



Dumfriesshire

Rare Plant Register 2020

Christopher Miles

An account of the known distribution of the rare or scarce native plants in Dumfriesshire up to the end of 2019



Holy Grass, *Hierochloa odorata* Black Esk July 2019

Acknowledgements

My thanks go to all those who have contributed plant records in Dumfriesshire over the years. Many people have between them provided hundreds or thousands of records and this publication would not have been possible without them. More particularly, before my recording from 1996 onwards, plant records have been collected and collated in three distinct periods since the nineteenth century by previous botanists working in Dumfriesshire.

The first of these was George F. Scott- Elliot. He was an eminent explorer and botanist who edited the first and only Flora so far published for Dumfriesshire in 1896. His work was greatly aided by other contributing botanists probably most notably Mr J.T. Johnstone and Mr W. Stevens.

The second was Humphrey Milne-Redhead who was a GP in Mainsriddle in Kircudbrightshire from 1947. He was both the vice county recorder for Bryophytes and for Higher Plants for all three Dumfries and Galloway vice counties! During his time the first systematic recording was stimulated by work for the first Atlas of the British Flora (1962). He published a checklist in 1971/72.

The third period of recording was between 1975 and 1993 led by Stuart Martin and particularly Mary Martin after Stuart's death. Mary in particular continued systematic recording and recorded for the monitoring scheme in 1987/88.

A special mention should also be made of Derek Ratcliffe. He recorded many of the montane plants from the 1950s onwards and published "The Mountain Plants of the Moffat Hills" in 1959.

Since 2018 a new Botany Group has been active in Dumfriesshire and this has provided a number of updates for the Register. The group has included the following regular recorders; Drew and Kath Davidson, Ian Gormly, Jean Muir, Fiona Macfarlane, Ranald Lamb, Zoe Gardner, Bob Meritt, Karen Miller, Chris Miles, Alison Miles.

Thanks also to the many referees who specialise in difficult plant groups, and to Chris Metherell who provided guidelines and an initial template for the original Register. I have taken ideas from Stephen Bungard North Ebeudes and Barbara Sumner Midlothian Register. Finally, thanks to Jim McIntosh (BSBI Scottish officer), Chris Metherell and Rod Corner for suggestions and checking the original text.

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Introduction

This second edition of the Register records details of the occurrence of rare or scarce plants in vice-county 72, Dumfriesshire and updates the first edition published in 2016. Dumfriesshire for the purposes of botanical recording follow the boundaries of the more recent local authority areas of Nithsdale, Annandale and Eskdale. This excludes those parts of lower Nithsdale that lie to the west of the Nith which fall into Kirkcudbrightshire including part of Dumfries itself. The Register has been produced as part of a national initiative based on the Botanical Society of Britain and Ireland (BSBI) vice-county system. The Register provides a snapshot of the known distribution of rare or scarce plants up to the end of 2019. Many older records are at low (typically 10 km) resolution. This document provides a baseline for further recording in the hope that these older records will be refound.



Dumfriesshire. Vice County 72

Three main uses are envisaged for the Register: firstly, to provide information on taxa at risk and requiring protection; secondly, to provide a baseline in order that as detailed surveying continues, changes in occurrence and distribution can be followed; thirdly to stimulate further recording of these taxa, and to fill in gaps apparent to the reader who may have seen the species in locations that are not mentioned. The author would welcome details of these. Please send to chris.miles01@btinternet.com.

Species are arranged in alphabetical order of their scientific name. The scientific and vernacular names are those used by the Fourth edition of Stace (2019).

Criteria for inclusion in the Register

The principal criteria used for inclusion in the main portion of the Register are:

- a) International Criteria. Native and archaeophyte* vascular plant species that are currently internationally rare. These are species that are:
 - endemic to Britain (a list is available in Cheffings & Farrell, 2005);
 - of restricted distribution internationally. These are as listed/occurring in EC Habitats and Species Directive Annex IIb, IVb or Vb; or Appendix I of the Bern Convention or Appendix I or II of CITES;
- b) National Criteria. Native and archaeophyte (established before 1500) vascular plant species that are currently scarce or rare in Britain. These are species that are:
 - listed in Schedule 8 of the Wildlife and Countryside Act 1981;
 - listed as occurring in IUCN categories CR (critically endangered), EN (endangered), VU (vulnerable) and NT (near threatened) in the British Red Data Book for vascular plants (Cheffings & Farrell 2005);
 - nationally rare, occurring in 15 or fewer 10 km squares in Britain;
 - nationally scarce, occurring in between 16 and 100 10 km squares in Britain.
- c) Local Criteria. Native and archaeophyte (established before 1500) vascular plant species that are:
 - **rare**, present in 3 sites or fewer in the vice-county and do not fall into the above categories. In this context a 'site' is a discrete area within a moveable kilometre square. Some judgement has been exercised over older doubtful records;
 - **scarce**, present in 4 -10 sites in the vice-county and do not fall into the above categories. In this category considerable judgement has been exercised to allow for the historical nature and geographical imprecision of many records. The upper limit has not been strictly adhered to, particularly where there are very few recent records;
 - **not scarce**, not meeting the criteria above but of interest in Dumfriesshire because of a particular association with a vulnerable habitat, being restricted due to lack of suitable habitat, being on the edge of range or having a notable adverse change in abundance in recent years.

Native has been taken here to mean "native in the UK" not necessarily in VC 72.

*Archaeophytes are alien species known or suspected to have been introduced before AD 1500, whereas neophytes are more recent introductions (Preston et al. 2002).

Exclusions

Records which appear or are known to refer to planted specimens have been excluded.

Rare hybrids have generally been excluded as their distribution is inadequately known in the vice-county at present. Some have had more attention and their listing may stimulate further attention on them.

The hybrids that have been included fulfil the following criteria as used by the JNCC for inclusion in the Red List (Cheffings & Farrell 2005).

- a) The hybrid must be between native parents (or parents that were once native to Britain)
- b) The hybrid is not a short-lived annual
- c) The hybrid is not a single occurrence of a long-lived individual
- d) The hybrid reproduces vegetatively, producing long-lived colonies
- e) The hybrid is not regularly present as part of a hybrid swarm between similar parents.

Most microspecies of *Hieracium*, *Taraxacum* and *Rubus* are omitted because they are not adequately recorded.

Confidentiality

Restriction of access to rare plant records is an issue that has caused much debate over the years. If detailed locations are given, plants may be at risk from collectors or even from those who simply wish to photograph them but may damage plants by trampling. On the other hand, many more are at risk from neglect of habitat or potential development and if their locations are unknown their conservation becomes more difficult, if not impossible.

In general the policy in this Register is to give the fullest information. In three cases (*Ajuga pyramidalis*, *Saxifraga nivalis* and *Woodsia ilvensis*, all of restricted occurrence in the Moffat Hills) detailed locations have not been given. Full resolution information is available from the author to those who have a genuine need for it.

All users of this Register are requested to respect the information provided, and to note that rare and scarce plants may grow on private property. Many are also found on SSSIs and other areas of conservation where visitor pressure can be an issue. National and local conservation organisations are usually only too pleased to show visitors plants of interest if contacted in advance.

The Records

For each species, the latest records are provided for each Monad. This has the effect of making the records of the author the most frequent though his records are usually updating earlier recording by previous recorders.

The smallest site definition used is a monad (1km x 1km). This means that where a species is present in several locations in a hectad (10km x 10km) its latest record in each monad will be listed. Where there is more than one record for a taxon in the monad only the latest date for this is listed. Where possible a site or location name are given and a more detailed grid reference. Recording in recent years in Dumfriesshire has been based on either the tetrad (2km x 2km) or monad. There are 25 tetrad per hectad (and 100 monads) and it makes mapping the distribution of the wild plants feasible in an under-recorded county which has had very few active recorders over the years. The tetrads are given a standard letter as shown below. Hence the record for **Agrimonia eupatoria** at Kinmount is in tetrad NY16P. This means it is in the north of the NY16 hectad.

The arrangement of tetrads in each hectad in relation to the northings and eastings.

8	E	J	P	U	Z
6	D	I	N	T	Y
4	C	H	M	S	X
2	B	G	L	R	W
0	A	F	K	Q	V
	0	2	4	6	8

It should be noted that the tetrad is usually given a name that refers to a geographic feature in the square. However where possible the more precise grid ref should be looked at to avoid assuming a misleading location. For example *Imperatoria ostruthium* is given a record for Coatsgate quarry (tetrad NT00S). The detailed grid ref shows that the plant is not in the quarry but on a road side elsewhere in the tetrad. A similar issue applies to Monad records.

Ultimately the objective should be to have 6 or 8 figure grid reference for all occurrences of these species so there is much more recording to do!

Records held by the BSBI at 31st December 2019 have been included. The aim will be to make updates periodically.

Historical records are included where they provide sufficient detail. **The Flora of Dumfriesshire including part of the Stewartry of Kircudbrightshire, G.F. Scott-Elliot 1896** is the only other publication that provides site details for the wild plants found in the whole County. It provides the key reference used to evidence first published records. A number of sources were used in its collation and some of these were earlier publications and some direct individual records. I have tried to indicate which and give the author. In some cases records in The Flora remain the latest for that taxon at a particular location. Experience suggests that some of these might remain as extant populations in the original sites. This is because Dumfriesshire is a relatively poorly recorded vice county and many old sites may not have been revisited in the 120 or so years since The Flora was written. Also while there have been major changes in habitat through agricultural improvements post war and the planting of conifer plantations, especially from the 1960s, many areas retain elements of the habitat that would have been present in the nineteenth century. Therefore where there is sufficient detail on a location these historical records have been used in the register.

Additional records at the 10 km scale but without more detailed location details have been included as a footnote with date where specified. **Where a specific recorder is named against these they are in bold as an indication of greater certainty.**

Records within tables are sorted by hectad (10 km square). Dumfriesshire is intercepted by 4 100km squares so records are always sorted in the order NS, NT, NX, NY. These are located in the NW, NE, SW and SE of the vice county respectively.

Recently, most rare and scarce species have been recorded at 10 m resolution. Site names are given to assist in providing an idea of location. Recorder names are provided where known. Full information on the locations of all species and sources is available from the author.

Notes about the species

Status of species nationally

General notes of the species is provided to give the context of its national standing and habitats. These mainly come from the Online Atlas of the British and Irish Flora.

Status of species locally

A brief note is added by the author of the first recorded occurrence of the species in Dumfriesshire where known. Most of this information comes from **The Flora of Dumfriesshire including part of the Stewartry of Kircudbrightshire, G.F. Scott-Elliott 1896**. In most cases there is also a note of how the species is doing locally today.

A list of species recorded but currently thought to be extinct in Dumfriesshire is given in Annex 1.

A note about changes between the edition published in 2016 and this second edition

A surprising number of new records for species listed in the first edition entered the database over the four recording seasons. There were nearly 1000 of these. Not all will be in the post 2000 recording period for the Atlas but have come to light and contribute to our understanding of the distribution of individual species. This new data has allowed the updating of a number of records of species not seen in many years in certain locations. It has allowed a number of species previously included to be dropped from the Register as they are clearly now better mapped and no longer meet the criteria to be included. In some cases (*Berberis vulgaris*, *Hypericum androsaemum*, *Origanum vulgare*, *Ribes spicatum*) they are doubtfully native and in another (*Juncus compressus*) there are doubts about the species until it is refound and these have been dropped. New records since 2015 has also resulted in the addition of species previously left out but now included because they were previously listed as extinct or not previously known from Dumfriesshire. The following is a list of these.

Excluded from second edition

Aethusa cynapium
Anagalis arvensis
Asplenium trichomanes ssp *trichomanes*
Berberis vulgaris
Centaurium erythraea
Euphorbia peplus
Geranium lucidum
Hypericum androsaemum

Juncus compressus
 Myriophyllum spicatum
 Nuphar lutea
 Origanum vulgare
 Ribes Spicatum
 Solanum nigrum

New species included in the second edition

Previously listed as extinct
Echium vulgare
Frangula alnus
Glaucium flavum
Linum radiola
Parentucellia viscosa
Newly found in Dumfriesshire
Geranium pusillum
Melilotus altissimus
Potentilla anglica
Crassula tillaea
Trichophorum caespitosum

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The Species Accounts

***Agrimonia eupatoria* L.**

Agrimony

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Not Scarce, declining.

A perennial herb of basic and neutral soils, occurring in hedge banks, on woodland margins and rides, in field-borders and open grassland, on roadsides and railway banks, and sometimes in waste places. Nationally, this species appears to be declining slightly. Eurosiberian southern temperate element; widely naturalised outside its native range. Can be confused with the next species.

First record is listed by P. Gray in 1842. It is occasional on road verges, steep banks and rough grassland where tall herbs escape heavy grazing.

Site	Gridref	Date	Recorder
Bass Burn	NX89	23/07/1999	Miles, C.J.
Glenbrae	NX921862	03/09/2000	Burley, B.
Kelhead Water	NY1469	17/08/1999	Jackson-Jones, N.
Kinmount	NY16P	20/07/2008	Miles, C.J.
Kirkton railway cuttings	NY1383	Aug-98	Davidson, A., D.
St Michaels	NY13348436	14/07/2018	Davidson, A., D.
The Haggs, Ecclefechan	NY1874	08/08/1979	Martin, M.E.R.
Macmaw	NY180944	13/07/1988	NCC woodland survey
Lochmaben Stone	NY36C	08/09/2007	Miles, C.J.
Rashiel Track and Ringens Well	NY38W	19/07/2003	Miles, C. and White, A.
Cronks Bank	NY3983	19/07/2003	Farrell, L. Stille, S.
Penton Linns	NY4377	17/08/1997	Miles, C.J.

Also recorded from NS81, NT00 (1896), NT01 (1896), NY28

***Agrimonia procera* Wallr.**

Fragrant Agrimony

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce, declining.

An erect perennial herb found in hedgerows, woodland margins and roadside verges, generally on soils which are neither strongly calcareous nor strongly acidic. This taxon has been much confused in the past with *A. eupatoria* var. *sepium*, which can also be glandular and aromatic. The overall range of this species is stable. European temperate element.

Not recorded at the time of The Flora so H. Milne Redheads record from 1959 may be the earliest. Occasional on road verges, steep banks and rough grassland where tall herbs escape heavy grazing but less frequent than *A. eupatoria*.

Site	Gridref	Date	Recorder
Carcoside	NS77641297	04/05/2018	Miles, C.J.
Auchenhessnane, nr	NX80369654	07/05/2018	Miles, C.J.
Morton Castle	NX89Z	30/08/2015	Miles, C.J.
Craig of Forest	NX922861	21/08/2017	Miles, C.J.
Kelhead Water	NY1469	17/08/1999	Jackson-Jones, N.
Balgray, Dryfe Water	NY1486	12/08/1977	Martin, J.D.S.
Hoddam , woodland	NY17	05/04/1988	Martin, M.E.R.
The Hewk	NY18P	11/08/2013	Miles, C.J.

Also recorded from **NY27 (1959)**

Ajuga pyramidalis L.

Pyramidal Bugle

National Status: Scarce, Vulnerable.

Status in Dumfriesshire: Rare.

A native perennial herb of free-draining slopes, rock crevices and shallow peat in open heathland and grassland overlying moderately acidic, or occasionally neutral or basic, soils. This species has been found in many new sites in the last half century, but conversely, some sites have apparently been lost through more intensive grazing. European boreal montane element.

First recorded in Blacks Hope in Dumfriesshire by J.T. Johnstone in 1888. A small population survives in the same location – detailed grid ref withheld.

Site	Gridref	Date	Recorder
Blacks Hope	NT11	24/05/2007	Waddell, J.

Alchemilla filicaulis subsp. filicaulis Buser

Slender Lady's Mantle

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A perennial apomict of calcareous or neutral grassland and grass-heath, found in lowland pasture, on hill-slopes, on herb-rich banks, and in flushed areas; also on rock outcrops, and mountain ledges of basic rock. From sea level in Orkney and Shetland to 975 m on Beinn a' Chaoruinn (Westernness). Nationally its distribution seems stable although it is probably under-recorded in some areas. European boreal montane element.

First record may be M. Bradshaw above Corehead in 1956. In Dumfriesshire it is infrequent compared to *A. filicaulis* subsp. *vestita*.

Site	Gridref	Date	Recorder
Crawick	NS779113	22/07/1988	Martin, M.E.R.
Lochan Burn	NT01W	05/07/2004	Braithwaite, M.E.; Gaskell, L.W.
Scawd Fell	NT10L	24/08/2013	Miles, C.J.
Whirly Gill	NT13041300	07/09/2014	Miles, C.J, Miles, A.J.

Dalmacallan Hill	NX78	05/08/1988	Martin, M.E.R.
Castramon Hill and Moor	NX7883	26/07/2004	Miles, C.J.

Alchemilla glomerulans

Clustered Lady's Mantle

*National Status: Scarce, Endangered.**Status in Dumfriesshire: Rare.*

A perennial herb, typically found in ungrazed or lightly-grazed base-poor grassy habitats in the C. and N. Scottish mountains; a depauperate form grows in heavily-grazed flushes, and screes below cliffs. In Teesdale and Craven it occurs on roadsides and in species-rich hay meadows. The current distribution of this critical species is unclear, especially in Scotland, but there has probably been little change overall.

First recorded in 2013 by Jeremy Roberts. He saw it when examining the more luxuriant growth of plants within a fenced enclosure on the GMT NTS property. The discovery following release from grazing pressure suggests it could turn up in other locations.

Site	Gridref	Date	Recorder
White Coombe monad (NT1615)	NT16801551	22/06/2014	Roberts, J., Brown, P., Miles, C.

Alchemilla wichurae (Buser.) Stefansson.

Rock Lady's Mantle

*National Status: Scarce, Endangered.**Status in Dumfriesshire: Scarce.*

Native perennial growing in a variety of grassy and rocky habitats. Nationally its population appears to be stable but it may be recently under-recorded.

First recorded by E.F. Linton in 1894 from the Midlaw Burn. It is still there and now recorded more widely in the Moffat Hills. Not always easy to distinguish from *A. glabra* which is the most common *Alchemilla* in the Hills often growing with *A. wichurae*.

Site	Gridref	Date	Recorder
Moffat Hills SSSI, Firthhope Burn	NT15221452	10/06/2004	Rae. D.A.
White Coombe monad(NT1615)	NT16791544	22/06/2014	Roberts, J., Brown, P., Miles, C.
Moffat Hills SSSI, Midlaw Linn	NT16121622	02/07/2004	Rae. D.A.
Moffat Hills SSSI, Gray Mare's Tail	NT18391484	28/06/2004	Rae. D.A.

Allium vineale L.

Wild Onion

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not scarce, declining.*

A bulbous native perennial herb of dry, neutral or calcareous soils, generally occurring in summer-dry grasslands, hedgerows, roadsides and cultivated ground, and formerly a serious weed of cereal crops. European temperate element; widely naturalised outside its native range.

First recorded in Dumfriesshire by J. Fingland in 1887 at Torduff Point. It is most frequent close to the coast at the limit of or just above the highest tides in tall vegetation.

Site	Gridref	Date	Recorder
Moniaive, Craigdarroch Water	NX77659081	04/08/2005	Warren, V
S. of Glencaple	NX994680	17/07/2007	Robertson, A.
Netherwood Mains riverside	NX9772	23/07/2019	Miles, C.J, Miles, A.J.
Kirkton (NX98Q)	NX96448042	14/09/2013	Miles, C.J.
Caerlaverock East park	NY06M	06/07/2014	Miles, C.J.
Riddingdyke	NY1365	04/08/2019	Dumfries Botany Group
Powfoot East beach	NY1565	04/08/2019	Dumfries Botany Group
Annan river crossings	NY1866	26/05/2019	BBS and BSBI Urban Flora team
Annan Waterfoot	NY16X	28/08/2008	Miles, C.J.
Dornockbrow	NY238652	07/07/2012	Hammond, B.
Dornock south	NY26M	18/06/2017	Miles, C.J.

Also recorded in NY29

Alopecurus magellanicus Lam.

Alpine Foxtail

National Status: Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A shortly rhizomatous perennial herb, found in oligotrophic springs and flushes, or on their borders, often associated with late snow-beds. It occurs on a wide range of acidic or slightly basic rocks. It is an inconspicuous grass, especially as it is shy-flowering and any inflorescences produced are often grazed off. Circumpolar arctic montane element.

First recorded in Dumfriesshire by D.A.R. Ratcliffe in 1956 on the north slope of White Coombe. It has now been found in a few other places in the Moffat Hills where it generally grows above 700m in flushed ground. It has been more obvious in places protected from grazing like Carrifran, where it flowers more readily. More focussed recording has expanded our understanding of its occurrence on these high slopes with many individual flushes recorded. Only one population per monad is listed here.

Site	Gridref	Date	Recorder
Hartfell Craigs	NT1176213358	13/08/2017	Miles, C.J.
Carrifran above Games Castle	NT1414	06/06/2019	Routledge, G.
Carrifran Goupe Craig	NT15551477	06/07/2018	Miles, C.J, Miles, A.J.
Grey Mares Tail Reserve	NT159157	29/07/2012	Averis, A.
Grey Mares Tail Reserve	NT1592916037	04/08/2017	Clarkson, R.
Grey Mares Tail Reserve	NT1619515484	01/08/2018	Clarkson, R.

Grey Mares Tail Reserve	NT1605116272	01/08/2018	Clarkson, R.
Grey Mares Tail Reserve	NT1604517032	18/07/2017	Clarkson, R.

Ammophila arenaria (L.) Link

Marram

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

A native rhizomatous perennial herb of coastal sand dunes. *A. arenaria* is an important species in the stabilisation of mobile dunes and blow-outs, and is widely planted as a sand binder. Inland, it is a rare casual, though several attempts have been made in recent years to establish it on inland golf courses. Lowland. European southern temperate element; widely naturalised outside its native range.

Recorded in Dumfriesshire by Dr. Burgess in 1789 in the Newbie – Powfoot area where it remains in small quantity at the back of the shore. There is limited habitat suitable for this species.

Site	Gridref	Date	Recorder
Caerlaverock	NY0265	1975	
Powfoot	NY1465	1972	Martin, J.D.S.
Powfoot East beach	NY1565	04/08/2019	Dumfries Botany Group
Newbiebarns	NY16S	09/07/2012	Miles, C.J.

Anchusa arvensis (L.) M. Bieb

Bugloss

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

This archaeophyte annual weed is mostly found nationally on well-drained soils in arable fields, but it also occurs near the sea on sandy heaths, in disturbed dunes and on waste ground. The main cause of loss nationally has been agricultural intensification, including the increased use of herbicides. Eurosiberian temperate distribution; it is widely naturalised outside this range.

Known in Dumfriesshire since seen by Dr. Gilchrist in 1862 and by a Miss Aitken in the Cummertrees area sometime before 1896. This has never been widespread. It is a very infrequent annual of sandy soil in arable fields in lower Annandale.

Site	Gridref	Date	Recorder
Ladyhall, Ruthwell	NY06	1885	Fingland, J.
Dalton	NY112743	25/06/1978	Martin, J.D.S.
Powfoot	NY1365	25/06/1978	Martin, M.E.R.
Cummertrees	NY136660	04/10/2009	Miles, C.J.

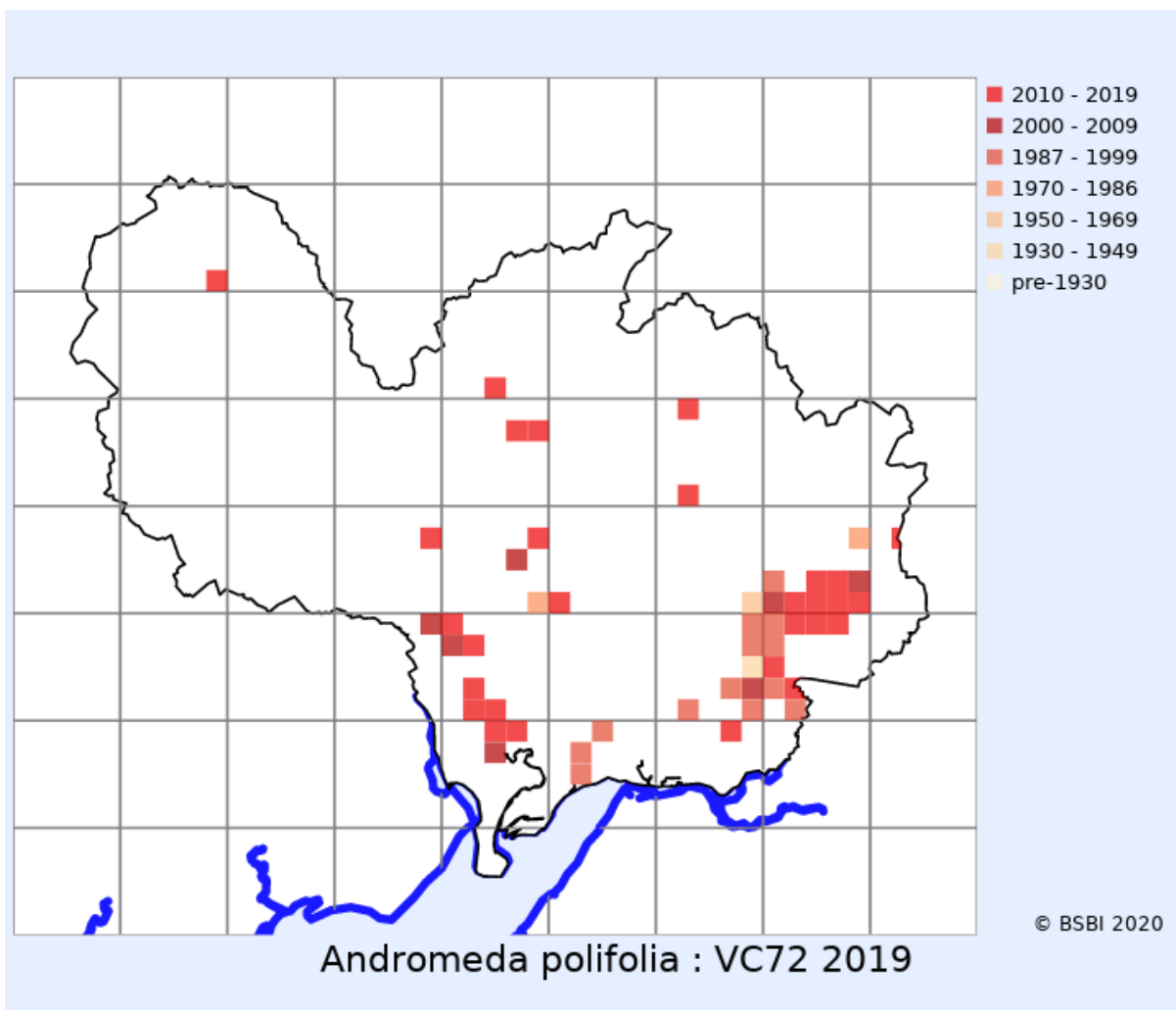
Andromeda polifolia L.

Bog Rosemary

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not Scarce, declining.*

A native straggling dwarf shrub of moist to wet acidic peaty ground, most abundant in lowland raised bogs but with scattered occurrences on upland peats. Fruits seldom develop. Nationally its habitat has declined greatly in the last fifty years through drainage, peat extraction and afforestation. Circumpolar boreal montane element.

Known since 1789 when recorded by Rev. Dr. Burgess on the Solway Moss. It is still well distributed and sometimes plentiful on intact or modified raised or intermediate lowland bogs but vulnerable to drainage or shading by tree growth. Away from its stronghold on the Lochar Mosses and the Lower Annadale and Eskdale mires it is present on small fragmented or degraded mires. On some of these sites such as near Sanquhar it is now very rare and hard to find.



Antennaria dioica (L.) Gaert

Mountain Everlasting

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not scarce, declining.*

A shortly stoloniferous perennial herb of thin, basic to mildly acidic soils. Its lowland habitats include chalk and limestone grassland, heathland, coastal cliff-tops, sand dunes and machair. In upland areas, habitats include rock ledges, crags, streamsides, screes, well-drained acidic grasslands, heathy pastures and dwarf-shrub heaths. Although not scarce the species has declined over the past 50 years. Most losses are due to the ploughing of its habitats, or to intensification of grassland management. It is now a mostly coastal and upland species in Britain. Eurasian boreo temperate element.

Listed from Dumfriesshire by P. Gray in 1842 when it was said to be common in dry pastures above 500 feet. This is most frequently found on inland rocks or short grassland on shallow soil beside rivers and burns. It is never abundant.

Site	Gridref	Date	Recorder
Auchenstroan Craig	NX69469133	17/08/2017	Miles, C.J.
Corserig Hill NS70E (NS70E)	NS7063408952	30/07/2011	Miles, C.J.
Chanlockfoot	NS70V	25/06/2009	Miles, C.J.
Glendyne, Sanquhar	NS8109	1878	McGlashan, R.D.
Hamarty Hill	NS90W	28/06/2014	Miles, C.J.
Lochan Craig	NT0011401029	22/06/2017	Miles, C.J.
Raeleugh, Evan Water	NT0311	04/09/1987	Rich, T.C.G.
Midlaw	NT11	17/06/1989	Corner, R.W.M.
Redgill Craig monad (NT1312)	NT13451285	16/08/2015	Miles, C.J.
Mitchell Hill	NT20E	13/07/2012	Miles, C.J.
The Kaim	NT20I	13/07/2012	Miles, C.J.
Garwald Water	NT2300	12/08/1977	Martin, M.E.R.
Seismological Station	NT24950543	14/07/2016	Miles, C.J.
Benbuie	NX710962	03/07/1981	Todd, S., Rogers, C.
Druid Hill NX89E	NX89E	24/05/2009	Miles, C.J.
Glengar Hill	NX82429520	17/07/2016	Miles, C.J, Miles, A.J.
Whitestanes Moor (NX98U)	NX97228888	20/05/2012	Miles, C.J.
Racks Moss	NY03497370	02/06/2011	Waddell, J.
Black Esk Bridge NY29K	NY29K	04/08/2008	Miles, C.J.
VC72 Dumfriesshire	NY300963	08/06/1955	Watt, G.
Arkelton	NY40838883	19/06/2017	Miles, C.J.

Also recorded in NS81,

Anthyllis vulneraria Ssp. vulneraria L.

Kidney Vetch

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A perennial herb of rock outcrops and open turf on south facing slopes, on free-draining

neutral to base-rich, often calcareous, soils. On the coast it is found on sea-cliffs, shingle and sand dunes. It is increasing as an alien on roadsides.

Numerous records are given in The Flora, the earliest from 1881 by Miss F.A. Hope around Moffat. It has been less frequently encountered in recent years. Records to date rarely distinguish subspecies so these are all presumed native. Recent use of seed in landscaping has introduced non native Sub species which are not included in this list where this seems obvious (eg new road verges).

Site	Gridref	Date	Recorder
Hallscaur	NS70Q	25/06/2009	Miles, C.J.
VC72 Dumfriesshire	NS7700	14/08/1975	Stewart, N.F.
Dalzean, Scaur Water	NS769013	14/07/1998	D&G Quadrat Survey Team
Muiryhill	NS875035	02/07/1995	Allen, C.
Craigieburn (NT10C)	NT1070904272	19/06/2011	Miles, C.J.
Kiddam Hill	NT20960285	27/07/2017	Miles, C.J.
Shieldhill Bridge, River Ae	NY034855	10/07/1980	Martin, M.E.R
Lochmaben	NY0882	Aug-73	Martin, J.D.S.
Kirkton Railway cuttings	NY1383	Aug-98	Davidson, D.
Rigg	NY286668	26/08/1981	Martin, M.E.R
Black Esk Bridge	NY29K	04/08/2008	Miles, C.J.
Airswood Hill	NY26119197	13/09/2015	Miles, C.J.
Shaw Rig	NY26009217	16/10/2017	Miles, C.J.

Also recorded in NY38 (1896)

Aquilegia vulgaris L.

Columbine

National Status: Scarce, Least Concern.

Status in Dumfriesshire: Rare.

Native populations of this perennial are found on calcareous soil over limestone rocks in England and Wales. It typically grows in woodland glades and open scrub, by woodland rides and stream sides, in damp grassland and fen, and on scree slopes. Garden escapes can be naturalised in quarries, on roadsides, railway banks and old walls. *A. vulgaris* has increased since the 1962 *Atlas*, presumably because of the increasing frequency of garden escapes. The native distribution is now totally obscured.

The earliest record is by Dr. Singer from the Garpol Glen in 1843. It was also recorded in the Auchencat Burn by J.T. Johnstone in The Flora. Other locations in The Flora were regarded as escapes. It is now found regularly but in all but the two early sites it is regarded as of garden origin. In the two early sites it persists in habitat where it is regarded as native and the flowers match the native blue colouration.

Site	Gridref	Date	Recorder
Garpol Glen	NT0684403374	23/05/2017	Miles, C.J.
Hartfell Spa, Watch Burn	NT01V	05/09/2015	Miles, C.J.

Arctostaphylos uva-ursi (L.) Spreng.

Bearberry

*National Status: Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

This procumbent low shrub is found on upland heaths and moorlands, often over well-drained gravelly or rocky ground, and on ravine sides. It sometimes grows in heathy grasslands on limestone. Circumpolar boreal montane element.

It was recorded in the Moffat Hills by Dr. Singer in 1843. It is currently known in only one area where there are several small colonies on steep rock faces.

Site	Gridref	Date	Recorder
Deacon Snout	NT 1836 1510	18/04/2015	Miles, C.J.

Asplenium viride Huds.

Green Spleenwort

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

An evergreen fern of moist, sheltered crevices in basic rocks and very rarely also on mortared walls. It is occasionally a colonist of old metal mine workings. Circumpolar boreal montane element, with a disjunct distribution.

This has been known in Dumfriesshire since 1848 when listed by W. Stevens at the Grey Mare's Tail. Scarce and normally only found in the hills under sheltered rock overhangs. Always nice to find.

