrasia arctica x confusa	Eyebright
1970+	Native	20	Euphrasia confusa	Eyebright
1970+	Native	1	Euphrasia confusa x nemorosa	Eyebright
1970+	Native	6	Euphrasia micrantha	Eyebright
			Euphrasia micrantha x scottica	
2000	Native	1	= E. x electa	Eyebright
1970+	Native	5	Euphrasia nemorosa	Eyebright
2004	Native	1	Euphrasia nemorosa x tetraquetra	Eyebright
1070		52	Euphrasia officinalis agg. (all E. spp. and	F 1:1/
1970+	Agg	53	their hybrids)	Eyebright
1970+	Native	13	Euphrasia scottica	Eyebright
2002	Native	1	Euphrasia tetraquetra	Eyebright
1970+	Cas	1	Fagopyrum esculentum	Buckwheat
1970+	Neo	81	Fagus sylvatica	Beech
1970+	Neo	1	Fallopia baldschuanica	Russian-vine
1970+	Arc	56	Fallopia convolvulus	Black Bindweed
1970+	Neo	31	Fallopia japonica	Japanese Knotweed
1970+	Neo	3	Fallopia sachalinensis	Giant Knotweed
1970+ 1970+	Native	55	Festuca arundinacea	Tall Fescue
1970+	Native	8	Festuca filiformis	Fine-leaved Sheep's-fescue Giant Fescue
	Native	27	Festuca gigantea	
1970+	Neo	1	Festuca heterophylla	Various-leaved Fescue
1970+ 1970+	Sp	72	Festuca ovina	Sheep's-fescue
	Native	1	Festuca ovina ssp. hirtula	Sheep's-fescue
1970+ 1970+	Native	1	Festuca ovina ssp. ophioliticola	Sheep's-fescue
	Native	4	Festuca ovina ssp. ovina	Sheep's-fescue
1970+	Native	32	Festuca pratensis Festuca pratensis x Lolium perenne	Meadow Fescue
1970+	Native	5	= X Festulolium loliaceum	Hybrid Fescue
1970+	Native	7	Festuca rubra ssp. juncea	Red Fescue
1770.	1 1441 10	,	- como i word osp. janeed	1.04 1 00040

1970+	Native	136	Festuca rubra ssp. rubra	Red Fescue
1839	Native	0	Festuca vivipara	Viviparous Fescue
1970+	Native	6	Filago minima	Small Cudweed
1961	*Cas	0	Filago pyramidata	Broad-leaved Cudweed
1970+	Native	8	Filago vulgaris	Common Cudweed
1970+	Native	181	Filipendula ulmaria	Meadowsweet
1893	Native	0	Filipendula vulgaris	Dropwort
2003	Cas	1	Foeniculum vulgare	Fennel
1970+	Neo	2	Fragaria ananassa	Garden Strawberry
1970+	Native	82	Fragaria vesca	Wild Strawberry
1970+	Native	130	Fraxinus excelsior	Ash
1970+	Cas	1	Fritillaria meleagris	Fritillary
1970+	Neo	2	Fuchsia magellanica	Fuchsia
2001	Native	2	Fumaria bastardii	Tall Ramping-fumitory
1878	Native	0	Fumaria capreolata ssp. babingtonii	White Ramping-fumitory
1970+	Arc	8	Fumaria densiflora	Dense-flowered Fumitory
1970+	Seg	97	Fumaria muralis ssp. boraei	Common Ramping-fumitory
1970+	Arc	86	Fumaria officinalis ssp. officinalis	Common Fumitory
1970+	Arc	9	Fumaria officinalis ssp. wirtgenii	Common Fumitory
1970+	Native	8	Fumaria purpurea	Purple Ramping-fumitory
1970+	Neo	39	Galanthus nivalis	Snowdrop
1866	Arc	0	Galeopsis angustifolia	Red Hemp-nettle
1970+	Native	22	Galeopsis bifida	Bifid Hemp-nettle
				Large-flowered Hemp-
1970+	Arc	29	Galeopsis speciosa	nettle
1970+	Native	42	Galeopsis tetrahit	Common Hemp-nettle
1960	Cas	0	Galinsoga parviflora	Gallant-soldier
1970+	Cas	1	Galinsoga quadriradiata	Shaggy-soldier
1970+	Native	144	Galium aparine	Cleavers
1970+	Native	5	Galium boreale	Northern Bedstraw
1970+	Native	9	Galium mollugo	Hedge Bedstraw
1970+	Seg	1	Galium mollugo ssp. erectum	Upright Hedge Bedstraw
1970+	Native	30	Galium odoratum	Woodruff
1970+	Native	7	Galium palustre ssp. elongatum	Common Marsh-bedstraw
1970+	Native	104	Galium palustre ssp. palustre	Common Marsh-bedstraw
1970+	Native	117	Galium saxatile	Heath Bedstraw
1970+	Native	1	Galium sterneri	Limestone Bedstraw
1970+	Native	61	Galium uliginosum	Fen Bedstraw
1970+	Native	130	Galium verum	Lady's Bedstraw
1970+	Neo	1	Gaultheria shallon	Shallon
1970+	Native	12	Genista anglica	Petty Whin
1961	Native	0	Genista tinctoria ssp. tinctoria	Dyer's Greenweed
1836	Native	0	Gentianella amarella	Autumn Gentian
1966	Native	0	Gentianella campestris	Field Gentian
1839	Native	0	Geranium columbinum	Long-stalked Crane's-bill
1970+	Arc	69	Geranium dissectum	Cut-leaved Crane's-bill

1970+	Cas	2	Geranium endressii	French Crane's-bill
			Geranium ibericum x platypetalum	
1970+	Cas	1	= G. x magnificum	Purple Crane's-bill
1970+	Native	8	Geranium lucidum	Shining Crane's-bill
1970+	Native	74	Geranium molle	Dove's-foot Crane's-bill
1956	Cas	0	Geranium phaeum	Dusky Crane's-bill
1970+	Native	70	Geranium pratense	Meadow Crane's-bill
			F	Small-flowered Crane's-
1970+	Native	7	Geranium pusillum	bill
1970+	Neo	3	Geranium pyrenaicum	Hedgerow Crane's-bill
1970+	Native	122	Geranium robertianum	Herb-Robert
1970+	Native	2	Geranium sanguineum	Bloody Crane's-bill
1970+	Native	65	Geranium sylvaticum	Wood Crane's-bill
2001	Var	1	Geranium sylvaticum var. wannerii	Wood Crane's-bill
1931	Neo	0	Geranium versicolor	Pencilled Crane's-bill
1970+	Native	118	Geum rivale	Water Avens
19/0⊤	Native	110	Geum rivale Geum rivale x urbanum	water Avens
1970+	Native	20	= G. x intermedium	Hybrid Avens
1970+	Native	114	Geum urbanum	Wood Avens
1970+	Native	4		
1970+		4	Glaucium flavum Glaux maritima	Yellow Horned-poppy
	Native	-		Sea-milkwort
1970+	Native	68	Glechoma hederacea	Ground-ivy
1970+	Native	30	Glyceria declinata	Small Sweet-grass
1970+	Native	101	Glyceria fluitans	Floating Sweet-grass
2004	Matiria	7	Glyceria fluitans x notata	Hadamid Carrent among
2004	Native	7	= G. x pedicellata	Hybrid Sweet-grass
1970+	Neo	6	Glyceria maxima	Reed Sweet-grass
1970+	Native	42	Glyceria notata	Plicate Sweet-grass
1970+	Native	1	Gnaphalium sylvaticum	Heath Cudweed
1970+	Native	46	Gnaphalium uliginosum	Marsh Cudweed
1970+	Native	1	Goodyera repens	Creeping Lady's-tresses
2004	Neo	1	Gunnera manicata	Brazilian Giant-rhubarb
1970+	Native	8	Gymnadenia conopsea ssp. borealis	Fragrant Orchid
1960	Native	0	Gymnadenia conopsea ssp. densiflora	Fragrant Orchid
1970+	Native	16	Gymnocarpium dryopteris	Oak Fern
2002	Neo	1	Hedera colchica	Persian Ivy
1970+	Native	77	Hedera helix ssp. helix	Common Ivy
1970+	Neo	18	Hedera helix ssp. hibernica 'Hibernica'	Irish Ivy
1970+	Native	51	Helianthemum nummularium	Common Rock-rose
2000	Cas	3	Helianthus annuus	Sunflower
			Helianthus pauciflorus x tuberosus	
1970+	Neo	1	= H. x laetiflorus	Perennial Sunflower
1970+	Native	38	Helictotrichon pratense	Meadow Oat-grass
1970+	Native	15	Helictotrichon pubescens	Downy Oat-grass
1970+	Neo	1	Helleborus foetidus	Stinking Hellebore
1960	Cas	0	Helleborus viridis ssp. occidentalis	Green Hellebore
1970+	Neo	37	Heracleum mantegazzianum	Giant Hogweed
17/0.	1,00	51	110. de l'elle mantie galliantant	C14111 1105 11 004

			Heracleum mantegazzianum x	
1970+	Native	2	sphondylium	Hybrid Hogweed
1970+	Native	136	Heracleum sphondylium ssp. sphondylium	Hogweed
1970+	Neo	23	Hesperis matronalis	Dame's Violet
1970+	Agg	78	Hieracium agg. (all H. spp.)	Hawkweed
1970+	Native	1	Hieracium ampliatum	Hawkweed
1970+	Native	1	Hieracium argenteum	Hawkweed
			Hieracium boswellii	
1970+	Native	2	(H. caledonicum p.p.)	Hawkweed
1970+	Native	2	Hieracium britanniciforme	Hawkweed
1970+	Native	1	Hieracium cravoniense	Hawkweed
1970+	Native	2	Hieracium deganwyense (H. subrude)	Hawkweed
1970+	Native	6	Hieracium dicella	Hawkweed
1970+	Neo	1	Hieracium grandidens	Hawkweed
1970+	Native	1	Hieracium leyi	Hawkweed
1969	Native	0	Hieracium oistophyllum	Hawkweed
1970+	Native	2	Hieracium orimeles	Hawkweed
1870	Native	0	Hieracium prenanthoides	Hawkweed
2002	3.7		Hieracium rubicundiforme	
2002	Native	1	(H. caledonicum p.p.)	Hawkweed
2000	Native	2	Hieracium sabaudum	Hawkweed
1969	Native	0	Hieracium schmidtii	Hawkweed
1853	Native	0	Hieracium strictiforme	Hawkweed
1970+	Native	2	Hieracium subcrocatum	Hawkweed
1854	Native	0	Hieracium umbellatum ssp. umbellatum	Hawkweed
1855	Neo	0	Hieracium vagum	Hawkweed
1970+	Neo	1	Hieracium virgultorum	Hawkweed
1970+	Native	15	Hieracium vulgatum	Common Hawkweed
1970+	Neo	4	Hippophae rhamnoides	Sea-buckthorn
1970+	Native	3	Hippuris vulgaris	Mare's-tail
1970+	Native	136	Holcus lanatus	Yorkshire-fog
1970+	Native	114	Holcus mollis	Creeping Soft-grass
1970+	Native	8	Honckenya peploides	Sea Sandwort
1885	Native	0	Hordelymus europaeus	Wood Barley
1970+	~	_		
1070±	Cas	7	Hordeum distichon	Two-rowed Barley
1970+	Neo	4	Hordeum jubatum	Foxtail Barley
1970+	Neo Arc	4 7	Hordeum jubatum  Hordeum murinum ssp. murinum	Foxtail Barley Wall Barley
1970+ 2003	Neo Arc Cas	4 7 1	Hordeum jubatum <b>Hordeum murinum ssp. murinum</b> Hordeum vulgare	Foxtail Barley Wall Barley Six-rowed Barley
1970+ 2003 1970+	Neo Arc Cas Cas	4 7 1 4	Hordeum jubatum  Hordeum murinum ssp. murinum  Hordeum vulgare  Humulus lupulus	Foxtail Barley Wall Barley Six-rowed Barley Hop
1970+ 2003 1970+ 1896	Neo Arc Cas Cas Native	4 7 1 4 0	Hordeum jubatum  Hordeum murinum ssp. murinum  Hordeum vulgare  Humulus lupulus  Huperzia selago	Foxtail Barley Wall Barley Six-rowed Barley Hop Fir Clubmoss
1970+ 2003 1970+	Neo Arc Cas Cas	4 7 1 4	Hordeum jubatum  Hordeum murinum ssp. murinum  Hordeum vulgare  Humulus lupulus  Huperzia selago  Hyacinthoides hispanica	Foxtail Barley Wall Barley Six-rowed Barley Hop
1970+ 2003 1970+ 1896 1970+	Neo Arc Cas Cas Native Neo	4 7 1 4 0 4	Hordeum jubatum  Hordeum murinum ssp. murinum  Hordeum vulgare  Humulus lupulus  Huperzia selago  Hyacinthoides hispanica  Hyacinthoides hispanica x non-scripta	Foxtail Barley Wall Barley Six-rowed Barley Hop Fir Clubmoss Spanish Bluebell
1970+ 2003 1970+ 1896 1970+	Neo Arc Cas Cas Native Neo Native	4 7 1 4 0 4	Hordeum jubatum  Hordeum murinum ssp. murinum  Hordeum vulgare  Humulus lupulus  Huperzia selago  Hyacinthoides hispanica  Hyacinthoides hispanica x non-scripta  = H. x massartiana	Foxtail Barley Wall Barley Six-rowed Barley Hop Fir Clubmoss Spanish Bluebell Hybrid Bluebell
1970+ 2003 1970+ 1896 1970+ 1970+ 1970+	Neo Arc Cas Cas Native Neo Native Cas	4 7 1 4 0 4 28 1	Hordeum jubatum  Hordeum murinum ssp. murinum  Hordeum vulgare  Humulus lupulus  Huperzia selago  Hyacinthoides hispanica  Hyacinthoides hispanica x non-scripta  = H. x massartiana  Hyacinthoides italica	Foxtail Barley Wall Barley Six-rowed Barley Hop Fir Clubmoss Spanish Bluebell Hybrid Bluebell Italian Bluebell
1970+ 2003 1970+ 1896 1970+	Neo Arc Cas Cas Native Neo Native	4 7 1 4 0 4	Hordeum jubatum  Hordeum murinum ssp. murinum  Hordeum vulgare  Humulus lupulus  Huperzia selago  Hyacinthoides hispanica  Hyacinthoides hispanica x non-scripta  = H. x massartiana	Foxtail Barley Wall Barley Six-rowed Barley Hop Fir Clubmoss Spanish Bluebell Hybrid Bluebell