Site	Gridref	Date	Recorder
Dinabid Linn, Dalveen	NS8908	07/07/1984	McCosh, D.J.
Old Manse Kirkpatrick-Juxta - outbuildings	NT00	08/07/1996	Martin, M.E.R.
Selcoth Burn	NT10N	28/08/2011	Miles, C.J.
Loch Fell NT10S	NT10S	13/08/2007	Miles, C.J.
Moffat Hills SSSI, Blackhope, Hartfell Craig	NT118132	20/06/2008	Waddell, J.
Nether Coombe Craig	NT11F	10/06/2007	Miles, C.J.
Falcon Craig (NT11G)	NT1258112529	03/08/2010	Miles, C.J.
Redgill Crag	NT13361288	29/09/2017	Miles, C.J., Miles, A.J.
Moffat Hills SSSI, Carrifran, Raven Craig (gully)	NT14411381	05/09/2008	Waddell, J. Holme, R.
Grey Mares Tail	NT18381483	27/07/2017	Clarkson, R.
Mitchell Hill	NT223087	23/04/97	Corner, R.W.M., Ratcliffe, D.A.
Birkie Cluech	NT2015	31/08/2018	Miles, C.J., Miles, A.J.
Black Cove	NY40169207	12/07/2014	Miles, C.J.
Birkshaw Sike	NY40719308	12/07/2014	Miles, C.J.

Also recorded in NS71 (1959), NS90 (1958), NY08, NY48 (1948)

Atriplex littoralis L.

Grass-leaved Orache

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

An erect annual of open, usually sandy or silty places near the sea. Often forming dense stands along saltmarsh drift-lines, estuarine banks and sea-walls, and on waste ground around docks. It also grows in saline areas inland, and as a colonist by salt-treated roads. Lowland. Circumpolar temperate element, with a disjunct distribution.

This appears to have only been recorded in Dumfriesshire since the 1990s. Restricted to the shore along the Solway coast but probably present on much of it. Generally on sandy muddy substrates towards the upper tidal limit.

Site	Gridref	Date	Recorder
Castle Wood NY06H	NY06H	16/07/2008	Miles, C.J, Wilson, B., Kennedy, D.
Caerlaverock East Park	NY06M	06/07/2014	Miles, C.J.
Powhillon	NY06T	18/07/2009	Miles, C.J.
Riddingdyke	NY1365	04/08/2019	Dumfries Botany Group
Powfoot East beach	NY15676555	04/08/2019	Dumfries Botany Group
Newbiebarns	NY16S	09/07/2012	Miles, C.J.
Newbie	NY1864	27/08/2018	Miles, C.J., Miles, A.J.
Eastriggs Depot	NY26S	11/07/2012	Miles, C.J.
Torduff Point	NY26236393	20/08/2019	Miles, C.J., Miles, A.J., Davidson, D.
Baurch	NY26X	26/07/2014	Miles, C.J.

Berula erecta (Huds.) Coville

Lesser Water Parsnip

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

This native stoloniferous perennial occurs as a submerged aquatic in rivers and streams, and as an emergent species at the edges of lakes, ponds, rivers, ditches and canals, and in marshes. It is also found on seasonally-flooded wet ground, and usually roots into fine silt or mud. Vegetative spread is by short-lived stolons or rhizomes, but little is known of the frequency of reproduction by seed. Nationally the species may be declining, probably caused by drainage and habitat destruction. European temperate element; also in C. Asia and N. America.

It was recorded in 1789 by Dr. Burgess between Duncow and Kirkmahoe. Also recorded in The Flora at Lochmaben by Dr. Singer. It occurs at the edge of lochs, in small burns or fens in standing or flowing water. The false node on the basal petioles helps separate from *Apium nodiflorum*.

Site	Gridref	Date	Recorder
Loch Urr, Lochurr Lane	NX7684	07/06/1989	Martin, M.E.R.
Cairn Water S.E. of Gilmerston, Dunscore	NX85828434	06/07/2010	Sadler, E.J., Bell, A., Quinn, L.
Morton Mains	NX8899	15/09/2019	Miles, C.J., Davidson, D.
Morton Castle	NX89189913	15/09/2019	Miles, C.J., Davidson, D.
Kirkton, The Lake	NX97318133	05/09/2019	Miles, C.J., Miles, A.J., Davidson, D., Muir, J.
Kirkton, nr The Lake	NX971821	07/07/1983	Martin, M.E.R.
Shieldhill Bridge, River Ae	NY033856	20/09/1973	Martin, J.D.S.
Castle Wood NY06H	NY06H	16/07/2008	Miles, C.J., Wilson, B., Kennedy, D.
Caerlaverock East Park	NY06M	06/07/2014	Miles, C.J.
Murder Loch	NY0285	1974	Milne-Redhead, H.
Upper Loch	NY0783	13/08/1977	Newbold, C.
Dornock south NY26H	NY26H	07/06/2009	Miles, C.J.

Beta vulgaris subsp. maritima (L.) Archangeli.

Sea Beet

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

Native perennial herb found in many coastal habitats from the strand line to cliffs. It seems to favour sites which are rich in nutrients (for example cliff ledges where guano has been deposited). Rarely found inland. Nationally it is common round the coast as far north as Ayrshire in the west and Yorkshire in the east, with outlying stations further north.

Only recorded infrequently, the first time in 1996. On sandy or shingle shorelines where it may colonise by seed washed in from Cumbria or Galloway.

Site	Gridref	Date	Recorder
Powfoot East Beach	NY1565	04/08/2019	Dumfries Botany Group
Annan Waterfoot NY16X	NY16X	28/08/2008	Miles, C.J.
Torduff Point	NY26356389	20/08/2019	Davidson, D., Miles, A., Miles, C.

Bidens cernua L.

Nodding Bur-marigold

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce, declining.*

An annual, growing on a wide range of damp or wet substrates on the margins of slow-flowing rivers and streams, by ponds and meres, often in places subject to winter flooding; also in ditches and marshes. Although not scarce the species has declined over the last 70 years mainly due to drainage and habitat destruction. Circumpolar temperate element.

In Dumfriesshire it is scarce in fens, marshes and river backwaters but persistent. First known at Lochmaben where it was listed by Dr. Singer in 1863.

Site	Gridref	Date	Recorder
Kirkbog (NX89R)	NX87939240	30/08/2014	Miles, C.J, Miles, A.J.
Morton Castle Loch	NX890199232	15/09/2019	Miles, C.J., Davidson, D.
Bankhead (Loch)	NX9384	05/09/2019	Miles, C.J., Miles, A.J., Davidson, D., Muir, J.
Dalswinton	NX94368423	05/09/2019	Miles, C.J., Miles, A.J., Davidson, D., Muir, J.
Jericho Loch	NX996804	05/08/1984	Gerdes, B.; Cochrane, P.
Caerlaverock NNR	NY06	1964	Crompton, G.
Lochar water	NY0080	15/08/2004	Miles, C.J.
Blind Lochs SSSI	NY06368370	10/09/2019	Davidson, D., Miles, A., Miles, C.
Mill Loch, Lochmaben	NY0783	13/07/2004	Stewart, N.F. Turner, L. Carvalho, L.
Hightae NR, Lochmaben	NY084803	1976	Martin, M.E.R.
Castle Loch	NY088816	-1999	Martin, M.E.R.
Castle Loch	NY09338131	02/09/2018	Dumfries Botany Group
Jardine Hall	NY101872	05/09/1996	Willby, N.J. Lassiere, O.L.

Also recorded in NY07,

Bidens triparta L.

Trifid Bur-marigold

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce, declining.

An annual of nutrient-rich mud or gravel by ponds, occurring in wet pits, by slow rivers and streams, often in areas wet in winter but exposed in summer; also found in ditches, peat workings and other damp places. Nationally this species is decreasing; drainage, the infilling of ponds and ditches, and the canalisation of watercourses have all contributed to its decline. Eurasian temperate element; widely naturalised outside its native range.

In Dumfriesshire known from Castle Loch since 1837 where recorded by G.N. Lloyd. Found in seasonally flooded areas. Much less frequent than *B. cernua*.

Site	Gridref	Date	Recorder
Castle Loch	NY088816	17/08/1959	Milne-Redhead, H.
Kirk Loch, Lochmaben	NY080821	07/08/1984	Martin, M.E.R.
Castle Loch	NY09338131	02/09/2018	Dumfries Botany Group

Also known from NX89 and **NX98 (1957)**

Bistorta vivipara (L.) Delarbre

Alpine Bistort

National Status: Not Scarce, Vulnerable.

Status in Dumfriesshire: Scarce.

Perennial herb, usually found on base-rich substrates and less frequently in acidic conditions. It grows on wet rocks, consolidated screes, in grassland and in damp flushes in the

mountains, and it is often abundant in montane pastures. Reproduction is mostly by bulbils at the base of the inflorescence, frequently carried down to lower levels by streams. Nationally its distribution is stable. Circumpolar Boreo-arctic Montane element.

First listed by the Rev. Dr Singer from 1843 and also from several locations in the Moffat Hills in The Flora by J.T. Johnstone. It occurs in grassland on rocky ledges or where there is a calcareous flush. Usually in small quantity but the Selcoth population is substantial.

Site	Gridref	Date	Recorder
Dinabid Linn, Dalveen	NS89390888	21/07/2016	Miles, C.J, Miles, A.J.
Corehead tetrad W (NT01W)	NT08441349	08/07/2010	Miles, C.J.
Crofthead Hill (NT1305)	NT13560569	23/06/2019	Miles, C.J, Miles, A.J.
Selcoth Burn (NT10N)	NT14820670	24/06/2012	BSBI Talla Selcoth Field Meeting
Sailfoot (NT1407)	NT14170701	21/08/2016	Miles, C.J.
Hopetoun Craig (NT10Y)	NT18600636	05/09/2010	Miles, C.J.
Ettrick Pen	NT197074	31/10/1979	Corner, R.W.M.
Nether Coomb Craig, Moffat Hills SSSI	NT12681144	24/05/2007	Waddell, J.
Falcon Craig (NT11G)	NT12581252	03/08/2010	Miles, C.J.
Carrifran (NT11L)	NT15511222	21/08/2010	Miles, C.J.
White Coombe monad (NT1615)	NT16801551	22/06/2014	Roberts, J., Brown, P., Miles C.
Midlaw monad	NT1616	03/08/2012	Averis, A.
Upper Tarnberry	NT1715	03/08/2012	Averis, A.
Bloodhope Head (NT20J)	NT22030870	21/07/2012	Miles, C.J.
Tomleuchar Burn, Eskdalemuir, E of	NT242063	23/08/1967	Corner, R.W.M.
Trowgrain Middle (NT21C)	NT20481573	06/09/2015	Miles, C.J.
Saugh Hill (NY2499)	NY24769963	28/08/2019	Miles, C.J, Miles, A.J.

Blitum bonus-henricus (L). Rchb.

Good King Henry

National Status: Not Scarce, Vulnerable.

Status in Dumfriesshire: Scarce, declining.

A perennial, forming patches on disturbed, nutrient-rich soil around farm buildings and ruins, and on roadsides and waste ground. It also sometimes occurs in limestone grassland.

Nationally this archaeophyte appears to be decreasing perhaps because it is no longer being introduced and populations are gradually lost through a general tidying of ruderal habitats.

Native to the mountains of C. & S. Europe.

Listed by P. Gray from Dumfries in 1842. In The Flora it appears to have been more widespread than today. In disturbed ground and on riversides.

Site	Gridref	Date	Recorder
Burleywhag bothy, Capel Burn	NS 971001	04/07/2000	Corner, R.W.M.

Ae Village, Water of Ae N of	NX985922	05/08/1966	Stewart, O.M.
Ae Bridgend	NY012868	01/06/1975	Silverside, A.J.
Enzieholm (NY29V)	NY28109120	25/06/2019	Miles, C.J., Miles, A.
Langholm	NY3684	27/10/1978	Webster, M. McC.
Bentpath, River Esk	NY309902	12/07/1998	Stewart, O.M.

Also recorded in NS81, NT10, NY18

Blysmus compressus (L) Panz. ex Link

Flat Sedge

National Status: Not Scarce, Vulnerable.

Status in Dumfriesshire: Rare, declining.

A rhizomatous perennial of open areas in marshes and fens, and in short, sedge-rich, damp grassland, calcareous flushes and stream borders which are subject to flooding. The species has suffered a severe decline throughout its range. Much of the decline has been due to drainage, the loss of unimproved damp grasslands, falling water-tables, eutrophication and the cessation of grazing. European temperate element, with a continental distribution in W. Europe.

Never frequent in Dumfriesshire where first recorded in 1882 by Dr. F.W.Grierson at Glencaple. It occurs on the coast, though less frequently than *B. rufus* but has not been recorded there in recent years. It still occurs in a couple of valleys in Eskdale around Bentpath where known since The Flora.

Site	Gridref	Date	Recorder
Caerlaverock NNR	NY022650	19/07/1963	Crompton, G.
Shiel Hill	NY28499254	30/07/2019	Miles, C.J, Miles, A.J.
Lower Stennies Water (NY39B)	NY30319273	09/09/2012	Miles, C.J.
Lower Stennies Water (NY39B)	NY31239337	09/09/2012	Miles, C.J.

Also recorded in NX96 (1882), NY16 (1975), NY26,

Blysmus rufus (Huds.) Link

Saltmarsh Flat Sedge

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Not Scarce, declining.

A rhizomatous perennial herb, found in sandy or gravelly wet runnels and depressions in saltmarshes, and in brackish ditches and dune-slacks. It also occurs on rocky shores, in freshwater seepages and beside streams where they debouch onto the beach. Nationally its distribution now appears to be generally stable. European boreal montane element; also in C. Asia and N. America.

Recorded in Dumfriesshire by Dr. F.W. Grierson at Glencaple in 1882 but confined to the saltmarsh along the Solway where it is probably still under recorded. It might be missed due to traditional merse grazing.

Site	Gridref	Date	Recorder
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Glencaple	NX9968	13/06/1975	Martin, M.E.R.
Castle Wood	NY06H	16/07/2008	Miles, C.J, Wilson, B., Kennedy, D.
Caerlaverock NNR- Eastpark	NY05666518	11/06/2015	Miles, C.J.
Caerlaverock NNR	NY066660	11/08/1970	
Powfoot	NY16M	12/07/2009	Miles, C.J.
Dornock south	NY26H	07/06/2009	Miles, C.J.
Lochmaben Stone	NY36C	08/09/2007	Miles, C.J.

Botrychium lunaria (L.) Sw.

Moonwort

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A small fern, often occurring singly or in small populations. It prefers well-drained sites, usually with a high base-content, although it can occur on more acidic substrates. Habitats include meadows, pastures, open woodland, sand dunes and grassy rock ledges. It can also colonise slag heaps and quarry spoil. Probably declining nationally. Circumpolar boreo temperate element.

First recorded at the Grey Mare's Tail by Dr. Balfour in 1856. It is sporadic and in small quantity on thin soils in hilly localities and on old mine spoil.

Site	Gridref	Date	Recorder
Crawick (NS71Q) old coal bing	NS76401154	16/06/2014	Miles, C.J.
Wanlock Dod, Wanlochhead	NS87081390	17/7/2019	Dumfries Botany Group
Hamarty Hill	NS99940319	30/8/2017	Miles, C.J.
Black Knowe and Bills Cleuch	NT01W	22/08/2004	Miles, C.J.
Selcoth Burn (NT10N)	NT14200690	24/06/2012	Miles, C.J.
Selcoth Burn (NT10N)	NT1547406159	28/08/2011	Miles, C.J.
Moffat Hills SSSI, Blackhope, Hartfell Craig	NT118132	20/06/2008	Waddell, J.
Carrifran (NT11M)	NT1478514574	21/08/2010	Miles, C.J.
Grey Mares Tail Reserve	NT1633716156	04/08/2017	Clarkson, R.
Rammerscales Hill	NY068774	11/06/1973	Martin, M.E.R.
Lochmaben	NY0783	20/06/1964	Nairn, S.
Heithatpark	NY183891	20/06/1973	Martin, M.E.R.

Also recorded in NY38 (1896)

Butomus umbellatus L.

Flowering-rush

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

A submerged or emergent rhizomatous perennial which grows in calcareous, often eutrophic, water at the edges of rivers, lakes, canals, ditches and in swamps. It rarely sets seed but reproduces by lateral buds on the rhizome. Eurosiberian temperate element; widely naturalised outside its native range.

First recorded in 1981 by N. Holmes. It may not be native but seems persistent. It could have spread from Cumbrian populations.

Site	Gridref	Date	Recorder
Dalswinton	NX9484	05/05/2019	Dumfries Botany Group
Kinmount Quarry Park Wood (loch)	NY1468	15/08/2018	Dumfries Botany Group
R Annan,.5km lengths above+below NY194677	NY194677	11/07/1981	Holmes, N.T.H.

Cakile maritima Scop.

Sea Rocket

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A native perennial herb often forming extensive stands in lakeside marshes and in carr. Nationally its main centres of distribution are in Norfolk, and the area northwest of the Wash.

Known from Dumfriesshire since 1886 on the Powfoot to Newbie section of shore. Seen on rare occasions and may recolonize sporadically.

Site	Gridref	Date	Recorder
Powfoot	NY1365	25/06/1978	Martin, J.D.S.
Powfoot East Beach (NY1565)	NY15676555	4/8/2019	Dumfries Botany Group
Newbiebarns	NY16S	09/07/2012	Miles, C.J.
Annan Waterfoot	NY1864	03/07/1977	Martin, J.D.S.

Calamagrostis canescens (F.H. Wigg) Roth.

Purple Small-reed

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A perennial herb of lakeside marshes, fen-meadows, tall-herb fens and *Alnus* or *Salix* carr, often in extremely species-rich vegetation and sometimes forming extensive stands. Generally lowland. Within its core range, succession and falling water tables may be reducing the extent of wetland habitats available for this species. Eurosiberian boreo temperate element, with a continental distribution in W. Europe.

Not recorded from Dumfriesshire in The Flora. The first record appears to be from M.E.R. Martin and L. Kungu on the old Kinnel Water course in 1987. A good population was still there in 2017. It has also persisted at the old Lockerbie curling pond now part of the Eskrigg Nature Reserve.

Site	Gridref	Date	Recorder
Kinnel water Old Course	<u>NY09548367</u>	31/7/2017	Miles, C.J.
Eskrigg Reserve (NY1280)	NY12638043	5/7/2019	Davidson, D.

Callitriche platycarpa Kütz.

Various Leaved Water Starwort

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

Native. The species is widely under-recorded, and it is possible that it is the most abundant species of *Callitriche* in lowland Britain. It may be spreading in Britain because of eutrophication, as appears to have happened in Sweden. European temperate element.

This species is almost certainly under recorded in Dumfriesshire. Recent improvements in identifying this species that separate it from *C.stagnalis s.l.* will lead to more records.

Site	Gridref	Date	Recorder
Seismological station (NT20M)	NT25100561	14/7/2016	Miles, C.J.
Cairn Water	NX88	12/07/1999	Miles, C.J.
Kelton (NX97V)	NX98077195	24/10/2019	Miles, C.J., Miles, A.J., Davidson, D.
Kirkton	NX97238121	5/9/2019	Miles, C.J., Miles, A.J., Davidson, D., Muir, J.
WWT Caerlaverock. Caerlaverock - Borrow Pool	NY05456542	13/6/2015	Miles, C.J.
Blountfield (NY0675)	NY06157585	18/10/2019	Miles, C.J., Davidson, D.
R Annan,.5km lengths above+below 35102767	NY102767	11/07/1981	Holmes, N.T.H.
River Annan, Millhousebridge	NY10398549	19/6/2013	Sadler, E-J., Bell, A., Quinn, L.

Calystegia soldanella (L.) R.Br.

Sea Bindweed

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

Native perennial herb of sand dunes, and sand and shingle beaches. Common around the coast of England, Wales and southern Scotland. Mediterranean-Atlantic element; widely naturalised outside its native range.

While recorded by G.F. Scott-Elliot in 1892 at Cummertrees and Gretna it has only been recorded once since. Like other shoreline species it seems likely to recur sporadically as it is well established along the Cumbrian shore. See *Glaucium flavum*.

Site	Gridref	Date	Recorder
Cummertrees, nr	NY16	1892	Scott - Elliot, G.F.
Dornock Brow to Torduff Point	NY26M	05/09/1996	Miles, C.J.

Carduus crispus L.

Wetted Thistle

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A biennial herb of woodland margins, ditch-banks, damp hedge bottoms, streamsides, tall grassland, roadsides, railway banks and waste places, especially on clay soils with a high nutrient status. Eurosiberian temperate element, but widely naturalised so that distribution is now Circumpolar temperate.

First record appears to be in Lochmaben by H. Milne-Redhead in 1969. It is rarely encountered. Found in weedy areas along back of shore or inland occasionally.

Site	Gridref	Date	Recorder
Racks	NY07	05/09/1999	Miles, C.J.
Castle Loch	NY088816	1999	Martin, M.E.R.
Dornock Brow to Torduff Point	NY26M	05/09/1996	Miles, C.J.

Carex acuta L.

Slender Tufted-sedge

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A rhizomatous perennial of shallow water or wet ground at the edges of rivers, streams, canals, lakes and ponds, in swamps, ditches and unimproved flood meadows and in marshland. It usually grows in calcareous and mesotrophic or eutrophic conditions, in areas subject to frequent flooding. It is shade-tolerant and sometimes grows under riverside trees or in wet woodland. Lowland. The species has declined in many areas, principally because of drainage and canalisation of rivers and streams. Eurosiberian boreo temperate element.

A rarely encountered southern sedge that has been confused with the commoner *C. acutiformis*. This should be looked for carefully.

Site	Gridref	Date	Recorder
Stroanshalloch	NX79	05/08/1958	Milne-Redhead, H.
Carnsalloch Shingle Bank LWS	NX964807	16/9/2005	McCleary, J.
Wamphray	NY19	1957	Milne-Redhead, E.; Wille, A.; Wille, J.

Carex aquatilis Wahlenb.

Water Sedge

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Occasional.

A morphologically variable, native rhizomatous perennial. In the lowlands, robust plants grow on river banks and the margins of lakes, mires and reed-swamps. In its upland sites, it is a shorter plant and often grows on deep, wet, gently sloping peat. Nationally it may remain overlooked in some areas. Circumpolar boreo arctic montane element; absent from mountains of C. Europe.

A northern sedge with records from 1886 at Kirkbog by Dr. Davidson. It may have been overlooked and is likely to be more extensive. It is occasional on the edge of muddy sections of the Nith, more obvious when out of reach of grazing stock. It appears stable in such places having maintained populations, e.g. at Kirkbog, for over 100 years.

Site	Gridref	Date	Recorder
Laigh Farm,R Nith below	NS6812	27/05/1976	Martin, M.E.R.
Glen Hall	NS68841304	31/05/2014	Miles, C.J.
Netherglenmucklock	NS71991235	26/07/2014	Miles, C.J.
Kirkconnel town centre (NS7312)	NS73731202	27/5/2019	BSS and BSBI urban flora team
South of Boatcroft	NX88748961	21/06/2015	Miles, C.J.
Carronbridge (NX8698)	NX86399830	11/8/2018	Miles, C.J., Miles, A.J.
Kirkbog, River Nith	NX87939240	30/08/2014	Miles, C.J.
River Nith at Old Auldgirith Bridge	NX9114086360	15/8/2016	Sadler, E-J., Bell, A., Quinn, L.
Sandbed	NX9483	5/5/2019	Dumfries Botany Group

Also recorded in NT11 (1890), NX98 (1890)

Carex arenaria L.

Sand Sedge

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A rhizomatous perennial herb of sandy habitats, where it can be a dominant plant of fixed dunes, dune-slacks, sandy flats and on tracksides or other ruderal habitats. Though predominantly coastal, it can be locally common on dunes and heaths inland. It can be a rapid coloniser, spreading by far-creeping rhizomes. It is occasionally found as an alien on railway clinker. The overall distribution of this species appears stable. European temperate element.

Reported between Powfoot and Newbie by G.F Scott-Eliott in The Flora and still there today. In a few places on sandy coasts.

Site	Gridref	Date	Recorder
East Park, Caerlaverock	NY0565	05/06/1989	Peberdy, K.J. Skimmings, P.
Riddindyke	NY1365	4/8/2019	Dumfries Botany Group
Powfoot East Beach	NY1565	4/8/2019	Dumfries Botany Group
Newbiebarns	NY16S	09/07/2012	Miles, C.J.
Annan Waterfoot (NY16X)	NY1864	27/8/2018	Miles, C.J., Miles, A.J.
Eastriggs works west	NY26M	18/6/2017	Miles, C.J.
Torduff Point (NY2663)	NY26606388	20/8/2019	Miles, C.J., Miles, A.J., Davidson, D.

Carex atrata L.

Black Alpine-sedge

National Status: Scarce, Least Concern.
Status in Dumfriesshire: Rare.

A perennial herb found on ungrazed faces and ledges of wet or dry calcareous cliffs. It grows in short vegetation or amongst tall herbs, or in dwarf *Salix* scrub. Populations are probably maintained by vegetative growth. Circumpolar boreo arctic montane element.

Recorded from a hill near Hartfell in 1848 by W. Stevens. The two known populations on rocky ledges are small and vulnerable to chance events.

Site	Gridref	Date	Recorder
Moffat Hills SSSI, Blackhope, Hartfell Craig	NT11891325	20/06/2008	Waddell, J.
Grey Mares Tail, Midlaw Linn	NT16331615	08/08/2017	Clarkson, R.

Carex capillaris L.

Hair Sedge

National Status: Scarce, Least Concern.
Status in Dumfriesshire: Rare.

A perennial herb of base-rich upland grasslands, particularly those flushed by calcareous springs, and moist limestone or mica-schist crags, slopes and ledges. Though it can tolerate some shading, it is generally found in open situations and short vegetation, often in species-rich communities. It is usually found at moderate or high altitudes. Nationally its population is stable. Circumpolar boreo arctic montane element.

Recorded from Hartfell in 1848 by W. Stevens. Two other Moffat Hills localities are mentioned in The Flora. Today only known from one station where the plants are on rocky ledges but the population is small and vulnerable to chance events.

Site	Gridref	Date	Recorder
Grey Mares Tail, Midlaw Linn	NT16331615	08/08/2017	Clarkson, R.

Carex diandra Schrank.

Lesser Tussock Sedge

National Status: Not Scarce, Near Threatened.
Status in Dumfriesshire: Scarce, declining.

Native perennial sedge of peaty areas, able to tolerate both acidic soils and those which are flushed by calcareous springs. Also found in wet woods, fen carr and swamps. Nationally *C. diandra* has been lost as a result of drainage and scrub encroachment from many lowland sites. Most losses occurred before 1930, but are still continuing in England. Circumpolar boreo temperate element.

Infrequently recorded in Dumfriesshire since 1882 where first recorded at Tynron by J. Shaw (as *C. teretiuscula*). It occurs in wet mires with some calcareous influence. These have been

the subject of much drainage activity hence its reduced occurrence.

Site	Gridref	Date	Recorder
Nether Black Law area	NS71J	04/06/1988	Noltie, H.J. McKean, D.R.
Crawick Water, S of Nether Cog	NS81	July 1999	Miles, C.J.
Backhill Moss	NS915012	08/08/1958	Milne-Redhead, H.
Thornhill	NX89	1882	Wallace, J.
Black Loch SSSI (NX9987)	NX990875	04/07/2018	Miles, C.J., Miles, A.J.
Caerlaverock	NY0265	14/07/1839	Cruikshank, J.
Upper Loch (Lochmaben)	NY070833	10/08/1988	Fleming, L.V.
Perchhall Loch	NY110879	29/08/1988	Fleming, L.V.
Whitehill Moss (NY1787)	NY17558786	25/06/2016	Miles, C.J.
Broomhillbank Hill (NY19F)	NY13129019	21/06/2014	Miles, C.J, Miles, A,J.
Wauchope School House+Grains Well	NY3281	11/06/1988	Martin, M.E.R.

Carex lasiocarpa Ehrh.

Slender Sedge

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce, declining.

A rhizomatous perennial which grows in reed-swamps and other vegetation at the edges of lakes, pools and slow-flowing streams and rivers, and in flushes and wet hollows in fens; it can also colonise old peat workings and drainage channels. It generally occurs in nutrient-poor water, which may be base-rich or base-poor. Circumpolar boreal montane element.

First recorded from Sanquhar in 1886 By Rev. Dr. Davidson (as *C. filiformis*). Found on the edge of nutrient poor lochs and valley mires but as these are subject to drainage and enrichment. It has recently been refound on two SSSIs.

Site	Gridref	Date	Recorder
Sanquhar	NS70	1886	Davidson, A.
Loch Urr	NX760845	10/09/1996	Day, J. Willby, N.J.
Maxwelltown Loch	NX97	-1892	Cruikshank, J.
Blind Lochs SSSI (NY0683)	NY06368370	10/09/2019	Miles, C.J., Miles, A.J., Davidson, D.
Perch Hall Loch SSSI (NY18D)	NY11048778	06/09/2019	Miles, C.J, Miles, A,J.
Eldery Knowe (NY2588)	NY25418896	19/08/2019	Miles, C.J, Miles, A,J.
Crossdykes knowe (NY2589)	NY25748940	19/08/2019	Miles, C.J, Miles, A,J.
Cronksbank	NY3983	19/07/2003	Farrell, L., Stile, S.

Carex limosa L.

Bog Sedge

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A perennial herb of *Sphagnum* mires and the wet, peaty margins of pools, often growing in

standing water. Most of its sites are acidic and oligotrophic and it tends to occur in areas subject to some mineral enrichment. Generally lowland and somewhat declining due to drainage, afforestation and, in Ireland, peat extraction. Circumpolar boreal montane element.

Recorded at Stroanshalloch in 1892 by J. Corrie but in very few other localities. Reduced by draining of the very wet mires it requires. Still survives at Stroanshalloch after 120 years.

Site	Gridref	Date	Recorder
Beattock Hill	NT057017	08/08/1954	Graham, R.A.
Stroanshalloch (NX79A)	NX7000290582	11/06/2011	Miles, C.J.

Carex magellanica Lam.

Tall Bog Sedge

National Status: Scarce, Least Concern.

Status in Dumfriesshire: Scarce, declining.

A perennial of wet ground, pools and hummocks in *Sphagnum* bogs, or at the edges of gently sloping mires where there is slight lateral water movement; such sites often occur on watersheds. It generally occurs in open ground, but sometimes persists in carr. Circumpolar boreal montane element.

It was first listed from Morton Castle by W. Stevens in 1848. Many populations have not been seen in recent years. Reduced by drainage of its preferred habitat on peatland with moss lawns that have a slight movement of water.

Site	Gridref	Date	Recorder
Herd Naze (NS70A)	NS70500147	00/08/2017	Watson, K.
Herd Naze (NS70A)	NS71670055	00/08/2017	Watson, K.
Fingland Shoulder (NS70F)	NS72230074	00/08/2017	Watson, K.
White Knowe (NS70G)	NS723021	00/09/1998	D&G Quadrat survey team
Friarminnan	NS747193	11/06/1959	Milne-Redhead, H.
Earshaig	NT057021	15/06/1959	Milne-Redhead, H.
Lime Knowe, nr Moodlaw Loch	NT289070	04/09/1960	Milne-Redhead, H.
W. of Moodlaw Loch in forest ride	NT293074	21/09/1996	Corner, R.W.M.
Stroanshalloch Loch	NX699905	13/07/1970	David, R.W.
Loch Urr	NX7584	28/7/1887	Fingland, J.
Girrharrow	NX78Y	-1896	Corrie, J.
Dunesslin Moor, Mill Hill-Speddoch Hill	NX820814	13/07/1970	David, R.W.
Fleuchlarg, Glencairn	NX8587	27/6/1898	Playfair, D.T.
Beuchan Moor	NX8591	08/07/1976	Martin, J.D.S.
Black Loch	NX990874	08/08/1959	Milne-Redhead, H.
Hellholes Moss (NY0887)	NY08338787	5/7/2016	Miles, C.J, Miles, A.J.
Loch Rig, Eskdalemuir	NY23099882	04/09/2011	Miles, C.J.
Craighaugh (NY2498)	Ny21469891	22/7/2018	Miles, C.J, Miles, A.J.
Barnglieshead NY37J	NY332793	13/07/2008	Miles, C.J.
Bloch Farm (NY3281)	NY32908171	29/7/2017	Miles, C.J, Miles, A.J.

Carex oederi Retz

Small-fruited Yellow-sedge

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

This perennial herb occurs in open, damp or wet habitats, including dune-slacks, the upper edge of saltmarshes and on the stony margins of lakes or pools, and in open fens and marshes. It usually occurs on flushed acidic soils, but also locally on base-rich substrates. Generally lowland, a diminutive plant which is easily overlooked and is probably still under-recorded in W. Scotland and Ireland. European boreo temperate element.

First recorded at Auldgirth by J. Fingland in 1887. Inland records are likely to refer to *C. demissa*. It is infrequent on the higher parts of saltmarsh.

Site	Gridref	Date	Recorder
Dornock south NY26H	NY26H	07/06/2009	Miles, C.J.
Eastriggs Depot	NY26S	11/07/2012	Miles, C.J.

Carex pauciflora Lightf.

Few-flowered Sedge

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

A perennial herb of wet, acidic, oligotrophic raised and blanket bogs, often growing on and around hummocks and usually in association with *Sphagnum* species. It is a very inconspicuous species and is easily overlooked. Circumpolar boreal montane element.

First recorded in Dumfriesshire in 1848 by W. Stevens in the Dalveen Pass. It has been recorded very infrequently since. It likes oligotrophic bog pools which is different from the similar but much commoner *C. pulicaris*.

Site	Gridref	Date	Recorder
Lurr+Moniaive,nr	NX78	1959	Stirling, A.McG.

Also recorded in **NY38 (1955)**

Carex riparia Curtis

Greater Pond-sedge

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

This rhizomatous perennial is found in reed-swamps, on the edges of pools and lakes, in marshy areas and wet woodland, and along the banks of slow-flowing rivers and canals. It is a species of base-rich, mesotrophic or eutrophic sites. Reproduction is mainly vegetative, but new colonies can arise from seed. Lowland. Eurosiberian temperate element.

A southern species recorded very occasionally since 1839 when listed by J Cruikshank at Moniaive. Could be confused with the commoner *C. acutiformis*. River banks.

Site	Gridref	Date	Recorder
Cummertrees, nr	NY16	10/05/1957	Perring, F.H.; Hall, J.F.; Hall, P.C.
Woodcock Air, riverside	NY17	05/07/1997	Miles, C.J.

Carex spicata Huds.

Spiked Sedge

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A perennial herb of rough grasslands, roadsides, railway embankments, hedge banks, woodland rides and clearings, open scrub and waste ground. It is a plant of moist, neutral or slightly base-rich, heavy soils, and cannot withstand much competition. Lowland. European temperate element; widely naturalised outside its native range.

A predominantly southern species so far recorded only once in Dumfriesshire, both times on semi natural grassy roadside verges probably as a casual introduction. Could be confused with *C. muricata* subsp. *parvae* which is commoner but tends to be in drier situations.

Site	Gridref	Date	Recorder
Tanlawhill/Castle Oe'r road junction	NY251908	1996	Corner, R.W.M.

Carex vaginata Tausch

Sheathed Sedge

National Status: Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A rhizomatous perennial herb of flushed, moderately basic to slightly acidic mountain grassland; also found in flush bogs and on rock ledges. It can be locally abundant and form large patches by rhizomatous growth, but is a shy flowerer and for that reason may often be overlooked. Nationally its population is stable. Circumpolar boreo arctic montane element.

Part of the alpine flora first recorded by J.T. Johnstone at Loch Skeene in 1890. It has been found in more sites in the Moffat Hills in recent years especially in flushed calcareous grassland above 500m.

Site	Gridref	Date	Recorder
Corehead tetrad C (NT11C)	NT1005114016	08/08/2010	Miles, C.J.
Moffat Hills SSSI, Hart Fell	NT11711363	02/07/2004	Rae, D.A.
Hart Fell, SE slopes	NT121131	16/06/1992	Fleming, L.V., Galley, J.
Carrifran (NT11M)	NT1513914594	10/07/2010	Miles, C.J.
White Coomb at head of Carrifran Burn	NT157150	26/07/1973	Ratcliffe, D.A.

Moffat Hills SSSI, White Coomb	NT16781549	22/06/2014	Roberts, J., Brown, P., Miles, C.J.,
Mid Craig Monad (NT1616)	NT16071618	23/7/2016	BSBI Field Meeting 2016

Carex x decolorans Wimm.
(*Carex bigelowii* x *Carex nigra*)

A Hybrid Sedge

National Status: Not listed, Not listed.

Status in Dumfriesshire: Scarce.

This very variable hybrid occurs in damp, acidic upland habitats, especially in mires, generally above 500m. It is usually found in the presence of both its parents; *C. bigelowii* and *C. nigra*.

Found twice by Rod Corner and likely to occur elsewhere where the two parents overlap.

Site	Gridref	Date	Recorder
Wisp Hill	NY387992	26/09/1999	Corner, R.W.M.
Arkleton Hill, Ewes Water	NY408926	14/04/1996	Corner, R.W.M.

Carlina vulgaris L.

Carlina Thistle

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A monocarpic perennial herb, typically occurring in well-grazed grassland on dry, infertile calcareous or base-rich soils, but also in more open habitats, including dry rock ledges, screes, quarry floors, coastal cliffs and sand dunes. A widespread decline has taken place, since 1950. Losses are partly due to habitat destruction and a lack of grazing. Eurosiberian temperate element.

Inland populations have been known in Dumfriesshire since 1882 when recorded by J. Shaw in the Euchar valley. These are almost the only inland records in Scotland where most other populations are coastal. It grows on dry thin soils on rocky slopes.

Site	Gridref	Date	Recorder
Corserigg Forest, Kello Water	NS70730893	12/07/2011	Waddell, J.
Corserig Hill NS70E (NS70E)	NS7073909004	30/07/2011	Miles, C.J.
Corserigg Forest	NS71480892	08/03/2010	Thompson, Richard
Glenhargen (NS70R)	NS76040309	29/08/2010	Miles, C.J.
Glenhargen (NS70R)	NS76320298	29/08/2010	Miles, C.J.
Chanlockfoot NS70V	NS78110099	29/08/2010	Miles, C.J.
Cairnkinna - McTurks Cleuch (NS7801)	NS78030119	30/8/2018	Miles, C.J, Miles, A.J.

Also recorded in **NX89 (1882)**, NX97, NY06 (1882)

Catabrosa aquatica (L.) P. Beauv.

Whorl-grass

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A stoloniferous herb of muddy pond margins, cattle-poached ditches, canals and sluggish streams; also, as var. *uniflora*, on wet open sand by the sea. Almost entirely lowland. The species has much declined due to the drainage and infilling of ponds, and the canalisation of lowland watercourses. European boreo temperate element.

First recorded in 1843 by Dr. Singer at Tinwald. Probably under recorded. It is found in lower Annandale or Nithsdale generally in muddy slow moving burns or river backwaters.

Site	Gridref	Date	Recorder
Racks Moss (NY07G)	NY0237873083	06/08/2011	Miles, C.J.
Castle Wood	NY06H	16/07/2008	Miles, C.J, Wilson, B., Kennedy, D.
Rammerscales NY07Y	NY086766	22/07/2007	Miles, C.J.
Tinwald, roadsides+Lochar Moss.	NY08A	18/07/2004	White, A., Miles, C.J.
River Annan	NY17	17/07/1999	Walls, R.M.

Centaureum littorale (Turner ex Sim.) Gilmour

Seaside Centaury

*National Status: Scarce, Least concern.**Status in Dumfriesshire: Scarce.*

This biennial herb is confined to coastal dunes, the uppermost levels of saltmarshes and calcareous, humus-rich turf near the sea where competing vegetation is checked and the habitat kept open by grazing or trampling. Lowland. Nationally its population is stable. European temperate element.

First recorded in Dumfriesshire by W. Stevens 1848. Found along the shore into the Nith estuary at the time of the Flora. Found most abundantly in rabbit cropped, upper level merse along the Solway.

Site	Gridref	Date	Recorder
Ward Law	NY025667	1958	Milne-Redhead, H.
Upper Solway Flats and Marshes SSSI - Nethertown	NY12306489	10/07/2009	Miles, C.J.
Upper Solway Flats and Marshes SSSI – Moss-side	NY12856501	10/07/2009	Miles, C.J.
Riddindyke (NY1365)	NY13806525	04/08/2019	Dumfries Botany Group
Upper Solway Flats and Marshes SSSI, Powfoot	NY14546534	12/08/2002	Hawker, D.M.

Rigg Level Crossing	NY286668	26/08/1981	Martin, M.E.R.
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Centaureum pulchellum (Sw.) Druce

Lesser Centaury

*National Status: Not Scarce, Least concern.**Status in Dumfriesshire: Rare.*

An annual of mildly acidic to calcareous soils. Inland it is found in dry, open grasslands and heaths, in woodland rides, marl pits and other open, disturbed ground. On the coast it is a plant of open sandy and muddy grassy places, often by estuaries, sand dunes and in upper saltmarsh. Lowland. The overall distribution of this species has remained stable although there has been some decline on heathland due to lack of management (particularly grazing), and coastal development has led to the loss of some of its former sites. Eurosiberian southern temperate element.

First noted in 1836 by J. Cruickshank in the mouth of the Nith. This is close to its northern limits on the west coast.

Site	Gridref	Date	Recorder
Caerlaverock NNR, Saltcot Hills	NY056652	11/08/1970	
Dornock Brow to Torduff	NY248648	12/09/1999	Miles, C.J.

Cerastium alpinum L.

Alpine Mouse Ear

*National Status: Scarce, Vulnerable**Status in Dumfriesshire: Rare.*

A mat-forming montane perennial herb which grows in similar habitats to *C. arcticum*, but on more strongly basic rocks. It is particularly abundant on soft mica-schists but also occurs on limestone and, rarely, serpentine. It often occurs in species-rich dwarf-herb communities. European arctic montane element.

One of the alpine rarities in the Moffat Hills. It has been known since 1843 when listed by Rev. J. Singer. Recorded in the Blackhope valley on dry rocks. There is an old record for White Coombe but it has not been seen there since The Flora.

Site	Gridref	Date	Recorder
Moffat Hills SSSI, Blackhope, Hartfell Craig	NT11891329	20/06/2008	Waddell, J.

Cerastium arvense L.

Field Mouse Ear

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

This perennial grows mainly on dry, calcareous to slightly acid, sandy soils, occurring in pastures, on dry roadsides, wayside banks, the margins of arable fields, sandy or gravelly waste ground, sand dunes and sand-pits. Nationally the species has declined, particularly at the edges of its range. Circumpolar boreo temperate element; widely naturalised outside its native range.

An eastern species first recorded in Dumfriesshire by J. Cruickshank in 1836. Looks likely to have declined. Likes dry well drained situations.

Site	Gridref	Date	Recorder
Lochbank,field	NY075834	25/05/1988	Martin, M.E.R.
Annan Waterfoot	NY186643	13/05/1978	Martin, M.E.R.

Also recorded in NY38 (1955)

Cerastium diffusum Pers.

Sea Mouse Ear

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

An annual of light, dry, sandy or gravelly soil. Coastal habitats include open grassland, fixed dunes, sandy banks and sheltered rock crevices. Inland, it occurs in a range of open habitats, including dry grassland, by paths, on wall-tops, road verges and railway ballast. European temperate element.

Not recorded in Dumfriesshire at the time of The Flora. The first record appears to be that of M.E.R. Martin in 1978. Generally coastal with a small number of inland records.

Site	Gridref	Date	Recorder
Auchensell, River Nith opp.	NS861035	01/06/1978	Martin, M.E.R.
Coatsgate Quarry	NT00S	07/06/2014	Miles, C.J.
Powfoot	NY152657	06/04/1986	Martin, M.E.R.
Old Graitney, Kirtle Water	NY3066	12/07/1981	Martin, M.E.R.
Tarras Water, railway viaduct	NY379811	16/05/1978	Martin, M.E.R.

Also recorded in NY27

Ceratophyllum demersum L.

Rigid Hornwort

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

An aquatic which grows submerged in still or slowly flowing, eutrophic water in lakes, ponds, rivers, canals and ditches. It may be so abundant in ponds and ditches that it forms dense masses which rise above the water surface. Because of the species' preference for eutrophic water it is almost certainly increasing nationally. Circumpolar southern temperate element.

Not recorded in The Flora. The first record appears to be by H.G. Proctor from the Kirk Loch Lochmaben in 1968. A predominantly southern species found in standing water with nutrient

enrichment.

Site	Gridref	Date	Recorder
Heathery Dam, Closeburn	NX919933	26/08/1984	Stewart, O.M.
Rock Hall, nr	NY061757	23/07/1982	Martin, M.E.R.
Rammerscales NY07Y	NY085765	22/07/2007	Miles, C.J.
Lochmaben, Kirk Loch	NY078822	12/10/1971	Martin, J.D.S.
Hightae NR, Lochmaben	NY086800	23/07/1982	Martin, M.E.R.
Lochmaben Castle (NY0881)	NY08838125	02/09/2018	Dumfries Botany Group
Lochmaben (NY0882)	NY08628218	02/10/2017	Miles, C.J., Miles, A.
Dalswinton (NX9484)	NX94368423	05/09/2019	Miles, C.J., Miles, A.J., Davidson, D., Muir, J.

***Cicuta virosa* L.**

Cowbane

National Status: Scarce, Least Concern.

Status in Dumfriesshire: Scarce, declining.

This perennial herb grows in shallow water on the margins of standing or slowly flowing water, including lakes, ponds, rivers, streams, ditches and canals, or in deeper water on floating mats of vegetation. It also occurs in tall-herb fen, in marshy pasture and on damp mud. Despite losses in the first half of the 20th century the population of this species appears now to be stable. Eurasian boreo temperate element.

Known in Dumfriesshire since 1837 when recorded by G.N. Lloyd in the Kirk and Castle Lochs Lochmaben. It is still present in many of the places mentioned in The Flora. Around loch margins or river back channels.

Site	Gridref	Date	Recorder
Carse Loch	NX9184	08/08/2019	Miles, C.J., Miles, A.J., Davidson, D.
Clauchrie Plantation (NX98J)	NX92738834	06/08/2017	Miles, C.J., Miles, A.J.
Bankhead	NX9384	05/09/2019	Miles, C.J., Miles, A.J., Davidson, D., Muir, J.
Dalswinton	NX9484	05/05/2019	Dumfries Botany Group
Cowhill Tower (NX98L)	NX95458280	08/09/2012	Miles, C.J.
Black Loch SSSI (NX9987)	NX990874	04/07/2018	Miles, C.J., Miles, A.J.
Bankend (NY06J)	NY02646945	14/05/2019	Miles, C.J., Miles, A.J., Davidson, D., Davidson, K.
Lochar Moss	NY07	1895	Gilchrist-Clark
Meikleholm Loch.	NY0389	20/07/2003	Miles, C.J., Stile, S., Philip, T.
Blind Lochs (NY0683)	NY06368370	10/09/2019	Miles, C.J., Miles, A.J., Davidson, D.
Mill Loch (NY08R)	NY070833	22/04/2016	Merritt, B.
Hightae NR, Lochmaben	NY084803	1976	Martin, M.E.R.
Lochmaben Castle	NY0881	02/09/2018	Dumfries Botany Group

Castle Loch, N end.	NY0882	18/07/2003	White, A., Miles, C.J.
Mill Loch, E end	NY081830	08/06/1987	Martin, M.E.R.
Kirkhirst Plantation, Castle Loch	NY0981	02/09/2018	Dumfries Botany Group
Old Broomhill (NY0983)	NY09788367	31/07/2017	Miles, C.J.
River Annan oxbow	NY108791	18/09/1996	Day, J. Willby, N.J.
Perch Hall Loch (NY18D)	NY10998761	18/07/2015	Miles, C.J.
Whitehill Moss (NY1787)	NY17638749	29/05/2016	Miles, C.J., Miles, A.J.

Clinopodium vulgare L.

Wild Basil

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A rhizomatous perennial herb of hedges, woodland margins, coarse scrubby grassland, coastal cliffs and sand dunes, typically on dry calcareous soils. It is also found on waste ground, old quarries, and railway-sides. Nationally the species appears to be stable. Circumpolar temperate element, with a disjunct distribution.

First recorded in Dumfriesshire by J. Wilson at Castel O'er in 1882. Appears to be on the north west edge of its range. Prefers calcareous conditions. May have been lost from several locations mentioned in the Flora.

Site	Gridref	Date	Recorder
Grey Mare's Tail	NT11	31/07/1887	Linton, E.F.
Annan riverside	NY193679	10/07/1999	Miles, C.J.
Bentpath, River Esk	NY309902	12/07/1998	Stewart, O.M.
Penton Linns	NY47	1972	Martin, J.D.S.
Rowanburnfoot (NY4175)	NY41097572	21/07/2019	Miles, C.J., Miles, A.J.

Also recorded in NT20, **NX98 (1957)**, NY29, **NY38 (1955)**

Cochlearia pyrenaica DC.

Pyrenean Scurvygrass

*National Status: Not Scarce, Least concern.**Status in Dumfriesshire: Not scarce*

A biennial or perennial herb of damp, open habitats, including montane cliffs, wet gullies, bryophyte-dominated flushes and spoil heaps by old lead and zinc mines. The diploid subsp. *pyrenaica* is only known from N. England and Skye. Because of the varying taxonomic treatments in recent years, *C. pyrenaica* is under-recorded, especially in Scotland.

Recorded (as *C. officinalis* subsp. *montana*) as early as 1891 by G.F. Scott-Elliott at Hartfell. It grows in flushes and by burns in the Moffat, Etrick and Lowther Hills. It has been recorded much more regularly in recent years.

Site	Gridref	Date	Recorder
Graystone Hill	NS60S	00/05/2017	Watson, K.

Pikiestone Burn Slope	NS60T	00/05/2017	Watson, K.
Well Hill	NS60Y	00/05/2017	Watson, K.
Middlefield Knowe	NT0913	13/06/2017	Miles, C.J.
Selcoth Burn	NT10N	24/06/2012	BSBI Talla Selcoth Field Meeting
Capel Fell	NT1606	23/08/2017	Miles, C.J.
Windfell Nick	NT1705	21/08/2016	Miles, C.J.
Cheese Wells	NT11A	02/09/2012	Miles, C.J.
Arthurs Seat (NT1112)	NT11641289	13/08/2017	Miles, C.J.
Hartfell Craig	NT1113	06/08/2016	Miles, C.J., Miles, A.J.
Upper Coomb Craig, Moffat Hills SSSI	NT12261176	24/05/2007	Waddell, J.
Redgill Craig monad	NT1312	26/09/2017	Miles, C.J.
Whirly Gill	NT1313	07/09/2014	Miles, C.J., Miles, A.J.
Priest Gill	NT1413	08/07/2017	Miles, C.J.
Spoon Burn Linn	NT1510	30/06/2019	Dumfries Botany Group
Peat Hill	NT1511	06/06/2019	Miles, C.J., Davidson, D.
Carrifran - Sheepfold square	NT1512	24/06/2018	Dumfries Botany Group
Carrifran Gans	NT1513	24/06/2018	Dumfries Botany Group
Gupe Craig	NT150146	06/09/2019	Routledge, G.
Mid Craig Monad	NT1633716156	04/08/2017	Clarkson, R.
Loch Craig	NT1617	23/07/2016	BSBI Field Meeting 2016
Tail Burn main falls	NT1814	24/07/2016	BSBI Field Meeting 2016
Bloodhope Head NT20J	NT20J	30/09/2006	Miles, C.J.
Birkie Cleuch	NT2015	31/08/2018	Miles, C.J., Miles, A.J.

Coeloglossum viride (L.) Hartman

Frog Orchid

*National Status: Not Scarce, Vulnerable.**Status in Dumfriesshire: Scarce.*

Native perennial herb growing in dry grassland, dunes and chalkpits, but also flushes, scree and even roadsides. Nationally this species declined throughout the twentieth century, mainly due to ploughing and grassland improvement. Circumpolar boreal montane element.

While never common in Dumfriesshire it was first known from Dr. S.W. Carruthers' record from Greygill Head Moffat in 1888 (as *Habenaria viridis*). In dry or flushed hill pastures where it can be very small and difficult to find. Known from Sailfoot, Selcoth since The Flora.

Site	Gridref	Date	Recorder
Near Mennock	NS812081	30/06/1968	BSBI Field Meeting
Sailfoot (NT1407)	NT1416707024	21/08/2016	Miles, C.J.

Also recorded in NS71 (1885), NS81, NY18 (1941), NY27

Coincya monensis subsp. monensis (L.) Greuter & Burdet Isle of Man Cabbage

National Status: Scarce, Least Concern.

Status in Dumfriesshire: Rare.

An annual or short-lived perennial herb, mainly found by the sea on open dunes and on the strand-line, and only rarely in bare fields and hedge banks near the sea. There is recent evidence to suggest that seed might be dispersed by sea. This subspecies is stable or even increasing in the centre of its range in N.W. England, but is slowly declining elsewhere. Endemic.

Found by the Rev. T. Bell on the Annan shore in 1882. It seems to be only sporadically present given scarcity of records.

Site	Gridref	Date	Recorder
Powfoot, disturbed sand dune	NY130651	21/08/1976	Martin, J.D.S.

Also recorded in NY26

Corallorhiza trifida Chatel Coralroot Orchid

National Status: Scarce, Vulnerable.

Status in Dumfriesshire: Rare.

A saprophytic herb usually found in shaded, damp carr on raised mires and lake margins, but which also occurs in dune-slacks. More rarely, it grows in tall-herb fen, in woods and on moorland. It may colonise secondary habitats, including plantations and quarries. Previously overlooked its national distribution is probably stable. Circumpolar boreal montane element.

A recent addition to the v.c. found by Jeff Waddell from an area of willow carr. It could be more widespread.

Site	Gridref	Date	Recorder
Heathhall Forest	NX994778	25/06/2009	Waddell, J.

Cornus suecica L. Dwarf Cornel

National Status: Scarce, Near Threatened.

Status in Dumfriesshire: Rare.

A low-growing rhizomatous perennial herb of wet, base-poor peats at moderate to high altitudes, including areas of late snow-lie. It is almost entirely confined to montane dwarf shrub heath communities, but also extends into acid montane grassland. Nationally its distribution is probably stable. European boreo arctic Montane element.

Interestingly not recorded in the Flora. The first record is in 1931 by Miss L. Home on White Coombe. There are several colonies in the Moffat Hills where it seems to occur in areas where snow builds up and lies late. The colony on mid Craig extends for 150m along the ridge.

Site	Gridref	Date	Recorder
Grey Mare's Tail (GRM)	NT16541338	25/10/2017	Clarkson, R.
White Coombe	NT16841543	22/06/2014	Miles, C.J., Roberts, J., Brown, P.
Mid Craig	NT16691623	23/08/2017	Rhusam, M., Kohn, D.

Crambe maritima L.

Sea Kale

*National Status: Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A long-lived perennial herb of shingle and boulder beaches, very occasionally found on dunes (but only where these overlay shingle) and on cliffs. Nationally it has declined in parts of its British range, probably because of sea-defence works which have destroyed its shingle habitats. On the other hand it has increased elsewhere, perhaps because it is now rarely gathered as a vegetable and its habitats are usually ungrazed. European temperate element.

Not known in Dumfriesshire at the time of The Flora. The first record is from 1957 by P.C. Hall, F.H. Perring, and J.F. Hall. It occasionally colonises shingle and sand like other sea dispersed strand line species.

Site	Gridref	Date	Recorder
Powfoot East Beach (NY1565)	NY15356567	04/08/2019	Dumfries Botany Group
Newbiebarns	NY16S	09/07/2012	Miles, C.J.
Annan Waterfoot (NY16X)	NY1864	27/8/2018	Miles, C.J., Miles, A.J.
Annan Waterfoot (NY16X)	NY19136428	27/8/2018	Miles, C.J., Miles, A.J.
Dornock Mains (NY2265)	NY22136514	9/10/2019	Miles, C.J., Davidson, D.
Solway Foreshore	NY238652	07/07/2012	Hammond, B.
Eastriggs works SE (NY2764)	NY27086420	20/8/2019	Miles, C.J., Miles, A.J., Davidson, D.

Crepis mollis (Jacq.) Asch.

Northern Hawk's Beard

*National Status: Rare, Endangered.**Status in Dumfriesshire: Rare.*

A winter-green perennial of herb-rich grassland and wood-pasture on shallow base-rich soils. Nationally the distribution of this species has decline substantially. European temperate element.

This was first recorded in 1889 by Rev. E.F. Linton at the Grey Mares Tail. This remains an extremely rare plant in Dumfriesshire with only 1 known extant population originally found by David McCosh in 1996.

Site	Gridref	Date	Recorder
Carrifran Burn	NT1512	1930	Watt, G.
Grey Mare's Tail	NT1814	31/07/1889	Linton, E.F.
Newland Hill (NY28N)	NY24068648	15/07/2012	Miles, C.J.

Newland Hill (NY28N)	NY24138645	15/07/2012	Miles, C.J.
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Dactylorhiza incarnata (L.) Soó.

Early Marsh Orchid

*National Status: Not Scarce, Waiting.**Status in Dumfriesshire: Scarce.*

Native perennial herb, this subspecies is found mainly in damp dune slacks, and occasionally in other habitats. Nationally its range seems stable although it has declined in some areas due to coastal erosion and scrub development.

In Dumfriesshire very infrequently recorded since it was found in 1894 in Carrifran by Rev. E.F. Linton. The only population determined to subsp. is at White Hill where subsp. *incarnata* was recorded. Other populations may also be this.

Site	Gridref	Date	Recorder
Druidhill Burn	NS80A	28/05/2007	Miles, C.J.
Earshaig	NT052027	15/06/1959	Milne-Redhead, H.
Carrifran Valley	NT11	1977	Roger, J.G.
Whitehill Moss (NY1787)	NY17558786	25/06/2016	Miles, C.J.
White Hill (NY1788)	NY17528817	20/6/2017	Miles, C.J.
Todshawhill (NY29G)	NY23119352	01/06.2019	Miles, C.J., Davidson, D.
Black Esk Bridge	NY29K	21/08/2005	Corner, R.W.M., Miles, C.J.

Diphasiastrum alpinum (L.) Holub

Alpine Clubmoss

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not Scarce.*

An evergreen herb of short acidic grassland on mountains and moors, where it grows on moist but well-drained, thin peaty soils, especially those directly overlying rocks. More rarely it occurs on acidic sands. Vegetative propagation is much more frequent than sexual reproduction, which usually takes place on bare, disturbed ground. Nationally its distribution is stable. Circumpolar arctic montane element, with a disjunct distribution.

First recorded in 1862 by J. Sadler at Garpol. In the Flora also known from the Lowthers and Moffat Hills. Tends to be on skeletal soils amongst thin vegetation at higher altitudes but also colonises forestry tracks high in the hills.

Site	Gridref	Date	Recorder
Dalveen	NS90	1958	Milne-Redhead, H.
Croft Head	NT10M	02/09/2007	Miles, C.J.
Selcoth Burn	NT10N	28/08/2011	Miles, C.J.

Scawd Fell (NT10L)	NT15780210	11/03/2012	Miles, C.J.
Croft Head	NT151056	25/08/1998	Dumfries Survey Team
Sailfoot Law (NT1507)	NT15680707	23/08/2017	Miles, C.J.
Cowan Fell (NT1603)	NT16240320	27/08/2016	Miles, C.J.
Capel Fell (NT1606)	NT16520649	23/08/2017	Miles, C.J.
Windfell Nick (NT1705)	NT17430581	21/08/2016	Miles, C.J.
Hartfell Craig (NT1113)	NT11871332	13/08/2017	Miles, C.J.
Gupe Craig (NT1514)	NT15361469	06/07/2018	Miles, C.J., Miles, A.
Grey Mare's Tail (GRM)	NT1557715902	13/08/2018	Clarkson, R.
Grey Mare's Tail (GRM)	NT1615	03/08/2012	Averis, A.
Mid Craig	NT1609216186	04/08/2017	Clarkson, R.
Bloodhope Head	NT20J	30/09/2006	Miles, C.J.
Big Morton Hill west (NX7289)	NX72478921	12/10/2019	Miles, C.J., Miles, A.J., Davidson, D.
Queensberry (NX99Z)	NX99479864	31/07/2016	Miles, C.J.
Enzieholm Height (NY2789)	NY27878933	25/06/2019	Miles, C.J., Miles, A.
Glentemont Height	NY285855	27/05/1995	Corner, R.W.M.
Guttery Gairs (NY28Z)	NY28458872	25/6/2019	Miles, C.J., Miles, A.
Guttery Gairs (NY28Z)	NY28058934	25/06/2019	Miles, C.J., Miles, A.

Also recorded in NS71 (1885), NT01(1896),

Dipsacus fullonum L.

Teasel

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A robust biennial herb, frequent in rough grassland, wood margins, thickets and hedgerows, and on roadsides and waste ground on a very wide range of soil types. It fruits prolifically, and often colonises bare ground after disturbance. Nationally its distribution is stable. European temperate element.

Interestingly regarded as an escape in The Flora when recorded in 1882 by Dr Davidson. Surprisingly uncommon in SW Scotland. It is more frequent along the coast and scattered inland. It persists by the mill ruin at Duncow Mill where it might have been used for carding.

Site	Gridref	Date	Recorder
Beldcraig Linn, nr Greenlees	NT1000	21/08/1974	Stewart, O.M.
Cairn Water	NX798902	19/02/2011	Green, P. R.
Netherwood (NX97W)	NX98337297	24/10/2019	Miles, C.J., Miles, A.J., Davidson, D.
Craig of Forest	NX9286	21/08/2017	Miles, C.J.
Duncow Mill	NX96888431	16/05/2019	Miles, C.J., Miles, A.J., Davidson, D.
Knowehead Quarry, Locharbriggs	NX987813	01/06/1993	Martin, M.E.R.
Collin South	NY0275	09/05/2019	Miles, C.J., Miles, A.J., Davidson, D.

Lochbank (NY0783)	NY07218327	10/09/2019	Miles, C.J., Miles, A.J., Davidson, D.
Powfoot Village monad (NY1465)	NY14826547	11/07/2019	Miles, C.J., Miles, A.J.
Powfoot East Beach	NY1565	04/08/2019	Dumfries Botany Group
Annan Waterfoot NY16X	NY1865	26/05/2019	BSS and BSBI urban flora team
Annan Waterfoot NY16X	NY19056429	28/08/2018	Dumfries Botany Group
Kirkton (NY1383)	NY13008369	12/07/2018	Davidson, D.
Lockerbie	NY136816	19/09/1981	Miles, C.J.
West Scales west (NY2667)	NY26616799	15/08/2019	Miles, C.J., Miles, A.J., Davidson, D.
Eastriggs works SE (NY2764)	NY27036419	20/08/2019	Miles, C.J., Miles, A.J., Davidson, D.
Gretna SE	NY3266	15/09/2018	Miles, C.J., Miles, A.J.

Drosera anglica Huds.

Great Sundew

*National Status: Not Scarce, Near Threatened.**Status in Dumfriesshire: Rare.*

A native insectivorous, rosette-forming perennial herb growing in the wetter parts of raised and blanket bogs (often in standing water), in flushed valley bogs, on stony lake shores and, more rarely, in calcareous mires. Generally lowland, it has been declining since the 19th century due to drainage, eutrophication and peat extraction. Circumpolar boreal montane element.

Recorded by G.N. Lloyd in 1837 on the Lochar Moss. The Flora mentions a number of places but since The Flora it has probably been lost from most of these. A very small population was found in 2019 in NX79. The strongest known population (although still small) is on Longbridgemuir. It occurs where there are bog pools on an undrained section of this raised mire.

Site	Gridref	Date	Recorder
Auchenstroan Craig, below	NX6991	1960	Stirling, A.McG.
St Connels Chapple	NX75609550	18/06/2019	Miles, C.J., Miles, A.J., Davidson, D.
Longbridgemuir (NY06P)	NY04826934	26/08/2012	Miles, C.J.
Lonbridgemuir	NY0568	25/07/1961	Ratcliffe, D.A.
Longbridgemuir (NY06P)	NY05266945	26/08/2012	Miles, C.J.

Also recorded NS70 (1896), NS71(1896), NY07(1896), NY18(1896), NY26(1896)

Drosera intermedia Hayne

Oblong Leaved Sundew

*National Status: Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

An insectivorous, rosette-forming perennial herb found on wet heaths, valley- and raised bogs, and in a band at the edge of oligotrophic lochs, most often on acidic peat over which

water continuously seeps. Nationally it is decreasing through drainage, afforestation, peat extraction and the loss of lowland heath. Suboceanic temperate element.

Rather like *D. anglica* this species may have been lost from all but one site since it was first recorded in 1961 by D.A.R. Ratcliffe.

Site	Gridref	Date	Recorder
Longbridgemuir	NY0568	25/07/1961	Ratcliffe, D.A.
Longbridgemuir	NY050697	19/07/1990	Kerr, A.J.; Fleming, L.V.

Also recorded in NY07, NY16

Dryomochloa sylvatica (Pollich) Holub

Wood Fescue

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A long-lived perennial herb of moist, wooded valleys, on rocky slopes, deciduous wood margins and stream sides, especially on seepage lines or by waterfalls. Nationally better recording has revealed the species to be more frequent than has previously been thought. European temperate element.

First recorded by T. Brown in 1882 at Tynron. Usually found in shaded, rocky, wet flushed ground sometimes forming large tussocks. May be declining.

Site	Gridref	Date	Recorder
Mennoch Glen	NS8108	05/06/1958	Milne-Redhead, H.
Beattock, Garpol Glen	NT066031	1985	Corner, R.W.M.
Beldcraig Burn	NT113013	21/06/1998	Miles, C.J.
Spoon Burn NT11K	NT11K	27/07/2008	Miles, C.J.
Scar Water	NX819953	10/07/1998	Wood, D.C.
Hollows NY37Z	NY385784	08/07/2007	Miles, C.J.
Langholm, Tarras Water	NY38	1891	Elliot, G.F.S.
Penton Linns	NY47i	09/07/1987	Groom, R.E.

Dryopteris expansa Fraser-Jenk. & Jermy

Northern Buckler Fern

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A deciduous fern found growing in open wet woodland and around rock outcrops at low altitudes, and in damp, sheltered hollows of upland boulder scree. Its substrates are usually mildly acidic, but it can grow in scree derived from quite base-rich mica-schists. Some lowland sites have been lost to woodland clearance, but upland sites are relatively stable.

First formally recorded in 2013 by Jeremy Roberts. He saw it when examining the more luxuriant growth of plants within a fenced enclosure on the GMT NTS property. Derek Ratcliffe had noted a fern matching *D. expansa* in block scree at the head of L. Skene in 1987 (NT164169) though this has yet to be verified.

Site	Gridref	Date	Recorder
White Coombe monad (NT1615)	NT16801551	22/06/2014	Roberts, J., Brown, P., Miles C.
Mid Craig Monad (NT1616)	NT16181615	23/07/2016	BSBI Field Meeting 2016

Echium vulgare L.

Viper's-bugloss

*National Status: Not Scarce, Least concern.**Status in Dumfriesshire: Scarce.*

A biennial of grassy and disturbed habitats on well-drained soils. It is found in bare places on chalk and limestone downs, on heaths, in quarries and chalk-pits, in cultivated and waste land, along railways and roadsides, and by the coast on cliffs, sand dunes and shingle. Generally lowland, but formerly reaching 365 m as an alien at Braemar (S. Aberdeen). Since 1930 *E. vulgare* has declined somewhat in frequency, due to agricultural intensification, reclamation, and the development of neglected ground.

Listed in the flora as an escape, the earliest reference by J Singer in 1843 and in several places in Nithsdale and Annandale. Infrequent though more established in lower Nithsdale especially around the Lochar Mosses.

Site	Gridref	Date	Recorder
Hammerlands Moffat (NT0804)	NT08490488	31/10/2019	Miles, C.J., Miles, A.J.
Brooms Road and Dock Park (NX9775)	NX97577620	24/05/2019	BSS and BSBI urban flora team
Ironhirst Farm (NY0572)	NY05607255	08/09/2017	Miles, C.J., Miles, A.J.
Enzieholm NY29V	NY29V	11/07/2010	Miles, C.J.
Gretna SE (NY3266)	NY32206655	15/09/2018	Miles, C.J., Miles, A.J.

Also recorded in NX89, NY08

Elatine hexandra (Lapierre) DC.

Six-stamened Waterwort

*National Status: Not Scarce, Least concern.**Status in Dumfriesshire: Rare.*

E. hexandra grows as an annual on exposed mud at the edge of lakes, reservoirs, ponds and flooded gravel-pits, or submerged on open substrates in shallow, oligotrophic to eutrophic water. When submerged it may sometimes persist as a short-lived perennial. Like many species in this habitat, it is subject to large annual fluctuations in numbers. European temperate element.