1956 Arc 0 Hyoscyamus niger 1970+ Neo 4 Hypericum androsaemum Tutsan 1956 Neo 0 Hypericum calycinum Rose-of-Sharon 1970+ Native 41 Hypericum hirsutum Hairy St. John's-w 1970+ Native 5 Hypericum humifusum Trailing St. John Hypericum maculatum ssp. 1970+ Native 1 obtusiusculum wort	s-wort ohn's- s-wort s-wort wort
1956Neo0Hypericum calycinumRose-of-Sharon1970+Native41Hypericum hirsutumHairy St. John's-w1970+Native5Hypericum humifusum Hypericum maculatum ssp.Trailing St. John Imperforate St. J	s-wort ohn's- s-wort s-wort wort
1970+ Native 5 <i>Hypericum humifusum</i> Trailing St. John <i>Hypericum maculatum ssp.</i> Imperforate St. J	s-wort ohn's- s-wort s-wort wort
Hypericum maculatum ssp. Imperforate St. J	ohn's- s-wort s-wort wort
Hypericum maculatum ssp. Imperforate St. J	ohn's- s-wort s-wort wort
1970+ Native 1 <i>obtusiusculum</i> wort	s-wort wort
	s-wort wort
Hypericum maculatum x perforatum	s-wort wort
1970+ Native 12 = H. x desetangsii Hybrid St. John's	wort
1970+ Native 37 Hypericum perforatum Perforate St. John'	
1970+ Native 65 <i>Hypericum pulchrum</i> Slender St. John's-Square-stalked St.	
1970+ Native 54 Hypericum tetrapterum wort	JOIIII 3-
1970+ Native 90 <i>Hypochaeris radicata</i> Cat's-ear	
1881 Neo 0 <i>Iberis amara</i> Wild Candytuft	
1970+ Native 53 <i>Ilex aquifolium</i> Holly	
1970+ Neo 30 Impatiens glandulifera Indian Balsam	
1970+ *Neo 1 <i>Inula helenium</i> Elecampane	
1970+ Native 81 Iris pseudacorus Yellow Iris	
1970+ Native 23 <i>Isolepis setacea</i> Bristle Club-rush	
1970+ Cas 1 Juglans regia Walnut	
1970+ Native 92 Juncus acutiflorus Sharp-flowered Ri	ısh
Juncus acutiflorus x articulatus	
2004 Native $6 = J. x surrejanus$ A hybrid Rush	
1970+ Native 3 Juncus ambiguus Frog Rush	
1970+ Native 143 Juncus articulatus Jointed Rush	
1970+ Native 88 Juncus bufonius Toad Rush	
1970+ Native 47 Juncus bulbosus Bulbous Rush	
1970+ Native 96 Juncus conglomeratus Compact Rush	
Juncus conglomeratus $x$ effusus 1970+ Native 1 = $J$ . $x$ kern-reichgeltii A hybrid Rush	
1970+ Native 165 Juncus effusus Soft Rush	
2002 Native 1 Juncus effusus $x$ inflexus = $J$ . $x$ diffusus A hybrid Rush	
1970+ Native 6 Juncus gerardii Saltmarsh Rush	
1970+ Native 55 Juncus inflexus Hard Rush	
1970+ Native 56 Juncus squarrosus Heath Rush	
1970+ Native 25 <i>Juniperus communis ssp. communis</i> Juniper	
1970+ Native 26 Knautia arvensis Field Scabious	
1970+ Neo 2 <i>Kniphofia uvaria</i> Red-hot-poker	
1970+ Native 30 Koeleria macrantha Crested Hair-grass	,
1970+ Cas 1 Laburnum alpinum Scottish Laburnum	
1970+ Neo 9 Laburnum anagyroides Laburnum	
1970+ Native 9 <i>Lactuca virosa</i> Great Lettuce	
1970+ Cas 1 Lagarosiphon major Curly Waterweed	
1970+ Neo 5 Lamiastrum galeobdolon ssp. argentatum Yellow Archangel	
1970+ Arc 103 Lamium album White Dead-nettle	
1970+ Arc 58 Lamium amplexicaule Henbit Dead-nett	le

1970+	Arc	54	Lamium confertum	Northern Dead-nettle
1970+	Arc	27	Lamium hybridum	Cut-leaved Dead-nettle
2002	Neo	1	Lamium maculatum	Spotted Dead-nettle
1970+	Arc	96	Lamium purpureum	Red Dead-nettle
1970+	Native	123	Lapsana communis ssp. communis	Nipplewort
1970+	Neo	34	Larix decidua	Larch
1970	1100	34	Larix decidua x kaempferi	Laren
1970+	Neo	20	= L. x marschlinsii	Hybrid Larch
1970+	Neo	5	Larix kaempferi	Japanese Larch
1970+	Neo	2	Lathraea clandestina	Purple Toothwort
1970+	Native	9	Lathraea squamaria	Toothwort
1770	TALLIVE		Lumaca squamaria	Broad-leaved Everlasting-
1970+	Neo	2	Lathyrus latifolius	pea
1970+	Native	67	Lathyrus linifolius	Bitter-vetch
1970+	Var	2	Lathyrus linifolius var. tenuifolius	Bitter-vetch
1970+	Native	159	Lathyrus pratensis	Meadow Vetchling
1570	1 (411) 0	10)	Eurry, as praceists	Narrow-leaved
1970+	Native	1	Lathyrus sylvestris	Everlasting-pea
1902	Cas	0	Lavatera arborea	Tree-mallow
1970+	Native	71	Lemna minor	Common Duckweed
1970+	Native	4	Lemna trisulca	Ivy-leaved Duckweed
1970+	Native	78	Leontodon autumnalis ssp. autumnalis	Autumnal Hawkbit
1970+	Native	48	Leontodon hispidus	Rough Hawkbit
1970+	Native	3	Leontodon saxatilis	Lesser Hawkbit
1893	Arc	0	Lepidium campestre	Field Pepperwort
1970+	Neo	2	Lepidium draba ssp. draba	Hoary Cress
1970+	Native	17	Lepidium heterophyllum	Smith's Pepperwort
1970+	Neo	1	Leucanthemella serotina	Autumn Oxeye
17,0	1,00	-	Leucanthemum lacustre x maximum	1100000000
1970+	Neo	3	=L. x superbum	Shasta Daisy
1970+	Native	69	Leucanthemum vulgare	Oxeye Daisy
2004	Neo	1	Leucojum vernum	Spring Snowflake
1959	Cas	0	Levisticum officinale	Lovage
1970+	Native	3	Leymus arenarius	Lyme-grass
1970+	Native	11	Ligusticum scoticum	Scots Lovage
1970+	Cas	2	9	Garden Privet
1970+	Neo	39	Ligustrum vulgare	Wild Privet
1970+	Neo	1	Lilium martagon	Martagon Lily
1970+	Neo	2	Lilium pyrenaicum	Pyrenean Lily
1914			Linaria dalmatica	Balkan Toadflax
	Cas	0	Linaria aaimaiica	Daikaii Tuauiiax
1970+	Cas Neo			
1970+ 1960		0 19 0	Linaria purpurea	Purple Toadflax Pale Toadflax
1960	Neo *Neo	19 0	Linaria purpurea Linaria repens	Purple Toadflax Pale Toadflax
1960 1970+	Neo *Neo Native	19 0 14	Linaria purpurea Linaria repens Linaria vulgaris	Purple Toadflax Pale Toadflax Common Toadflax
1960 1970+ 1970+	Neo *Neo Native Native	19 0 14 1	Linaria purpurea Linaria repens Linaria vulgaris <b>Linnaea borealis</b>	Purple Toadflax Pale Toadflax Common Toadflax <b>Twinflower</b>
1960 1970+	Neo *Neo Native	19 0 14	Linaria purpurea Linaria repens Linaria vulgaris	Purple Toadflax Pale Toadflax Common Toadflax

1970+	Hort	1	Liriodendron tulipifera	Tulip Tree
1970+	Native	8	Listera cordata	Lesser Twayblade
1970+	Native	13	Listera ovata	Common Twayblade
1956	*Cas	0	Lithospermum arvense	Field Gromwell
1860	Cas	0	Lithospermum officinale	Common Gromwell
1970+	Native	3	Littorella uniflora	Shoreweed
1970+	Cas	1	Luorena unifiora Lobelia erinus	Garden Lobelia
1970+	Cas	0	Lobella erinus Lobularia maritima	Sweet Alison
1900+	Neo			
1970+		14	Lolium multiflorum	Italian Rye-grass
	Native	89	Lolium perenne	Perennial Rye-grass
1834	Cas	0	Lonicera caprifolium	Perfoliate Honeysuckle
1970+	Cas	1	Lonicera involucrata	Californian Honeysuckle
1970+	Cas	1	Lonicera nitida	Wilson's Honeysuckle
1970+	Native	76	Lonicera periclymenum	Honeysuckle
1970+	Cas	1	Lonicera xylosteum	Fly Honeysuckle
1970+	Native	141	Lotus corniculatus	Common Bird's-foot-trefoil
1970+	Var	2	Lotus corniculatus var. sativus	Common Bird's-foot-trefoil
1026	3.T:	0		Narrow-leaved Bird's-
1836	Native	0	Lotus glaber	foot-trefoil
1970+	Native	86	Lotus pedunculatus	Large Bird's-foot-trefoil
1970+	Neo	11	Lunaria annua	Honesty
2002	*Cas	2	Lupinus albus	White Lupin
1957	Cas	0	Lupinus arboreus	Tree Lupin
1070	NI	_	Lupinus arboreus x polyphyllus	D 11 I
1970+	Neo	5	= L. x regalis	Russell Lupin
1970+	Native	114	Luzula campestris	Field Wood-rush
1970+	Neo	2	Luzula luzuloides	White Wood-rush
1970+	Sp	88	Luzula multiflora	Heath Wood-rush
1970+	Native	6	Luzula multiflora ssp. congesta	Heath Wood-rush
?	Native	?	Luzula multiflora ssp. multiflora	Heath Wood-rush
1970+	Native	58	Luzula pilosa	Hairy Wood-rush
1970+	Native	82	Luzula sylvatica	Great Wood-rush
2002	Cas	1	Lychnis chalcedonica	Maltese-Cross
1970+	Cas	1	Lychnis coronaria	Rose Campion
1970+	Native	85	Lychnis flos-cuculi	Ragged Robin
1970+	Cas	4	Lycopersicon esculentum	Tomato
1970+	Native	16	Lycopodium clavatum	Stag's-horn Clubmoss
2002	Cas	2	Lysichiton americanus	American Skunk-cabbage
1970+	Native	43	Lysimachia nemorum	Yellow Pimpernel
1970+	Neo	3	Lysimachia nummularia	Creeping-Jenny
1970+	Neo	6	Lysimachia punctata	Dotted Loosestrife
1970+	Neo	15	Lysimachia vulgaris	Yellow Loosestrife
1881	Native	0	Lysimachia vulgaris	Yellow Loosestrife
1970+	Native	4	Lythrum portula	Water Purslane
1979	Native	1	Lythrum salicaria	Purple-loosestrife
1970+	Neo	9	Mahonia aquifolium	Oregon Grape
-	-	-	1 0	<i>C</i>

1970+	Arc	36	Malus pumila (M. domestica)	Apple
1970+	Neo	7	Malus sylvestris	Crab Apple
1970+	*Arc	10	Malva moschata	Musk Mallow
1970+	Arc	8	Malva neglecta	Dwarf Mallow
1970+	Arc	14	Malva sylvestris	Common Mallow
1881	Cas	0	Marrubium vulgare	White Horehound
1970+	Neo	112	Matricaria discoidea	
1970+			Matricaria aiscolaea  Matricaria recutita	Pineapple Weed
-,,,	Arc	21		Scented Mayweed
2002	Neo	1	Matteucia struthiopteris	Ostrich Fern
1970+	Neo	20	Meconopsis cambrica	Welsh Poppy
1970+	Neo	3	Medicago arabica	Spotted Medick
1970+	Native	58	Medicago lupulina	Black Medick
1946	Neo	0	Medicago minima	Small Medick
1956	Cas	0	Medicago polymorpha	Toothed Medick
1893	Neo	0	Medicago sativa ssp. sativa	Lucerne
1970+	Native	3	Melampyrum pratense ssp. pratense	Common Cow-wheat
1931	Native	0	Melica nutans	Mountain Melick
1970+	Native	10	Melica uniflora	Wood Melick
1956	Cas	0	Melilotus albus	White Melilot
1902	*Cas	0	Melilotus altissimus	Tall Melilot
1960	Cas	0	Melilotus indicus	Small Melilot
1962	Cas	0	Melilotus officinalis	Ribbed Melilot
1970+	Native	135	Mentha aquatica	Water Mint
			Mentha aquatica x spicata	
1970+	Neo	33	= M. x piperita	Peppermint
1970+	Var	1	Mentha x piperita var. citrata	Eau-de-Cologne Mint
1970+	Native	4	Mentha arvensis	Corn Mint
			Mentha arvensis x aquatica	
1970+	Native	10	= M. x verticillata	Whorled Mint
1970+	Neo	3	Mentha arvensis $x$ spicata = $M$ . $x$ gracilis Mentha longifolia $x$ spicata	Bushy Mint
1970+	Neo	3	= M. x villosonervata	Sharp-toothed Mint
1853	Cas	0	Mentha pulegium	Pennyroyal
1970+	Arc	16	Mentha spicata	Spear Mint
1970+	Neo	8	$Mentha\ spicata\ x\ suaveolens = M.\ x\ villosa$	Apple Mint
1970+	Neo	1	Mentha suaveolens	Round-leaved Mint
1970+	Native	21	Menyanthes trifoliata	Bogbean
1970+	Native	70	Mercurialis perennis	Dog's Mercury
1913	Native	0	Mertensia maritima	Oysterplant
1970+	Hort	1	Metasequoia glyptostroboides	Dawn Redwood
1970+	Native	3	Milium effusum	Wood Millet
17,0	1 (0001 ) 0	J	Mimulus cupreus x guttatus	,, ood 1,1110
1970+	Neo	5	= M. x burnetii	Coppery Monkeyflower
			Mimulus cupreus x luteus	11 7
1970+	Neo	1	= M. x maculosus	Scottish Monkeyflower
1970+	Neo	50	Mimulus guttatus	Monkeyflower
1970+	Neo	12	Mimulus guttatus x luteus	Hybrid Monkeyflower

			= M. x robertsii	
1970+	Neo	2	Mimulus luteus	Blood-drop-emlets
1970+	Cas	3	Mimulus moschatus	Musk
1970+	Native	1	Minuartia verna	Spring Sandwort
1970+	Native	44	Moehringia trinervia	Three-nerved Sandwort
1970+	Native	1	Molinia caerulea ssp. arundinacea	Purple Moor-grass
1970+	Native	48	Molinia caerulea ssp. caerulea	Purple Moorgrass
1970+	Native	11	Montia fontana ssp. chondrosperma	Blinks
1970+	Native	68	Montia fontana ssp. fontana	Blinks
1970+	Native	2	Montia fontana ssp. variabilis	Blinks
1970+	Neo	4	Muscari armeniacum	Garden Grape-hyacinth
2003	Neo	1	Muscari neglectum	Grape-hyacinth
1970+	Native	9	Mycelis muralis	Wall Lettuce
1970+	Arc	130	Myosotis arvensis	Field Forget-me-not
1970+	Var	1	Myosotis arvensis var. sylvestris	Field Forget-me-not
1970+	Native	83	Myosotis discolor	Changing Forget-me-not
1970+	Native	97	Myosotis laxa ssp. caespitosa	Tufted Forget-me-not
1970+	Native	15	Myosotis ramosissima	Early Forget-me-not
1970+	Native	93	Myosotis scorpioides	Water Forget-me-not
1970+	Native	34	Myosotis secunda	Creeping Forget-me-not
1970+	Native	58	Myosotis sylvatica	Wood Forget-me-not
1970+	Neo	1	Myosoton aquaticum	Water Chickweed
1953	Cas	0	Myrica gale	Bog Myrtle
1970+	Native	17	Myriophyllum alterniflorum	Alternate Water-milfoil
1970+	Native	36	Myriophyllum spicatum	Spiked Water-milfoil
1970+	Neo	28	Myrrhis odorata	Sweet Cicely
			Narcissus agg. (all N. spp. and their	
1970+	Neo	31	hybrids)	Garden Daffodil
2002	Neo	1	Narcissus poeticus	Pheasant's-eye Daffodil
2004	3.7		Narcissus poeticus x pseudonarcissus	N 1 D 00 111
2004	Neo	1	= N. x incomparabilis	Nonesuch Daffodil
1970+	Neo	2	Narcissus pseudonarcissus ssp. pseudonarcissus	Wild Daffodil
1970+	Native	61	Nardus stricta	Mat-grass
1970+	Native	12	Narthecium ossifragum	Bog Asphodel
1985	Native	1	Neottia nidus-avis	Bird's-nest Orchid
1893	*Cas	0	Nepeta cataria	Catmint
1970+	Cas	2	Nothofagus alpina	Rauli
1970+	Cas	3	Nothofagus obliqua	Roble
1970+	Neo	1	Nuphar advena	Spatter-dock
1970+	Native	3	Nuphar lutea	Yellow Water-lily
1964	Neo	0	Nymphaea alba ssp. alba	White Water-lily
1881	Neo	0	Nymphoides peltata	Fringed Water-lily
1970+	Sp	33	Odontites vernus	Red Bartsia
1868	Native	0	Odontites vernus ssp. serotinus	Red Bartsia
1970+	Native	2	Odontites vernus ssp. serotinus Odontites vernus ssp. vernus	Red Bartsia
1710	1 ,411 10	_	Sasmues reinas ssp. reinas	TOG Darton

1845	Native	0	Oenanthe aquatica	Fine-leaved Water- dropwort
1970+	Native	39	Oenanthe crocata	Hemlock Water-dropwort
1970+	Cas	1	Oenothera biennis	Common Evening-primrose
2002		2		Large-flowered Evening-
2002	Cas	3	Oenothera glazioviana	primrose
1970+	Native	39	Ononis repens ssp. repens	Common Restharrow
1970+	*Cas	1	Onopordum acanthium	Cotton Thistle
1970+	Native	3	Ophioglossum vulgatum	Adder's-tongue
1970+	Native	22	Orchis mascula	Early-purple Orchid
1942	Native	0	Orchis morio	Green-winged Orchid
1970+	Native	28	Oreopteris limbosperma	Lemon-scented Fern
1970+	Native	27	Origanum vulgare	Wild Marjoram
1970+	Neo	9	Ornithogalum angustifolium	Star-of-Bethlehem
1931	Cas	0	Ornithopus perpusillus	Bird's-foot
1885	Native	0	Osmunda regalis	Royal Fern
1970+	Native	103	Oxalis acetosella	Wood-sorrel
1970+	Neo	4	Oxalis corniculata	Procumbent Yellow-sorrel
1970+	Cas	1	Oxalis dillenii	Sussex Yellow-sorrel
1970+	Neo	8	Oxalis exilis	Least Yellow-sorrel
1970+	Neo	1	Oxalis latifolia	Garden Pink-sorrel
1970+	Cas	1	Paeonia officinalis	Garden Peony
1960	Arc	0	Papaver argemone	Prickly Poppy
1970+	Arc	53	Papaver dubium ssp. dubium	Long-headed Poppy
1970+	Arc	4	Papaver dubium ssp. lecoqii	Yellow-juiced Poppy
1970+	Neo	2	Papaver pseudoorientale	Oriental Poppy
1970+	Arc	24	Papaver rhoeas	Common Poppy
1970+	Arc	11	Papaver somniferum	Opium Poppy
1984	Native	1	Parapholis strigosa	Hard-grass
1970+	Neo	4	Parietaria judaica	Pellitory-of-the-Wall
1970+	Native	20	Parnassia palustris	Grass-of-Parnassus
1970+	Neo	1	Pastinaca sativa	Wild Parsnip
1970+	Native	16	Pedicularis palustris	Marsh Lousewort
1970+	Native	23	Pedicularis sylvatica ssp. sylvatica	Lousewort
1970+	Neo	32	Pentaglottis sempervirens	Green Alkanet
1970+	Native	71	Persicaria amphibia	Amphibious Bistort
1970+	Neo	5	Persicaria bistorta	Common Bistort
1970+	Neo	1	Persicaria campanulata	Lesser Knotweed
1970+	Native	15	Persicaria hydropiper	Water-pepper
1970+	Native	14	Persicaria lapathifolia	Pale Persicaria
1970+	Native	83	Persicaria maculosa	Redshank
2003	Cas	1	Persicaria pensylvanica	Pinkweed
1970+	Neo	8	Petasites albus	White Butterbur
1970+	Neo	8	Petasites fragrans	Winter Heliotrope
1970+	Native	54	Petasites hybridus	Butterbur
1970+	Neo	2	Petroselinum crispum	Garden Parsley
			<u>*</u>	·

1957	*Cas	0	Peucedanum ostruthium	Masterwort
2001	Cas	2	Phacelia tanacetifolia	Phacelia
1970+	Native	113	Phalaris arundinacea	Reed Canary-grass
1953	Cas	0	Phalaris canariensis	Canary-grass
1970+	Native	1	Phegopteris connectilis	Beech Fern
1770	1 (411 ) 6	1	Philadelphus coronarius x microphyllus	Decen 1 cm
1970+	Cas	1	x  pubescens = P. x  virginalis	Hairy Mock-orange
1970+	Native	38	Phleum bertolonii	Smaller Cat's-tail
1970+	Native	67	Phleum pratense	Timothy
2004	Cas	1	Photinia davidiana	Stranyaesia
1970+	Native	24	Phragmites australis	Common Reed
1947	Cas	0	Phuopsis stylosa	Caucasian Crosswort
1970+	Native	39	Phyllitis scolopendrium	Hart's-tongue
2003	Neo	1	Phytolacca acinosa	Indian Pokeweed
1970+	Neo	32	Picea abies	Norway Spruce
1970+	Neo	45	Picea sitchensis	Sitka Spruce
1970+	*Cas	3	Picris echioides	Bristly Oxtongue
1861	Neo	0	Pilosella aurantiaca ssp. aurantiaca	Fox-and-cubs
1970+	Neo	10	Pilosella aurantiaca ssp. carpathicola	Fox-and-cubs
17/0	1100	10	T tiosetta aaramuca ssp. carpainteota	Spreading Mouse-ear-
1970+	Neo	1	Pilosella flagellaris ssp. flagellaris	hawkweed
1970+	Native	92	Pilosella officinarum	Mouse-ear-hawkweed
1970+	Native	75	Pimpinella saxifraga	Burnet-saxifrage
1970+	Native	35	Pinguicula vulgaris	Common Butterwort
1970+	Cas	3	Pinus contorta	Lodgepole Pine
1970+	Cas	2	Pinus mugo	Dwarf Mountain Pine
1970+	Sp	5	Pinus nigra	Austrian Pine
?	Cas	?	Pinus nigra ssp. laricio	Corsican Pine
1970+	Cas	2	Pinus nigra ssp. nigra	Austrian Pine
1960	Cas	0	Pinus radiata	Monterey Pine
1970+	Neo	75	Pinus sylvestris	Scots Pine
1970+	Cas	1	Pisum sativum	Garden Pea
1970+	Native	13	Plantago coronopus	Buck's-horn Plantain
1970+	Native	164	Plantago lanceolata	Ribwort Plantain
1970+	Native	122	Plantago major ssp. major	Greater Plantain
1970+	Native	20	Plantago maritima	Sea Plantain
1970+	Cas	2	Plantago media	Hoary Plantain
1964	Native	0	Plantago media	Hoary Plantain
1970+	Native	3	Platanthera bifolia	Lesser Butterfly-orchid
1873	Native	0	Platanthera chlorantha	Greater Butterfly-orchid
1970+	Hort	1	Platanus orientalis	Oriental Plane
12,0		•		Narrow-leaved Meadow-
1970+	Native	1	Poa angustifolia	grass
1970+	Native	135	Poa annua	Annual Meadow-grass
				Broad-leaved Meadow-
1970+	Neo	7	Poa chaixii	grass

1970+	Native	58	Poa humilis	Spreading Meadow-grass
2002	Adv	1	Poa imbecilla ssp. breviglumis	New Zealand Meadow-grass
1970+	Native	46	Poa nemoralis	Wood Meadow-grass
1970+	Native	41	Poa pratensis	Smooth Meadow-grass
1970+	Native	133	Poa trivialis	Rough Meadow-grass
1970+	Neo	2	Polemonium caeruleum	Jacob's-ladder
1970+	Native	50	Polygala serpyllifolia	Heath Milkwort
1970+	Native	13	Polygala vulgaris ssp. vulgaris	Common Milkwort
1970+	Neo	2	Polygonatum multiflorum	Solomon's-seal
1770.	1100	2	Polygonatum multiflorum x odoratum	Solomon's Scar
1970+	Neo	6	= P. x hybridum	Garden Solomon's Seal
1970+	Arc	37	Polygonum arenastrum	Equal-leaved Knotgrass
1970+	Native	68	Polygonum aviculare	Knotgrass
1970+	*Neo	2	Polygonum rurivagum	Cornfield Knotgrass
1970+	Native	5	Polypodium interjectum	Intermediate Polypody
			Polypodium interjectum x vulgare	J.F. 1.13
1970+	Native	1	= P. x mantoniae	A hybrid Polypody
1970+	Native	74	Polypodium vulgare	Polypody
2003	Cas	1	Polypogon monspeliensis	Annual Beard-grass
1970+	Native	40	Polystichum aculeatum	Hard Shield-fern
			Polystichum aculeatum x setiferum	
1970+	Native	2	= P. x bicknellii	A hybrid Shield-fern
1970+	Native	7	Polystichum setiferum	Soft Shield-fern
1970+	Neo	17	Populus alba	White Poplar
1970+	Cas	4	Populus alba x tremula = P. x canescens Populus balsamifera x deltoides	Grey Poplar
1970+	Cas	1	= P. x jackii	Balm-of-Gilead
17,0		-	Populus balsamifera x trichocarpa	Buill of Greun
1970+	Cas	1	'Balsam Spire'	Hybrid Balsam-poplar
			Populus deltoides x nigra	
1970+	Cas	12	= P. x canadensis	Hybrid Black Poplar
1970+	Hort	1	Populus x canadensis 'Robusta'	Hybrid Black Poplar
1970+	Hort	1	Populus x canadensis 'Serotina'	Hybrid Black Poplar
••••	~		Populus deltoides x trichocarpa	
2002	Cas	1	= P. x generosa	Generous Poplar
1970+	Cas	2	Populus nigra ssp. betulifolia	Black Poplar
1970+	Native	24	Populus tremula	Aspen
1970+	Cas	3	Populus trichocarpa	Western Balsam Poplar
1970+	Native	3	Potamogeton alpinus Potamogeton alpinus x crispus	Red Pondweed
1970+	Native	5	= P. x olivaceus	Graceful Pondweed
1970+	Native	21	Potamogeton berchtoldii	Small Pondweed
1853	Native	0	Potamogeton coloratus	Fen Pondweed
1970+	Native	30	Potamogeton crispus	Curled Pondweed
/ 0			Potamogeton crispus x perfoliatus	
1970+	Native	1	= P. x cooperi	Cooper's Pondweed
1970+	Native	2	Potamogeton filiformis	Slender-leaved Pondweed