Mentioned as a footnote in The Flora from Lockerbie from G. Bell in 1896. Found submerged in the clear water of stony bottomed lochs.

Site	Gridref	Date	Recorder
Loch Urr	NX760845	10/09/1996	Day, J. Willby, N.J.

Mill Loch, Lochmaben	NY0783	13/07/2004	Stewart, N.F. Turner, L. Carvalho, L.
Mill Loch, Lochmaben	NY080830	13/7/2009	Stewart, N.F. , Ekert, S.

Also recorded NY18 (1896).

Eleocharis acicularis (L.) Roem. & Schult.

Needle Spike Rush

National Status: Not Scarce, Least concern.

Status in Dumfriesshire: Rare.

A rhizomatous perennial herb growing on the margins of lakes, ponds, reservoirs and rivers, in sites subject to winter flooding, and fully aquatic in shallow, still or slow-moving mesotrophic to eutrophic water. Nationally its distribution is probably stable. Circumpolar boreo temperate element.

First found in Castle Loch in 1831 by G.N. Lloyd and still present today. Also found in the Mill loch. In shallow mud that is exposed in the summer.

Site	Gridref	Date	Recorder
Mill and Blind Lochs (NY08R)	NY076832	13/07/2014	Miles, C.J., Miles, A.
Castle Loch (NY08V)	NY08798132	01/10/2014	Miles, C.J.
Kirkhirst Plantation, Castle Loch (NY0981)	NY09338131	02/09/2018	Dumfries Botany Group

Eleocharis mamillata (Lindb f.) Lindb f.

Northern Spike Rush

National Status: Rare, Least concern.

Status in Dumfriesshire: Scarce.

A rhizomatous perennial herb found in the middle reaches of upland rivers, usually in slacker water in places which are to some extent protected from spates, such as in shallow bays. It also grows in ditches, pools, runnels and springs. The substrate is usually gravel with some silt deposition. Nationally the species' distribution appears stable. European boreal montane element.

Recently recorded in the v.c. for the first time near Hazel Linn (P. Stanley 2004) and now known from the upper Esk and Upper Annan river systems. In stony side channels of upland burns and rivers. Requires careful examination to separate it from *E palustris*.

Site	Gridref	Date	Recorder
Hazel Linn (NT2406)	NT24210648	05/09/2018	Miles, C.J., Miles, A.
Seismological station (NT20M)	NT25100561	14/07/2016	Miles, C.J.
Three Mullach Hill (NY19T)	NY17319778	15/08/2013	Miles, C.J.
Finniegill (NY19U)	NY17309873	15/08/2013	Miles, C.J.
Green Knowe (NY2193)	NY21459366	24/09/2018	Miles, C.J.
Todshaw Rig (NY2392)	NY23699231	08/09/2018	Miles, C.J.

Eleocharis multicaulis (Sm.) Desv.

Many Stalked Spike Rush

*National Status: Not Scarce, Least concern.**Status in Dumfriesshire: Rare.*

A densely tufted perennial herb mainly of acid bogs, wet heath, valley mires, pools and wet hollows over peat, and at the edge of acidic lakes; also occurring in coastal dune-slacks. Nationally much better recorded than previously. Suboceanic temperate element.

Known since it was listed by P. Gray near Dumfries in 1842. There have been very few localised records since then.

Site	Gridref	Date	Recorder
Chanlockfoot, Scaur Water nr	NS7800	14/08/1975	Stewart, O.M.
Capenoch Moor (NX89G)	NX83689275	11/06/2016	Miles, C.J.

Also recorded NT00 (1896), NY16

Eleocharis uniglumis (Link) Schult

Slender Spike Rush

*National Status: Not Scarce, Least concern.**Status in Dumfriesshire: Scarce.*

A rhizomatous perennial herb, predominantly of coastal habitats, growing in damp dune-slacks, saltmarshes, short, brackish grassland and pools in the spray zone. It also occurs inland in base-rich, wet meadows and calcareous marshes. Nationally its distribution is stable. Circumpolar temperate element.

In Dumfriesshire it was first recorded in 1963 by G. Crompton at Caerlaverock NNR. Confined to saltmarsh along the Solway coast where it is a component of the mid to higher marsh flora. Difficult to find where grazing removes flowering stems.

Site	Gridref	Date	Recorder
Glencaple	NX9968	1975	Martin, M.E.R.
Caerlaverock	NY02996509	15/08/2012	Haynes, T.
Hollands	NY0465	13/08/2017	Miles, C.J.
WWT Caerlaverock. Caerlaverock - East Park Merse	NY05666518	13/06/2015	Miles, C.J.
Caerlaverock NNR	NY066660	11/08/1970	
Castle Wood	NY06H	16/07/2008	Miles, C.J, Wilson, B., Kennedy, D.
Powfoot Village monad	NY1465	23/05/2015	Miles, C.J.
Eastriggs Depot	NY26M	1996	Miles, C.J.
Old Graitney	NY315659	12/07/1981	Martin, M.E.R.

Eleogiton fluitans (L.) Link

Floating Club Rush

National Status: Not Scarce, Least concern.

Status in Dumfriesshire: Rare.

A perennial herb found mainly on peaty, acidic substrates in, or on the margins of, slow-flowing streams, ditches, pools and the sheltered shores of some larger lakes and tarns, often in seasonally flooded sites. Nationally declining due to drainage and loss of lowland heaths. Oceanic southern temperate element, with a disjunct distribution.

The earliest listed record was by P. Gray in 1842 from Dumfries. It has been recorded only a couple of times since.

Site	Gridref	Date	Recorder
Auchengruith Mill Dam	NS8209	1886	Davidson, A.

Also recorded NX97, NX89

Empetrum nigrum subsp. hermaphroditum (Hagerup) Böcher Mountain Crowberry

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A low-growing evergreen shrub, favouring moderately well-drained acidic soils and occurring in dwarf shrub and *Racomitrium* heaths, rock crevices and dry heather moor, including areas of late snow-lie usually above 610m. Circumpolar Boreo-arctic Montane element.

Difficult to distinguish from *Empetrum nigrum* subsp. *nigrum* when not in fruit. The earliest record appears to be from 1934. D.A. Ratcliffe reported it from the White Coombe slopes where it is still found in a mixed heath with *V. myrtilis*.

Site	Gridref	Date	Recorder
White Coombe	NT1615	22/06/2014	Miles, C.J., Roberts, J., Brown, P.

Epilobium alsinifolium Vill.

Chickweed Willowherb

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A montane perennial herb, spreading by stolons and occurring in or by mountain springs or streams, or on irrigated mountain ledges, often in moss carpets; sometimes temporarily established by streams at lower altitudes. It occurs on acidic and basic substrates, and tolerates eutrophic conditions. Nationally probably stable. European arctic montane element.

Earliest listing dates from 1789 in Flora Scottica from Hartfell. In and beside basic springs and flushes in the Moffat Hills sometimes washed down to lower levels (368m in Carrifran).

Site	Gridref	Date	Recorder
Corehead tetrad B (NT11B)	NT1088813259	08/08/2010	Miles, C.J.

White Coomb	NT11	14/06/1967	Birks, H.J.B. Birks, H.H.
Black Hope	NT1211	18/06/1989	Corner, R.W.M.
Gupe Craig (NT1514)	NT15081402	06/07/2018	Miles, C.J., Miles, A.
Grey Mare's Tail (GRM)	NT1607815615	01/09/2009	Watson, D.
Mid Craig (GRM)	NT1603316897	18/07/2017	Clarkson, R.
Loch Craig (NT1617)	NT16391705	23/07/2016	BSBI Field Meeting 2016
Grey Mare's Tail (GRM)	NT184148	30/06/1997	Hughes, J.

Epilobium anagallidifolium Lam.

Alpine Willowherb

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

A native very shortly stoloniferous perennial herb, growing in mossy mountain flushes, on steep wet slopes and by streams; sometimes washed down and persisting for a while by streams and rivers at lower altitudes. Nationally under-recorded. Circumpolar arctic montane element, with a disjunct distribution.

First listed by Rev W. Singer in 1843 at the head of Dryfe Water. Local in high springs and flushes where it typically grows in the moss lawn with *Montia fontana*.

Site	Gridref	Date	Recorder
Hart Fell	NT11691344	13/08/2017	Miles, C.J.
Firthhope Rig	NT11M	25/07/2009	Miles, C.J.
Grey Mare's Tail (GRM)	NT160156	14/07/2013	Roberts, J.
Midlaw Burn	NT1616	03/08/2012	Averis, A.

Also recorded in NT1614 (1956)

Epipactis helleborine (L.) Crantz

Broad Leaved Helleborine

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A rhizomatous perennial herb of calcareous to slightly acidic soils. Habitats include coniferous and deciduous woodland, hedgerows, shady banks, streamsides, roadsides, *Alnus* carr, dune-slacks, limestone pavement and screes. It may invade secondary woodland and also occurs in urban habitats, particularly abandoned gardens. Nationally the distribution is stable. Eurasian temperate element; widely naturalised outside its native range.

First listed by Rev W. Singer in 1843 at Tinwald (as *E. latifolia*). Occurs in a wide range of situations, but rarely more than one or two plants are found.

Site	Gridref	Date	Recorder
Crawick Water, W of B704	NS780131	01/08/1987	Ellis, R.G.
Heathhall	NX9878	Sept 1847	Gray, P.
Kinmount NY16P (NY16P)	NY1480569058	25/06/2011	Miles, C.J.

Springkell Estate	NY253749	1996	Miles, C.J.
Chapelcross North (NY2170)	NY21497030	03/07/2019	Miles, C.J., Davidson, D.
Penton Bridge, Liddel Water	NY433774	28/08/1991	Porter, M.S.

Also recorded in **NS70 (1958)**

Equisetum hyemale L.

Rough Horsetail, Dutch Rush

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

Native evergreen herb, growing in permanently moist soils, typically in shady woodland beside streams and rivers. Also occurs in flushes and on sand dunes. Nationally although many sites were lost to drainage, many new sites are known due to better recording. Circumpolar boreo temperate element.

First recorded in Dumfriesshire by J. McAndrew in 1882 at Thornhill. Only ever recorded in a few scattered locations since then principally in damp woodland, beside streams or mineral enriched flushes.

Site	Gridref	Date	Recorder
Hall burn	NS777026	01/09/1998	D&G Quadrat Survey Team
Cairnkinna - McTurks Cleuch	NS7801	30/08/2018	Miles, C.J., Miles, A.
Mennock, nr Glenairlie Bridge	NS833058	27/08/1976	Martin, M.E.R.
Penpont, nr	NX89	11/05/1882	Grierson, F.W.
Tarrasfoot Hill (NY38V)	NY38148127	08/09/2013	Miles, C.J.

Equisetum pratense Ehrh.

Shade Horsetail

National Status: Scarce, Least Concern.

Status in Dumfriesshire: Scarce, declining.

A native evergreen herb, typically found on sloping sites where the substrate is derived from calcareous alluvial silts or sand, especially lightly wooded stream banks in the lower parts of upland valleys. It can also extend onto open moorland, and is found on grassy slopes beneath base-rich upland cliffs. Although most populations are long-lived, cone production is usually very poor, possibly because of climatic conditions, this may mean that the species is in slow decline. Circumpolar boreal montane element.

Recorded by Dr Davidson in 1886 above the sawmill at Sanquhar. Infrequently recorded since. Most populations are associated with steep wooded banks near the Nith and its tributaries including a population recently found near Dumfries that may have been washed down river. However it was recently found in the Moffat and Ettrick Hills in more open moorland suggesting other populations may yet be found.

Site	Gridref	Date	Recorder
Knockenstob, Crawick Water	NS78381134	03/07/2016	Miles, C.J., Miles, A.

Sweat Cleuch, river bank	NS785124	28/06/1989	Fleming, L.V.
East side of the Nith, Drumlanrig	NS8500	08/05/1994	Corner, R.W.M.
Mennoch, River Nith below	NS8206	1958	Milne-Redhead, H.
Auchensell Wood, R Nith nr	NS8602	31/05/1978	Martin, M.E.R.
Hapland (NS8603)	NS86090301	06/05/2018	Miles, C.J.
Middlefield Knowe (NT0913)	NT09921374	13/06/2017	Miles, C.J.
Windfell Nick (NT1705)	NT17510574	21/08/2016	Miles, C.J.
Castlefairn, A702 NE of	NX7688	04/05/1988	Martin, M.E.R.
Nunholm (NX9777)	NX97187734	25/05/2019	BSS and BSBI urban flora team

Equisetum telmateia Ehrh.

Great Horsetail

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A robust, deciduous, colony-forming herb of base-rich clay soils in sites with spring-lines, permanent seepages and open flushes, especially in areas where porous rocks are interbedded with clays. It prefers open habitats and is particularly frequent on eroding sea- and river-cliffs, but also grows on roadsides and railway embankments. Nationally its distribution is stable. European southern temperate element.

The first Dumfries record appears to be by Rod Corner in 1968 on the Tarras Water. Just why such a distinctive species should have been overlooked if present before this is puzzling. It occurs in the SE of the VC on clay rich banks where there is plenty of seepage.

Site	Gridref	Date	Recorder
Cleuchbrae bridge	NY204757	23/05/1998	Miles, C.J.
Hollows NY37Z	NY38397881	30/04/2017	Miles, C.J., Miles, A.
Canonbie (NY37Y)	NY39287743	16/06/2013	Miles, C.J.
Tarrasfoot Hill (NY38V)	NY38548145	14/06/2014	Miles, C.J., Miles, A.
Broomholmshiels-Tarras Water.	NY38W	05/06/2004	Braithwaite, M.E. Braithwaite, P.F.
Penton Bridge (NY47I)	NY43557798	16/05/2014	Miles, C.J.
Whitlawside	NY47P	30/04/2011	Miles, C.J.

Equisetum variegatum Schleich. ex F. Weber and D. Mohr.

Variegated Horsetail

*National Status: Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

Native evergreen herb, found in widely varying habitats; dune slacks, river shingles and flushes. It is a calcicole and a poor competitor; its sites are usually open and often winter-flooded. Nationally there may be evidence of some decline although the species may have been under-recorded in the past. Upland sites are sensitive to over-stocking, whilst lowland populations have been lost due to drainage and sand dune development. Circumpolar Boreo-

arctic Montane element.

First recorded by C.W. Muirhead in 1951 at Penton in rocks beside the Liddle Water where it still occurs. Also found in two flushed areas beside the Black Esk. Likely to be sensitive to habitat change.

Site	Gridref	Date	Recorder
Black Esk Bridge NY29K	NY24729097	29/09/2013	Miles, C.J.
Castle O'er (NY2492)	NY24169210	25/8/2018	Miles, C.J., Miles, A.
Penton Bridge (NY4377)	NY43197746	21/7/2019	Miles, C.J., Miles, A.

Equisetum x litorale Kuhlew. ex Rupr
(*Equisetum arvense x fluviatile*)

Shore Horsetail

National Status: Not Listed, Not Listed.

Status in Dumfriesshire: Scarce.

A vigorous, deciduous herb found in a wide range of habitats, often in the absence of one or both parents. It has been recorded from open woodland and scrub, pond and lake margins, streams and rivers, canals, ditches, roadsides, open peat on moorland, wet pastures and gravel-pits. Many sites are disturbed or seasonally flooded. Its national status is uncertain. Widespread in C. & N. Europe and N. America.

First recorded 1983 by M.E.R Martin. Almost certainly under recorded given frequency of parents.

Site	Gridref	Date	Recorder
Lochmaben, B709 W of	NY060818	24/10/1983	Martin, M.E.R.
Millhill Farm	NY1181	14/06/1985	Muir, J.
Purdomestone Reservoir	NY214775	18/09/1996	Day, J. Willby, N.J.
New Langholm (NY3584)	NY35228461	02/07/2019	Miles, C.J., Miles, A., Davidson, D.

Eriophorum latifolium Hoppe

Broad Leaved Cottongrass

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Not Scarce, declining.

A rhizomatous perennial herb of open sites, growing in wet, base-rich lowland meadows and mires, and in fens and calcareous flushes in the uplands. Nationally declining due to afforestation and agricultural improvement. European Boreo-temperate element.

The earliest record appears to be from J.H.Balfour in 1843 but there is some doubt about this being in Dumfriesshire. It tends to be in good quality calcareous flushes on hills in small discrete populations unlike other *Eriophorum* sp. It is associated with a range of other calcareous flush species making this one of Dumfriesshires most important habitats. These sites are particularly threatened by loss to coniferous forestry.

Site	Gridref	Date	Recorder
Hamarty Hill (NS90W)	NS99960350	30/8/2017	Miles, C.J.
Craighoar Hill (NT00B)	NT00430209	22/6/2017	Miles, C.J.
Black Hope	NT1311	1973	Ratcliffe, D.A.
Priest Gill (NT1413)	NT14521373	08/07/2017	Miles, C.J.
Moffat Hills SSSI, Carrifran	NT15911201	05/09/2008	Waddell, J. Holme, R.
Eskdalemuir Observatory (NT2302)	NT23030269	17/06/2019	Miles, C.J., Miles, A.
Aberlosk	NT266057	04/09/1960	Milne-Redhead, E.W.B.H.
Moodlaw Loch	NT295074	1968	Watt, Dr G.
Big Morton Hill	NX78J	16/07/2004	Miles, C.J.
Whiteclose Burn (NX7294)	NX72139490	02/08/2019	Miles, C.J., Davidson, D.
Whitehill Moss	NY1787	25/06/2016	Miles, C.J.
White Hill (NY1788)	NY17588803	20/06/2017	Miles, C.J.
Heithat Park (NY1889)	NY18188990	19/07/2017	Miles, C.J.
Todshawhill (NY29G)	NY23339211	01/08/2010	Miles, C.J.
Todshawhill (NY29G)	NY23119352	13/07/2018	Miles, C.J., Miles, A.
Bellstone Bottom (NY2398)	NY23969852	22/07/2018	Miles, C.J., Miles, A.
Black Esk Bridge	NY29K	21/08/2005	Corner, R.W.M., Miles, C.J.
Saugh Hill (NY2499)	NY24829970	28/08/2019	Miles, C.J., Miles, A.
Lynholm NY29Q	NY26099085	11/07/2009	Miles, C.J.
NY29NE, quadrat no. 8	NY287957	15/07/1998	D&G Quadrat Survey Team
Warb Law (NY38L)	NY34498278	00/08/2019	MacKinlay, L.
Skippers Bridge (NY38R)	NY36158284	00/08/2019	MacKinlay, L.
Fell Hill	NY306917	15/07/1998	D&G Quadrat Survey Team
Dirn Burn	NY330924	15/07/1998	D&G Quadrat Survey Team
Blackgrain Height (NY39M)	NY35589438	18/06/2016	Miles, C.J.
Coom Sike, Pikethaw Hill	NY382969	19/09/2000	Corner, R.W.M.
Arkleton Cottage (NY48E)	NY40618834	19/06/2017	Miles, C.J.
Arkleton Cottage (NY48E)	NY40038948	19/06/2017	Miles, C.J.

Also recorded in **NX97 (1843)**, NY49 (1961)

Erodium cicutarium (L.) L'Hér.

Common Stork's-bill

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

An annual of well-drained sandy and rocky places, sand dunes, summer-parched grasslands and heaths; also found on roadsides, stone walls and railway ballast, and commonly as wool aliens. Eurosiberian southern temperate element, but widely naturalised so that distribution is now Circumpolar southern temperate.

First recorded by J. Fingland in 1887 at Annan Waterfoot. It occurs very infrequently in sandy soil at inland sites, on forest tracks or on coastal sandy gravels.

Site	Gridref	Date	Recorder
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Blacks Bog (NT2203)	NT22930349	14/06/2019	Miles, C.J., Miles, A.
Glenclair Hill (NY0178)	NY01927886	24/10/2019	Miles, C.J., Miles, A.
Tinwald, roadsides+Lochar Moss	NY006804	26/06/1988	Martin, M.E.R.
Lochmaben	NY082836	03/05/1983	Martin, M.E.R.
Spedlins Flow	NY09158630	28/09/2017	Miles, C.J., Miles, A.
Riddingdyke	NY1365	04/08/2019	Dumfries Botany Group
Powfoot Powfoot East Beach (NY1565)	NY1565	04/08/2019	Dumfries Botany Group
Eastriggs Depot	NY26M	05/09/1996	Miles, C.J.
Watcarrick Forest (NY29I)	NY22739730	05/07/2019	Miles, C.J., Miles, A.

Also recorded in NY38

Eupatorium cannabinum L.

Hemp Agrimony

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A perennial herb found on base-enriched soils in a wide range of damp or wet habitats, including marginal vegetation by ponds, lakes, rivers and canals, tall-herb fen, fen-meadows, marshes, wet woodland, mires and wet heath; also flushed areas on sea-cliffs and in dune-slacks. It is infrequent in dry habitats, but is found in dry woods and on hedge banks, on waste ground, and even on dry chalk banks. Nationally its distribution is stable. European Temperate element.

Recorded by P Gray in 1842 on the dock wall in Dumfries. Rarely recorded since. Much commoner on the Kirkcudbright coast.

Site	Gridref	Date	Recorder
Newbridge, Cluden Water	NX948791	10/09/1986	Shiells, A.; Shiells, M.

Euphrasia frigida Pugsley

Upland Eyebright

National Status: Not Scarce, Data Deficient.

Status in Dumfriesshire: Rare.

An annual of damp or wet, usually rather basic, cliff ledges. It occurs at 200 m on Foula (Shetland), but is usually found above 400 m, reaching 1190 m on Aonach Beag (Westernness). Eurosiberian arctic montane element; also in N. America. Only recorded three times.

First found in 1907 by E.S. Marshall. It has since been found twice in a different monad in the Moffat Hills. This upland eyebright is part of the restricted alpine flora in these hills.

Site	Gridref	Date	Recorder
Frenchland Burn	NT10	17/07/1907	Marshall, E.S.

Moffat Hills SSSI, White Coomb	NT16881526	02/07/2004	Rae, D.A.
Hartfell Craig	NT1113	06/08/2016	Miles, C.J.

Euphrasia officinalis subsp. monticola Silverside

Montane Eyebright

*National Status: Scarce, Vulnerable.**Status in Dumfriesshire: Rare.*

An annual of upland hay meadows, primarily of relatively dry sites but also in wet meadows and upland fens, rarely if ever colonising improved grasslands. Its distribution is uncertain through difficulties of identification, but it is undoubtedly declining as hay meadows are lost or agriculturally improved. European boreo temperate element.

Only a few records for this taxon which may be the same taxon as subspecies pratensis given past confusion in the taxonomy of these eyebrights. Found in drier places in hilly ground in unimproved grassland.

Site	Gridref	Date	Recorder
Paddockhole Hill	NY224836	06/08/1957	Biggar, Miss E.; Hall, P.C.; Hall, J.F.
Mill Knowe, Eskdalemuir	NY256953	08/08/1957	Dony, J.G.
Glenshanna Mine	NY39	1996	Groom, R., Pankhurst, R.J. , Miles, C.J.

Euphrasia officinalis subsp. pratensis Schubl & G. Martens

Rostkov's Eyebright

*National Status: Scarce, Vulnerable.**Status in Dumfriesshire: Not Scarce, declining.*

An annual of rather damp, herb-rich hay meadows, riverside grasslands, lightly grazed pastures and grassy roadsides. Nationally his taxon is probably declining through agricultural improvement and loss of habitat. European boreo temperate element.

Recorded in Dumfriesshire as this subspecies since at least 1950. Found in grassland along hill burns and tracksides with an eastern tendency in Dumfriesshire. A good indicator of agriculturally unimproved grassland.

Site	Gridref	Date	Recorder
Carco Mains	NS783125	09/08/1957	Milne-Redhead, H.
Coshogle Farm,nr	NS863051	10/06/1975	Pankhurst, R.J.
Nether Cog (NS81C)	NS80351484	25/07/2017	Miles, C.J.
Nether Cog (NS81C)	NS80801558	25/07/2017	Miles, C.J.
Sight Knowe (NT0310)	NT03931017	27/08/2019	Miles, C.J., Miles, A.
Burrance, Garrel Water	NY042904	05/08/1957	Milne-Redhead, H.
The Hewke	NY18P	11/08/2013	Miles, C.J.
Macmaw (NY19S)	NY17839450	17/08/2019	Miles, C.J., Miles, A.

Waterhead	NY18589443	17/08/2019	Miles, C.J., Miles, A.
Allfornought	NY27T	24/07/1999	Miles, C.J.
Newland Hill	NY28N	15/07/2012	Miles, C.J.
Hareshaw Rig (NY2394)	NY23489431	08/09/2018	Miles, C.J.
Castle O'er (NY2492)	NY24169253	19/08/2018	Miles, C.J., Miles, A.
Girdlestanes (NY29N)	NY25359616	19/08/2018	Miles, C.J., Miles, A.
Raeburnfoot (NY2599)	NY25849982	28/08/2019	Miles, C.J., Miles, A.
Billholm Burn	NY279924	20/09/1959	Milne-Redhead, H.
Enzieholm Bridge (NY2891)	NY28739182	30/07/2019	Miles, C.J., Miles, A.
Jamestown (NY2996)	NY29989694	29/08/2016	Miles, C.J.
Old Hopsrig	NY31448843	09/08/2015	Miles, C.J.
Bloch Farm (NY3281)	NY32458171	29/07/2017	Miles, C.J.
Cronksbank (NY3983)	NY39218302	22/06/2019	Miles, C.J., Miles, A.
Lower Stennies Water (NY39B)	NY30479274	09/09/2012	Miles, C.J.
Bushy Knowe (NY39E)	NY30579949	09/09/2012	Miles, C.J.
Eweslees (NY39Y)	NY38729688	27/07/2018	Miles, C.J., Miles, A.
Eweslees (NY39Y)	NY39409637	27/07/2018	Miles, C.J., Miles, A.
Tarras Burn, farm nr	NY48	1950	Candlish, P.A. (nee Padmore))

Filago vulgaris Lam.

Common Cudweed

*National Status: Not Scarce, Near Threatened.**Status in Dumfriesshire: Rare.*

An autumn- or spring-germinating annual of dry, open, acidic to neutral and occasionally calcareous habitats including open grassland, quarries and rocky ledges, sand-pits and dunes, sandy heaths and tracks, and arable and other cultivated ground. Nationally declining due to changes in agricultural practice. European southern temperate element.

Recorded in 1867 by Dr Gilchrist at Tinwald but very rarely since. This southern species is on the edge of its range on the west coast but it has been found on open gravelly ground in or near quarries.

Site	Gridref	Date	Recorder
Templand	NY086874	1975	Martin, M.E.R.
Kinmount NY16P (NY16P)	NY1476369100	25/06/2011	Miles, C.J.
Beattock (NT0702)	NT07650279	24/06/2017	Miles, C.J.
Garpol Glen (NT0603)	NT06940327	03/08/2017	Miles, C.J.

Frangula alnus Mill.

Alder Buckthorn

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

This deciduous shrub or small tree grows on a wide range of soils, but avoids drought-prone and permanently waterlogged sites. It is found in scrub on fen peat, on the edges of raised mires, on heaths and in valley mires, in scrub, hedgerows and in woodland. It regenerates strongly after cutting, burning or grazing. Generally lowland, but reaching 450 m at The Arch (Cards.). This species was formerly planted for charcoal production, and this may have blurred its native distribution in some areas. Its overall distribution is stable, but there have been some losses since the 1962 *Atlas*.

In the Flora it is said to be planted. The first mention is by Dr Burgess in 1789 and it is said to be common in the Langholm area. The trees at Elbeckhill are certainly planted. The status of the plants on the mires south and east of Dumfries, where it is abundant at Collin, are less clear. In Cumbria it is regarded as native on the mosses on the North Solway plain.

Site	Gridref	Date	Recorder
Comlongon Castle (NY0768)	NY07286812	15/08/2017	Miles, C.J.
Collin north (NY0276)	NY02407597	09/05/2019	Miles, C.J., Miles, A., Davidson, D.
Collin north (NY0276)	NY02417625	09/05/2019	Miles, C.J., Miles, A., Davidson, D.
Elbeckhill (NY1393)	NY13529361	20/06/2019	Miles, C.J., Miles, A.

Fumaria bastardii Boreau

Tall Ramping Fumitory

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A scrambling native annual of arable and horticultural land and, more rarely, hedge banks, usually growing on freely-draining, acidic soils. Probably mainly spring-germinating, it is typically found in spring-sown crops. Its national distribution remains stable although. mediterranean atlantic element.

First recorded in 1882 by F.W. Grierson (as *F. confusa*). In disturbed ground but probably under recorded due to confusion with other *Fumaria* species.

Site	Gridref	Date	Recorder
Beattock station	NT00	11/07/1891	Johnstone, J.T.
Burnhead, A76 junction	NX922844	04/09/1999	Miles, C.J.
Lochmaben	NY080825	02/10/1979	Martin, M.E.R.
Lochmaben	NY082835	28/08/1984	Martin, M.E.R.
Annan Waterfoot NY16X	NY186658	28/08/2008	Miles, C.J.
Collin South (NY0275)	NY02577567	09/05/2019	Miles, C.J., Miles, A., Davidson, D.
Broom (NY1474)	NY14327481	05/08/2019	Miles, C.J., Miles, A.
Sandhills (NY2065)	NY20856501	09/10/2019	Miles, C.J., Davidson, D.

Fumaria capreolata L.

White Ramping Fumitory

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A scrambling endemic annual of open scrub, hedge banks and cliffs, and only occasionally found in arable land and gardens. Unlike most other species of *Fumaria*, it can be a winter-annual. *F. capreolata* has declined in its inland sites, where it may only have been casual, but the distribution is stable on or near the coast. Submediterranean-Subatlantic element. Recorded in The Flora (as subsp *Pallidiflora*).

Only recorded on disturbed ground in mid and lower Dumfriesshire to date. The first record appears to be from 1956 by Dr. G Watt. These are all likely to be subsp. *babingtonii* which is the common mainland taxa though it has rarely been recorded to subsp. level.

Site	Gridref	Date	Recorder
Amisfield, N of Dumfries	NX998828	10/08/1992	Martin, M.E.R.
Lochmaben golf course	NY082823	1973	Martin, J.D.S.
Lochmaben, N end of	NY087834	16/05/1983	Martin, M.E.R.
Road verges, Greenburn	NY129858	07/06/1997	Miles, C.J.
Eastriggs shore	NY26M	05/09/1996	Miles, C.J.
Meinbank (NY17W)	NY18057327	11/10/2019	Miles, C.J., Davidson, D.
Rockhall (NY0575)	NY05107559	18/10/2019	Miles, C.J., Davidson, D.

Also recorded in **NY38 (1956)**

Galium boreale L.

Northern Bedstraw

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: not scarce but restricted.

A perennial herb of damp, usually base-enriched substrates, occurring in rocky places, on mountain ledges and screes, in base-rich flushes in montane grassland, on river shingle and stony lake shores, and on stabilised sand dunes. Nationally the distribution of this species is little changed in Scotland, but it seems to have declined in England perhaps due to increased grazing pressure. Circumpolar boreo temperate element.

First recorded by Dr Burgess in 1789 at Blackwood. A distinctive plant of upland and riverside rocks especially where a little calcareous and also in high level grassland. Rarely present in quantity.

Site	Gridref	Date	Recorder
Corserigg Forest, Kello Water	NS70230884	12/07/2011	Waddell, J.
Corserigg Forest, Kello Water	NS71080886	12/07/2011	Waddell, J.
Glengape (NS70J)	NS72940957	25/07/2015	Miles, C.J., Miles, A.
Gareland Burn	NS77001949	17/09/2016	Miles, C.J., Miles, A.
Drumlanrig Mains (NS80K)	NS85630109	12/07/2015	Miles, C.J.
Haplant (NS8603)	NS86010332	06/05/2018	Miles, C.J.
Crairiepark NS80M	NS80M	23/05/2009	Miles, C.J.

White Dod NS81K	NS81K	20/06/2009	Miles, C.J.
Middlefield Knowe	NT0913	25/06/1987	Braithwaite, M.E. McCosh, D.J.
Wamphry Water	NT10	27/07/1996	Miles, C.J.
Upper Coomb Craig, Moffat Hills SSSI	NT122119	24/05/2007	Waddell, J.
Black Hope (NT11G)	NT12581252	25/07/2010	Miles, C.J.
Nutberry Knowes (NT1213)	NT12261342	06/08/2016	Miles, C.J., Miles, A.
Redgill Craig monad (NT1312)	NT13341288	26/09/2017	Miles, C.J.
Priest Gill (NT1413)	NT14331362	08/07/2017	Miles, C.J., Miles, A.
Gupe Craig	NT150146	06/06/2019	Routledge, G.
Rough Craigs, White Coomb	NT1615	30/07/2019	Routledge, G.
Mid Craig Monad	NT1616	23/07/2016	BSBI Field Meeting 2016
Mitchell Hill	NT223087	23/04/1997	Corner, R.W.M., Ratcliffe, D.A.
Seismological station (NT20M)	NT25070548	14/07/2016	Miles, C.J.
Brooms Road and Dock Park (NX9775)	NX97327565	24/05/2019	BSS and BSBI urban flora team
Laverhay, Wamphry water	NY19	27/07/1997	Miles, C.J.
Todshawhill (NY29G)	NY23119301	13/06/2010	Miles, C.J.
Black Esk Bridge NY29K	NY29K	04/08/2008	Miles, C.J.

Also recorded in NX78 (1973), NX8697, NX98

Galium x pomeranicum Retz.
(*Galium verum x album*)

A Hybrid Bedstraw

National Status: Not Listed, Not listed.
Status in Dumfriesshire: Rare.

This vigorous hybrid, which is intermediate in all characters between its parents, occasionally arises where the two species occur together. Nationally it is probably under-recorded and its distribution is thus somewhat unclear. A robust alien variety is reported to be planted on roadside verges. Widespread in Europe.

Only recorded once. Should be more often recorded in lower Annandale and Eskdale where *G. album* is more frequent.

Site	Gridref	Date	Recorder
River Nith picnic area, adjacent	NS834059	07/07/1984	Martin, M.E.R.

Galium sternerii Ehrend.

Limestone Bedstraw

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Not Scarce, declining

A perennial herb of short grassland overlying limestone and basic igneous rocks and mica-schist, also growing on vegetated scree slopes, rock ledges and limestone pavements.

Nationally in upland habitats it is probably stable, whilst it may have declined in limestone grassland because of agricultural improvement or the lack of grazing. Suboceanic boreal montane element.

The first record appears to be by E. Marshall in 1907 from the Devils Beef Tub. An indicator of calcareous rocks in the uplands and always indicates interesting habitat.

Site	Gridref	Date	Recorder
Dalveen, Blue Scar	NS89410878	21/07/2016	Miles, C.J., Miles, A.
Well Hill (NS90D)	NS90650722	03/08/2013	Miles, C.J.
Penbreck	NS90V	28/06/2014	Miles, C.J.
Devil's Beef Tub	NT0612	16/07/1907	Marshall, E.S.
Peat Knowe,nr	NT064134	06/07/1988	Payne, R.M.
Chalk Rig Edge (NT0713)	NT07041311	06/07/2019	Miles, C.J., Miles, A., Davidson, D., Davidson, K.
Corehead tetrad W (NT01W)	NT08441349	08/07/2010	Miles, C.J.
Crofthead Hill (NT1305)	NT13440567	23/06/2019	Miles, C.J., Miles, A.
Selcoth Burn (NT10N)	NT15080614	28/08/2011	Miles, C.J.
Bear Craig (NT10X)	NT19340524	05/09/2010	Miles, C.J.
Ettrick Pen, W end of	NT197074	31/10/1979	Corner, R.W.M.
Nether Coombe Craig NT11F	NT11F	10/06/2007	Miles, C.J.
Falcon Craig	NT11G	03/08/2010	Miles, C.J.
Moffat Hills SSSI, Blackhope	NT120136	20/06/2008	Miles, C.J.
Whirly Gill	NT1313	07/09/2014	Miles, C.J.
Firthhope Rig NT11M	NT11M	25/07/2009	Miles, C.J.
Priest Gill (NT1413)	NT14381363	08/07/2017	Miles, C.J., Miles, A.
Spoon Burn Linn (NT1510)	NT15541040	30/06/2019	Dumfries Botany Group
Carrifran (NT11L)	NT15141312	26/06/2011	Miles, C.J.
Mid Craig Monad	NT1616	23/07/2016	BSBI Field Meeting 2016
Loch Craig	NT16461711	18/07/2017	Clarkson, R.
Grey Mare's Tail	NT18541433	20/08/2018	Clarkson, R.
The Kaim	NT20I	13/07/2012	Miles, C.J.
Garwald Linns, R White Esk	NT235001	19/07/1964	Milne-Redhead, H.
Druid Hill NX89E	NX89E	24/05/2009	Miles, C.J.
Grennan Hill, Scaur Water	NX8295	17/06/1978	Stirling, A.McG.
Castle O'er (NY2492)	NY24169211	02/07/2019	Miles, C.J., Miles, A., Davidson, D.
R Black Esk+R White Esk, confluence	NY255908	05/07/1980	Silverside, A.J.

Genista anglica L.

Petty Whin

National Status: Not Scarce, Near Threatened.

Status in Dumfriesshire: Scarce, declining.

A small spiny shrub, found in the lowlands on relatively humid grass heaths and around the

drier fringes of bogs. In upland areas it occurs in heathy, damp, unimproved pastures. Nationally this taxon is in substantial decline mainly due to agricultural improvement. Oceanic temperate element.

First recorded by J Sadler in 1857 on Beattock Hill. There has been quite a decline in this species which has not now been recorded since 1979.

Site	Gridref	Date	Recorder
Birkshaw Forest	NY117771	17/06/1973	Little, R.
The Hags, Ecclefechan	NY1874	08/08/1979	Martin, M.E.R.
Racks	NY0373	14/10/1976	Martin, J.D.S.
Upper Loch (Lochmaben)	NY0683	1974	Martin, J.D.S.

Genista tinctoria L.

Dyer's Greenweed

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Scarce, declining.

A small deciduous shrub of rough pastures, old meadows, grassy heaths, cliffs, road verges and field edges on heavy soils, usually calcareous to slightly acidic clays. Probably stable nationally. European temperate element.

First recorded by Mr Patrick in 1789 at Middlebie. There has been quite a decline in this species. Only once recorded since 1992 when a couple of plants were found in Tynron Juniper Wood SSSI in 2016. An old grassland or heath species so has declined with losses to this habitat.

Site	Gridref	Date	Recorder
Grennan Hill	NX818956	17/06/1978	Stirling, A.McG.
Tynron Juniper Wood SSSI	NX82609276	11/06/2016	Miles, C.J.
Racks	NY0373	14/10/1976	Martin, M.E.R.
Northfield	NY1968	12/07/1992	Darke, H. Pringle, E.
Eskrigg	NY125805	01/06/1987	Martin, M.E.R.; Rae, J.

Also recorded in NT00, NT01, NT10, NY0, NY38

Gentianella amarella subsp. amarella (L.) Börner.

Autumn Gentian

National Status: Not Scarce, Near Threatened.
Status in Dumfriesshire: Rare.

A native annual or biennial herb of well-drained basic soils, typically occurring in grazed chalk and limestone grassland, on calcareous dunes and machair, on spoil-tips and in cuttings and quarries. There is some evidence of a decline in this species in the last 50 years. Circumpolar boreo temperate element.

Only known from one site where first recorded by M.E.R. Martin in 1980. It grows on the spoil from the old antimony mine.

Site	Gridref	Date	Recorder
Glenshanna mine	NY31239656	28/8/2016	Miles, C.J., Miles, A.

Gentianella campestris (L.) Börner

Field Gentian

National Status: Not Scarce, Vulnerable.

Status in Dumfriesshire: Scarce.

A native biennial, occasionally annual, herb of mildly acidic to neutral soils in a variety of open habitats, including pastures, hill grassland, grassy heaths, sand dunes, machair and road verges. On limestone it probably indicates surface leaching or the presence of non-calcareous superficial deposits. Nationally *G. campestris* had already suffered a marked decline before 1930 and sites are still being lost through overgrazing in the uplands and the neglect of lowland pastures. European boreo temperate element.

First recorded by S.W. Carruthers in 1890 on Greygill Head Moffat. It has only been recorded a few times since. It can persist as shown by the Selcoth population which was re-found after more than 100 years.

Site	Gridref	Date	Recorder
Corserigg Hill, Kello Water	NS702089	1996	Mearns, R.
Hallscaur Craig	NS770013	14/07/1998	D&G Quadrat Survey Team
Chapel Hill	NS71	09/08/1957	Perring, F.H.
Selcoth Burn (NT10N)	NT14220689	21/08/2016	Miles, C.J.
Loch Urr	NX7685	16/08/1976	Stewart, N.F.
Ae Village, N of	NX9889	1960	Martin, J.D.S.

Also recorded in NT00(1969) and NT20 (1970)

Geranium columbinum L.

Long-stalked Cranesbill

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

An annual of dry grasslands and grassland-scrub mosaics. Its habitats include sand dunes, scrubby cliff slopes, hedge banks, field margins, chalk and limestone downland, railway banks and old quarries. It is usually on calcareous soils, and is often a pioneer on disturbed sites. It favours warm, sheltered, often S.-facing banks and hollows. Lowland. There has been widespread decline in S.E. and N. England; most losses have occurred since 1950 and are probably due to habitat destruction, intensification of grassland management and scrub encroachment. European Temperate element.

Only recently found in Dumfriesshire by D. Kennedy on a hedge bank. It may exist elsewhere but this southern species is rare.

Site	Gridref	Date	Recorder
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The Crichton (NX9873)	NX98537307	23/07/2019	Miles, C.J., Miles, A.
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Geranium pusillum L.

Small-flowered Cranes-bill

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

An annual of cultivated land, open summer-droughted grasslands, roadsides and waste places, thriving in well-drained, sandy soils. Lowland. There has been little change in the distribution of this species since the 1962 *Atlas*, although it is much better recorded now. *G. pusillum* is an elusive species and, because of its similarity with *G. molle*, it may have been overlooked in some squares.

First found in Dumfriesshire in 2009 though this specimen was not determined until 2020. It was seen again in 2019 in a very sandy field that had been growing maize. It was plentiful in this location. It may exist elsewhere but this southern species is rare in SW Scotland.

Site	Gridref	Date	Recorder
Glenclair Hill (NY0178)	NY01597864	24/10/2019	Miles, C.J., Miles, A., Davidson, D.
Hitchill	NY145673	14/10/2009	Miles, C.J.

Geranium sanguineum L.

Bloody Cranesbill

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A rhizomatous, perennial herb of base-rich grasslands and scrub, open rocky woodlands, coastal cliffs and stabilised sand dunes; mainly on the coast but also inland on limestone pavements and cliff ledges, and in chalk and limestone grassland. Nationally this taxon's distribution is stable. European temperate element.

Only recorded since 1990. There is a possibility that some populations are from garden sources. The population on the coast at Annan Waterfoot is in a more natural habitat given the extent of coastal populations further west and across the Solway at Silloth..

Site	Gridref	Date	Recorder
Lochmaben.	NY08W	28/06/2004	Miles, C.J.
Annan Waterfoot NY16X	NY190643	28/08/2008	Miles, C.J.
Dormont	NY112744	17/06/1990	Martin, M.E.R.; Pringle, E.
Burnfoot, nr bridge.	NY337889	19/07/2003	Farrell, L. Miles, C. Terry, P. Stille, S. et al.

Glaucium flavum Crantz

Yellow Horned-poppy

National Status: Not Scarce, Vulnerable.

Status in Dumfriesshire: Rare

A short-lived perennial herb of shingle banks and stony beaches; also, more rarely, amongst loose rock and on eroding cliffs of sand and clay, and on the bare tops of chalk cliffs. The few inland records are of casual occurrences. Lowland. *G. flavum* has been lost from some sites in Britain in recent years as a result of coastal defence work and trampling pressures on tourist beaches. However, its overall distribution shows little change since the 1962 *Atlas*.

In the Flora the first record is attributed to Dr Burgess 1789 maybe in reference to an occurrence at Newbie. It is well established along the Cumbrian and Kircudbright coasts from where occasional seed may disperse to the few sites in Dumfriesshire that this species might grow. It was recorded in 2019 for the first time in a wild situation since the Flora was published.

Site	Gridref	Date	Recorder
Powfoot East Beach (NY1565)	NY15176570	04/08/2019	Dumfries Botany Group

Glebionis segetum (L.) Fourr. (*Chrysanthemum segetum*)

Corn Marigold

National Status: Not Scarce, Vulnerable.

Status in Dumfriesshire: Not scarce, declining

A mainly spring-germinating archaeophyte annual of light, sandy or loamy soils deficient in calcium, found in arable fields and other disturbed habitats, on roadsides, waste ground and rubbish tips. It was a serious weed in Victorian times, but is now much reduced due to improved seed cleaning, liming, herbicides and the shift to autumn-sown crops. It has a European Southern-temperate distribution and is widely naturalised outside this range

First listed by P. Gray in 1842. At the time of the Flora this was a common plant in the lower Nithsdale and Annandale areas. Still occasional in these areas but declining with herbicide use on crops and different cultivation regimes.

Site	Gridref	Date	Recorder
Moffat	NT0706	04/07/1997	Miles, C.J.
Calside	NX987751	21/09/1982	Williamson, M.F.
Dumfries	NX994746	28/10/1989	Martin, M.E.R.
Catherinefield	NX998800	16/08/1984	Martin, M.E.R.
Clarencefield	NY06	02/08/1996	Stewart, O.M., McCosh, D., Stirling, A.McG.
Houston's Corner	NY0177	18/06/1978	Martin, J.D.S.
Whitehills, Lochmaben	NY086828	28/08/1983	Martin, M.E.R.
Heck, Valison Burn	NY0980	20/08/1977	Martin, M.E.R.
Cummertrees	NY13566615	28/08/2010	Miles, C.J.

Powfoot	NY1466	06/07/1977	Martin, J.D.S.
Broom (NY1474)	NY14037426	05/08/2019	Miles, C.J., Miles, A.
Middleshaw (NY1475)	NY14307543	05/08/2019	Miles, C.J., Miles, A.
Barrasgate	NY15056706	28/08/2010	Miles, C.J.
Ecclefechan (NY17X)	NY18807488	10/07/2016	Miles, C.J.
Brydekirk	NY1970	01/08/1996	Miles, C.J.
Rigg	NY287670	26/08/1981	Martin, J.D.S.
Pennersaugh	NY21517460	17/07/2011	Miles, C.J.
Penton linns	NY4377	17/08/1997	Miles, C.J.

Also recorded in NT10, NY09, NY18, **NY37 (1958)**

Glyceria notata Chevall.

Plicate Sweet Grass

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A stoloniferous perennial herb of ditches, streams and muddy pond margins, occurring on more calcareous substrates than other British *Glyceria* species. Nationally it is declining in the southern part of its range due to drainage. European temperate element; also in C. Asia.

The first record is from 1970. It is infrequent in ditches and probably under recorded in Dumfriesshire.

Site	Gridref	Date	Recorder
River Nith at Eliock Bridge	NS80570811	15/08/2016	Sadler, E.J., Bell, A., Quinn, L.
Kelton (NX97V)	NX98537142	30/07/2016	Miles, C.J.
Netherwood (NX97W)	NX99377392	28/07/2014	Miles, C.J.
Caerlaverock NNR, The Long Ridden	NY060656	11/08/1970	
Hightown Hill (NY0383)	NY03958323	26/07/2018	Miles, C.J., Miles, A., Davidson, D.
Range Castle, Woodlandbanks Burn	NY0876	22/08/1977	Martin, M.E.R.
Tinwald, Townhead, Tinwald Shaws and Tinwald House	NY08A	18/07/2003	Braithwaite, M.E., Terry, P.
Water of Milk at East of Milkvale, Lockerbie	NY14397515	22/07/2015	Sadler, E.J., Bell, A., Quinn, L.
Water of Milk @ Kettleholm Bridge	NY14457685	22/07/2015	Sadler, E.J., Bell, A., Quinn, L.
Hoddam Castle, River Annan	NY17	17/07/1999	Walls, R.M.
Water of Milk, u/s of Potts Cleuch, Lockerbie	NY18148213	22/07/2015	Sadler, E.J., Bell, A., Quinn, L.
Hillhead Farmland (NY2768)	NY27326840	15/08/2019	Miles, C.J., Miles, A., Davidson, D.
East Scales (NY2967)	NY29266724	15/08/2019	Miles, C.J., Miles, A., Davidson, D.

Also recorded in NY16

Gymnadenia conopsea s.l.

Fragrant Orchid

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Scarce.

A tuberous perennial herb of species rich, dry chalk and limestone grasslands where the vegetation is not too dense, and occasionally in base-rich fens. It also grows in artificial habitats, such as abandoned quarries, lime waste and railway embankments. Nationally it is likely to have declined widely as a result of agricultural improvement. Widespread in Europe.

The first listing of *Gymnadenia* in Dumfriesshire is by W. Keddie in 1854 at Beld Craig. Most *Gymnadenia* records were recorded at the aggregate level. The current treatment of *Gymnadenia* now defines three species in the complex. Many of the Dumfriesshire records probably belong to *G. borealis* as the habitat requirements of that taxon are generally available in the vice county (see *G. borealis*). However one record* was recorded as *ssp. conopsea* though that species is not currently thought to occur in Scotland and some have been identified as *G. densiflora* (see below). The first listing here is for all records that are treated at the aggregate level. Eventually it would be good to revisit these populations and confirm which species they are.

Site	Gridref	Date	Recorder
Drumlanrig Tunnel NS80R	NS80R	31/05/2009	Miles, C.J.
Garpol Burn	NT00	08/07/1894	Linton, E.F.
Braefoot, E of Beef Tub	NT0712	25/06/1987	Braithwaite, M.E.McCosh, D.J.
Nether Coombe Craig NT11F	NT11F	10/06/2007	Miles, C.J.
Castramon Moor	NX793837	06/07/1988	Martin, M.E.R.
Auchenhessnane	NX8096	07/05/2018	Miles, C.J.
Todshawhill (NY29G)	NY227937	01/08/2010	Miles, C.J.
Black Esk Bridge NY29K	NY29K	21/08/2005	Corner, R.W.M., Miles, C.J.
Boreland square*	NY19	02/08/1996	Dines, T. Kay, G.M., Milner, B.

Also recorded in NS71 (1968)

Gymnadenia borealis (Druce) R. M. Bateman

Heath Fragrant Orchid

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Scarce.

A tuberous perennial herb growing in base rich to mildly acidic grasslands, heaths, moors and in flushes in soils derived from sands limestones and clays. It also grows in artificial habitats, including abandoned quarries and roadside verges. This species may have declined throughout its range, probably due to habitat destruction, however having only been recognised as a taxonomic entity in the UK in 1988 its precise distribution is only now becoming known.

This likely to be the most frequent taxon found in the acid to neutral hilly grassland in Dumfriesshire. It is especially associated with mineral enriched flushes or boulder clay banks.

Site	Gridref	Date	Recorder
Euchan Water	NS7508	16/07/1997	Stewart, O., Miles, C.J
Glendyne Burn (NS8109)	NS81860988	27/6/2019	Miles, C.J., Miles, A., Davidson, D.
Selcoth Burn	NT10N	24/06/2012	BSBI Talla Selcoth Field Meeting
The Kaim	NT20I	13/07/2012	Miles, C.J.
Cample cleuch (NX99E)	NX90049920	01/07/2017	Miles, C.J., Miles, A.
Auchencairn (NX99F)	NX92599094	02/07/2016	Miles, C.J.
Sandyford (NY29B)	NY21099367	13/07/2013	Miles, C.J.
Saugh Hill (NY2499)	NY24789968	28/08/2019	Miles, C.J., Miles, A.

Gymnadenia densiflora (Wahlenb.) A. Dietr

Marsh Fragrant Orchid

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A tuberous perennial herb characteristically found in base-rich wet meadows, fens and ditches. Occasionally it is recorded from N.-facing chalk and limestone grassland. It sometimes grows with *Gymnadenia conopsea* subsp. *borealis* and is the most common subspecies in Ireland.

Although this taxon was mentioned as var. *densiflora* by Clapham *et al.* (1952) and mapped at subspecific rank by Perring & Sell (1968), it has not been recorded consistently. It is very sensitive to drainage and eutrophication, and has declined, particularly in fens. Ploughing of grassland has also caused the loss of some populations.

The flowers are distinctive from *G. borealis* which lacks the three lobed labellum. Only two records in Dumfriesshire to date, both recent. The record from the Black Esk was determined by Alan Gendle.

Site	Gridref	Date	Recorder
Mennock NS80E	NS80E	05/07/2009	Miles, C.J.
Scar on Black Esk, E. of Tanlawhill	NY246911	05/051996	Corner, R.W.M., Miles, C.J.

Hammarbya paludosa (L.) Kuntze

Bog Orchid

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

A native pseudobulbous herb of boggy areas where the water is usually acidic but subject to some lateral movement. Typically it grows amongst saturated *Sphagnum*, but also on peaty mud and among grasses on the edges of runnels and flushes. There has been a dramatic decline in this species caused by drainage of bogs, particularly in the lowlands. Circumpolar boreal montane element, with a disjunct distribution.

Recorded by J Corrie in 1887 from Girharrow Hill and only recorded otherwise in the Keir Hills. A recent search here showed suitable habitat still survives so it may yet turn up.

Site	Gridref	Date	Recorder
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Girharrow Hill	NX7886	1887	Corrie, J.
Keir Mill	NX850910	08/09/1973	Milne-Redhead, E.W.B.H.

Helianthemum nummularium (L.) Mill

Common Rock Rose

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not Scarce.*

A prostrate sub-shrub occurring in short, dry, calcareous grassland, and rather strictly confined to chalk and limestone in England, but extending into mildly acid pastures and heaths on well-drained soils in E. Scotland, and on base-rich soils over basalt in N.E. England and E. Scotland. Nationally it has somewhat declined due to conversion of chalk grassland to arable and its reversion to scrub. European temperate element.

In Dumfriesshire it is first referenced in 1882 by J. Wilson. It is found on calcareous rock faces or where calcareous seepage emerges. Infrequent and rarely in quantity it is probably most abundant in the Scaur Glen. It is important as the food plant of the northern brown argus but there are no certain colonies of the latter in the VC.

Site	Gridref	Date	Recorder
Burnt Cleuch	NS7404	2017	Hawker, D.
Glenwhargen	NS75310395	2017	Hawker, D.
Welltrees Hill (NS7504)	NS75050429	2017	Hawker, D.
Glenwhargen Craig	NS7603	05/08/1976	Birks, H.J.B.
Hallscaur NS70Q	NS7738501528	25/06/2009	Miles, C.J.
Hamarty Hill (NS90W)	NS99980307	30/08/2017	Miles, C.J.
Corehead tetrad R	NT01R	15/08/2010	Miles, C.J.
Hartfell Spa	NT01V	12/07/2012	Miles, C.J.
Corehead tetrad W (NT01W)	NT0844913498	08/07/2010	Miles, C.J.
Selcoth Burn	NT10N	24/06/2012	BSBI Talla Selcoth Field Meeting
Capel Fell (NT1606)	NT16620660	23/08/2017	Miles, C.J.
Bear Craig (NT10X)	NT1934205240	05/09/2010	Miles, C.J.
Corehead tetrad B	NT11B	09/07/2010	Miles, C.J.
Whiteclose Burn (NX7294)	NX72129446	02/08/2019	Miles, C.J., Davidson, D.
Druid Hill	NX89E	24/05/2009	Miles, C.J.
Craigturra	NX809935	03/07/1982	Martin, M.E.R.

Also recoded in NS71 (1885)

Heliosciadium inundatum W.D.J. Koch

Lesser Marshwort

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce, declining.*

Native perennial herb, favouring shallow water sites, both still and slow moving, together with those which periodically dry out such as the edges of pools and dune slacks. Although widely distributed over the UK, it appears to be in substantial decline as a result of drainage and the eutrophication of its habitats.

It was first recorded by J. Singer in 1843 in Lochmaben and it is still present around the Upper Mill Loch. Infrequent in the flood zone of lochs, quarries or flushed areas

Site	Gridref	Date	Recorder
Big Morton Hill	NX78J	16/07/2004	Miles, C.J.
Shaw Wood, Maxwellton	NX820890	29/06/1985	Martin, M.E.R.
Coldstream Loch Drumlanrig	NX84449938	01/09/2019	Dumfries Botany Group
Capenoch	NX89	23/07/1999	Miles, C.J.
Dalswinton Loch	NX94368423	05/09/2019	Miles, C.J., Miles, A.J., Davidson, D., Muir, J.
Jerico Loch	NX995805	23/09/1996	Lassiere, O.L. Dines, C.
Gatelawbridge quarry	NX90519601	15/09/2019	Miles, C.J., Davidson, D.
Meikleholm Loch.	NY0389	20/07/2003	Miles, C.J., Terry, P., Stile, S.
Courancehill Loch	NY044912	25/09/1996	Lassiere, O.L., Dines, C.
Lochmaben, Upper Loch	NY071835	13/07/2014	Miles, C.J.
Marjorie Sike and Brummel Wood	NY090830	23/05/2004	Miles, C.J.
Eskrigg Reserve, Lockerbie	NY1280	01/08/1996	Kay, G., Milner, B., Dines, T.

Heliosciadium nodiflorum (L.) W.D.J. Koch

Fools Water-cress

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A perennial herb, found in shallow water in streams, ditches, swamps and marshes, and on seasonally exposed mud at the edges of ponds, lakes, rivers and canals, sometimes scrambling into nearby vegetation. It is characteristic of nutrient-enriched sites. The distribution of this species is stable. Eurosiberian southern temperate element; widely naturalised outside its native range.

Though first recorded in 1890 at Earshaig by J.T. Johnstone it is very infrequently recorded in Dumfriesshire where it appears close to its northern limit inland. Old records might still be refound. It might be confused with *Berula* when vegetative though the false nodes of *Berula* are usually distinctive. As both are scarce and can occur in the same location they need careful consideration.

Site	Gridref	Date	Recorder
Earshaig Lake	NT0501	1890	Johnstone, J.T.
Loch Urr	NX760845	10/09/1996	Day, J. Willby, N.J.
Halliday Hill	NX8986	26/06/2019	Miles, C.J., Davidson, D.
Auchenknight Wood	NX837982	18/07/2009	Terry, P.
Hillhead Loch	NX84279999	01/09/2019	Dumfries Botany Group
Bridgeknowes Loch	NX85779947	12/07/2015	Miles, C.J.
Morton Castle	NX89069924	15/09/2019	Miles, C.J., Davidson, D.
Kelton	NX98537142	30/07/2016	Miles, C.J.
Caerlaverock NNR, The	NY027652	11/08/1970	

Flooders(West)			
Dornock Burn	NY2351466074	13/07/2010	Sadler, E., Bell, A., Quinn, L.
Dornock Burn	NY2374867627	13/07/2010	Sadler, E., Bell, A., Quinn, L.

Hierochloe odorata (L.) P. Beauv.

Holy Grass

*National Status: Rare, Least Concern.**Status in Dumfriesshire: Rare.*

A rhizomatous perennial herb occurring in a range of wetland habitats, including lakeside reed-beds, sedge swamps, *Salix* carr, river banks and wet meadows; also, in S.W. Scotland, at the base of coastal cliffs where streams emerge and along the upper edge of fringing saltmarshes. Nationally its distribution is stable. Circumpolar boreal montane element, with a continental distribution in W. Europe.

This was first recorded by C. Miles in 1993 in Castle Wood and at the back of the merse on Caerlaverock NNR. It has long been known from a similar coastal site at Southwick in Kirkcudbrightshire. It is likely to have been long established at Caerlaverock rather than to have been a recent colonist. In 2018 it was found in several places along the River Black Esk where it grows in the flood zone on stabilised grassland on river gravels. It occurs in several places over a 4 km stretch of the river.

Site	Gridref	Date	Recorder
Caerlaverock Merse	NY02606505	24/07/2009	Miles, C.J.
Green Knowe (NY2193)	NY21329360	24/09/2018	Miles, C.J.
Todshaw Rig (NY2392)	NY23979219	08/09/2018	Miles, C.J.
Lower Rig (NY2491)	NY24179198	08/09/2018	Miles, C.J.
Castle O'er (NY2492)	NY24119210	08/09/2018	Miles, C.J.

Hymenophyllum tunbridgense (L.) Sm.

Tunbridge Filmy Fern

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

A rhizomatous perennial fern of very sheltered, often deeply shaded, humid habitats; these include acidic rock faces, humic banks and tree trunks, particularly in deep stream valleys, and crevices on upland boulder scree. Nationally its distribution is largely stable. Oceanic temperate element; also one site in N. America.

First reported in Dumfriesshire by Dr. Burgess in *Flora Scottica* in 1789. This has been far less frequently recorded than the next species.

Site	Gridref	Date	Recorder
Auchenhessnane, Scaur Water	NX8096	05/08/1976	Birks, J.
Hollows (NY37Z)	NY39427823	10/04/2019	McCleary, J.

Also recorded in NX99 (1896) and NY09 (1896)

Hymenophyllum wilsonii Hook.

Wilson's Filmy Fern

*National Status: Not Scarce, Near threatened.**Status in Dumfriesshire: Scarce.*

A native rhizomatous perennial fern, forming dense colonies on a variety of substrates, including sheltered acidic or, rarely, mildly basic rocks, and trees in humid sites. It also occurs on damp upland cliffs, boulder scree and, rarely, old walls. Nationally its distribution is largely stable. Oceanic boreo temperate element; confined to the hyperoceanic zone of W. Europe and Macaronesia.

This was first reported by W. Stevens in 1848 in the Dalveen Pass and Scaur (Water). This small fern occurs amongst mosses and short vegetation on rock and tree branches in very sheltered Linnns mostly in upland situations. It is sometimes hard to find at old sites which suggests it may have declined. It is much less luxuriant than populations in western Scotland.

Site	Gridref	Date	Recorder
Corserig Hill NS70E	NS70190889	30/08/2016	Miles, C.J, Miles, A.J.
Glenmaddie Wood LWS.	NS7408	01/07/1988	NCC
Auchentaggart (NS8108)	NS81210819	07/05/2017	Miles, C.J.
West side of Nith Linns, Drumlanrig	NS857004	08/05/1984	Corner, R.W.M.
Garpol Linn	NT066031	29/03/1986	Corner, R.W.M.
Blaebeck (NT0907)	NT09400752	22/08/2017	Miles, C.J.
Selcoth Burn	NT157064	23/05/1989	Fleming, L.V.
Rae Grain gully on the S. side of Capel Fell	NT16520649	23/08/2017	Miles, C.J.
Nether Coombe Craig NT11F	NT11F	10/06/2007	Miles, C.J.
Falcon Craig (NT11G)	NT13061200	03/08/2010	Miles, C.J.
Whirly Gill (NT1313)	NT13201323	07/09/2014	Miles, C.J, Miles, A.J.
Spoon Burn Linn (NT1510)	NT15351061	26/08/2019	Miles, C.J, Miles, A.J.
Gupe Craig (NT1514)	NT15271458	06/07/2018	Miles, C.J, Miles, A.J.
Mid Craig Monad (NT1616)	NT16091620	23/07/2016	BSBI Field Meeting 2016
Tail Burn main falls (NT1814)	NT18421483	27/07/2017	Clarkson, R.
Raking Gill	NT19691540	06/09/2015	Miles, C.J.
The Kaim, Strongcleuch Burn	NT2207	23/04/1997	Ratcliffe, D.A.
L urr+Moniaive,nr	NX78	1959	Stirling, A.McG.
Holehouse (NX9994)	NX99459494	08/11/2019	Miles, C.J.
W. side of the Black Linn, Glenkiln Burn	NY007897	21/01/1997	Corner, R.W.M.

Also recorded in NS71, NS90, NT01 (1896), NX79, NY49 (1952).

Hypericum elodes L.

Marsh St. John's Wort

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

A stoloniferous perennial herb of peat or peaty mineral soils in damp or wet acidic, nutrient-poor habitats, usually found in shallow water, but sometimes terrestrial, or in deeper water where it may form floating mats. It occurs in heathland pools, on the margins of ponds and slow-flowing streams, and along seepages and runnels in mires. Nationally the range of *H. elodes* has been considerably reduced in the last hundred and fifty years, and its habitats are increasingly threatened, mostly by drainage. Oceanic temperate element; one remaining site in Italy, extinct in eastern Germany and Austria.

Only one record exists for Dumfriesshire by Dr. H. Milne-Readhead. Although it lacks a specific location I include it as something to look for. It otherwise occurs SW of Dumfries (in Kircudbrightshire).

Site	Gridref	Date	Recorder
VC72 Dumfriesshire	NX98	1957	Milne-Redhead, H.

Hypericum hirstum L.

Hairy St John's Wort

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A perennial herb of well-drained, neutral to basic soils in open or partially shaded habitats including rough and ungrazed grassland, woodland rides and clearings, river banks, roadside banks and verges. Nationally this taxon's distribution is stable. Eurosiberian temperate element.

First listed in Dumfriesshire by Dr. Davidson in 1882 at Sanqhar. A plant of woodland edges and river banks. It is scarce in SW Scotland.

Site	Gridref	Date	Recorder
Crawick Water	NS71W	24/08/1987	Martin, M.E.R.
Castlemilk Estate, Water of Milk	NY1578	05/06/1975	Martin, M.E.R.
Scroggs Bridge (NY1681)	NY16118146	03/08/2019	Davidson, D.
Johnstonebridge, River Annan	NY1091	21/09/1979	Martin, M.E.R.
Castle O'er (NY2492)	NY24189203	25/08/2018	Miles, C.J., Miles, A.
Westerkirk	NY2991	02/08/1996	Pankhurst, R., Groom, R., Miles, C.
Westerhall and Burnfoot	NY38J	22/06/2004	Braithwaite, M.
Langholm Castle Holm (NY3585)	NY35358540	18/7/2019	Miles, C.J., Miles, A.
Rowanburnfoot (NY4175)	NY41077586	21/7/2019	Miles, C.J., Miles, A.
Whitlawside (NY47P)	NY445796	30/04/2011	Miles, C.J.

Also recorded in **NS80 (1958)**, NT00, NX88, NY18, **NY39 (1966)**,

Imperatoria ostruthium (L.)

Masterwort

National Status: Not Scarce, Near Threatened.

Status in Dumfriesshire: Scarce.

A perennial archaeophyte naturalised in moist or damp grassy areas, including marshy pasture, on hillsides and by streams and rivers, and sometimes established around farm buildings. Generally lowland it was formerly cultivated as a pot-herb or for veterinary purposes. It is very persistent and shows no sign of a change in its distribution. Native of the mountains of C. & S.W. Europe.

First listed by W. Stevens in 1848 at Carronbridge. This occurs where protected from grazing and grassland improvements, such as riversides and road verges, generally near habitation.

Site	Gridref	Date	Recorder
Durisdeer (NS8903)	NS89410349	11/07/2018	Dumfries Botany Group
Coatsgate Quarry (NT00S)	NT07680505	06/07/2013	Miles, C.J, Miles, A.J.
Moffat, River Annan	NT080055	09/07/1981	Martin, M.E.R.
Old Garwaldshiels (NY1999)	NY19459966	05/10/2018	Miles, C.J.
Roadside N. of Parkhouse, Harelaw.	NY4381179785	14/05/2009	Corner, R.W.M.

Also recorded in NX89 (1848), NY08, **NY39 (1980)**

Isoetes lacustris L.

Quillwort

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A submerged aquatic perennial found in oligotrophic lakes with a rocky or skeletal substrate. It frequently forms extensive lawns of many square metres at depths up to 2.5 m and rarely deeper. It also occasionally colonises artificial reservoirs. Nationally there is little evidence of change in its actual distribution, although a few lowland sites have been lost through agricultural eutrophication. Eurosiberian boreal montane element; also in N. America.

Listed by W Keddie in 1854 from Loch Skeene and still present today. On stony bottomed clear water lochs.

Site	Gridref	Date	Recorder
Loch Skeen (NT11T)	NT17261595	22/06/2014	Roberts, J., Brown, P., Miles C.
Loch Skeen	NT171165	16/09/1996	Willby, N.J. Lassiere, O.L.
Loch Urr	NX760845	10/09/1996	Willby, N.J. Lassiere, O.L.

Jasione montana L.