1906	Native	0	Potamogeton gramineus	Various-leaved Pondweed
1970+	Native	1	Potamogeton gramineus x perfoliatus = P. x nitens	Bright-leaved Pondweed
1970+	Native	4	Potamogeton lucens	Shining Pondweed
19/0	Inalive	4	Potamogeton lucens x perfoliatus	Siming I ondweed
1970+	Native	7	= P. x salicifolius	Willow-leaved Pondweed
1970+	Native	39	Potamogeton natans	Broad-leaved Pondweed
1970+	Native	3	Potamogeton obtusifolius	Blunt-leaved Pondweed
1970+	Native	17	Potamogeton pectinatus	Fennel Pondweed
			Potamogeton pectinatus x vaginatus	
1970+	Native	1	= P. x bottnicus	<b>Bothnian Pondweed</b>
1970+	Native	13	Potamogeton perfoliatus	Perfoliate Pondweed
1970+	Native	20	Potamogeton polygonifolius	Bog Pondweed
1970+	Native	10	Potamogeton pusillus	Lesser Pondweed
1916	Native	0	Potentilla anglica	Trailing Tormentil
1970+	Native	108	Potentilla anserina	Silverweed
1959	Native	0	Potentilla argentea	Hoary Cinquefoil
1970+	Native	124	Potentilla erecta ssp. erecta	Tormentil
1970+	Native	1	Potentilla erecta ssp. strictissima	Tormentil
1970+	Native	57	Potentilla palustris	Marsh Cinquefoil
1970+	Cas	2	Potentilla recta	Sulphur Cinquefoil
1970+	Native	62	Potentilla reptans	Creeping Cinquefoil
1970+	Native	100	Potentilla sterilis	Barren Strawberry
1866	Native	0	Potentilla tabernaemontani	Spring Cinquefoil
1970+	Cas	1	Primula elatior	Oxlip
1970+	Neo	3	Primula florindae	Tibetan Cowslip
1970+	Native	22	Primula veris	Cowslip
1970+	Native	11	Primula veris $x$ vulgaris = $P$ . $x$ polyantha	False Oxlip
1970+	Native	126	Primula vulgaris  1 : x potyanina  Primula vulgaris	Primrose
1970+	Native	134	Prunella vulgaris	Selfheal
1970+	Native	75	Prunus avium	Wild Cherry
1970+	Cas	3	Prunus cerasifera	Cherry Plum
1970+	Arc	15	Prunus domestica ssp. insititia	Wild Plum
1970+	Neo	12	Prunus laurocerasus	Cherry Laurel
1970+	Cas	8	Prunus lusitanica	Portugal Laurel
1970+	Native	36	Prunus padus	Bird Cherry
1970+	Native	81	Prunus spinosa	Blackthorn
1970+	Neo	8	Pseudofumaria lutea	Yellow Corydalis
1867	Native	0	Pseudorchis albida	Small-white Orchid
1970+	Neo	25	Pseudotsuga menziesii	Douglas Fir
1970+	Native	105	9	Bracken
			Pteridium aquilinum ssp. aquilinum	
1970+	Neo	41	Puccinellia distans ssp. distans	Reflexed Saltmarsh-grass
1070 -	Matiria	4		
1970+	Native	6	Puccinellia maritima	Common Saltmarsh-grass
1916	Native	0	Pulicaria dysenterica	Common Fleabane
				9

1913	Native	0	Pyrola media	Intermediate Wintergreen
1970+	Native	13	Pyrola minor	Common Wintergreen
1970+	*Cas	1	Pyrus communis	Pear
1963	Cas	0	Quercus cerris	Turkey Oak
1970+	Cas	2	Quercus ilex	Evergreen Oak
1970+	Native	31	Quercus petraea	Sessile Oak
1970+	Cas	2	Quercus petraea $x$ robur = $Q$ . $x$ rosacea	Hybrid Oak
1970+	Neo	72	Quercus robur	Pedunculate Oak
1970+	Cas	2	Quercus rubra	Red Oak
1853	Native	0	Radiola linoides	Allseed
1970+	Native	142	Ranunculus acris	Meadow Buttercup
1970+	Native	28	Ranunculus aquatilis	Common Water-crowfoot
1966	Arc	0	Ranunculus arvensis	Corn Buttercup
1970+	Native	8	Ranunculus auricomus	Goldilocks Buttercup
1954	Native	0	Ranunculus baudotii	<b>Brackish Water-crowfoot</b>
1970+	Native	40	Ranunculus bulbosus	Bulbous Buttercup
				Fan-leaved Water-
1970+	Native	1	Ranunculus circinatus	crowfoot
1970+	Native	? 3	Ranunculus circinatus x fluitans	A hybrid Water-crowfoot
1970+	Sp	105	Ranunculus ficaria	Lesser Celandine
1970+	Native	9	Ranunculus ficaria ssp. bulbilifer	Lesser Celandine
1970+	Native	13	Ranunculus ficaria ssp. ficaria	Lesser Celandine
1970+	Native	78	Ranunculus flammula ssp. flammula	Lesser Spearwort
1970+	Native	14	Ranunculus fluitans	River Water-crowfoot
1970+	Native	2	Ranunculus fluitans x peltatus = R. x kelchoensis	Kelso Water-crowfoot
1970⊤	Native	2	Ranunculus fluitans x trichophyllus	Keiso water-crowloot
1900	Native	0	= R. x bachii	A hybrid Water-crowfoot
1970+	Native	47	Ranunculus hederaceus	Ivy-leaved Crowfoot
1970+	Native	4	Ranunculus lingua	Greater Spearwort
1970+	Native	10	Ranunculus peltatus	Pond Water-crowfoot
			Ranunculus penicillatus ssp.	
1970+	Native	22	pseudofluitans	Stream Water-crowfoot
1970+	Native	176	Ranunculus repens	Creeping Buttercup
1874	Native	0	Ranunculus sardous	Hairy Buttercup
1970+	Native	17	Ranunculus sceleratus	Celery-leaved Buttercup
1070	<b>N</b> T 4.	1.2	D 1	Thread-leaved Water-
1970+	Native	13	Ranunculus trichophyllus	crowfoot
1970+	Arc	35	Raphanus raphanistrum ssp. raphanistrum	Wild Radish
2003	Cas	2	Raphanus sativus Reseda lutea	Garden Radish
1961	Cas	0		Wild Mignonette
1970+	Arc	34	Reseda luteola Rheum palmatum x rhaponticum	Weld
1970+	Neo	1	= R. x hybridum	Rhubarb
1970+	Native	38	Rhinanthus minor	Yellow-rattle
2004	Native	1	Rhinanthus minor ssp. minor	Yellow Rattle
1962	Native	0	Rhinanthus minor ssp. stenophyllus	Yellow-rattle
		-		

1970+	Cas	1	Rhododendron luteum	Yellow Azalea
1970+	Neo	39	Rhododendron ponticum	Rhododendron
1970+	Neo	4	Ribes alpinum	Mountain Currant
1970+	Neo	26	Ribes nigrum	Black Currant
1970+	Native	31	Ribes rubrum	Red Currant
1970+	Neo	16	Ribes sanguineum	Flowering Currant
?	Cas	2	Ribes spicatum	Downy Currant
1970+	Neo	56	Ribes uva-crispa	Gooseberry
2002	Cas	1	Robinia pseudoacacia	False Acacia
2002	Var	1	Robinia pseudoacacia var. inermis	False Acacia
?	Neo	?	Rorippa amphibia	<b>Greater Yellow-cress</b>
			Rorippa amphibia x sylvestris	
2004	Neo	1	= R. x anceps	A hybrid Yellow-cress
2001	Native	4	Rorippa islandica	Northern Yellow-cress
1970+	Native	36	Rorippa microphylla	Narrow-fruited Water-cress
40=0	37.1		Rorippa microphylla x nastutrium-	
1970+	Native	11	aquaticum = R. x sterilis	Hybrid Water-cress
1970+	Native	6	Rorippa nasturtium-aquaticum	Water-cress
1970+	A ~~	90	Rorippa nasturtium-aquaticum agg.	Water areas
1970+	Agg Native	89 22	(R. microphylla, R. n-a and their hybrid)	Water-cress Marsh Yellow-cress
1970+ 1970+	Native	16	Rorippa palustris Rorippa sylvestris	Creeping Yellow-cress
1970+	Neo	3	Rosa arvensis	Field-rose
2001	Native	1		A hybrid Rose
1970+	Native	11	Rosa arvensis x canina = R. x irregularis Rosa caesia ssp. caesia	Hairy Dog-rose
1970	Ivalive	11	Rosa caesia ssp. vosagiaca	Hally Dog-tose
1970+	Native	12	(R. c. ssp. glauca)	Glaucous Dog-rose
1970+	Native	30	Rosa caesia $x$ canina = $R$ . $x$ dumalis	A hybrid Rose
1970+	Native	8	Rosa caesia $x$ mollis = $R$ . $x$ glaucoides	A hybrid Rose
1970+	Native	20	Rosa canina	Dog-rose
			Rosa canina agg. (R. canina, R. caesia and	8
1970+	Agg	103	their hybrids)	Dog-rose
1970+	Native	8	$Rosa\ canina\ x\ mollis = R.\ x\ molletorum$	A hybrid Rose
1970+	Native	2	$Rosa\ canina\ x\ rubiginosa=R.\ x\ nitidula$	A hybrid Rose
1970+	Native	2	$Rosa\ canina\ x\ sherardii=R.\ x\ rothschildii$	A hybrid Rose
1970+	Cas	5	Rosa ferruginea	Red-leaved Rose
1970+	Cas	1	Rosa 'Hollandica'	Dutch Rose
				Small-flowered Sweet-
1880	*Neo	0	Rosa micrantha	briar
1970+	Native	32	Rosa mollis	Soft Downy-rose
1969-	Native	0	Rosa mollis $x$ spinosissim $a = R$ . $x$ sabinii	A hybrid Rose
1970+	Cas	1	Rosa multiflora	Many-flowered Rose
1970+	Native	20	Rosa rubiginosa	Sweet-briar
1970+	Neo	8	Rosa rugosa	Japanese Rose
2001	Native	1	Rosa sheradii x spinosissima = R. x involuta	A hybrid Dogo
				A hybrid Rose
1970+	Native	22	Rosa sherardii	Sherard's Downy-rose

1970+	Native	15	Rosa spinosissima (R. pimpinellifolia)	Burnet Rose
1970+	Native	2	Rubus amplificatus	Bramble
1970+	Native	3	Rubus anisacanthos	Bramble
1970+	Neo	1	Rubus armeniacus	Himalayan-giant Bramble
1970+	Native	6	Rubus caesius	Dewberry
1970+	Native	4	Rubus chamaemorus	Cloudberry
1970+	Native	29	Rubus dasyphyllus	Bramble
1970+	Native	7	Rubus drejeri	Bramble
1970+	Native	3	Rubus eboracensis	Bramble
1970+	Native	5	Rubus echinatoides	Bramble
1970+	Native	1	Rubus errabundus	Bramble
1970+	Native	2	Rubus fissus	Bramble
			Rubus fruticosus agg. (R. section Rubus,	
1970+	Agg	114	R. section Corylifolii)	Bramble
1970+	Native	114	Rubus idaeus	Raspberry
1970+	Native	7	Rubus infestus	Bramble
1970+	Neo	1	Rubus laciniatus	Cut-leaved Bramble
1970+	Native	30	Rubus latifolius	Bramble
1970+	Native	4	Rubus leptothyrsos	Bramble
1970+	Native	3	Rubus lindebergii	Bramble
1970+	Native	1	Rubus mucronulatus	Bramble
1970+	Native	3	Rubus nemoralis	Bramble
1970+	Native	4	Rubus newtonii	Bramble
1970+	Native	2	Rubus polyanthemus	Bramble
1970+	Native	36	Rubus radula	Bramble
1970+	Native	1	Rubus saxatilis	Stone Bramble
1970+	Native	3	Rubus septentrionalis	Bramble
1970+	Neo	2	Rubus spectabilis	Salmonberry
1970+	Native	1	Rubus wirralensis	Bramble
1970+	Native	164	Rumex acetosa ssp. acetosa	Common Sorrel
1970+	Native	109	Rumex acetosella ssp. acetosella	Sheep's Sorrel
1874	Arc	0	Rumex alpinus (R. pseudoalpinus)	Monk's Rhubarb
1970+	Native	7	Rumex conglomeratus	Clustered Dock
1970+	Native	107	Rumex crispus ssp. crispus	Curled Dock
1970+	Native	8	Rumex crispus ssp. littoreus	Curled Dock
1969-	Matiria	0	Rumex crispus x longifolius	A hybrid Dools
1909-	Native	0	= R. x propinquus Rumex crispus x obtusifolius	A hybrid Dock
1970+	Native	3	= R. x pratensis	A hybrid Dock
1970+	Neo	1	Rumex hydrolapathum	Water Dock
1970+	Neo	21	Rumex longifolius	Northern Dock
2270	1.50		Rumex longifolius x obtusifolius	
2002	Native	2	= R. x hybridus	A hybrid Dock
1970+	Native	1	Rumex maritimus	Golden Dock
1970+	Native	155	Rumex obtusifolius	Broad-leaved Dock
			Rumex obtusifolius x sanguineus	
2002	Native	1	= R. x dufftii	A hybrid Dock

1960	Native	0	Rumex palustris	Marsh Dock
1970+	Native	75	Rumex sanguineus	Wood Dock
1970+	Neo	2	Ruscus aculeatus	Butcher's-broom
1970+	Native	5	Sagina apetala ssp. apetala	Fringed Pearlwort
1970+	Native	36	Sagina apetala ssp. erecta	Annual Pearlwort
1970+	Native	17	Sagina maritima	Sea Pearlwort
1970+	Native	7	Sagina nodosa	<b>Knotted Pearlwort</b>
1970+	Native	126	Sagina procumbens	Procumbent Pearlwort
2002	Native	1	Sagina subulata	Heath Pearlwort
1896	Neo	0	Sagittaria sagittifolia	Arrow-head
1970+	Arc	32	Salix alba	White Willow
1970+	Var	2	Salix alba var. vitellina	Golden Willow
1970+	Cas	1	$Salix\ alba\ x\ babylonica = S.\ x\ sepulcralis$	Weeping Willow
1970+	Native	58	Salix aurita	Eared Willow
1970+	Native	4	$Salix\ aurita\ x\ caprea = S.\ x\ capreola$	A hybrid Willow
			Salix aurita x caprea x viminalis	-
1970+	Cas	1	= S. x stipularis	Eared Osier
1970+	Native	13	$Salix\ aurita\ x\ cinerea=S.\ x\ multinervis$	A hybrid Willow
1969-	Native	0	$Salix\ aurita\ x\ myrsinifolia = S.\ x\ coriacea$	A hybrid Willow
1878	Native	0	$Salix\ aurita\ x\ repens = S.\ x\ ambigua$	A hybrid Willow
1970+	Native	1	$Salix\ aurita\ x\ viminalis = S.\ x\ fruticosa$	Shrubby Osier
1970+	Native	79	Salix caprea ssp. caprea	Goat Willow
1970+	*Native	1	Salix caprea ssp. sphacelata	Goat Willow
1970+	Native	5	$Salix\ caprea\ x\ cinerea=S.\ x\ reichardtii$	A hybrid Willow
1969-	Native	0	$Salix\ caprea\ x\ repens = S.\ x\ laschiana$	A hybrid Willow
1070	C	0	Salix caprea $x$ viminalis = $S$ . $x$ smithiana	D 11 10:
1970+	Cas	9	(S. x sericans)	Broad-leaved Osier
1970+	Native	115	Salix cinerea ssp. oleifolia	Rusty Sallow
1970+	Native	2	Salix cinerea $x$ phylicifolia = $S$ . $x$ laurina Salix cinerea $x$ viminalis = $S$ . $x$ holosericea	Laurel-leaved Willow
1970+	Native	3	(S. x smithiana)	Silky-leaved Osier
1970+	Cas	1	Salix daphnoides	European Violet-willow
1970+	Arc	66	Salix fragilis	Crack Willow
1970+	Var	1	Salix fragilis var. decipiens	Crack Willow
1970+	Var	1	Salix fragilis var. russelliana	Bedford Willow
1970+	Native	1	Salix myrsinifolia	Dark-leaved Willow
1970+	Native	25	Salix pentandra	Bay Willow
1970+	Native	3	Salix phylicifolia	Tea-leaved Willow
1970+	Native	24	Salix purpurea	Purple Willow
1970+	Native	16	Salix repens	Creeping Willow
1970+	Var	2	Salix repens var. fusca	Creeping Willow
1970+	*Cas	1	Salix triandra	Almond Willow
1970+	Var	2	Salix triandra var. hoffmanniana	Almond Willow
1970+	Arc	61	Salix viminalis	Osier
1960	Native	0	Salsola kali ssp. kali	Prickly Saltwort
1956	Arc	0	Sambucus ebulus	Dwarf Elder
				•

1070+	Matina	117	C L · · · · · · · · · · · ·	Eldon
1970+ 1970+	Native Var	117	Sambucus nigra	Elder Cut-leaved Elder
1970+ 1970+	V ai Neo	1 27	Sambucus nigra var laciniata Sambucus racemosa	Red-berried Elder
1970± 1924	Native	0		Brookweed
1970+	Native	2	Samolus valerandi	Salad Burnet
			Sanguisorba minor ssp. minor	
1978	Native	1	Sanguisorba officinalis	Great Burnet
1970+	Native *Neo	22	Sanicula europaea	Sanicle
1970+		2	Saponaria officinalis	Soapwort
1970+	Neo	1	Sasa palmata	Broad-leaved Bamboo
1968	Neo	0	Saxifraga cymbalaria	Celandine Saxifrage
1970+	Native	55	Saxifraga granulata	Meadow Saxifrage
1886	Native	0	Saxifraga hirculus Saxifraga spathularis x umbrosa	Marsh Saxifrage
1970+	Neo	3	= S. x urbium	Londonpride
1970+	Native	3	Scabiosa columbaria	Small Scabious
1960	Arc	0	Scandix pecten-veneris	Shepherd's-needle
1970+	Native	5	Schoenoplectus lacustris	Common Club-rush
1970+	Native	1	Schoenoplectus tabernaemontani	Grey Club-rush
1970+	Native	3	Schoenus nigricans	Black Bog-rush
1970+	Neo	3	Scilla liliohyacinthus (S. lilio-hyacinthus)	Pyranean Squill
1970+	Native	2	Scilla verna	Spring Squill
1970+	Native	20	Scirpus sylvaticus	Wood Club-rush
1970+	Native	9	Scleranthus annuus	Annual Knawel
2002	Neo	1	Scrophularia auriculata	Water Figwort
1970+	Native	56	Scrophularia nodosa	Common Figwort
1970+	*Neo	39	Scrophularia umbrosa	Green Figwort
1970+	Neo	2	Scrophularia vernalis	Yellow Figwort
2000	Cas	1	Scutellaria altissima	Somerset Skullcap
1970+	Native	2	Scutellaria galericulata	Skullcap
2004	Cas	2	Secale cereale	Rye
1970+	Native	50	Sedum acre	Biting Stonecrop
1970+	Arc	16	Sedum album	White Stonecrop
1897	Cas	0	Sedum forsterianum	Rock Stonecrop
1970+	Native	3	Sedum rosea	Roseroot
1970+	Neo	2	Sedum rupestre	Reflexed Stonecrop
1970+	Cas	1	Sedum spurium	Caucasian Stonecrop
1970+	*Neo	6	Sedum telephium	Orpine Orpine
1970+	Seg	3	Sedum telephium ssp. fabaria	Orpine
1970+	Native	11	Sedum villosum	Hairy Stonecrop
1970+	Native	12	Selaginella selaginoides	Lesser Clubmoss
1970+	Neo	2	Sempervivum tectorum	House-leek
1970+	Native	16	Senecio aquaticus	Marsh Ragwort
17/0	1 1411 10	10	Senecio aquaticus x jacobea	1,141,011 1,416,41,011
1970+	Native	3	= S. x ostenfeldii	Hybrid Ragwort
1970+	Cas	1	Senecio cineraria	Silver Ragwort
1969	Native	0	Senecio erucifolius	Hoary Ragwort
	- 100110	•	~	rugion

1970+	Neo	3	Senecio fluviatilis	Broad-leaved Ragwort
1970+	Native	149	Senecio jacobaea	Common Ragwort
1970+	Neo	5	Senecio squalidus	Oxford Ragwort
1970+	Native	45	Senecio sylvaticus	Heath Groundsel
1970+	Native	47	Senecio viscosus	Sticky Groundsel
1970+	Native	102	Senecio vulgaris	Groundsel
1970+	Var	6	Senecio vulgaris var. hibernicus	Rayed Groundsel
1970+	Cas	7	Sequoiadendron giganteum	Wellingtonia
1970+	Native	3	Seriphidium maritimum	Sea Wormwood
1970+	Native	12	Sherardia arvensis	Field Madder
1970+	Native	3	Silaum silaus	Pepper-saxifrage
1970+	Native	102	Silene dioica	Red Campion
1970+	Native	12	Silene dioica $x$ latifolia = $S$ . $x$ hampeana	Hybrid Campion
1970+	Arc	34	Silene latifolia ssp. alba	White Campion
1971	Arc	1	Silene noctiflora	Night-flowering Catchfly
1970+	Native	15	Silene uniflora	Sea Campion
1970+	Native	17	Silene vulgaris ssp. vulgaris	Bladder Campion
1970+	*Cas	3	Silybum marianum	Milk Thistle
1970+	*Neo	8	Sinapis alba	White Mustard
1970+	Arc	74	Sinapis arvensis	Charlock
1834	Cas	0	Sison amomum	Stone Parsley
1970+	Arc	57	Sisymbrium officinale	Hedge Mustard
1970+	Neo	3	Sisymbrium orientale	Eastern Rocket
	3.7	0	C! 1	C 4 337 4 .
1893	Native	0	Sium latifolium	Greater Water-parsnip
1893 1917	Native Arc	0	Smyrnium olusatrum	Greater Water-parsnip Alexanders
1917 1970+			<b>Smyrnium olusatrum</b> Solanum dulcamara	Alexanders Bittersweet
1917 1970+ 1970+	Arc	0	Smyrnium olusatrum	Alexanders
1917 1970+ 1970+ 1970+	Arc Native	0 14	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum	Alexanders Bittersweet Black Nightshade Potato
1917 1970+ 1970+ 1970+ 2001	Arc Native Cas Cas Neo	0 14 1 5	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business
1917 1970+ 1970+ 1970+ 2001 1970+	Arc Native Cas Cas Neo Neo	0 14 1 5 1 2	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+	Arc Native Cas Cas Neo Neo Native	0 14 1 5 1 2 18	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native	0 14 1 5 1 2 18 46	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native Native	0 14 1 5 1 2 18 46 114	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis Sonchus asper	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle Prickly Sow-thistle
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+ 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native Native Native	0 14 1 5 1 2 18 46 114 59	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis Sonchus asper Sonchus oleraceus	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle Prickly Sow-thistle Smooth Sow-thistle
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+ 1970+ 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native Native Native Cas	0 14 1 5 1 2 18 46 114 59 5	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis Sonchus asper Sonchus oleraceus Sorbus aria	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle Prickly Sow-thistle Smooth Sow-thistle Common Whitebeam
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native Native Cas Native	0 14 1 5 1 2 18 46 114 59	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis Sonchus asper Sonchus oleraceus Sorbus aria Sorbus aucuparia	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle Prickly Sow-thistle Smooth Sow-thistle Common Whitebeam Rowan
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native Native Cas Native Cas	0 14 1 5 1 2 18 46 114 59 5 107	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis Sonchus asper Sonchus oleraceus Sorbus aria Sorbus aucuparia Sorbus decipiens	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle Prickly Sow-thistle Smooth Sow-thistle Common Whitebeam Rowan Broad-leaved Whitebeam
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native Native Cas Native Cas Cas	0 14 1 5 1 2 18 46 114 59 5	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis Sonchus asper Sonchus oleraceus Sorbus aria Sorbus aucuparia Sorbus decipiens Sorbus intermedia	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle Prickly Sow-thistle Smooth Sow-thistle Common Whitebeam Rowan Broad-leaved Whitebeam Swedish Whitebeam
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native Native Cas Native Cas Native Cas Native	0 14 1 5 1 2 18 46 114 59 5 107 1 6	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis Sonchus asper Sonchus oleraceus Sorbus aria Sorbus aucuparia Sorbus decipiens Sorbus intermedia Sorbus rupicola	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle Prickly Sow-thistle Smooth Sow-thistle Common Whitebeam Rowan Broad-leaved Whitebeam Swedish Whitebeam Rock Whitebeam
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native Native Cas Native Cas Native Cas Native Native	0 14 1 5 1 2 18 46 114 59 5 107 1 6	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis Sonchus asper Sonchus oleraceus Sorbus aria Sorbus aucuparia Sorbus decipiens Sorbus intermedia Sorbus rupicola Sparganium emersum	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle Prickly Sow-thistle Smooth Sow-thistle Common Whitebeam Rowan Broad-leaved Whitebeam Swedish Whitebeam Rock Whitebeam Unbranched Bur-reed
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native Native Cas Native Cas Native Cas Cas Native Sp	0 14 1 5 1 2 18 46 114 59 5 107 1 6 1 9	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis Sonchus asper Sonchus oleraceus Sorbus aria Sorbus aucuparia Sorbus decipiens Sorbus intermedia Sorbus rupicola Sparganium emersum Sparganium erectum	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle Prickly Sow-thistle Smooth Sow-thistle Common Whitebeam Rowan Broad-leaved Whitebeam Swedish Whitebeam Rock Whitebeam Unbranched Bur-reed Branched Bur-reed
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native Native Cas Native Cas Native Cas Cas Native Sp Native	0 14 1 5 1 2 18 46 114 59 5 107 1 6 1 9 80	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis Sonchus asper Sonchus oleraceus Sorbus aria Sorbus aucuparia Sorbus decipiens Sorbus intermedia Sorbus rupicola Sparganium emersum Sparganium erectum Sparganium erectum ssp. neglectum	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle Prickly Sow-thistle Smooth Sow-thistle Common Whitebeam Rowan Broad-leaved Whitebeam Swedish Whitebeam Rock Whitebeam Unbranched Bur-reed Branched Bur-reed
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native Native Cas Native Cas Native Cas Cas Native Native Native Native	0 14 1 5 1 2 18 46 114 59 5 107 1 6 1 9 80 11	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis Sonchus asper Sonchus oleraceus Sorbus aria Sorbus aucuparia Sorbus decipiens Sorbus intermedia Sorbus rupicola Sparganium emersum Sparganium erectum Sparganium natans	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle Prickly Sow-thistle Smooth Sow-thistle Common Whitebeam Rowan Broad-leaved Whitebeam Swedish Whitebeam Wock Whitebeam Unbranched Bur-reed Branched Bur-reed Branched Bur-reed Branched Bur-reed
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native Native Cas Native Cas Native Cas Native Native Native Arc	0 14 1 5 1 2 18 46 114 59 5 107 1 6 1 9 80 11 1 1 5 3	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis Sonchus asper Sonchus oleraceus Sorbus aria Sorbus aucuparia Sorbus decipiens Sorbus intermedia Sorbus rupicola Sparganium emersum Sparganium erectum Sparganium natans Spergula arvensis	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle Prickly Sow-thistle Smooth Sow-thistle Common Whitebeam Rowan Broad-leaved Whitebeam Swedish Whitebeam Rock Whitebeam Unbranched Bur-reed Branched Bur-reed Branched Bur-reed Corn Spurrey
1917 1970+ 1970+ 1970+ 2001 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Arc Native Cas Cas Neo Neo Native Native Native Cas Native Cas Native Cas Cas Native Native Native Native	0 14 1 5 1 2 18 46 114 59 5 107 1 6 1 9 80 11	Smyrnium olusatrum Solanum dulcamara Solanum nigrum ssp. nigrum Solanum tuberosum Soleirolia soleirolii Solidago gigantea ssp. serotina Solidago virgaurea Sonchus arvensis Sonchus asper Sonchus oleraceus Sorbus aria Sorbus aucuparia Sorbus decipiens Sorbus intermedia Sorbus rupicola Sparganium emersum Sparganium erectum Sparganium natans	Alexanders Bittersweet Black Nightshade Potato Mind-your-own-business Early Goldenrod Goldenrod Perennial Sow-thistle Prickly Sow-thistle Smooth Sow-thistle Common Whitebeam Rowan Broad-leaved Whitebeam Swedish Whitebeam Wock Whitebeam Unbranched Bur-reed Branched Bur-reed Branched Bur-reed Branched Bur-reed