Sheep's Bit

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Not Scarce, declining

A biennial herb of acidic, shallow, well-drained soils. It occurs on sea-cliffs, in maritime grasslands and heaths and on stabilised sand dunes, and inland on heathland, stone walls, hedge banks and railway cuttings. Propagation is by seed and disturbed, open sites and recently burnt ground are frequently colonised. Nationally it has declined in the English Midlands and S.E. England in the latter part of the 20th century. Reasons for losses include

the loss of lowland heaths and the growth of coarser vegetation following a decline in rabbit grazing. European temperate element.

This was first listed in Dumfriesshire by P Gray in 1842. This species can be found on well drained open or disturbed ground, particularly along the coast, on rocky outcrops or in quarries where the ground is acid and free draining. Although not strictly scarce it does appear to have declined in frequency probably as a result of shading from scrub or plantations.

Site	Gridref	Date	Recorder
Crawick	NS774108	18/08/1978	Martin, M.E.R.
Auchentaggart (NS8108)	NS81850880	27/06/2019	Miles, C.J., Miles, A., Davidson, D.
Torr Hill (NT00P)	NT04970961	14/07/2018	Miles, C.J., Miles, A.
Hartfell Spa	NT01V	22/08/1988	McCosh, D.J.
Castlefairn, A702 NE of	NX747875	16/09/1987	Martin, M.E.R.
Glengar Hill (NX89H)	NX83089484	17/07/2016	Miles, C.J., Miles, A.
Hollywood	NX9479	1981	Meyler, R.
Jericho Loch	NX9981	04/09/1981	Roger, C.
Cample cleuch (NX99E)	NX90069902	01/07/2017	Miles, C.J., Miles, A.
Caerlaverock Nature Reserve	NY06	19/07/1963	Crompton, G.
Tinwald Shaws-High Dam	NY08A	13/09/1987	Martin, M.E.R.
Black Linn, Glenkiln Burn	NY007894	06/07/1980	Martin, J.D.S.
Powfoot East Beach (NY1565)	NY15676555	04/08/2019	Dumfries Botany Group
Dormont, nr	NY113744	1978	Martin, J.D.S.
Dornock Brow	NY26M	05/09/1996	Miles, C.J.
Kirtle Water	NY2670	24/05/1996	Miles, C.J.

Also recorded in NS70 (1958), NX88, NY07, NY19, NY38 (1956)

Juncus alpinoarticulatus Chaix

Alpine Rush

National Status: Scarce, Least Concern.

Status in Dumfriesshire: Rare.

This montane, rhizomatous herb occurs in rather open wet turf in marshes and flushes and by lakes and streams, usually on base-rich soil and often over limestone. It is often found with a range of other less common montane calcicoles in bryophyte-rich habitats. Nationally its distribution is difficult to discern due to confusion with variants of *J. articulatus* with which it sometimes grows and hybridises. Circumpolar boreal montane element.

This rare rush was first recorded by Rod Corner on 5 August 1996. It has only been found at the one site. This is an open base rich flushed mire. This rush is only known from a few localities in Britain.

Site	Gridref	Date	Recorder
Downey Hill (NY2490)	NY24749096	20/09/2018	Corner, R.W.M., Miles, C.

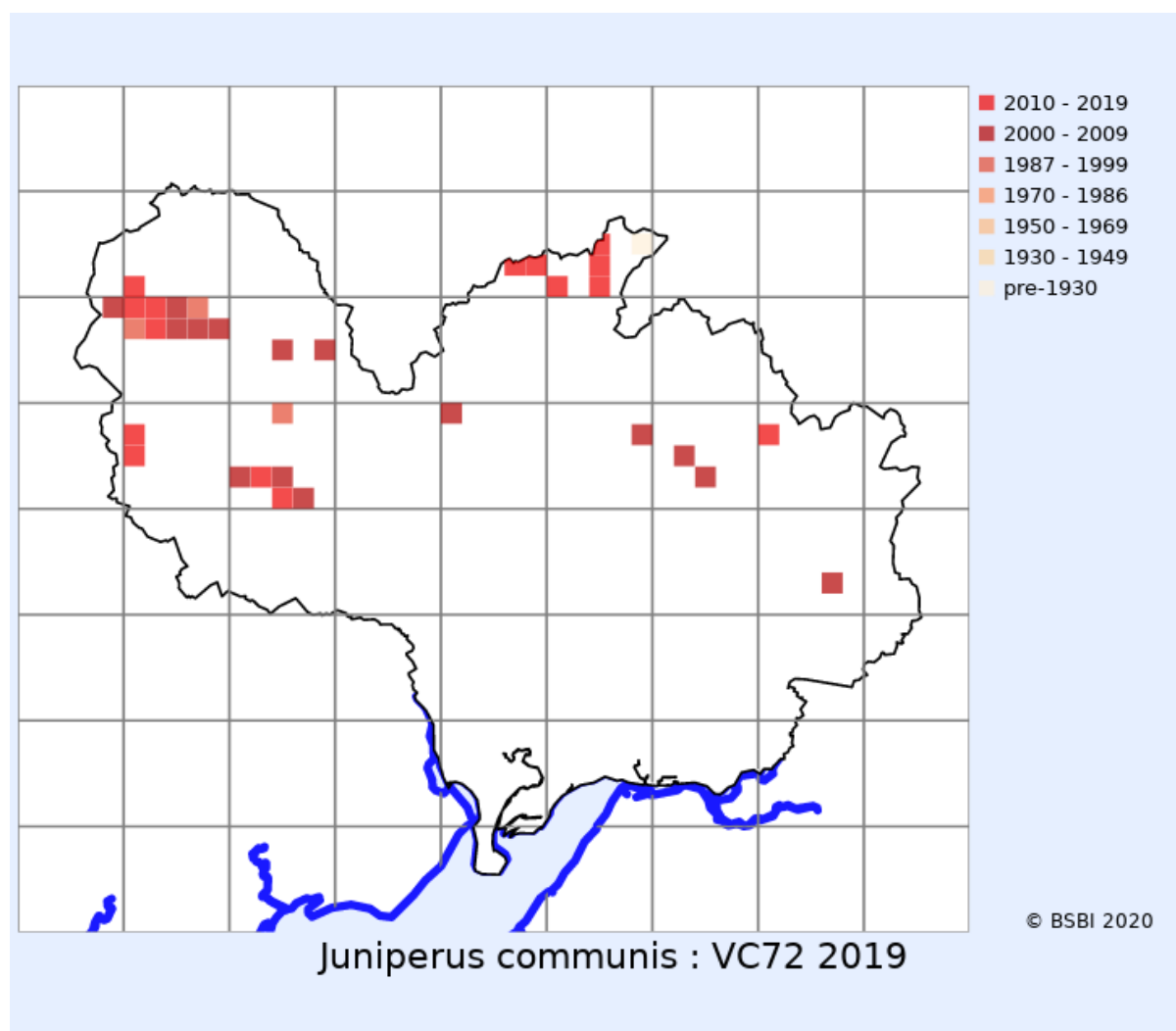
Juniperus communis subsp. communis L.

Common Juniper

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not Scarce, declining*

J. communis is a dioecious evergreen conifer found on basic and acidic soils in a wide range of habitats, including chalk downland, heather moorland, oceanic heaths, rocky slopes and in *Betula*, *Quercus* and *Pinus* woods. The decline in S. Britain was already apparent in the 1962 *Atlas* and since then losses in other areas have become apparent. Burning has largely eliminated it on grouse moors, and the scrub communities in which it regenerates have declined severely due to grazing, burning, succession to woodland and afforestation.

The first records for Dumfriesshire are listed by Dr. Singer in 1843. A detailed survey was undertaken by Richard Mearns in 1999/2000 across D&G. He provides historical and current records in the Transactions DGNHAS LXXXV 2001. His work indicates a large decline since recording began. Today's populations are generally fragmentary and appear to be largely senescent on hill slopes where they have survived the impacts of clearance, fire and grazing. The three largest populations are at Tynron SSSI, Keir Hills (Wauk Hill) and Kellow Water. Recent disease outbreaks are threatening further losses. Some records are clearly of planted individuals. For example new planting has occurred on Borders Forest Trust land in the Moffat Hills (see dots) where there were no recent juniper records. These are grown from local (Southern Uplands) stock. The small isolated populations in Annandale and Eskdale are otherwise of one or a few trees and very vulnerable.

**Knautia arvensis** L.

Field Scabious

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A perennial herb of calcareous and neutral grassland on well-drained, especially basic soils. It is found in chalk and limestone grassland, in rough pasture, open hedgerows and wood borders, and as a colonist on roadside verges, railway embankments and grassy waste ground. It is also a locally common weed of cultivation, especially in field-borders on the chalk. Nationally it has declined during the last half of the 20th century. Eurosiberian temperate element; widely naturalised outside its native range.

First listed for Dumfriesshire by P Gray in 1842 from Terregles. Numerous places are listed in The Flora but there is only one recent record that is not suspected to be deliberately sown as this species is present in wildflower seed mixes.

Site	Gridref	Date	Recorder
Penton Bridge (NY4377)	NY43167745	21/07/2019	Miles, C.J., Miles, A.

Also recorded in NX89 and NY37

Koeleria macrantha (Ledeb.) Schult.

Crested Hair Grass

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

A perennial herb of grasslands on infertile, mainly calcareous substrates; also around rock outcrops, screes, quarry heaps and old lead workings. In many areas it is most frequent in dry, sandy, base-rich grassland on cliff-tops and dunes. Nationally it is known to have declined in many areas due to habitat destruction and intensification of grassland management. Circumpolar temperate element.

Listed for Dumfriesshire by Dr Davidson in 1890 from upper Nithsdale. Only twice recorded since and no detailed site or grid ref exists. In Calcareous grassland.

Site	Gridref	Date	Recorder
Recorded from NY26 and NY38 (1956)			

Lactuca virosa L.

Great Lettuce

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: rare recent colonist.*

Native annual or biennial herb, occurring on coastal cliffs, rock outcrops and sand dunes. Also grows on waste, woodland margins and in quarries. Nationally the species may be increasing, its spread assisted by road development.

It was first noted in Dumfriesshire by C. Miles in 2010 as a plant on the verges of the motorway approach road. Has persisted since and likely to continue to do so.

Site	Gridref	Date	Recorder
Lockerbie North (NY18G)	NY12878294	01 August 2015	Miles, C.J.

Lamium amplexicaule L.

Henbit Dead Nettle

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

An annual archaeophyte of open, cultivated and waste ground, usually found on light, dry soils. It also occurs on walls, by railways and in cracks in pavements. Nationally there appears to be a slight decline in this species, especially in S. England and N.E. Scotland. It is decreasing as a weed of cultivated land because of the increased use of herbicides. Eurosiberian southern temperate distribution, but it is widely naturalised so that distribution is now circumpolar southern temperate.

First listed by P Gray in 1842 from Dumfries. In The Flora it was noted from numerous locations but has been recorded in only a handful over the last 100 years.

Site	Gridref	Date	Recorder
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Brooms Road and Dock Park	NX9775	24/5/2019	BSS and BSBI urban flora team
East Hayrigg	NY134804	26/4/1978	Little, R.
Kirkton railway cuttings	NY13168376	04/06/2019	Davidson, D.

Also recorded in NX98 (1896)

Lamium confertum Fr.

Northern Dead Nettle

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

An annual archaeophyte of cultivated and waste ground. Nationally in decline and naturalised populations no longer exist in England, where it is now present only as a casual. European boreal montane distribution; it also occurs in Greenland.

First listed by J Cruickshank in 1839 at Brownhall. In The Flora it was noted from numerous locations but has been recorded very infrequently over the last 100 years. It is similar to the equally infrequently recorded *L. hybridum* and some care is required to distinguish them. Generally the leaves have more rounded lobes in *L. confertum* but both are larger than *L. purpureum*.

Site	Gridref	Date	Recorder
Brownhall, Dumfries	NX97	01/09/1839	Cruickshank, J.
Lochmaben	NY080825	18/08/1981	Martin, J.D.S.
Annan centre	NY1966	26/05/2019	BSS and BSBI urban flora team
Sandhills (NY2065)	NY20826501	09/10/2019	Miles, C.J., Davidson, D.

Also recorded in NS70, NX89

Lamium hybridum Vill.

Cut Leaved Dead Nettle

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare

An annual archaeophyte of cultivated, waste and disturbed ground on dry soils, often occurring as a weed of heavily fertilised, broad-leaved crops. Nationally it is expanding its range, presumably due to its ability to exploit conditions of high fertility. However, it is often confused with *L. purpureum*, so may previously have been under-recorded. European temperate distribution.

Seen in 2019 for the first time in many years. It was in an arable field with a lot of *L. purpureum*. Several patches were seen. It is possible that early ploughing has reduced opportunities to see this species (as with other arable species).

Site	Gridref	Date	Recorder
West Roucan (NY0278)	NY02367810	24/10/2019	Miles, C.J., Miles, A., Davidson, D.

Recorded from NY26 before 1969.

Lathraea squamaria L.

Toothwort

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not Scarce.*

An annual or perennial herb, parasitic on the roots of a range of woody plants notably hazel, ash and elm. Its typical habitats include deciduous woodland, hedgerows, and river and stream banks. Nationally there have been losses throughout its range, the reasons for which are unclear. European temperate element; also in C. Asia.

This was first recorded in Dumfriesshire by T. Brown in the Scaur water in 1882. It is infrequently seen, probably because it disappears after flowering. It is associated with old native woodland on stream/river banks.

Site	Gridref	Date	Recorder
Carcoside (NS71L)	NS77731288	04/05/2018	Miles, C.J.
River Nith, A76	NS862032	23/04/1976	Martin, J.
Stenhouse Wood SSSI	NX7993	02/06/2006	McCleary, J.
Wood Hill	NX987896	09/08/1976	Marquiss, M.
Croalchapel	NX912919	28/5/99	Harrison, P.
Saint Michaels (NY1384)	NY1314184395	19/04/2017	Davidson, D.
Wamphry water NY19I	NY1340596837	22/04/2012	Miles, C.J.
Lynholm (NY29Q)	NY27999189	16/05/2010	Miles, C.J.
Enzieholm	NY29V	16/05/2010	Miles, C.J.
Hollows (NY37Z)	NY3839278636	30/04/2017	Miles, C.J., Miles, A.
Canonbie	NY394763	16/06/1980	Martin, M.E.R.
Burnfoot (NY38J)	NY33638836	14/05/2017	Miles, C.J., Miles, A.
Bentpath NY39 A	NY30259025	14/04/2019	Lambert, A.

Lemna trisulca L.

Ivy Leaved Duckweed

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not Scarce expanding.*

The only submerged species of *Lemna* in our area, this species is frequent in mesotrophic to eutrophic, still or slowly flowing waters where low nutrient levels or exposure prevent the development of a dense blanket of floating *Lemna* species. Reproduction is by vegetative budding; flowering is very rare. Nationally there have been some local losses, but the distribution of *L. trisulca* is otherwise stable. Circumpolar temperate element.

Not recorded at the time of the Atlas which makes H. Milne Redhead's record from 1959 the earliest. This may be spreading and so is worth keeping in the register to track change. Six additional sites have been added between the first and second editions.

Site	Gridref	Date	Recorder
Glengar Loch	NX830963	17/05/1959	Milne-Redhead, H.

Drumlanrig Woods	NX8499	01/09/2019	Dumfries Botany Group
Drumlanrig Castle NX89P	NX85779947	12/07/2015	Miles, C.J.
Morton Castle (NX8999)	NX89219921	15/09/2019	Miles, C.J., Davidson, D.
Cowhill Tower (NX98L)	NX95458280	08/09/2012	Miles, C.J.
Quarrelwood (NX9684)	NX96548481	16/05/2019	Miles, C.J., Miles, A., Davidson, D.
Hartwood Moor (NY07U)	NY06427855	06/09/2014	Miles, C.J.
Kirk Loch, Lochmaben	NY0782	1973	Martin, J.D.S.
Mill Loch, Lochmaben	NY0783	13/07/2004	Stewart, N.F. Turner, L. Carvalho, L.
Lochmaben Castle (NY0881)	NY08838125	02/09/2018	Dumfries Botany Group
Mill Loch, Lochmaben	NY080830	13/07/2009	Stewart, N., Eckert, S.
Kirkhirst Plantation, Castle Loch (NY0981)	NY09098110	02/09/2018	Dumfries Botany Group
Kinmount Quarry Park Wood	NY1468	15/08/2018	Dumfries Botany Group
Water of Milk at East of Milkvale, Lockerbie	NY14397515	22/07/2015	Sadler, E.J., Bell, A., Quinn, L.
Water of Milk @ Kettleholm Bridge	NY14457685	22/07/2015	Sadler, E.J., Bell, A., Quinn, L.

Leontodon saxatilis Lam.

Lesser Hawkbit

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A perennial or biennial herb of often heavily grazed and trampled grassland, dry moorland, stony banks, limestone and other basic rock outcrops, fixed dunes, tracks, and sand- and gravel-pits. It prefers well-drained, calcareous to mildly acidic soils, but also occurs in periodically wet habitats such as dune-slacks, rutted tracks and pond margins on sandy soils. Nationally it has apparently declined in some areas since 1950. Suboceanic southern temperate element; widely naturalised outside its native range.

First listed by Rev. J. Fraser before 1882 from along the shore. Still grows on sandy ground along the coast with only a couple of inland records.

Site	Gridref	Date	Recorder
Caerlaverock NNR, Castle Burn	NY022652	11/08/1970	
Lochmaben	NY082836	15/08/1984	Martin, M.E.R.
Riddingdyke	NY16H	10/07/2009	Miles, C.J.
Broom Fishery	NY1665	10/06/2019	Miles, C.J., Miles, A., Davidson, D.
Boreland square	NY19	02/08/1996	Dines, T. Kay, G.M., Milner, B.
Torduff Point (NY2663)	NY26356389	20/08/2019	Miles, C.J., Miles, A., Davidson, D.
Baurch (NY26X)	NY29146543	20/07/2014	Miles, C.J.
Old Graitney	NY315659	12/07/1981	Martin, M.E.R.

Also recorded in NS81, **NX98 (1957)**, and NY29

Lepidium ruderales L.

Narrow Leaved Pepperwort

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Rare.

An annual archaeophyte, or rarely biennial, herb of banks and bare waste land near the sea, and of salted road verges. It is also frequent as a casual of roadsides, rubbish tips, gardens and waste places. *L. ruderale* is increasingly found as a halophyte along trunk roads, but is apparently less frequent as a casual than it was before the Second World War. As an archaeophyte it has a eurosiberian temperate distribution; it is widely naturalised outside this range.

Only recently recorded in Dumfriesshire and both records are from coastal sites where it has presumably arrived naturally. It is a southern species that is also rare on the south side of the Solway.

Site	Gridref	Date	Recorder
Powhillon NY06T	NY0666	01/09/1998	Hawker, D.
Annan Waterfoot NY16X	NY192647	28/08/2008	Miles, C.J.

Limonium humile Mill.

Lax-Flowered Sea-Lavender

National Status: Scarce, Least Concern.
Status in Dumfriesshire: Rare.

A perennial herb of ungrazed or lightly grazed muddy estuarine saltmarshes. It is often growing in close proximity to its commoner relative, *L. vulgare*, but replacing it in some areas. It rarely occurs on rocky cliffs. Nationally here has been very little change in distribution *recently*, though a few local losses have been noted as a result of land-use changes or invasion by *Spartina*. Oceanic temperate element.

First recorded on the merse at Caerlaverock by J.T. Syme in 1838. Recent searches found a few isolated plants on the eroding edge of the merse west of Powfoot. Dumfriesshire plants are on the eastern end of the main Solway populations.

Site	Gridref	Date	Recorder
Caerlaverock	NY06	08/08/1839	Cruikshank, J.
Riddingdyke NY16H	NY12846496	10/07/2009	Miles, C.J.
Riddingdyke NY16H	NY129650	00/00/1987	Dawson, H.J.
Riddingdyke NY16H	NY13066512	10/07/2009	Miles, C.J.

Limonium vulgare Mill.

Common Sea Lavender

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Rare.

A perennial herb of ungrazed or lightly grazed muddy saltmarshes, occasionally also growing amongst nearby rocks and on the stonework of sea-walls. Nationally its distribution shows little change, but the species is declining in many areas as saltings are invaded by *Spartina anglica* or have become more intensively grazed. Mediterranean atlantic element.

Very few records for this species. The 1975 plant was seen by Mary Martin who confirmed its identity.

Site	Gridref	Date	Recorder
Powfoot	NY129650	1975	Darke, H.; Pringle, E.
Gretna to Redkirk	NY31506587	06/08/2012	Haynes, T.

Linum radiola L.

Allseed

National Status: Not Scarce, Near Threatened.
Status in Dumfriesshire: Rare.

A small annual of damp, bare, infertile, peaty or sandy ground in acid grasslands and heaths, by ponds, on tracks and in woodland rides. Near the coast it occurs in dune-slacks, sandy grassland, on machair, and in soil-filled rock cracks. Lowland. *R. linooides* suffered a considerable decline before 1930, largely due to the loss of lowland heaths or a lack of grazing and disturbance on them. These losses have continued in England. It is easily overlooked and may be under-recorded in some areas.

First mentioned by Dr Burgess in 1789. Noted from Lochmaben, Little Dormont and Ruthwell. Not recorded since the Flora until found in two places on the forest tracks on Racks Moss in 2017.

Site	Gridref	Date	Recorder
Racks Moss (NY07G)	NY03097308	08/09/2017	Miles, C.J., Miles, A.

Lipandra polysperma (L.) S. Fuentes, Uotila & Borsch

Many-seeded Goosefoot

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Rare.

An annual of waste and cultivated ground. Included as an archaeophyte. Nationally this species may be increasing. Eurosiberian temperate element. A southern species that might have arrived relatively recently.

Only recently found in Dumfriesshire for the first time. The plant was growing on muddy river gravels beside the Nith which are flooded during the winter and on dumped soil at Kinmount.

Site	Gridref	Date	Recorder
Kirkbog (NX89R)	NX87539245	30/08/2014	Miles, C.J., Miles, A.
Kirkton (NX98Q)	NX96438052	14/09/2013	Miles, C.J.
Kinmount Quarry Park Wood	NY14166886	15/08/2018	Dumfries Botany Group

Lobelia dortmanna L.

Water Lobelia

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

A small, rosette-forming perennial herb of oligotrophic lakes with acidic substrates. It is slow-growing, with little ability to withstand shade or competition and is therefore confined to shallow water less than 2 metres deep. Nationally it is still frequent in the north and west but has declined, largely before 1930, from the eastern edge of its range in both Britain and Ireland through eutrophication. European boreal montane element; also in N. America.

First listed by G.N. Lloyd in 1837 at Lochmaben. This western species has only ever been recorded in a handful of lochs. It has not been seen at Morton or Lochmaben in recent years and may be extinct in these locations. Dumfriesshire is on the eastern edge of the Galloway populations.

Site	Gridref	Date	Recorder
Loch Urr NX78S	NX78S	11/09/2009	Miles, C.J.
Lochmaben	NY08	1941	Ambrose, F.

Also recorded in NX89

Malva moschata L.

Musk Mallow

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A perennial herb of roadsides, hedge banks, woodland edges, pastures, field-borders, river banks and grassy waste places, preferring well-drained soils in unshaded or lightly shaded situations. It is tolerant of moderate levels of grazing or mowing, and seed is persistent in the soil. *M. moschata* is native in S. England, but is probably introduced in N. Britain and Ireland. The distribution is stable, although it may be increasingly introduced with wild-flower seed mixtures and as garden escapes. European temperate element; widely naturalised outside its native range.

First listed for Dumfriesshire by J. Shaw in 1882. Never very widespread but can be found in rough grassland or on the coast. None of the sites appear to have been seeded though confusion with plants introduced this way or from garden escapes is probable around settlements like at Collin.

Site	Gridref	Date	Recorder
Enterkinfoot	NS858042	11/07/1998	Wood, D.C., McIntosh, J., Blackman, L.
Auldgirth	NX9186	21/08/2017	Miles, C.J.
Kirkton	NX98Q	14/09/2013	Miles, C.J.

Collin South	NY0275	09/05/2019	Miles, C.J., Miles, A., Davidson, D.
Powfoot	NY16M	12/07/2009	Miles, C.J.
Newbiebarns (NY16S)	NY17536482	27/08/2018	Miles, C.J., Miles, A.
Eastriggs Ordnance depot	NY260650	24/07/2002	Miles, C.J., Galley, J.
Bigholms Burn.	NY314813	19/07/2003	Farrell, L., Stile, S.

Also recorded in NX89, NY09, NY18, NY37

Melilotus altissimus Thuill.

Tall Melilot

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A biennial or short-lived perennial herb occurring in disturbed grassland and on roadsides, field-borders and waste places. Lowland. *M. altissimus* has been known in Britain since the 16th century, and seems much more rural in its distribution than the other species of *Melilotus*.

This was not known in Dumfriesshire until 2017 when it was found on the shore at Easttriggs by Richard and Barbara Mearns and at Beattock. It may have arrived at Easttriggs from the Cumbrian coast and may be spreading along the coast.

Site	Gridref	Date	Recorder
Beattock (NT0702)	NT07650279	24/6/2017	Miles, C.J.
Powfoot Village monad (NY1465)	NY14086522	11/7/2019	Miles, C.J., Miles, A.
Torduff Point (NY2663)	NY26546387	20/8/2019	Miles, C.J., Miles, A., Davidson, D.
Rowanburn West (NY4077)	NY40917728	21/7/2019	Miles, C.J., Miles, A.

Meum athamanticum Jacq.

Spignel

National Status: Scarce, Near Threatened.

Status in Dumfriesshire: Not Scarce.

A perennial herb of deep brown-earth neutral or mildly acidic soils occurring in dry, unimproved grassland in pastures, hay meadows and on roadside-banks. Nationally it appears to be declining. European boreal montane element.

The earliest record is from Glenwhargen Craig by J. Shaw in 1882. Mostly now on roadsides or in rough pasture where grazing pressure is less acute. Less common than at the time of The Flora, due to agricultural improvements in grassland or loss of open habitat under conifer plantations. There is a distinct western bias with Dumfriesshire being on the eastern edge of the more extensive Galloway populations.

Site	Gridref	Date	Recorder
Euchan Water	NS70	-1896	Davidson, A.

Buttknowe,nr	NS723124	15/07/1988	Martin, M.E.R.
Gateslack	NS80	-1896	Armstrong, R.
White Coombe (NT11S)	NT17041495	12/09/2010	Miles, C.J.
Eskdalemuir Observatory	NT2302	1975	Martin, M.E.R.
Muckle Knowe,B109 road	NT253068	18/06/1975	Little, R.
Cairnhead, Dalwhat R NW of	NX6996	1991	Fleming, L.V.
Auchencheyne (NX78N)	NX74528734	30/05/2010	Miles, C.J.
Nether Craigenputtock,nr	NX787831	15/06/1987	Martin, M.E.R.
Castramon Moor,Lettrick Farm	NX793837	06/07/1988	Martin, M.E.R.
Moniaive Village	NX77649084	01/08/2010	Wilson, B.
Stroquhan	NX88	-1896	Druce, G.C.
Glenwhargen Craig	NX89	1882	Shaw, J.
Wolfhope burn	NY365933	20/06/1998	Hawker, D.M.

Micranthes nivalis (L.) Small

Alpine Saxifrage

*National Status: Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

A native perennial, rhizomatous herb growing on damp, shady, base-rich rocks and cliffs. It is usually found in crevices and on ledges where competing vegetation does not overtop it. Nationally the distribution of *S. nivalis* is stable. Circumpolar arctic montane element.

First recorded by J.T. Johnstone in 1889 in Blacks Hope. Found again by D.A.R. Ratcliffe in 1956 when there were 29 plants and then 1973 when there were 7. Not seen since. Precise location withheld.

Site	Gridref	Date	Recorder
Black Hope	NT11	07/1973	Ratcliffe, D.A.

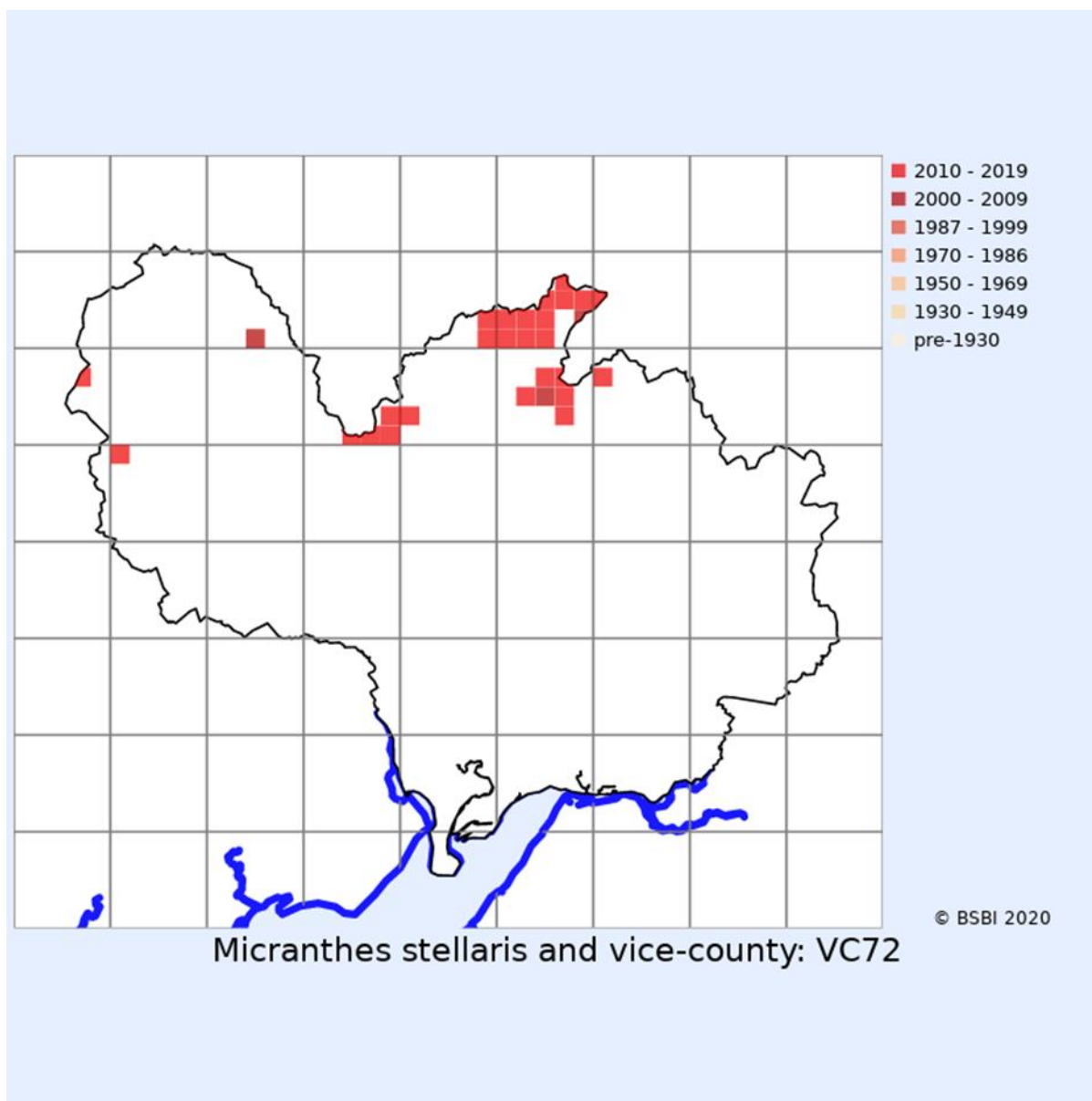
Micranthes stellaris (L.) Galasso, Banfi & Soldano

Starry Saxifrage

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not scarce habitat restricted.*

A perennial, stoloniferous herb found in open (rarely shaded), wet flushes, growing by mountain streams or on wet rock ledges and cliff-faces, usually in base-poor soil. It is commonly found from about 200-1000 m. There has been no appreciable change in the distribution of *S. stellaris* since the 1962 *Atlas*.

First listed by Rev. Dr. Burgess in 1789 from Queensberry. It is common in the Moffat, Lowther and Ettrick hills but very sparse or absent elsewhere. In flushes and water channels.



Also recorded in NS60, NX99

Myosotis ramosissima Rochel

Early Forget Me Not

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

An annual of open habitats or bare ground on dry, relatively infertile soils. It is found in chalk and limestone grassland, on sandy heaths and banks, stabilised dunes, the borders of sandy cultivated fields, railway tracks, rocks, walls, gravel-pits, quarry spoil and waste ground. Nationally there have been some local losses since 1950, possibly caused by the loss of close-grazed semi-natural communities in inland areas. European southern temperate element.

Not mentioned in the Flora. A record from 1955 in the Langholm area may therefore be the first. Only recently recorded on thin coastal heathy soils or the old runway at Chapelcross. Probably still under recorded.

Site	Gridref	Date	Recorder
Broom Fishery	NY1665	10/06/2019	Miles, C.J., Miles, A., Davidson, D.
Chapelcross North (NY2170)	NY21377017	03/07/2019	Miles, C.J., Davidson, D.
Dornock Mains (NY2265)	NY22036510	9/10/2019	Miles, C.J., Davidson, D.

Also recorded in NY38 (1955)

Myosotis stolonifera (DC.) Gay ex Leresche & Levier.

Pale Forget Me Not

National Status: Scarce, Least Concern.

Status in Dumfriesshire: Not Scarce, habitat restricted.

A perennial herb growing by rills and along base-rich spring-lines and flushes. Nationally its distribution is stable. Oceanic boreal montane element.

Not known when the atlas was written so the first record for Dumfriesshire appears to be by A.H.G. Alston in 1938 at the Grey Mares Tail. This is a plant of flushes and mires in the hills where it is not uncommon. It may be better recorded today than previously though it has to be carefully separated from *M. secunda* which also occurs in similar situations. It is found in the Moffat, the Ettrick and the Lowther Hills and Dumfriesshire is one of the strongholds for this North Pennine and Southern Upland specialist.