1070+	Matiria	1.4	Ca angadania makan	Cand Commen
1970+	Native	14	Spergularia rubra	Sand Spurrey
1970+	Neo	1	Spiraea alba $x$ salicifolia = $S$ . $x$ rosalba	Intermediate Bridewort
1970+	Neo	2	Spiraea douglasii ssp. douglasii	Steeple-bush
2001	Neo	1	Spiraea douglasii x salicifolia = S. x pseudosalicifolia	Confused Bridewort
1970+	Arc	3	Stachys arvensis	Field Woundwort
2002	Native	1	Stachys officinalis	
1970+	Native	82	Stachys palustris	<b>Betony</b> Marsh Woundwort
19/0	Native	62	Stachys palustris x sylvatica	Marsh wouldwort
1970+	Native	10	$= S. \ x \ ambigua$	Hybrid Woundwort
1970+	Native	109	Stachys sylvatica	Hedge Woundwort
1970+	Native	116	Stellaria alsine (S. uliginosa)	Bog Stitchwort
1970+	Native	136	Stellaria graminea	Lesser Stitchwort
1970+	Native	94	Stellaria holostea	Greater Stitchwort
1970+	Native	133	Stellaria media	Common Chickweed
1970+	Native	2	Stellaria neglecta	Greater Chickweed
1970+	Native	26	Stellaria nemorum	Wood Stitchwort
1970+	Native	16	Stellaria pallida	Lesser Chickweed
1970+	Native	2	Stellaria palustris	Marsh Stitchwort
1970+	Native	94	Succisa pratensis	Devil's-bit Scabious
1970+	Neo	33	Symphoricarpos albus	Snowberry
1,,0	1,00	55	Symphytum asperum x officinale	Showoulf
1970+	Neo	53	= S. x uplandicum	Russian Comfrey
1831	Native	0	Symphytum officinale ssp. officinale	Common Comfrey
1831 1970+	Native Neo	0 1	Symphytum officinale ssp. officinale Symphytum orientale	Common Comfrey White Comfrey
				•
1970+	Neo	1	Symphytum orientale	White Comfrey
1970+ 1970+	Neo *Neo	1 40	Symphytum orientale Symphytum tuberosum	White Comfrey <b>Tuberous Comfrey</b>
1970+ 1970+ 1970+	Neo *Neo Neo	1 40 11	Symphytum orientale Symphytum tuberosum Syringa vulgaris	White Comfrey <b>Tuberous Comfrey</b> Lilac
1970+ 1970+ 1970+ 1931	Neo *Neo Neo Cas	1 40 11 0	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis	White Comfrey Tuberous Comfrey Lilac Black Bryony
1970+ 1970+ 1970+ 1931 1970+	Neo *Neo Neo Cas Arc	1 40 11 0 47	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew
1970+ 1970+ 1970+ 1931 1970+ 1970+	Neo *Neo Neo Cas Arc Native	1 40 11 0 47 28	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+	Neo *Neo Neo Cas Arc Native Neo	1 40 11 0 47 28 1	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+ 1970+	Neo *Neo Cas Arc Native Neo Neo	1 40 11 0 47 28 1 2	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum Taraxacum adiantifrons (T. hemicyclum)	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion Dandelion
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+ 1970+	Neo *Neo Cas Arc Native Neo Neo Neo Native	1 40 11 0 47 28 1 2	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum Taraxacum adiantifrons (T. hemicyclum) Taraxacum alatum	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion Dandelion Dandelion
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+ 1970+ 1970+	Neo *Neo Cas Arc Native Neo Neo Native Native Native Neo Native Neo Native	1 40 11 0 47 28 1 2	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum Taraxacum adiantifrons (T. hemicyclum) Taraxacum alatum Taraxacum ancistrolobum	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion Dandelion Dandelion Dandelion
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Neo *Neo Cas Arc Native Neo Neo Native Native Native Native Neo	1 40 11 0 47 28 1 2 1 1 4	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum Taraxacum adiantifrons (T. hemicyclum) Taraxacum ancistrolobum Taraxacum angustisquameum	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion Dandelion Dandelion Dandelion Dandelion Dandelion
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Neo *Neo Cas Arc Native Neo Neo Native Native Neo Native Native Native Native Native Native	1 40 11 0 47 28 1 2 1 1 4	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum Taraxacum adiantifrons (T. hemicyclum) Taraxacum ancistrolobum Taraxacum angustisquameum Taraxacum argutum	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion Dandelion Dandelion Dandelion Dandelion Dandelion Dandelion Lesser Dandelion
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Neo *Neo Cas Arc Native Neo Neo Native Native Neo Native Neo Native Native Native	1 40 11 0 47 28 1 2 1 1 4 1 4	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum Taraxacum adiantifrons (T. hemicyclum) Taraxacum alatum Taraxacum ancistrolobum Taraxacum angustisquameum Taraxacum argutum Taraxacum atactum	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion Dandelion Dandelion Dandelion Dandelion Dandelion Lesser Dandelion Lesser Dandelion Dandelion
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Neo *Neo Cas Arc Native Neo Neo Native Native Neo Native Native Native Native Native Native	1 40 11 0 47 28 1 2 1 1 4 1 4 3	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum Taraxacum adiantifrons (T. hemicyclum) Taraxacum alatum Taraxacum ancistrolobum Taraxacum angustisquameum Taraxacum argutum Taraxacum atactum Taraxacum brachyglossum	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion Dandelion Dandelion Dandelion Dandelion Lesser Dandelion Dandelion Lesser Dandelion Dandelion Dandelion
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Neo *Neo Neo Cas Arc Native Neo Neo Native Native Neo Native Native Native Native Native Native Native	1 40 11 0 47 28 1 2 1 1 4 1 4 3 1 1	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum Taraxacum adiantifrons (T. hemicyclum) Taraxacum alatum Taraxacum ancistrolobum Taraxacum angustisquameum Taraxacum argutum Taraxacum atactum Taraxacum brachyglossum Taraxacum bracteatum	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion Dandelion Dandelion Dandelion Dandelion Lesser Dandelion Dandelion Lesser Dandelion Dandelion Dandelion Dandelion Dandelion Dandelion
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Neo *Neo Neo Cas Arc Native Neo Neo Native	1 40 11 0 47 28 1 2 1 1 4 1 4 3 1	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum Taraxacum adiantifrons (T. hemicyclum) Taraxacum alatum Taraxacum ancistrolobum Taraxacum angustisquameum Taraxacum argutum Taraxacum atactum Taraxacum brachyglossum Taraxacum bracteatum Taraxacum cordatum Taraxacum croceiflorum Taraxacum cyanolepis	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion Dandelion Dandelion Dandelion Dandelion Lesser Dandelion Lesser Dandelion
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Neo *Neo Cas Arc Native Neo Neo Native	1 40 11 0 47 28 1 2 1 1 4 1 4 3 1 1	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum Taraxacum adiantifrons (T. hemicyclum) Taraxacum ancistrolobum Taraxacum angustisquameum Taraxacum argutum Taraxacum atactum Taraxacum brachyglossum Taraxacum bracteatum Taraxacum cordatum Taraxacum croceiflorum	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion Dandelion Dandelion Dandelion Dandelion Lesser Dandelion Lesser Dandelion
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Neo *Neo Neo Cas Arc Native Neo Native	1 40 11 0 47 28 1 2 1 1 4 1 4 3 1 1 1 5	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum Taraxacum adiantifrons (T. hemicyclum) Taraxacum alatum Taraxacum ancistrolobum Taraxacum angustisquameum Taraxacum argutum Taraxacum atactum Taraxacum brachyglossum Taraxacum bracteatum Taraxacum cordatum Taraxacum croceiflorum Taraxacum cyanolepis	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion Dandelion Dandelion Dandelion Dandelion Lesser Dandelion
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Neo *Neo Neo Cas Arc Native Neo Native	1 40 11 0 47 28 1 2 1 1 4 1 4 3 1 1 1 5 1 1 5	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum Taraxacum adiantifrons (T. hemicyclum) Taraxacum ancistrolobum Taraxacum angustisquameum Taraxacum argutum Taraxacum atactum Taraxacum brachyglossum Taraxacum brachyglossum Taraxacum cordatum Taraxacum croceiflorum Taraxacum cyanolepis Taraxacum duplidentifrons Taraxacum ekmanii	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion Dandelion Dandelion Dandelion Dandelion Lesser Dandelion
1970+ 1970+ 1970+ 1931 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+ 1970+	Neo *Neo Neo Cas Arc Native Neo Native	1 40 11 0 47 28 1 2 1 1 4 1 4 3 1 1 1 5 1 1 5	Symphytum orientale Symphytum tuberosum Syringa vulgaris Tamus communis Tanacetum parthenium Tanacetum vulgare Taraxacum acroglossum Taraxacum adiantifrons (T. hemicyclum) Taraxacum alatum Taraxacum ancistrolobum Taraxacum angustisquameum Taraxacum argutum Taraxacum brachyglossum Taraxacum bracteatum Taraxacum cordatum Taraxacum croceiflorum Taraxacum cyanolepis Taraxacum duplidentifrons	White Comfrey Tuberous Comfrey Lilac Black Bryony Feverfew Tansy Dandelion Dandelion Dandelion Dandelion Dandelion Lesser Dandelion

1070	3.T		T. 11.1.C	D 11:
1970+	Native	6	Taraxacum expallidiforme	Dandelion
1970+	Native	5	Taraxacum faeroense	Marsh Dandelion
1970+	Native	2	Taraxacum fasciatum	Dandelion
1970+	Native	1	Taraxacum fulvicarpum	Dandelion
1970+	Native	2	Taraxacum fulviforme	Lesser Dandelion
1970+	Neo	2	Taraxacum fusciflorum	Dandelion
1970+	Native	2	Taraxacum gelertii	Dandelion
1970+	Native	1	Taraxacum hamatiforme	Dandelion
1970+	Native	6	Taraxacum hamatum	Dandelion
1970+	Native	1	Taraxacum hamiferum	Dandelion
1970+	Neo	3	Taraxacum huelphersianum	Dandelion
1970+	Native	2	Taraxacum inane	Dandelion
1970+	Native	4	Taraxacum insigne	Dandelion
1970+	Neo	1	Taraxacum interveniens	Dandelion
1970+	Neo	2	Taraxacum kernianum	Dandelion
1970+	Native	8	Taraxacum lacistophyllum	Lesser Dandelion
1970+	Neo	1	Taraxacum laeticolor	Dandelion
1970+	Neo	2	Taraxacum lamprophyllum	Dandelion
1970+	Native	2	Taraxacum laticordatum	Dandelion
1970+	Native	1	Taraxacum lingulatum	Dandelion
1970+	Native	1	Taraxacum longisquameum	Dandelion
1970+	Native	4	Taraxacum maculosum	Dandelion
1970+	Native	5	Taraxacum nordstedtii	Dandelion
1970+	Native	4	Taraxacum oblongatum	Dandelion
1970+	Neo	2	Taraxacum ochrochlorum	Dandelion
1970+	Agg	139	Taraxacum officinale agg. (all T. spp.)	Dandelion
1970+	Native	4	Taraxacum oxoniense	Lesser Dandelion
1970+	Neo	1	Taraxacum pannucium	Dandelion
1970+	Neo	1	Taraxacum piceatum	Dandelion
1970+	Native	10	Taraxacum polyodon	Dandelion
1970+	Native	7	Taraxacum pseudohamatum	Dandelion
1970+	Native	4	Taraxacum pseudolarssonii	Dandelion
1970+	Neo	1	Taraxacum retroflexum	Dandelion
1970+	Neo	1	Taraxacum rhamphodes	Dandelion
1970+	Native	1	Taraxacum rubicundum	Lesser Dandelion
1970+	Native	5	Taraxacum stenoglossum (T. dahlstedtii)	Dandelion
1970+	Neo	1	Taraxacum stereodes	Dandelion
1970+	Native	2	Taraxacum subbracteatum	Dandelion
1970+	Native	4	Taraxacum subhamatum	Dandelion
1970+	Native	2	Taraxacum subnaevosum	Dandelion
1970+	Neo	1	Taraxacum undulatiflorum	Dandelion
1970+	Native	8	Taraxacum unguilobum	Dandelion
1970+	Neo	2	Taraxacum vastisectum	Dandelion
2002	Hort	1	Taxodium distichum	Swamp Cypress
1970+	Neo	30	Taxus baccata	Yew
1970+	Var	1	Taxus baccata f. fasciculata	Irish Yew

1877	Native	0	Teesdalia nudicaulis	Shepherd's Cress
1970+	Neo	3	Tellima grandiflora	Fringe-cups
1970+	Native	86	Teucrium scorodonia	Wood Sage
1886	Native	0	Thalictrum flavum	Common Meadow-rue
1979	Hort	1	Thalictrum lucidum	A Meadow-rue
1970+	Native	9	Thalictrum minus	Lesser Meadow-rue
1970+	Arc	38	Thlaspi arvense	Field Penny-cress
1970+	Cas	2	Thuja plicata	Western Red-cedar
1970+	Native	92	Thymus polytrichus ssp. britannicus	Wild Thyme
1906	Cas	0	Thymus pulegioides	Large Thyme
1959	Cas	0	Tilia cordata	Small-leaved Lime
			Tilia cordata x platyphyllos	
1970+	Cas	36	= T. x europaea	Lime
1970+	Cas	8	Tilia platyphyllos ssp. cordifolia <b>Tofieldia pusilla</b>	Large-leaved Lime
1671	Native	0	(record may relate to VC 68)	Scottish Asphodel
2004	Neo	1	Tolmiea menziesii	Pick-a-back-plant
1933	*Cas	0	Torilis arvensis	Spreading Hedge-parsley
1970+	Native	63	Torilis japonica	Upright Hedge-parsley
1970+	Native	2	Torilis nodosa	<b>Knotted Hedge-parsley</b>
1970+	Neo	2	Trachystemon orientalis	Abraham-Isaac-Jacob
1970+	Native	21	Tragopogon pratensis ssp. minor <b>Trichophorum cespitosum</b>	Goat's-beard
2000	Native	3	ssp. cespitosum	Lesser Deergrass
			Trichophorum cespitosum	
			ssp. cespitosum x ssp. germanicum	
1970+	Native	4	= T. c. nothossp. foersteri	Swan's Deergrass
1970+	Native	32	Trichophorum cespitosum	Common Doorgrass
1970+	Native	32	ssp. germanicum	Chickwood Wintergran
1970+	Native	10	Trientalis europaea Trifolium arvense	Chickweed Wintergreen Hare's-foot Clover
1970+	Native	20	Trifolium arvense Trifolium campestre	Hop Trefoil
1970+	Native	81	Trifolium dubium	Lesser Trefoil
1893	Native	0	Trifolium fragiferum	Strawberry Clover
1970+	Neo	15	Trifolium jugijerum Trifolium hybridum ssp. hybridum	Alsike Clover
1956	Cas	0	Trifolium incarnatum ssp. incarnatum	Crimson Clover
1970+	Native	82	Trifolium medium Trifolium medium	Zigzag Clover
2002	Neo	1	Trifolium micranthum	Slender Trefoil
1970+	Native	82	Trifolium pratense	Red Clover
1970+	Native	168	Trifolium repens	White Clover
1960	Native	0	Trifolium scabrum	Rough Clover
1970+		8	Trifolium striatum	Knotted Clover
19/0	Native		i i livilain sli wlain	Kilottea Ciovei
1970+	Native Native			
1970+ 1970+	Native	7	Triglochin maritimum	Sea Arrowgrass
1970+	Native Native	7 46	<b>Triglochin maritimum</b> Triglochin palustre	<b>Sea Arrowgrass</b> Marsh Arrowgrass
1970+ 1970+	Native Native Arc	7 46 74	<b>Triglochin maritimum</b> Triglochin palustre Tripleurospermum inodorum	Sea Arrowgrass Marsh Arrowgrass Scentless Mayweed
1970+	Native Native	7 46	<b>Triglochin maritimum</b> Triglochin palustre	<b>Sea Arrowgrass</b> Marsh Arrowgrass

1070+	Con	6	Triti over gostinum	Drand Wheat
1970+	Cas	O	Triticum aestivum Triticum aestivum x Secale cereale	Bread Wheat
2004	Cas	1	= X Triticosecale sp.	Triticale
1970+	Native	5	Trollius europaeus	Globe-flower
1960	Cas	0	Tropaeolum majus	Nasturtium
1970+	Cas	6	Tropaeotam majas Tsuga heterophylla	Western Hemlock
2004	Cas	1	Tulipa gesneriana	Garden Tulip
1970+	Neo	3	Tulipa gesneriana Tulipa sylvestris	Wild Tulip
1970+	Native	118	Tutipa sylvesiris Tussilago farfara	Colt's-foot
1970+	Neo	110		Lesser Bulrush
1970+	Native	25	Typha angustifolia	Bulrush
			Typha latifolia	
1970+	Native	122	Ulex europaeus	Gorse
1970+	Native	2	Ulex gallii	Western Gorse
1970+	Native	106	Ulmus glabra	Wych Elm
1962	Cas	0	Ulmus procera	English Elm
1970+	Native	170	Urtica dioica ssp. dioica	Common Nettle
1970+	Arc	40	Urtica urens	Small Nettle
1052	NT-4:	0	Utricularia intermedia agg.	T ( P D II )
1853	Native	0	(U. intermedia, U. ochroleuca, U. stygia)	Intermediate Bladderwort
1974	Native	1	Utricularia minor	Lesser Bladderwort
1902	Native	0	Utricularia vulgaris agg. (U. australis, U. vulgaris)	Greater Bladderwort
1902	Native	80	Vaccinium myrtillus	Bilberry
1970+	Native	8	-	
1970+		17	Vaccinium oxycoccos Vaccinium vitis-idaea	Cranberry
19/07	Native	1/	v accinium viiis-taaea	Cowberry
1070	Matiria	20	V-1	Monda Volonion
1970+	Native	39	Valeriana dioica	Marsh Valerian
1970+	Native	64	Valeriana officinalis	Common Valerian
1970+ 1970+	Native Neo	64	Valeriana officinalis Valeriana pyrenaica	Common Valerian Pyrenean Valerian
1970+ 1970+ 1970+	Native Neo *Neo	64 3 1	Valeriana officinalis Valeriana pyrenaica Valerianella carinata	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad
1970+ 1970+ 1970+ 1916	Native Neo *Neo Arc	64 3 1 0	Valeriana officinalis Valeriana pyrenaica Valerianella carinata <b>Valerianella dentata</b>	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad Narrow-fruited Cornsalad
1970+ 1970+ 1970+ 1916 1970+	Native Neo *Neo Arc Native	64 3 1 0 10	Valeriana officinalis Valeriana pyrenaica Valerianella carinata Valerianella dentata Valerianella locusta	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad Narrow-fruited Cornsalad Common Cornsalad
1970+ 1970+ 1970+ 1916 1970+ 1952	Native Neo *Neo Arc Native Cas	64 3 1 0 10 0	Valeriana officinalis Valeriana pyrenaica Valerianella carinata Valerianella dentata Valerianella locusta Verbascum blattaria	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad Narrow-fruited Cornsalad Common Cornsalad Moth Mullein
1970+ 1970+ 1970+ 1916 1970+ 1952 1936	Native Neo *Neo Arc Native Cas Neo	64 3 1 0 10 0 0	Valeriana officinalis Valeriana pyrenaica Valerianella carinata Valerianella dentata Valerianella locusta Verbascum blattaria Verbascum nigrum	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad Narrow-fruited Cornsalad Common Cornsalad Moth Mullein Dark Mullein
1970+ 1970+ 1970+ 1916 1970+ 1952 1936 2001	Native Neo *Neo Arc Native Cas Neo Cas	64 3 1 0 10 0 0	Valeriana officinalis Valeriana pyrenaica Valerianella carinata Valerianella dentata Valerianella locusta Verbascum blattaria Verbascum phlomoides	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad Narrow-fruited Cornsalad Common Cornsalad Moth Mullein Dark Mullein Orange Mullein
1970+ 1970+ 1970+ 1916 1970+ 1952 1936 2001 1970+	Native Neo *Neo Arc Native Cas Neo Cas Native	64 3 1 0 10 0 0 1 17	Valeriana officinalis Valeriana pyrenaica Valerianella carinata Valerianella dentata Valerianella locusta Verbascum blattaria Verbascum nigrum Verbascum phlomoides Verbascum thapsus	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad Narrow-fruited Cornsalad Common Cornsalad Moth Mullein Dark Mullein Orange Mullein Great Mullein
1970+ 1970+ 1970+ 1916 1970+ 1952 1936 2001 1970+ 1919	Native Neo *Neo Arc Native Cas Neo Cas Native Cas	64 3 1 0 10 0 0 1 17 0	Valeriana officinalis Valeriana pyrenaica Valerianella carinata Valerianella dentata Valerianella locusta Verbascum blattaria Verbascum phlomoides Verbascum thapsus Verbascum virgatum	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad Narrow-fruited Cornsalad Common Cornsalad Moth Mullein Dark Mullein Orange Mullein Great Mullein Twiggy Mullein
1970+ 1970+ 1970+ 1916 1970+ 1952 1936 2001 1970+ 1919 1836	Native Neo *Neo Arc Native Cas Neo Cas Native Cas *Native Cas *Cas	64 3 1 0 10 0 0 1 17 0 0	Valeriana officinalis Valeriana pyrenaica Valerianella carinata Valerianella dentata Valerianella locusta Verbascum blattaria Verbascum nigrum Verbascum phlomoides Verbascum virgatum Verbena officinalis	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad Narrow-fruited Cornsalad Common Cornsalad Moth Mullein Dark Mullein Orange Mullein Great Mullein Twiggy Mullein Vervain
1970+ 1970+ 1970+ 1916 1970+ 1952 1936 2001 1970+ 1919 1836 1970+	Native Neo *Neo Arc Native Cas Neo Cas Native Cas *Cas Arc	64 3 1 0 10 0 0 1 17 0 0 30	Valeriana officinalis Valeriana pyrenaica Valerianella carinata Valerianella dentata Valerianella locusta Verbascum blattaria Verbascum nigrum Verbascum phlomoides Verbascum thapsus Verbascum virgatum Verbena officinalis Veronica agrestis	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad Narrow-fruited Cornsalad Common Cornsalad Moth Mullein Dark Mullein Orange Mullein Great Mullein Twiggy Mullein Vervain Green Field-speedwell
1970+ 1970+ 1970+ 1916 1970+ 1952 1936 2001 1970+ 1919 1836	Native Neo *Neo Arc Native Cas Neo Cas Native Cas *Native Cas *Cas	64 3 1 0 10 0 0 1 17 0 0	Valeriana officinalis Valeriana pyrenaica Valerianella carinata Valerianella dentata Valerianella locusta Verbascum blattaria Verbascum nigrum Verbascum phlomoides Verbascum virgatum Verbena officinalis Veronica agrestis Veronica anagallis-aquatica	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad Narrow-fruited Cornsalad Common Cornsalad Moth Mullein Dark Mullein Orange Mullein Great Mullein Twiggy Mullein Vervain
1970+ 1970+ 1970+ 1916 1970+ 1952 1936 2001 1970+ 1919 1836 1970+ 1970+	Native Neo *Neo Arc Native Cas Neo Cas Native Cas *Cas Arc Native	64 3 1 0 10 0 0 1 17 0 0 30 54	Valeriana officinalis Valeriana pyrenaica Valerianella carinata Valerianella dentata Valerianella locusta Verbascum blattaria Verbascum nigrum Verbascum phlomoides Verbascum virgatum Verbascum virgatum Verbena officinalis Veronica anagallis-aquatica Veronica x catenata	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad Narrow-fruited Cornsalad Common Cornsalad Moth Mullein Dark Mullein Orange Mullein Great Mullein Twiggy Mullein Vervain Green Field-speedwell Blue Water-speedwell
1970+ 1970+ 1970+ 1916 1970+ 1952 1936 2001 1970+ 1919 1836 1970+ 1970+	Native Neo *Neo Arc Native Cas Neo Cas Native Cas *Cas Arc Native Native	64 3 1 0 10 0 0 1 17 0 0 30 54	Valeriana officinalis Valeriana pyrenaica Valerianella carinata Valerianella dentata Valerianella locusta Verbascum blattaria Verbascum nigrum Verbascum phlomoides Verbascum virgatum Verbascum virgatum Verbena officinalis Veronica anagallis-aquatica Veronica anagallis-aquatica x catenata = V. x lackschewitzii	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad Narrow-fruited Cornsalad Common Cornsalad Moth Mullein Dark Mullein Orange Mullein Great Mullein Twiggy Mullein Vervain Green Field-speedwell Blue Water-speedwell
1970+ 1970+ 1970+ 1916 1970+ 1952 1936 2001 1970+ 1919 1836 1970+ 1970+ 1970+	Native Neo *Neo Arc Native Cas Neo Cas Native Cas *Cas Arc Native Native Native	64 3 1 0 10 0 0 1 17 0 0 30 54 6 103	Valeriana officinalis Valeriana pyrenaica Valerianella carinata Valerianella dentata Valerianella locusta Verbascum blattaria Verbascum nigrum Verbascum phlomoides Verbascum virgatum Verbascum virgatum Verbena officinalis Veronica agrestis Veronica anagallis-aquatica Veronica anagallis-aquatica x catenata = V. x lackschewitzii Veronica arvensis	Common Valerian Pyrenean Valerian Keeled-fruited Cornsalad Narrow-fruited Cornsalad Common Cornsalad Moth Mullein Dark Mullein Orange Mullein Great Mullein Twiggy Mullein Vervain Green Field-speedwell Blue Water-speedwell Wall Speedwell
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1970+	Sp	40	Veronica hederifolia	Ivy-leaved Speedwell
1970+	Arc	7	Veronica hederifolia ssp. hederifolia	Ivy-leaved Speedwell
1970+	Arc	17	Veronica hederifolia ssp. lucorum	Ivy-leaved Speedwell
1970+	Native	43	Veronica montana	Wood Speedwell
1970+	Native	108	Veronica officinalis	Heath Speedwell
1970+	Neo	100	Veronica ogretinais Veronica peregrina	American Speedwell
1970+	Neo	83	Veronica persica	Common Field-speedwell
1970+	*Arc	8	Veronica persica  Veronica polita	Grey Field-speedwell
1970+	Native	43	Veronica poitta  Veronica scutellata	Marsh Speedwell
1970+	Native	118		Thyme-leaved Speedwell
1970+	Cas	0	Veronica serpyllifolia ssp. serpyllifolia Viburnum lantana	Wayfaring-tree
1930+	Native			
1970+ 1970+		8	Viburnum opulus	Guelder-rose Tufted Vetch
	Native	87	Vicia cracca	
1970+	Cas	2	Vicia faba	Broad Bean
1970+	Native	52	Vicia hirsuta	Hairy Tare
1970+	Native	7	Vicia lathyroides	Spring Vetch
1970+	Native	1	Vicia orobus	Wood Bitter-vetch
1970+	Native	36	Vicia sativa ssp. nigra	Narrow-leaved Vetch
1970+	Cas	6	Vicia sativa ssp. sativa	Common Vetch
1970+	Arc	11	Vicia sativa ssp. segetalis	Common Vetch
1970+	Native	143	Vicia sepium	Bush Vetch
1970+	Native	15	Vicia sylvatica	Wood Vetch
1970+	Neo	2	Vicia tetrasperma	Smooth Tare
1970+	Neo	8	Vinca major	Greater Periwinkle
1970+	Arc	7	Vinca minor	Lesser Periwinkle
1970+	Arc	85	Viola arvensis	Field Pansy
1970+	Native	2	Viola arvensis x lutea	A hybrid Pansy
1970+	Native	4	Viola canina	Heath Dog-violet
2000	Native	2	$Viola\ canina\ x\ riviniana = V.\ x\ intersita$	A hybrid Dog-violet
1970+	Native	4	Viola hirta	Hairy Violet
1970+	Native	18	Viola lutea	Mountain Pansy
1970+	Neo	6	Viola odorata	Sweet Violet
1970+	Native	54	Viola palustris	Marsh Violet
1970+	Native	159	Viola riviniana	Common Dog-violet
1970+	Native	13	Viola tricolor ssp. tricolor	Wild Pansy
1970+	Cas	1	Viscum album	Mistletoe
1970+	Native	22	Vulpia bromoides	Squirrel-tail Fescue
1953	*Cas	0	Vulpia myuros	Rat's-tail Fescue
1970+	Neo	1	Yushania anceps	Indian Fountain-bamboo
1970+	Native	11	Zannichellia palustris	<b>Horned Pondweed</b>
1970+	Cas	2	Zea mays	Maize