Site	Gridref	Date	Recorder
Friarminnan Square	NS71J	01/08/2004	Miles, C.J.
Spothfore Burn	NS769154	19/06/1994	Corner, R.W.M
N.W. Knockenhair	NS7913	02/08/2004	Miles, C.J.
White Dod NS81K	NS81K	20/06/2009	Miles, C.J.
Whiteside (NS81V)	NS8841711242	10/07/2011	Miles, C.J.
Ganna Shank (NS90K)	NS95470063	27/07/2013	Miles, C.J.
Penbreck (NS90V)	NS98930152	28/06/2014	Miles, C.J.
Corehead tetrad B (NT11B)	NT10411313	08/08/2010	Miles, C.J.
Moffat Hills SSSI, Carrifran Burn	NT15511257	28/06/2004	Rae, D.A.
Moffat Hills SSSI, Carrifran Burn	NT15281300	28/06/2004	Rae, D.A.
Firthhope Rig	NT15671596	13/08/2018	Clarkson, R.
Moffat Hills SSSI, White Coomb	NT160156	28/07/2011	Clarkson, R.
Mid Craig	NT16411692	18/07/2017	Clarkson, R.
Loch Craig	NT164170	18/07/2017	Clarkson, R.
Moffat Hills SSSI, Moffat Water	NT18121367	10/06/2004	Rae, D.A.
Dobs Linn (NT11X)	NT19561543	03/07/2011	Miles, C.J.
Summer Cleuch Knowe (NT20D)	NT20110792	04/08/2014	Miles, C.J.
Trowgrain Middle (NT21C)	NT20921553	06/09/2015	Miles, C.J.
Queensberry (NX99Z)	NX98689827	31/07/2016	Miles, C.J.
Queensberry (NX99Z)	NX98349957	31/07/2016	Miles, C.J.
Queensberry (NX99Z)	NX99079961	31/07/2016	Miles, C.J.

Myosotis secunda Al. Murray x **Myosotis stolonifera** (DC.) Gay ex Leresche & Levier.

Myosotis x bollandica P. Jepson

National Status: None given.

Status in Dumfriesshire: Rare.

A hybrid that is intermediate between the parent species in overall appearance and growing in hill country by rills and along base-rich spring-lines and flushes in similar positions to the rarer parent. It was only discovered in 1996 in West Lancashire. So far it has been found only within the range of *M. stolonifera*.

In Dumfriesshire it was discovered by Rod Corner in the Carrifran Valley in July 2010. This has sustained itself for a number of years and another colony nearby found. A second population was found in the Lowther Hills in 2015. It has also been found in Peebleshire and can be expected elsewhere where the two parents overlap.

Site	Gridref	Date	Recorder
Base of Glendorch Rig, Wanlockhead	NS85351464	19/07/2015	Miles, C.J.
Carrifran Valley	NT1512	00/07/2010	Corner, R.W.M.
Carrifran Gans (NT1513)	NT15071392	06/07/2018	Miles, C.J., Miles, A.

Nasturtium microphyllum (Boenn.) Rchb.

Narrow Fruited Watercress

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

Perennial herb growing in and beside streams, ditches, ponds and canals, and in marshes. Almost certainly under-recorded; it may be more frequent in N. England and E. Scotland than current information suggest. It is not commercially cultivated as watercress. World distribution uncertain.

The first record for Dumfriesshire was by H. Milne Redhead in 1958. It is probably under recorded. It occurs in muddy bottomed streams and pools.

Site	Gridref	Date	Recorder
Capenoch Moor	NX89G	11/06/2016	Miles, C.J.
Thornhill	NX8795	03/08/2018	Dumfries Botany Group
Wildfowl Trust	NY06	27/06/1989	Martin, M.E.R.
Brocklehirst	NY050738	23/09/1996	Lassiere, O.L. Dines, C.
The Hewke	NY18P	11/08/2013	Miles, C.J.
Langhom area	NY39	12/07/1998	Stewart, O. White, A.

Neottia cordata (L.) R. Br.

Lesser Twayblade

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce declining.*

A perennial herb found in moorland and on peat bogs, often growing in *Sphagnum* or in the moss layer beneath *Calluna* and *Vaccinium*, always in wet, acidic conditions. It also grows in moss in damp, heavily shaded wood-carr, and occasionally under *Pinus*. Reproduction is by seed and root-buds. 0-1065 m (Stob Coire an Easain, Westernness). Although lost from many lowland sites before 1930, presumably due to habitat destruction, this species is much better recorded than it was in the 1962 Atlas. It is an inconspicuous plant which may still be under-recorded.

First listed by Dr Singer in 1843 and known from a scattering of localities at the time. Not uncommon in the Moffat Hills under heather. It has been refound in a number of old localities including in NT00 after more than 100 years. Much suitable habitat has already been lost and continues to be lost as moorland and blanket bog is degraded or lost to plantations.

Site	Gridref	Date	Recorder
Wanlockhead (NS81R)	NS86891314	19/07/2015	Miles, C.J., Miles, A.
Greygill Head (NT0908)	NT09350890	25/07/2016	Miles, C.J.
Windfell Nick (NT1705)	NT17430581	21/08/2016	Miles, C.J.
Firthhope Rig NT11M	NT11M	25/07/2009	Miles, C.J.
White Coombe monad (NT1615)	NT16781549	22/06/2014	Roberts, J., Brown, P., Miles C.
Mid Craig Monad	NT1616	23/07/2016	BSBI Field Meeting 2016
Upper Tarnberry	NT17781549	04/08/2017	Clarkson, R.
Dobs Linn (NT11X)	NT18621554	03/07/2011	Miles, C.J.
Moodlaw Loch	NT29240742	04/07/2012	Weston, A.
Keb and Jarney Hill (NX78P)	NX75549876	17/06/2017	Miles, C.J.
Arkland Rig	NX780989	10/07/1998	D&G Quadrat Survey Team
Loganhead Forest	NY3086	24/09/2013	Watson, K.
Dans Hags (NY3796)	NY37699673	04/08/2018	Miles, C.J., Miles, A.
Arkleton Hill (NY49B)	NY40439218	12/07/2014	Miles, C.J.

Also recorded in NS70 (1882), NT00, NT01,

Neottia nidus-avis (L.) L.C.M.Richard

Bird's Nest Orchid

*National Status: Not Scarce, Near Threatened.**EC Cites Annex B**Status in Dumfriesshire: Scarce.*

This native obligately myco-heterotrophic herb is most frequent in the deep humus of densely shaded *Fagus* woods on chalky soils. Less commonly it occurs in mixed deciduous woodland and mature *Corylus* coppices, on soils derived from limestones and base-rich clays and sands. Nationally this species suffered a considerable decline throughout the 20th century, but

particularly between 1930 and 1970. It is very vulnerable to habitat disruption, and most losses are probably due to changes in woodland management and conifer planting. Eurosiberian temperate element; also in E. Asia.

It was first reported from near Lockerbie by G. Bell in 1893. It is infrequent and normally found in small numbers on the roots of *Corylus* or *Fagus* in old woodland. It was re-found in NY18 after more than 100 years showing that it can sustain itself if the woodland remains in a relatively natural state.

Site	Gridref	Date	Recorder
Stenhouse Wood	NX7993	02/06/2006	McCleary, J.
Craignee, Scour Glen	NX824948	05/06/1976	Martin, J.
Castlemilk Sawmill, Water of Milk	NY153788	16/06/1974	Little, R.
Scroggs Bridge (NY1681)	NY16278130	28/06/2019	Miles, C., Davidson, D.
Wamphray Church - Laverhay	NY135967	24/06/1992	Green, R.
Howath, Kirtle Water	NY247751	13/06/1986	Martin, M.E.R.; Muir, J.
Hollows (NY37Z)	NY38827817	28/03/2018	Dumfries Botany Group
Fairy Loup, Byre Burn	NY395784	1983	Watt, G.
Langholm Castle Holm (NY3585)	NY35478527	16/07/2016	Miles, C.J., Miles, A.
Longwood-Broomholm, River Esk E of	NY374825	01/07/1978	Groom, R.

Nuphar x spenneriana Gaudin

Hybrid Water-Lily

(*Nuphar lutea* x *Nuphar pumila*)

National Status: Not Listed, Not Listed.

Status in Dumfriesshire: Rare.

Intermediate between the parents this rare hybrid can be present in the absence of one of the parents but is found close to where they overlap. It is found in oligotrophic water bodies.

It has been known in Dumfriesshire since first recorded by A. Davidson in 1886. It was found at Loch Urr by J. Day and N. J. Willaby in 1996. *N. pumila* has not been recorded in Dumfriesshire.

Site	Gridref	Date	Recorder
Sanquhar, Black Loch	NS7910	7/1886	Davidson, A.
Loch Urr	NX78S	11/09/2009	Miles, C.J.

Oenanthe fistulosa L.

Tubular Water Dropwort

National Status: Not Scarce, Vulnerable.

Status in Dumfriesshire: Rare.

A perennial herb of damp or wet habitats, usually in areas of winter flooding. It occurs in meadows and pastures in the flood plains of rivers, in marshes and fens, and in emergent and fringing vegetation by rivers, streams, canals, ditches, lakes and ponds. It reproduces by seed, and spreads by stolons. In heavily grazed swards seed is produced virtually at ground level from secondary growth. Nationally it has appreciably declined because of drainage and the re-seeding of old grassland or its conversion to arable. European temperate element.

Listed as early as 1789 by reference to a record by Rev. Dr Burgess between Blackshaw and the Lochar water. This is very close to the area it is still recorded today on Caerlaverock NNR.

Site	Gridref	Date	Recorder
The 'Flooders' Caerlaverock	NY02986519	24/07/2009	Miles, C.J.
The 'Flooders' Caerlaverock	NY03456522	24/07/2009	Miles, C.J.

Also recorded in NY16

Omalotheca sylvaticum (L.) Sch. Bip. & F.W. Schultz

Heath Cudweed

National Status: Not Scarce, Endangered.

Status in Dumfriesshire: Scarce, declining.

A short-lived native perennial herb of open communities on dry, acidic, often sandy or gravelly soils. Habitats include heaths and heathy pastures, sand-pits, dunes, tracks and, especially, open woodland and forestry rides in areas of former heathland. Nationally it appears to be declining throughout its range, despite probably being one of the few native vascular plant species to benefit from the extensive afforestation programmes of the 20th century. Eurosiberian boreo temperate element; also in N. America.

First listed by P. Gray in 1842. This species appears to have suffered a major decline. It is found on woodland tracks or other open ground. The recent re-find in NY08 and NY16 and records from new squares at Bentpath and Arkleton (both on forest tracks) shows it can still turn up in both old and new locations.

Site	Gridref	Date	Recorder
Upper Dalveen, A702	NS911083	18/08/1983	Martin, M.E.R.
Thornhill, Laught Wood	NX89	1891	Masterman, R.H.
Barbburgh Mill Quarry	NX90308835	14/07/2009	Hawker, D.
Racks Works	NY0373	1976	Martin, J.D.S.
Spedlins Flow NY08Y	NY09438697	28/9/2017	Miles, C.J., Miles, A.
Broom Fishery (NY1665)	NY16606585	10/6/2019	Miles, C.J., Miles, A., Davidson, D.
Dalton, Dormont Estate	NY1174	25/06/1978	Martin, J.D.S.
Auchenroddan, N of Lockerbie	NY1389	01/10/1985	Martin, M.E.R.
Bentpath	NY30958957	18/9/2017	Miles, C.J.
Bentpath	NY31058982	18/9/2017	Miles, C.J.
Arkleton Cottage (NY48E)	NY41258928	19/6/2017	Miles, C.J.

Also recorded in NS70, NS71, NS80, NS81, **NX88 (1957)**, NY26, **NY27 (1959)**

Ononis repens L.

Common Restharrow

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not Scarce.*

A rhizomatous perennial sub-shrub, widespread in grasslands on base-rich, well-drained, light soils, and also on calcareous boulder-clays. On the coast it occurs on sand dunes and shingle, and inland it is frequently a colonist of sandy or gravelly road verges. Nationally its distribution is stable. European temperate element.

First noted by the Rev. W. Little in 1834. While older inland records existed at the time of The Flora all recent records are for coastal sites. This species grows on the well drained sand and shingle sediments along the whole coast including in merse swards. Plants can be spiny (*var. horrida*) so care is required in distinguishing from *O. spinosa* (see below).

Site	Gridref	Date	Recorder
Netherwood Mains riverside	NX9772	23/07/2019	Miles, C.J., Miles, A.
Caerlaverock	NY0265	1975	
Riddindyke	NY1365	04/08/2019	Dumfries Botany Group
Powfoot East Beach	NY1565	04/08/2019	Dumfries Botany Group
Broom Fishery (NY1665)	NY16296530	10/06/2019	Miles, C.J., Miles, A., Davidson, D.
Annan Waterfoot	NY1864	27/08/2018	Miles, C.J., Miles, A.
Solway Foreshore	NY238652	07/07/2012	Hammond, B.
Eastriggs works west	NY26M	18/06/2017	Miles, C.J.
Torduff Point (NY2663)	NY26426387	20/08/2019	Miles, C.J., Miles, A., Davidson, D.
Eastriggs works SE (NY2764)	NY27506439	20/08/2019	Miles, C.J., Miles, A., Davidson, D.
Baurch	NY26X	20/07/2014	Miles, C.J.
Lochmaben Stone	NY36C	08/09/2007	Miles, C.J.

Also recorded in NY17

Ononis spinosa L.

Spiny Restharrow

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not Scarce.*

A woody perennial of infertile calcareous grasslands on chalk, limestone and heavy calcareous clay soils. It also occurs on the coast in grazing marshes and on earthen sea-walls. Nationally it is probably declining, especially in S.E. England, because of agricultural improvements. However it may be over-recorded for spiny forms of *O. repens* *var. horrida*. *Eurosiberian southern temperate element.*

Known at the time of the atlas where it is listed by Dr. F.W. Grierson in 1882. The atlas does not distinguish locations for the two species. *O. spinosa* grows on heavier soils with more clay content than *O. repens*. It has hairs in 2 lines on stems and has longer leaflets whereas *O. repens* has hairs all around the stems and shorter leaflets.

Site	Gridref	Date	Recorder
Powhillon	NY06T	18/07/2009	Miles, C.J.
Brow Well	NY06Y	28/08/2010	Miles, C.J.
Priestside Bank	NY11386531	09/08/2012	Haynes, T.
Riddingdyke	NY16H	10/07/2009	Miles, C.J.
Powfoot	NY16M	12/07/2009	Miles, C.J.
Newbiebarns	NY16S	09/07/2012	Miles, C.J.
Annan Seafield	NY20116491	08/08/2012	Haynes, T.
Dornock south	NY22216516	08/08/2012	Haynes, T.
Solway Foreshore	NY238652	07/07/2012	Hammond, B.
Eastriggs Depot	NY26S	11/07/2012	Miles, C.J.
Baurch	NY28736529	07/08/2012	Haynes, T.
E of Baurch	NY29116541	07/08/2012	Haynes, T.
Gretna to Redkirk	NY31446586	07/08/2012	Haynes, T.

Ophioglossum vulgatum L.

Adder's Tongue

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce, declining*

A rhizomatous, deciduous fern found on mildly acidic to base-rich soils in open woodland, meadows and damp pastures, and on sand dunes, under *Pteridium* on heaths, and on peat in regularly mown fen. Nationally it has been lost from many lowland sites where the intensification of agriculture, grazing and drainage have contributed to its decline. Circumpolar temperate element, with a disjunct distribution.

Listed by W. Keddie in 1854 from Beldcraig. This inconspicuous fern has been recorded very infrequently. It occurs in old pasture and may have been lost from many former sites because of more intensive management.

Site	Gridref	Date	Recorder
Craigenputtock Moor (NX78R)	NX76328250	03/07/2017	Miles, C.J., Miles, A.
Burnfoot	NX974909	28/05/1999	Harrison, P.
Eskrigg Reserve, Lockerbie	NY12618054	08/09/2019	Davidson, D.
Chapelcross grounds NY26E	NY26E	26/06/2009	Miles, C.J.

Also recorded in NT00, NT10, NY08, NY38.

Orobanche rapum-genistae Thuill.

Greater Broomrape

*National Status: Scarce, Near Threatened.**Status in Dumfriesshire: Scarce.*

A perennial root parasite of leguminous shrubs, especially *Ulex europaeus* and *Cytisus scoparius*, but also known to occur occasionally on *Genista tinctoria*. Its habitat, governed by

that of its hosts, is mainly scrub, but hedge banks and track-sides are also favoured. Nationally this species suffered a dramatic decline in the 19th and early 20th century. This is largely unexplained, although changes in land-use were probably at least partly responsible. The decline appears to have halted by 1950, and subsequently populations have been found at a greater rate than they have been lost. Suboceanic southern temperate element.

The first record for Dumfriesshire is from Jardine Hall by Sir W. Jardine (as *O. major*) in 1866. It was also known from a number of other sites in lower Nithsdale where it still persists. It does not seem to have survived in the original Annandale site so it is now found only in lower Nithsdale. As it is parasitic on broom and gorse and both can be temporary on any site the *Orobanche* appears able to survive for long periods before reappearing when the host plant reinvades for example after woodland clearance. The Dumfriesshire sites are probably the only Scottish locations for this impressive plant.

Site	Gridref	Date	Recorder
Dunscore	NX8584	1957	Milne-Redhead, E.W.B.H.
Glenmidge NX88Y	NX882863	25/07/2008	Miles, C.J.
Hallidayhill (NX8986)	NX89408697	26/06/2019	Miles, C.J., Davidson, D.
Thornhill	NX8795	1896	McAndrew, J.
Nunholm (NX9777)	NX97917786	28/10/2019	Miles, C.J., Miles, A.
Georgetown (NX97X)	NX99497428	28/07/2014	Miles, C.J.
Auldgirth (NX98D)	NX908861	19/06/2005	Miles, C.J.
Locharbriggs	NX9980	1896	Wilson, J.
Heathhall Industrial Estate (NY07E)	NY00857831	28/05/2017	Miles, C.J.
Lochar landfill (NY07D)	NY01337773	01/07/2011	Miles, C.J.
Racks Moss (NY07G)	NY03457367	08/09/2017	Miles, C.J., Miles, A.
Amisfield	NY0083	19/06/1993	Foley, M.J.Y.
Jardine Hall Mains	NY1087	1866	Jardine, W.

***Orthilia secunda* (L.) House**

Serrated Wintergreen

National Status: Not Scarce, Least concern.
Status in Dumfriesshire: Scarce.

A rhizomatous, mycorrhizal, evergreen perennial herb, of damp *Calluna*- and *Vaccinium*-dominated communities, mostly in *Pinus* and *Betula* woodland but also on open moorland. It also grows in clefts and on ledges in rocky gullies, and on rocky stream banks. Flowering is often erratic. Distribution has been reduced historically by fire, grazing and other moorland management practices. However, it is not clear whether it has continued to decline since 1970. Circumpolar boreal montane element.

First listed by Rev. Dr. Singer in 1843 at two sites where it has not been re-recorded to date. This has never been common or present in any quantity.

Site	Gridref	Date	Recorder
Garpol	NT00	1843	Singer, Dr. Rev.

Beld Crag	NT10	1843	Singer, Dr. Rev.
Black Hope	NT1312	06/07/1956	Ratcliffe, D.A.
Carrifran (NT1512)	NT1512	28/06/1998	BBS Alpine Meeting
Tail Burn	NT182150	00/00/1957	Ratcliffe, D.A.
Bloody Cleuch Linns (Mosspeeble Burn)	NY408934	13/03/2002	Corner, R.W.M & Ratcliffe, D. A.

Oxybasis rubra (L.) S. Fuentes, Uotila & Borsch

Red Goosefoot

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

An annual of nutrient-rich mud around the dried-up margins of freshwater or brackish ponds and ditches trampled by livestock; also, more widely, in cultivated and waste ground, on manure heaps and farm tracks and in field gateways. Nationally increasing. Eurosiberian temperate element. A southern species that might have arrived relatively recently.

Only recently found in Dumfriesshire for the first time. Populations have all been on middens. Seeds are very persistent so will recur where ground is disturbed.

Site	Gridref	Date	Recorder
Knockenhair Fm+Crawick Water.	NS71W	15/09/2003	White, A., Miles, C.J.
Moffat Well NT00Y	NT00Y	09/08/2009	Miles, C.J.
Cummertrees (NY1366)	NY13686609	21/09/2017	Miles, C.J.

Oxyria digyna (L.) Hill

Mountain Sorrel

*National Status: Not Scarce, Least concern.**Status in Dumfriesshire: Not Scarce.*

Perennial herb of damp, ungrazed mountain ledges and wet shaded gullies Usually occurs above 150 m. Nationally its population appears stable. Circumpolar arctic montane element.

First listed by Rev. Dr Singer in 1843 at the Grey Mares Tail. In Dumfriesshire it is restricted to the NT11 hectad in the Moffat Hills where it survives on ledges out of reach of graziers. At Carrifran, as a result of stock removal it has been expanding into scree down water courses. It may just be a matter of time before it colonises the Moffat water gravels.

Site	Gridref	Date	Recorder
Corehead tetrad B (NT11B)	NT10171356	08/08/2010	Miles, C.J.
Hartfell Craig (NT1113)	NT11901329	13/08/2017	Miles, C.J.
Upper Coomb Craig, Moffat Hills SSSI	NT122119	24/05/2007	Waddell, J.
Black Hope (NT11G)	NT12581252	25/07/2010	Miles, C.J.
Nutberry Knowes (NT1213)	NT12421332	06/08/2016	Miles, C.J, Miles, A.J.

Redgill Craig monad (NT1312)	NT13601241	26/09/2017	Miles, C.J.
Whirly Gill	NT1313	07/09/2014	Miles, C.J, Miles, A,J.
Priest Gill (NT1413)	NT14491369	08/07/2017	Miles, C.J.
Games Castle	NT148145	12/08/1995	Singleton, R.
Peat Hill (NT1511)	NT15951191	06/06/2019	Miles, C.J, Davidson, D.
Carrifran (NT11L)	NT15141312	26/06/2011	Miles, C.J.
Gupe Craig (NT1514)	NT15171461	06/07/2018	Miles, C.J, Miles, A,J.
White Coombe monad 1615 (NT1615)	NT16781549	22/06/2014	Roberts, J., Brown, P., Miles C. Jeremy Brown, Phil Miles, Chris
Mid Craig Monad (NT1616)	NT16011619	23/08/2017	Ruhsam, M. Kohn, D.
Dobs Linn (NT11X)	NT1915	03/07/2011	Miles, C.J.
Tail Burn main falls (NT1814)	NT18381483	24/07/2016	BSBI Field Meeting 2016

Parentucellia viscosa (L.) Caruel

Yellow Bartsia

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

A hemiparasitic annual of damp, open grassy places on sandy soils, often by tracks. It normally occurs in drier dune-slacks and in reclaimed heath-pasture, but is also found on pathsides, rough and scrubby grassland and field-borders, and increasingly in re-seeded amenity grasslands and waste places. It thrives on disturbance. Lowland. This species has increased northwards and eastwards in Britain, largely through introductions from seed mixtures.

Known at the time of the Flora in the Dumfries area in 1850. It still occurs in and around Dumfries and may be the same population sustaining itself.

Site	Gridref	Date	Recorder
Dock Park. River Nith	NX975754	01/07/1999	White, A.
Dumfries	NX977749	2002	White, A.
Heathhall Industrial Estate (NY0078)	NY00527827	25/09/2017	Miles, C.J.

Paris quadrifolia L.

Herb Paris

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

A native rhizomatous, perennial herb of moist, calcareous, usually ancient, woodland, and occasionally found in grikes on open limestone pavement. It flowers and fruits most freely in the open stages of the coppice cycle, but persists in deep shade, and is well adapted to such conditions in managed woodland. Nationally declining through the destruction of woodland

and conifer planting. However, it may spread into secondary woods that are adjacent to primary woodland. Eurosiberian boreo temperate element.

It was first listed from Tinwald in 1843 by Rev. Dr. Singer. Several other locations were reported across the county in the nineteenth century. However it has not been seen since 1967 despite searching old sites. It was almost certainly lost at the last site recorded due to conifer planting in the native woodland (R Corner pers. com). This is a likely cause of loss elsewhere.

Site	Gridref	Date	Recorder
Laight Hill	NX815956	17/05/1959	Milne-Redhead, H.
VC72 Dumfriesshire	NX96	-1896	Rob, C.M.
Tinwald	NY08	1843	Singer, Rev Dr.
Scroggs	NY1681	1922	Wightman, A.
Kirkconnel Lee, Kirtle Water	NY248760	10/05/1959	Milne-Redhead, H.
Springkell	NY2575	29/05/1880	Paul, J.A.
Lyneholm	NY29	03/06/1967	Corner, R.W.M.

Persicaria minor (Hudson) Opiz.

Small Water Pepper

National Status: Not Scarce, Vulnerable.

Status in Dumfriesshire: Scarce.

An annual of wet marshy places, winter-flooded ground beside ponds, lakes and ditches, or damp pastures. It is found on a wide range of soils, from nutrient-rich muds in pastures to sandy and gravelly lake shores. Nationally the plant appears to have slightly increased its range westwards and northwards, although this may be an artifact of better recording. Eurasian temperate element.

First recorded at Lochar Moss in 1839 by J. Cruickshank. It has only been recorded in a few other sites but needs looking for as it can be confused with *P. hydropiper*. As an annual of seasonally dried areas it is prone to not appearing during wet years when water levels stay high.

Site	Gridref	Date	Recorder
Loch Urr	NX758845	03/08/1988	Stewart, O.M.
Loch Urr	NX760845	10/09/1996	Day, J. Willby, N.J.
Kirkmahoe, nr The Tooks	NX956825	15/09/1957	Milne-Redhead, H.
Loch Ettrick	NX944937	02/09/1996	Day, J. Willby, N.J.
Lochar Moss	NY07	1839	Cruickshank, J.
Blind Lochs (NY0683)	NY06228388	10/09/2019	Miles, C.J., Miles, A., Davidson, D.

Also recorded in **NY38 (1956)**

Phleum arenarium L.

Sand Cat's Tail

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

An annual of coastal sand dunes and sandy shingle, usually on mobile or semi-fixed dunes and frequently associated with winter-annuals. Also inland on open grass-heaths, wind-blown sand banks and other disturbed, open, sandy areas. Nationally its population is stable. European southern temperate element.

It is listed by Dr Davidson in 1890 from Sanquhar, presumably on heathland. It has also been recorded (post 1950 and pre 1969) in NY26 but without a definite locality or recorder. It is present in the same square on the Cumbrian shore so should be looked for. In Cumbria it is found on sandy shores.

Site	Gridref	Date	Recorder
Braeheads, Sanquhar	NS71	1885	Scott - Elliot, G.F.

Also recorded in NY26

Platanthera bifolia (L.) L.C.M.Richard

Lesser Butterfly Orchid

National Status: Not Scarce, Vulnerable.

Status in Dumfriesshire: Scarce, declining.

A native perennial herb of heathy pastures, grassland, open scrub, woodland edges and rides, and on moorland, often amongst *Pteridium*; it is found on a wide variety of acidic and calcareous soils overlying sands, gravels and clays. It is tolerant of considerable soil moisture, also being found in acidic bogs and calcareous fens. Nationally this species has suffered a considerable decline caused by drainage, woodland disturbance and agricultural intensification, and upland populations have also been lost to increased grazing. Eurasian boreo temperate element.

It was first listed by W. Keddie in 1854 from the Beld Craig. It was known from more sites in The Flora but has only been re-recorded in a small number of locations since. This species is likely to have been lost to agricultural intensification or forestry. This is illustrated by its recent discovery within the Chapelcross site where escorted access has kindly been granted by BNFL. Here the orchids are growing in old grassland that was part of a second world war airfield and subsequently became the nuclear plant escaping agricultural improvement. It occurs inside and outside the security fence. It may have been lost from other grassland sites in this part of Annandale.

Site	Gridref	Date	Recorder
Mennock	NS812081	30/06/1968	BSBI Field Meeting
Beld Craig	NT10	1854	Keddie, W.
Trailtrow Moor, Annan	NY1671	29/06/1975	Martin, M.E.R.
The Hags, Ecclefechan	NY1874	12/07/1979	Foreman, J.
Chapelcross grounds	NY26J	26/06/2009	Miles, C.J.
Chapelcross grounds NY27A	NY21597039	03/07/2019	Miles, C.J., Davidson, D.

Also recorded in NT10, NY18 (1941),

Platanthera chlorantha (Custer) Rchb.

Greater Butterfly Orchid

*National Status: Not Scarce, Near Threatened.**Status in Dumfriesshire: Rare.*

This native perennial herb is found in a wide variety of habitats, usually on well-drained calcareous soils. Typical habitats include downland, rough pasture, hay meadows, scrub, woodland and young plantations. It sometimes occurs on sand dunes and railway embankments. Rarely, it grows on slightly acidic soils in moorland and wet, heathy pasture. Nationally *P. chlorantha* was lost from many sites during the 20th century. Reasons include the felling, disturbance and coniferisation of woodland, and the agricultural improvement of pasture and scrub. It may be lost from woodland if the canopy becomes too dense. European temperate element.

Listed by W. Stevens in 1848 from Drumlanrig. It was known from more sites in The Flora but has only been re-recorded in a small number of locations since. This species is likely to have been lost to agricultural intensification or forestry. At its one recent site it is under threat from scrub encroachment.

Site	Gridref	Date	Recorder
Eliock Bridge (NS8008)	NS806081	27/06/2019	Miles, C.J., Miles, A., Davidson, D.
Drumlanrig	NX89	1848	Keddie, W.
The Hags, Ecclefechan	NY1874	12/07/1979	Foreman, J.

Also recorded in NY37

Poa compressa L.

Flattened Meadow Grass

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

Native perennial herb of dry rough ground, banks, waysides and walls. Probably under-recorded and thus difficult to assess in terms of national distributional trends. European temperate element; widely naturalised outside its native range.

Only two records for this species with the first by Milne-Redhead in 1959. In Cumbria often a plant of man made habitats. Probably under recorded.

Site	Gridref	Date	Recorder
Cowhill, River Nith	NX953824	31/05/1959	Milne-Redhead, H.
Annan West (NY16Y)	NY196665	2004	Stanley, P.

Polygonum oxyspermum subsp. raii (Bab.) D.A. Webb and Chater

Ray's Knotgrass

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A native prostrate annual, biennial or short-lived perennial of sand, shingle or shell beaches, sometimes found on other open sandy ground near the sea, usually just above the limit of the highest tides. Like many strand-line species, its numbers often fluctuate annually and nationally it is believed to be under-recorded. European Wide-temperate element; also in N. America.

First recorded by G. F. Scott Elliot along the shore between Browhouses and the Kirtle water and still present there today. This is a plant of sandy substrates by the sea.

Site	Gridref	Date	Recorder
Powfoot East Beach (NY1565)	NY15176570	04/08/2019	Dumfries Botany Group
Newbiebarns	NY16S	09/07/2012	Miles, C.J.
Annan Waterfoot	NY16X	28/08/2008	Miles, C.J.
Eastriggs works SE (NY2764)	NY27266426	20/8/2019	Miles, C.J., Miles, A., Davidson, D.
Baurch	NY26X	20/07/2014	Miles, C.J, Miles, A.J.

Polypodium cambricum L.

Southern Polypody

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A perennial, rhizomatous fern of well-drained base-rich rocky substrates, often found on sheltered limestone cliffs, old quarry faces, castle walls built of limestone, and on old mortared walls. It is also found as an epiphyte, especially in Ireland, and on road banks. Nationally its distribution is probably stable, although better recent recording may mask changes. Mediterranean Atlantic element.

The first record was made by Alan Stirling and Alison Rutherford in 1972 at Maidenbower Craigs. It is still present in this location where it is on a sheltered sandstone rock face.

Site	Gridref	Date	Recorder
Georgetown (NX97X)	NX98877465	05/07/2013	Miles, C.J., McKinnel, J.

Polypodium interjectum Shivas

Intermediate Polypody

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

An evergreen, perennial, rhizomatous fern that prefers more basic substrates than *Polypodium vulgare* but can be found in acidic conditions where exposed to salt-laden air. It is found in a wide range of habitats such as mortared stone walls, hedge banks, rock exposures, mature sand dunes and as an epiphyte, especially near the sea. Probably under-recorded. Suboceanic temperate element.

This does not appear to have been recorded at the time of The Flora and is probably still

under recorded today. Often found with *P. vulgare* but much less common.

Site	Gridref	Date	Recorder
Moffat (NT0805)	NT08410514	31/10/2019	Miles, C.J, Miles, A.J.
Mountainblow+Auchencat Burn	NT01V	27/05/1988	Martin, M.E.R.
Beldcraig Glen	NT10A	29/05/2006	Miles, C.J.
Lochrennie Glen (NX7287)	NX72278739	12/10/2019	Miles, C.J., Miles, A., Davidson, D.
Glencrosh	NX78U	30/09/1987	Martin, M.E.R. Muir, J.
Woodhouse, Cairnwater	NX88N	12/07/1998	Miles, C., Higginbottom, C., McIntosh, J.
Springfield	NX895849	12/07/1988	NCC woodland survey
Maidenbower Craigs	NX986746	28/07/1972	Stirling, A.McG. Rutherford, A.
Ae. By river, down side of the FCS building	NX9889	23/06/2007	Gibson, L.
Caerlaverock Area	NY06	02/08/1996	Stewart, O.M., McCosh, D., Stirling, A.McG.
Wamphry water (NY19I)	NY12739646	09/11/2019	Miles, C.J, Miles, A.J.
Burnfoot area	NY38J	31/08/1987	Martin, M.E.R.

Polystichum lonchitis (L.) Roth.

Holly Fern

National Status: Not Scarce, Vulnerable.

Status in Dumfriesshire: Rare.

This native evergreen species is a calcicole, growing in well-drained, cool and moist positions at the base of cliffs, on rocky ledges, and particularly in stabilised boulder-scrub. It also grows in deep grikes of limestone pavements. *P. lonchitis* is a poor competitor, but is long-lived once established. Nationally there has been little evidence of a change in its distribution over the last 50 years. Circumpolar boreal montane element, with a disjunct distribution.

Known since 1872 when reported by S. Halliday from Blacks Hope. It has continued to be recorded from this location. D.A.R. Ratcliffe reported 20 plants in 1954-56.

Site	Gridref	Date	Recorder
Black Hope	NT125125	02/09/1978	Hall, E.G.

Potamogeton alpinus Balb.

Red Pondweed

National Status: Not Scarce, Least concern.

Status in Dumfriesshire: not scarce, declining

A perennial of still or slow-flowing water in lakes, rivers, canals, ditches and flooded mineral workings. It is often found in sites where silt accumulates, such as lake inflows or backwaters in rivers. It characteristically grows in mesotrophic, often neutral or mildly acidic water. Many of the sites from which the species has been lost are small ponds, pits and

ditches where it was last seen in the 19th century. There have been some further losses from eutrophication, but the distribution elsewhere appears to be stable. Circumpolar boreal montane element.