# Table of Taxa for which the Status listed for Berwickshire differs from that in the Census Catalogue

VCCC	Chack List	Latin Name	Reason for Change in Status
Arc	*Cas	Anthemis arvensis	Former casual
Arc	*Cas	Anthemis cotula	Former casual
Arc	*Neo	Armoracia rusticana	Garden escape casual
Native	*Arc	Bromus racemosus	Balance of probabilities
Native	*Neo	Calystegia sepium ssp. sepium	Historical record
Arc	*Neo	Campanula rapunculus	Former garden escape casual
Arc	*Neo	Chaenorhinum minus	Railway introduction
Arc	*Cas	Chenopodium glaucum	Former casual
Arc	*Cas	Chenopodium polyspermum	Former casual
Arc	*Cas	Chenopodium urbicum	Former casual
Arc	*Cas	Cichorium intybus	Former casual
Native	*Arc	Convolvulus arvensis	Follower of man
Arc	*Cas	Descurania sophia	Former casual
Arc	*Neo	Erysimum cheiranthoides	Casual only
Arc	*Neo	Erysimum cheiri	No walls predating 1500 colonised
Arc	*Cas	Filago pyramidata	Former casual, industrial site only
Arc	*Neo	Inula helenium	Garden escape casual
Arc	*Neo	Linaria repens	Former colonies after introduction
Arc	*Cas	Lithospermum arvense	Former casual
Neo	*Cas	Lupinus albus	Crop
Native	*Arc	Malva moschata	Short-lived colonies after escape
Arc	*Cas	Melilotus altissimus	Former casual
Arc	*Cas	Nepeta cataria	Former casual
Arc	*Cas	Onopordum acanthium	Garden escape casual
Arc	*Cas	Peucedanum ostruthium	Former garden escape casual
Arc	*Cas	Picris echioides	Casual only
Arc	*Neo	Polygonum rurivagum	Recent colonist
Arc	*Cas	Pyrus communis	Garden escape casual
Native	*Neo	Rosa micrantha	Formerly planted in hedges
Cas	*Native	Salix caprea ssp. sphacelata	Within native range
Arc	*Cas	Salix triandra	Planted or recently escaped
Arc	*Neo	Saponaria officinalis	Short-lived colonies after escape
Native	*Neo	Scrophularia umbrosa	Historical record suggests this
Native	*Neo	Sedum telephium	Short-lived colonies after escape
Arc	*Cas	Silybum marianum	Casual only
Arc	*Neo	Sinapis alba	Short-lived colonies after introduction
Native	*Neo	Symphytum tuberosum	Historical record suggests this
Arc	*Cas	Torilis arvensis	Former casual
Arc	*Neo	Valerianella carinata	Recent colonist
Arc	*Cas	Verbena officinalis	Former garden escape casual
Neo	*Arc	Veronica polita	Balance of probabilities
Arc	*Cas	Vulpia myuros	Former colonies after introduction

# **Summary of Berwickshire Check List**

#### **Tables of Tetrad Frequency**

The Berwickshire check list is summarised below to display the different frequency patterns of taxa within the four main status categories and to separate the element of the flora represented by hybrids and the microspecies of the four genera *Euphrasia*, *Hieracium*, *Rubus* and *Taraxacum*.

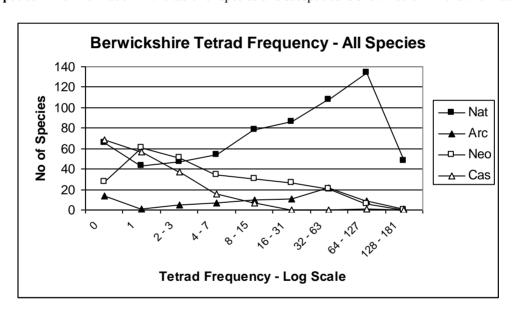
Species and subspecies								
Tetrads	Native	Archaeophyte	Neophyte	Casual	Total			
0	66	14	27	69	176			
1	43	1	61	57	162			
2 - 3	47	5	51	37	140			
4 - 7	54	7	34	16	111			
8 - 15	78	10	30	7	125			
16 - 31	86	11	26	0	123			
32 - 63	108	22	21	0	151			
64 - 127	134	9	6	1	150			
128 - 181	48	1	0	0	49			
Total	664	80	256	187	1187			
Hybrids								
Tetrads	Native	Archaeophyte	Neophyte	Casual	Total			
0	8	0	0	0	8			
1	17	0	9	11	37			
2 - 3	17	0	4	2	23			
4 - 7	10	0	3	2	15			
8 - 15	9	0	3	2	14			
16 - 31	3	0	1	0	4			
32 - 63	0	0	2	1	3			
64 - 127	0	0	0	0	0			
128 - 181	0	0	0	0	0			
Total	64	0	22	18	104			
Microspecies and their hybrids								
Tetrads	Native	Archaeophyte	Neophyte	Casual	Total			
0	5	0	1	0	6			
1	25	0	14	0	39			
2 - 3	22	0	8	0	30			
4 - 7	24	0	1	0	25			
8 - 15	7	0	0	0	7			
16 - 31	3	0	0	0	3			
32 - 63	1	0	0	0	1			
64 - 127	0	0	0	0	0			
128 - 181	0	0	0	0	0			
Total	87	0	24	0	111			

**Total - All taxa except varieties** 

Tetrads	Native	Archaeophyte	Neophyte	Casual	Total
0	79	14	28	69	190
1	85	1	84	68	238
2 - 3	86	5	63	39	193
4 - 7	88	7	38	18	151
8 - 15	94	10	33	9	146
16 - 31	92	11	27	0	130
32 - 63	109	22	23	1	155
64 - 127	134	9	6	1	150
128 - 181	48	1	0	0	49
Total	815	80	302	205	1402

#### **Charts of Tetrad Frequency**

All Species - The information in the table for species and subspecies is shown below in chart format

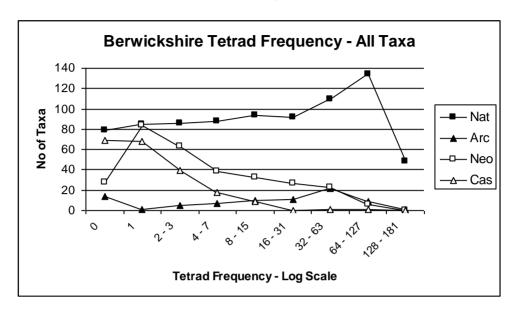


On a log scale the native species are distributed so that widespread species are rather more numerous than scarce species. The smaller number of archaeophytes follow a similar pattern. In contrast there are many more scarce neophytes than widespread ones even on a log scale and a similar but even more extreme pattern is shown by the casuals. However the casuals include token records only for planted and sown crops that are actually much more widespread.

The most frequent species is *Filipendula ulmaria* with 181 recorded tetrads, this is only about 60% of the 300 or so tetrads in Berwickshire. The apparent lack of ubiquitous species relates wholly to the sample recording strategy as not nearly all the tetrads have been visited. The sample strategy also sought out species-rich habitats selectively, including the wet places favoured by *Filipendula ulmaria*.

The relative scarcity of native species in the tetrad frequency band 128 - 181 is a consequence of the choice of frequency bands, as the choice would be more appropriate if the upper frequency was 256.

All Taxa - The information in the table for all taxa except varieties is shown below in chart format



Including the hybrids and microspecies raises the proportion of scarce native and neophyte taxa. This is in part real and in part an artefact relating to the general under-recording of critical taxa.

#### References

Authors, various, 1831-2003, in: *History of the Berwickshire Naturalists' Club*, The Berwickshire Naturalists' Club, Berwick-upon-Tweed. For indices to botanical papers see: 1831-1931, Centenary Vol., 90-95; 1932-1980, Sesquicentenary Vol., 121-129.

Braithwaite, M E and Long, D G, 1990, *The Botanist in Berwickshire*, The Berwickshire Naturalists' Club, Berwick-upon-Tweed.

Hayward, I M, and Druce, G C, 1919, *The adventive Flora of Tweedside*, T Buncle, Arbroath. Johnston, G, 1829, 1831, *A Flora of Berwick-upon-Tweed*, J Carfrae and Son, Edinburgh and Longman, London.

Johnston, G, 1853, *The Natural History of the Eastern Borders*, J van Voorst, London Kent, D H, 1992, *List of vascular plants of the British Isles*, Botanical Society of the British Isles, London.

Newton, A, and Randall, R D, 2004, *Atlas of British and Irish Brambles*, Botanical Society of the British Isles, London.

Perring, F H, and Walters, S M, eds., 1976, *Atlas of the Flora of the British Isles*, 2nd edition, BP Publishing for the Botanical Society of the British Isles, Wakefield.

Preston, C D, and Croft, J M, 1997, Aquatic plants in Britain and Ireland, Harley Books, Colchester.

Preston, C D, Pearman, D A & Dines, T D, eds., 2002, New Atlas of the British and Irish Flora, Oxford University Press, Oxford.

Rich, T C G, and Jermy, A C, eds.,1998, *Plant Crib 1998*, Botanical Society of the British Isles, London. Stace, C A, 1997, *New Flora of the British Isles*, 2nd edition, Cambridge University Press, Cambridge. Stace, C A, Ellis, R G, Kent, D H, and McCosh, D J, eds., 2003, *Vice-county Census Catalogue of the vascular plants of Great Britain*, Botanical Society of the British Isles, London.

Thompson, J V, 1807, A Catalogue of Plants growing in the vicinity of Berwick-upon-Tweed, J White, London.

Thompson, A. 1902, Lauder and Lauderdale, Craighead Bros, Galashiels.