First reported in 1836 from the Lochar Moss by J. Cruickshank. A plant of standing or more gently flowing water with some enrichment and soft sediment.

Site	Gridref	Date	Recorder
Friarminnan Square	NS71J	01/08/2004	Miles, C.J.
Loch Urr	NX78S	11/09/2009	Miles, C.J.
Dalgonar Bridge, Cairn Water	NX860841	22/08/1959	Milne-Redhead, H.
Steilston Hill (NX88V)	NX882815	28/07/2017	Miles, C.J.
Drumlanrig Castle	NX89P	12/05/2012	Miles, C.J.
Morton Loch	NX891992	26/08/1996	Willby, N.J. Lassiere, O.L.
Lochar Moss	NX97	7/1836	Cruickshank, J.
Lake Manitou, Rammerscales	NY076770	23/08/1974	Martin, M.E.R.
Meikleholm Loch	NY039897	07/07/1987	Martin, M.E.R.
Mill and Blind Lochs	NY08R	13/07/2014	Miles, C.J.
Hightae NR, Lochmaben	NY084803	1976	Martin, M.E.R.
Castle Loch	NY088816	-1999	Martin, M.E.R.

Potamogeton graminus L.

Various Leaved Pondweed

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

Perennial found in relatively shallow water in a variety of water bodies, including lakes, reservoirs, rivers, streams, canals and ditches. It tolerates a wide range of water quality, although it is absent both from the most acidic and oligotrophic sites and from the most eutrophic. It has declined in England since 1930 in areas where eutrophication and the conversion of grazing land to arable have reduced the number of suitable ditches but elsewhere its population is probably stable. Circumpolar boreo temperate element.

First recorded from the Dumfries area by A. Davidson in 1885 (as *P. heterophyllus*) and repeatedly from Mill Loch Lochmaben since it was first seen there in 1957 by F. Balfour Brown.

Site	Gridref	Date	Recorder
Dumfries	NX97	1885	Davidson, A.
Mill Loch, Lochmaben	NY080830	13/07/2009	Stewart, N., Eckert, S.
Mill and Blind Lochs	NY08R	13/07/2014	Miles, C.J.

Potamogeton praelongus Wulfen

Long Stalked Pondweed

National Status: Not Scarce, Near Threatened.
Status in Dumfriesshire: Rare.

No *Potamogeton* species is more characteristic of deep water than *P. praelongus*. It is a native rhizomatous perennial that usually grows at depths greater than 1 m in clear, mesotrophic water in lakes, rivers, canals and major drains. It has only rarely been recorded from shallow water. Nationally *P. praelongus* appears to have been lost from many sites due to eutrophication. As a species of deeper water it can be inconspicuous, and it may be under-recorded. Circumpolar boreal montane element.

Only a couple of records exists for this declining species from the Lochmaben area. It prefers deep water which is why it may be under recorded. It may be present in the other deep lochs nearby.

Site	Gridref	Date	Recorder
Upper Loch	NY071833	15/07/1984	Martin, M.E.R.
Bankhead of Tinwald (NY0483)	NY04408356	26/07/2018	Miles, C.J., Miles, A., Davidson, D.

Potamogeton pusillus L.

Lesser Pondweed

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Scarce.

A perennial found in standing or slowly flowing water in sheltered lakes and reservoirs, ponds, rivers, canals, ditches and flooded mineral workings. It favours mesotrophic to eutrophic water and tolerates slightly brackish conditions. Because of confusion with *Potamogeton berchtoldii* prior to the 1930s assessment of changes in distribution are based on very limited evidence. However the species may have increased in some areas, perhaps in response to eutrophication. Circumpolar southern temperate element.

Listed for Dumfriesshire by P. Gray in 1842 from the Dumfries area. It has been found a few times since in the Lochmaben area and recently in brackish pools at Caerlaverock.

Site	Gridref	Date	Recorder
Eastpark WWT Centre Monad	NY05336591	11/06/2015	Miles, C.J.
Brocklehirst	NY051738	22/07/1962	Balfour-Browne, F.L.
Hightae Mill Loch	NY0880	22/08/1974	Martin, M.E.R.
Castle Loch NR, Lochmaben	NY088816	1976	Martin, M.E.R.
Kirk Loch, Lochmaben	NY080823	20/06/1988	Martin, M.E.R.
Kinmount NY16P	NY16	10/08/1996	Stewart, O.M., Miles, C., Stirling, A.McG.
Crossmungo Moss (NY3483)	NY34598385	30/05/2015	Miles, C.J, Miles, A.J.

Also recorded in NX99 (1980)

Potentilla anglica L.

Trailing Tormentil

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Scarce.

A procumbent perennial of heaths, dry banks, woodland borders and field edges, usually on well-drained acidic soils, but avoiding podsols. It can also occur on waste ground and railway embankments. *P. anglica* can be morphologically very similar to some forms of its hybrids with *P. erecta* or *P. reptans*, from which it is distinguished by the presence of many achenes. A decline in S. and E. England and C. Ireland may have occurred since 1950.

First recorded in Dumfriesshire by Milne-Redhead in 1957. It has been recorded in eleven hectads but without more specific localities and only once or twice in 9 of these. It is much more frequent in Kirkcudbrightshire and Wigtownshire.

Site	Gridref	Date	Recorder
Hallidayhill (NX8986)	NX89458644	26/06/2019	Miles, C.J., Davidson, D.
Locharbriggs	NX990811	16/08/1984	Martin, M.E.R.
Kinmount Quarry Park Wood (NY1468)	NY14176884	15/08/2018	Dumfries Botany Group
Mill Hill Lockerbie	NY114815	14/06/1985	Martin, M.E.R.

Also recorded in NS71(1979), NS80 (1996), NX89 (1999), NY06 (1996), NY19(1996), NY27 (1959), NY37 (1980)

Potentilla argentea L.

Hoary Cinquefoil

National Status: Not Scarce, Near Threatened.

Status in Dumfriesshire: Rare.

A perennial of dry, freely-draining, gravelly or sandy soils, found in open grassy swards on commons, in pastures, on banks, in pits and on tracks and waste ground. Reproduction is by seed, but it does not readily colonise new sites. Nationally it may still be in slow decline, largely due to habitat loss. Eurosiberian temperate element; widely naturalised outside its native range.

Recorded twice. First recorded in the Dalton area in 1957 by R.C. Howitt. It was latterly recorded there in the area of a sand quarry. It is still there in small quantity despite the land being returned to agriculture. A new site was found at the Broom Fishery on remnant coastal heath where it appears native.

Site	Gridref	Date	Recorder
Dormont (NY1174)	NY11127445	20/07/2019	Miles, C.J, Miles, A.J.
Broom Fishery (NY1665)	NY16286566	10/06/2019	Miles, C.J., Miles, A., Davidson, D.

Potentilla crantzii (Crantz) Beck ex Fritsch

Alpine Cinquefoil

National Status: Scarce, Least Concern.

Status in Dumfriesshire: Scarce

A native perennial herb of dry base-rich rock faces, cliffs and ledges, close-grazed calcareous grassland and, occasionally, river shingle. It is a pseudogamous apomict, reproducing mostly by seed, with very limited vegetative spread. Nationally the distribution of this species seems to have been stable in recent years. Eurosiberian boreo arctic montane element; also in N. America.

This was first recorded in 1890 by J.T. Johnstone from the Moffat Hills and Lochanburnside. This is a member of the montane community with a very limited presence in the Southern Uplands. It is found in areas where there is calcareous seepage and always in limited quantity.

Site	Gridref	Date	Recorder
Lochanburnside	NT00	1890	Johnstone, J.T.
Moffat Hills	NT1211	26/06/2005	Jannink, M. Stanley, P.D.
Black Hope (NT11G)	NT1258112529	25/07/2010	Miles, C.J.
Blackhope,W side	NT1311	18/06/1989	Corner, R.W.M. Lang, H.A.
Carrifran Burn, Raven Craig	NT143136	06/04/1953	Ratcliffe, D.A.
Moffat Hills SSSI, Midlaw Linn	NT16331615	04/08/2017	Clarkson, R.

Pseudorchis albida (L.) Á. and D. Löve.

Small White Orchid

National Status: Not Scarce, Vulnerable.

Status in Dumfriesshire: Scarce, declining.

A tuberous native perennial herb of well-drained hill pastures, streamsides, mountain grasslands and cliff ledges on a range of dry, acidic or calcareous soils; also on recently burnt moorland, but not persisting when *Calluna* regrows. Rarely, it occurs in acidic *Quercus* woodland. Nationally many lowland sites for *P. albida* were lost before 1930 due to habitat destruction, agricultural improvement and overgrazing. There have been continued losses since then, although it is now much better recorded. However, it is inconspicuous and may be under-recorded in some areas, especially in the uplands. European boreal montane element; also in N. America.

First listed for Dumfriesshire in 1848 by W. Stevens from Penpont and Queensbury. Although hard to find this appears to have suffered a huge decline since The Flora was written. The preferred habitat of hill ground has been prone to drainage, more intensive grazing and conversion to conifer plantation.

Site	Gridref	Date	Recorder
Euchan Waterfall	NS70	1896	Davidson, A.
Mennock, nr	NS812081	30/06/1968	Milne-Redhead, H.
Glendyne Burn (NS8109)	NS81700940	27/06/2019	Miles, C.J., Miles, A., Davidson, D.
Garpol	NT00	1896	Johnstone, J.T.
Beld Craig	NT10	1896	Keddie, W.
Penpont	NX89	1848	Stevens, W.
Queensbury	NX99	1848	Stevens, W.

Also recorded in NS71 (1968), NT01, NT1, NY16

Pulicaria dysenterica (L.) Bernh.

Common Fleabane

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A perennial of damp or wet, open habitats including marshy places, water- and fen-meadows, tall-herb fens, by rivers, streams, canals and ditches, in dune-slacks, wet hollows and seepages on sea-cliffs, damp woodland rides and roadside verges. It is found on a wide range of acidic and base-rich soil types. Nationally the distribution of *P. dysenterica* is stable. Eurosiberian southern temperate element.

First found in 1981 this species is near to its northern limit in the UK in Southern Scotland. It is the sort of species that might expand with a warmer climate. At Loch Ettrick it may have arrived in dumped soil.

Site	Gridref	Date	Recorder
R Annan,.5km lengths above+below 35163727	NY163727	11/07/1981	Holmes, N.T.H.
Dalton Hook (NY17D)	NY11427749	05/10/2017	Miles, C.J.
Loch Ettrick (NX9493)	NX94329346	15/09/2019	Dumfries Botany Group

Pyrola minor L.

Common Wintergreen

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A native rhizomatous, mycorrhizal, perennial evergreen herb. In S. England it is a plant of damp woodlands with deep litter, on a variety of soils; elsewhere it occurs in damp places in heaths, plantations, disused railways, on rock ledges and in sand dunes. Nationally this species has declined throughout its scattered British range through changes in land use and management. The small, southern woodland populations appear particularly vulnerable, with recent losses as sites have become too dry. Circumpolar boreal montane element.

First recorded by J. Shaw in 1882 at Druidhall Mill, Penpont. There were many locations listed in The Flora but this species has not been frequently recorded since. Its decline like other species is probably as a result of habitat loss though it will grow in mature open conifer plantations.

Site	Gridref	Date	Recorder
Lochan Burn	NT01	1896	Linton, E.F.
Laight Wood	NX8195	17/06/1978	Stirling, A.McG.
Boreland	NY165913	30/06/1976	Younger, C.
Kirtlebridge, nr	NY27	1957	Dony, J.G.
Wauchope Water	NY346835	1981	Watt, Dr G.
Longwood, River Esk S of	NY373826	16/06/1989	Martin, M.E.R.; Stewart, O.M.

Also recorded in NT00, NT10, **NY08 (1942)**,

Ranunculus baudotii Godron.

Brackish Water Crowfoot

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

This annual or perennial herb grows in coastal water bodies, including lagoons, machair lochs, ditches, pools, dune-slacks and borrow-pits. It is most frequent in water 0.5-1 m deep, but can grow in shallower water or as a dwarf terrestrial form on wet mud. Its inland sites include flooded mineral workings and canals. There is some evidence nationally of a long-term decline in some areas. European southern temperate element.

The first record for this species is from 1961 at Eastpark Wildfowl Centre. This is a brackish water specialist and so is restricted to coastal pools and ditches including in the higher parts of the saltmarsh.

Site	Gridref	Date	Recorder
Kelton (NX97V)	NX98577137	30/07/2016	Miles, C.J.
Caelaverock East Park (NY06M)	NY04676508	06/07/2014	Miles, C.J.
Eastpark WWT Centre Monad	NY05456542	11/06/2015	Miles, C.J.
Lochmaben Stone	NY36C	08/09/2007	Miles, C.J.

Ranunculus fluitans L.

River Water Crowfoot

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

Perennial species which grows in large, rapidly flowing rivers with a stable substrate. It is usually found in base-rich and meso-eutrophic water. This is not a well-understood species and in some areas of Britain it may be under-recorded whereas in others it may be reported in error for other taxa. European temperate element.

Though listed in The Flora in 1858 the treatment of these fine leaved water buttercups was almost certainly different at the time of The Flora than in modern taxonomy. The first modern record by N. Holmes comes from the lower Annan in 1981. The species is probably more extensive in the river than currently mapped.

Site	Gridref	Date	Recorder
River Annan riverside walk	NY192686	10/07/1999	Miles, C.J.
R Annan,.5km lengths above+below 35102767	NY102767	11/07/1981	Holmes, N.T.H.
Hoddom Castle (NY17L)	NY15557330	08/07/2018	Miles, C.J, Miles, A.J.
Hoddom Bridge, river Annan	NY163727	16/07/1999	Miles, C.J.

Ranunculus lingua L.

Greater Spearwort

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

Native perennial herb found in fens, marshes, the edges of ditches, ponds and rivers. Although nationally the plant has declined as a native, it is now frequently introduced and its distribution is now masked by this.

First listed in Dumfriesshire by Dr. Balfour in 1839. The Flora mentions the Lochar Moss and Lochmaben from which it has not been reported since. The records in lochs at Drumlanrig may be deliberate introductions.

Site	Gridref	Date	Recorder
Drumcruilton Loch	NX879026	11/07/1998	Wood, D.C., McIntosh, J., Blackman, L.
Drumlanrig Woods (NX8499)	NX84409942	01/09/2019	Dumfriesshire Botany Group
Bridgeknowes Loch	NX85779947	12/07/2015	Miles, C.J.

Ranunculus peltatus Schrank

Pond Water Crowfoot

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A perennial or sometimes annual species growing in slow-flowing streams and rivers, coastal lagoons, shallow lakes, ditches, ponds and dune-slacks. It grows in the upper reaches of highly calcareous rivers but in some areas favours base-poor waters; it has a broad trophic range. Due to identification difficulties and taxonomic uncertainty changes in distribution are difficult to assess. European wide temperate element.

Though referenced in The Flora the treatment of these fine leaved water buttercups was almost certainly different at the time of The Flora than in modern taxonomy. The first modern record for this species is from 1972 by H. Proctor at Copewood, River Annan. This species is more frequent in but not exclusive to standing water.

Site	Gridref	Date	Recorder
Kettleton Reservoir	NS80V	03/06/2011	Miles, C.J.
Kirkconnel Dam	NX7594	18/06/2019	Miles, C.J., Miles, A., Davidson, D.
Loweberry Loch	NX882815	02/09/1996	Willby, N.J. Lassiere, O.L.
R Annan,.5km lengths above+below 35194677	NY194677	11/07/1981	Holmes, N.T.H.
Hoddom Bridge, river Annan	NY1672	17/07/1999	Walls, R.M.
River Annan riverside walk	NY1970	01/08/1996	Stewart, O, Stirling, A.McG., Miles, C.J.
R Annan,.5km lengths above+below 35102767	NY102767	11/07/1981	Holmes, N.T.H.
Purdomestone Reservoir	NY2177	03/07/2018	Miles, C.J., Miles, A.
Winterhope Reservoir	NY2782	15/07/2018	Miles, C.J., Miles, A.

Ranunculus pencillatus subsp. pseudofluitans (Syme) S.D. Webster

Stream Water Crowfoot

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Scarce.

This is the dominant plant in many British base-rich rivers and streams, favouring moderately or rapidly flowing, mesotrophic or meso-eutrophic water, and being most frequent where the water flow is broken by riffles. In sluggish eutrophic rivers it is replaced by other species. The taxonomy of this subspecies has only been clarified recently and it is probably still under-recorded in some areas of Britain. Suboceanic temperate element.

Though the species is referenced in The Flora in 1891 the treatment of these fine leaved water buttercups was almost certainly different at the time of The Flora than in modern taxonomy. The first modern record dates from 1979 (determined by N Holmes). It is probably more widespread and under recorded.

Site	Gridref	Date	Recorder
Whitesands (Dumfries), River Nith	NX972758	04/06/1989	Martin, M.E.R.
River Annan riverside walk	NY192686	10/07/1999	Miles, C.J.
Hoddom Castle (NY17L)	NY15557330	08/07/2018	Miles, C.J., Miles, A.
Hoddom Bridge, river Annan	NY1672	17/07/1999	Walls, R.M.
Johnstonebridge	NY1091	21/09/1979	Martin, M.E.R.

Ranunculus trichophyllus Chaix ex Vill.

Thread-leaved Water-crowfoot

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Scarce.

A small annual or perennial which grows in shallow, still or very slowly flowing water. It is most frequent in ponds, dune-slacks and drainage ditches, but it is also found in larger sites if they are sheltered. It tolerates a range of water chemistry but is most frequent in mesotrophic or eutrophic water. Circumpolar wide boreal element.

Though referenced in The Flora in 1843 the treatment of these fine leaved water buttercups was almost certainly different at the time of The Flora than in modern taxonomy. The earliest modern record is from Brocklehurst by F. Balfour-Browne in 1952. More likely than other similar species in small slow flowing burns and ditches.

Site	Gridref	Date	Recorder
Kiddam Hill	NT20970283	02/08/2015	Miles, C.J.
Raeburnside (NT2600)	NT26050036	28/08/2019	Miles, C.J., Miles, A.J.
Brocklehurst	NY0573	05/08/1952	Balfour-Browne, F.L.
Hartwood Moor	NY07U	06/09/2014	Miles, C.J., Miles, A.J.
R Annan,.5km lengths above+below 35194677	NY194677	11/07/1981	Holmes, N.T.H.
The Hewke	NY18P	11/08/2013	Miles, C.J.

Also recorded in **NX99 (1957)**.

Rhynchospora alba (L.) Vahl.

White Beak Sedge

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not Scarce, habitat restricted.*

A perennial herb of base-poor acidic bogs, wet heaths and mires, often in association with *Sphagnum* species. It is intolerant of competition, preferring open sites, and is frequently found on bare wet peat, sometimes in shallow standing water. Declining in S. England but its distribution elsewhere seems largely stable. Circumpolar boreo temperate element.

This was first listed by G.N. Lloyd in 1831, though for Kirkconnel Moss which is now in Kircudbrightshire. Interestingly for such a distinctive plant it is only recorded from three sites in The Flora. This species remains well distributed on deep peat particularly where peat is bare through disturbance such as trampling or around bog pools.

Site	Gridref	Date	Recorder
Heathhall	NX97Z	20/06/2008	Miles, C.J.
Catherinefield Moss LWS	NX996797	07/07/1999	Beaumont, D.
Longbridgemuir	NY06P	26/08/2012	Miles, C.J.
Cockpool plantation (NY0667)	NY06176797	15/08/2017	Miles, C.J.
Racks Moss	NY02777095	02/06/2011	Waddell, J.
Racks Moss (NY07G)	NY02397228	06/08/2011	Miles, C.J.
Racks Moss (NY07G)	NY03887343	08/09/2017	Miles, C.J., Miles, A.J.
Spedlins Flow NY08Y (NY08Y)	NY08078752	24/07/2011	Miles, C.J.
Lochwood Moss	NY080965	24/08/1972	Idle, E.T.
Priestside Flow	NY1265	04/08/1999	Miles, C.J.
Kelhead Flow LWS	NY14006999	14/09/1999	McCleary, J.
Kelhead Flow	NY17	05/09/1999	Miles, C.J.
Nutberry Moss (NY2668)	NY26696821	15/08/2019	Miles, C.J., Miles, A., Davidson, D.
Hillhead Farmland (NY2768)	NY27026828	15/08/2019	Miles, C.J., Miles, A., Davidson, D.
Cadgill Flow LWS	NY31567360	22/09/1999	McCleary, J.
Torbeck Hill (NY37P)	NY35947920	01/08/2019	MacKinlay, L.
Hagg Hill (NY37U)	NY36847950	01/08/2019	MacKinlay, L.
Cockplay (NY38K)	NY35348023	01/08/2019	MacKinlay, L.
Old Irvine	NY38Q	04/08/2013	Miles, C.J.

Rosa spinosissima L.

Burnet Rose

*National Status: Not Scarce, Least concern.**Status in Dumfriesshire: Scarce.*

A low, suckering deciduous shrub most often found on sand dunes and sea-cliffs, but also inland on sandy and less acidic heaths, in scrub and hedgerows on chalk and limestone, and on basic cliff ledges in upland areas. Cultivars grown in gardens sometimes become

naturalised. The distribution of this species is stable on the coast but it is declining inland. Eurasian temperate element, with a disjunct distribution; widely naturalised outside its native range.

First noted for Dumfriesshire in 1789 by Dr. Burgess near Cummertrees. In Scotland this is most common near the coast and very scattered on crags inland where it is still occasionally found. It may have been lost in these locations as a result of fire and grazing.

Site	Gridref	Date	Recorder
Corserig Hill	NS70E	04/08/2007	Miles, C.J.
Brockholm, nr	NS8206	18/08/1975	Martin, J.D.S.
Threewater Foot	NT00W	02/07/2006	Miles, C.J.
Priest Gill (NT1413)	NT14411367	08/07/2017	Miles, C.J.
Hazel Linn (NT2406)	NT24670672	05/09/2018	Miles, C.J., Miles, A.J.
Moniavie, Auchenstroan Craig	NX6991	1960	Stirling, A.McG.
Kingholm Quay	NX973738	31/8/1999	Davis, A.R.
Low Auldgirth	NX9186	10/06/1998	Miles, C.J.
Powfoot	NY1465	13/06/1975	Darke, H. Pringle, E.

Also recorded in NY26

Rubus caesius L.

Dewberry

National Status: Not Scarce, Least concern.

Status in Dumfriesshire: Rare.

Deciduous shrub of hedges, woodland borders and rides, scrub, dry grassland and semi-stable dunes, mainly on basic soils; also in fen carr. Nationally there seem to have been declines in the north and west of its range, and in Ireland. Eurosiberian temperate element; widely naturalised outside its native range.

Only recorded twice, the first time in 1957, by T.G. Collett. This is a distinctive member of the Rubi but still requires some care to distinguish it from close relatives. It is probably under recorded as a result.

Site	Gridref	Date	Recorder
Hartfell Spa+Auchencat Burn	NT01	04/08/1957	Collett, T.G.
Annan centre	NY1966	26/5/2019	BSS and BSBI urban flora team

Also recorded in NY16 (1963)

Rumex crispus subsp. littoreus (J. Hardy) Akeroyd

Curled Dock

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

Perennial herb of shingle beaches, sandy and rocky shores, banks by the sea, sand dunes and the upper part of saltmarshes. It is most frequent in strand-line communities on shingle. This

taxon has only been recorded systematically since it was treated as a subspecies in 1991 and is probably under-recorded. Nationally its distribution is almost certainly stable. Oceanic temperate element.

A distinctive subsp. of *R. crispus* with glaucous fleshy leaves and differences in fruit. On the strand line on shingle/sand. It is probably elsewhere on the coast.

Site	Gridref	Date	Recorder
Newbiebarns	NY16S	09/07/2012	Miles, C.J.
Annan Waterfoot	NY16X	28/08/2008	Miles, C.J.
Eastriggs	NY26M	05/09/1996	Miles, C.J.
Torduff Point (NY2663)	NY26546387	20/08/2019	Miles, C.J., Miles, A., Davidson, D.

Ruppia maritima L.

Beaked Tasselweed

National Status: Not Scarce, Least concern.

Status in Dumfriesshire: Scarce.

A submerged, annual or perennial aquatic of brackish waters, *R. maritima* grows in shallow water in coastal lakes, pools on saltmarshes, rock pools, creeks and ditches near the sea. It is also found as a dwarf variant on tidal mud-flats, especially in N.E. Scotland. *R. maritima* had been lost from many sites before 1930, and this loss has continued in the southern part of its range around coastal developments. Circumpolar wide temperate element.

In The Flora it was recorded in Gillfoot Bay just across the Nith from Caerlaverock in Kircudbrightshire. The first record from the Dumfries side of the Nith was in 1960 on Caerlaverock NNR. This plant grows in brackish coastal pools on the merse.

Site	Gridref	Date	Recorder
Kelton (NX97V)	NX98577137	30/07/2016	Miles, C.J.
Caerlaverock NNR	NY01976499	16/08/2012	Beal, S.
Caerlaverock NNR	NY02376501	15/08/2012	Beal, S.
Caerlaverock NNR	NY03056494	15/08/2012	Beal, S.
Eastpark WWT Centre monad	NY0565	17/07/2018	Miles, C.J., Miles, A.
Caerlaverock NNR	NY06516565	13/08/2012	Beal, S.
Caerlaverock NNR	NY07156599	13/08/2012	Beal, S.
Caerlaverock NNR	NY07186674	13/08/2012	Beal, S.
Priestside Merse	NY103658	17/09/1972	Milne-Redhead, H.
Powfoot	NY1465	05/06/1975	C.S.S.F.Meeting

Sagina maritima Don

Sea Pearlwort

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A native annual of maritime rock crevices, cliff-tops, stabilised shingle, dune-slacks and disturbed areas in upper saltmarsh on sandy substrates; also on walls and tracks, in pavements and on sandy roadsides near the sea. Nationally there has been little significant change in the distribution of this species over the last 50 years. It has recently been recorded from inland squares beside salt-treated roads. European southern temperate element.

The first record for Dumfriesshire appears to be H. Milne-Redhead's from 1958. It grows on sandy ground in higher levels of the merse, though care is needed as *S. procumbens* is also present in this habitat.

Site	Gridref	Date	Recorder
Caerlaverock NNR	NY06	1958	Milne-Redhead, H.
Priestside Merse	NY103658	17/09/1972	Milne-Redhead, H.
Riddindyke	NY1365	04/08/2019	Dumfries Botany Group
Powfoot	NY1465	05/06/1975	C.S.S.F.Meeting
Annan Waterfoot NY16X	NY16X	28/08/2008	Miles, C.J.
Eastriggs Depot	NY26S	11/07/2012	Miles, C.J.

Sagina subulata (Sw.) C. Presl

Heath Pearlwort

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Not Scarce spreading.

Perennial, mat-forming herb usually of dry, open, sandy or gravelly places. Habitats include heaths, dry pastures, banks and rocks, grassy slopes near the sea, and especially trackways through heaths and moors. Nationally many inland sites have been lost however there is little evidence of decline in coastal areas. European temperate element.

First recorded in Dumfriesshire on the Beeftub road out of Moffat in 1890 by J.T. Johnstone. This species was not then seen for over 100 years. It likes open bare stony ground and has been found as a colonist on forestry tracks where it is spreading.

Site	Gridref	Date	Recorder
Crawick	NS71Q	15/06/2014	Miles, C.J.
Torr Hill (NT00P)	NT05220914	14/07/2018	Miles, C.J., Miles, A.
Archies Hill	NT01K	14/07/2018	Miles, C.J., Miles, A.
Crofthead Hill	NT1305	23/06/2019	Miles, C.J., Miles, A.
Big Strushel Burn NT10W	NT10W	02/06/2007	Miles, C.J.
Pockleaf (NT2104)	NT21180425	14/06/2019	Miles, C.J., Miles, A.
Stroanshalloch	NX79A	11/06/2011	Miles, C.J.
Hallidayhill (NX8986)	NX89458644	26/06/2019	Miles, C.J., Davidson, D.
Auchencairn (NX99F)	NX92349118	02/07/2016	Miles, C.J.
Loch Ettrick	NX9493	15/09/2019	Dumfries Botany Group
Queensberry (NX99Z)	NX99479864	31/07/2016	Miles, C.J.
Stidriggs Wood	NY09U	07/07/2013	Miles, C.J.
Arresgill (NY38C)	NY31088505	28/09/2017	Miles, C.J., Miles, A.
Arkleton Cottage	NY48E	19/06/2017	Miles, C.J.

Salicornia europaea L.

Common Glasswort

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

An annual found at all levels of sandy or muddy saltmarshes, in saltmarsh-sand dune transitions and wet, tidally inundated dune-slacks; also, more rarely, in relict saltmarsh and other open saline areas behind sea-walls. A taxonomically uncertain taxon and thus national distributional trends are uncertain. Circumpolar wide temperate element.

Listed (as *S. herbacea*) in The Flora by Rev. Dr. Singer 1843. Records include the aggregate given the difficult taxonomy of the group but this is likely to be the commonest species colonising bare mud and creeks at the lowest levels in the saltmarsh. It can form extensive stands.

Site	Gridref	Date	Recorder
Scar Point Caerlaverock	NY007659	11/07/2006	Logan, J.
Castle Wood	NY06H	16/07/2008	Miles, C.J, Wilson, B., Kennedy, D.
Caerlaverock	NY058650	11/08/1970	Ranwell, D.S.
Brow Well	NY06Y	28/08/2010	Miles, C.J.
Annan Waterfoot NY16X	NY193646	28/08/2008	Miles, C.J.
Eastriggs works South Central (NY2664)	NY26956409	20/08/2019	Miles, C.J., Miles, A., Davidson, D.
Lochmaben Stone	NY36C	08/09/2007	Miles, C.J.

Salicornia ramosissima Woods

Purple Glasswort

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

This morphologically highly variable annual is usually found in the middle and upper zones of saltmarshes, salt-pans, creeks and drift-lines. It also occurs on firm sand and muddy shingle, and behind sea-walls in open areas of brackish grazing marsh. A taxonomically uncertain taxon and thus national distributional trends are uncertain. Circumpolar Wide-temperate element.

Not recorded until 1975 when found by Mary Martin. This is distinctive from *S. europaea* and likely to be more widespread along the coast. Possibly likes greater shelter than *S. europaea* hence favouring the inner Solway rather than the exposed mudflats at Caerlaverock.

Site	Gridref	Date	Recorder
Brow Well	NY06Y	28/08/2010	Miles, C.J.
Powfoot	NY16	1975	Martin, J.D.S.

Salix x obtusifolia Willd.

A hybrid willow

(*Salix aurita* L. x *S. lapponum*)

National Status: Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A rare hybrid growing where *S. lapponum* occurs on stream banks and rock ledges in the mountains. Nationally this hybrid is restricted to Scotland but it is almost certainly under-recorded. European boreal montane element; frequent in Fennoscandia.

Rod Corner found the hybrid beside a waterfall at 600m in 1984. He saw it again in 2006. The plant has been confirmed by D.J. Tennant. Tennant stated that there is material in the BM collected by E. S Marshall in 1907 from the Tail Burn above the Grey Mares Tail. Rod Corners record is therefore the first post 1930 for v.c. 72 and currently the only record south of the Highlands in Britain.

Site	Gridref	Date	Recorder
White Coombe	NT 1631016035	2006	Corner, R.W.M.

***Salix caprea* subsp. *sphacelata* (Sm.) McCreight**

Goat Willow

National Status: Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A native shrub or occasionally a small tree which grows beside lakes, in riverside *Salix* carr, on roadsides and hillsides and most frequently on the sides of rocky streams and in ravines. Nationally this subspecies is almost certainly under-recorded. European boreal montane element; widespread in the mountains of C. Europe.

This subspecies of the widespread goat willow has been recorded from a number of gullies in the Moffat Hills and once in the Lowthers. It retains pubescence on both leaf surfaces giving the whole tree a distinctive pale appearance.

Site	Gridref	Date	Recorder
Crawick Water, Sanquhar	NS783116	19/06/1994	Corner, R.W.M.
Tweedhope Burn.	NT01W	05/07/2004	Braithwaite, M.E. Gaskell, L.W.
Bill Cleuch	NT1506	23/08/2017	Miles, C.J.
Bodesbeck	NT1509	17/05/1997	Ashmole, P.
Deacon Snout	NT19221526	01/07/2000	Dalton, A.
Tail Burn main falls (NT1814)	NT18441483	24/7/2016	BSBI Field Meeting 2016
Raking Gill	NT19891512	06/09/2015	Miles, C.J.

Salix cinerea* x *myrsinifolia

A Hybrid Willow

National Status: Not Listed, Not Listed.
Status in Dumfriesshire: Scarce.

Found occasionally within the more restricted distribution of *S myrsinifolia*. Most frequent by streams and rivers.

First listed in The Flora from Sanquhar by Dr. A. Davidson in 1886. The rarer species is widespread on the upper reaches of rivers and burns and in mires. The hybrid is similar to the dark leaved willow and so is probably overlooked.

Site	Gridref	Date	Recorder
Garwald Water (NT20A)	NT21600157	22/09/2013	Miles, C.J.
Black Loch SSSI (NX9987)	NX991874	04/07/2018	Miles, C.J., Miles, A.
Glenkiln	NY09A	18/08/2012	Miles, C.J.
The Hewke	NY18P	11/08/2013	Miles, C.J.
Waterhead of Dryfe	NY1894	04/07/1980	Silverside, A.J.
Sandyford Bridge (NY2093)	NY20719352	24/09/2018	Miles, C.J.
Todshawhill	NY29G	13/06/2010	Miles, C.J.
Castle O'er (NY2492)	NY24199204	08/09/2018	Miles, C.J.
Boyken Burn and Craigs (NY38E)	NY307886	31/07/2011	Miles, C.J.

Salix herbacea L.

Dwarf Willow

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Scarce.

A dwarf shrub of open, often bryophyte-rich communities in areas of late snow-lie, or in conditions of extreme exposure. It grows on erosion surfaces or stony ground on windswept ridges and cols, on screes, in corries and hollows, and locally on ledges and in montane grass-heath. Nationally there has been no significant overall change in its distribution. European arctic montane element; also in N. America.

First recorded from White Coombe by W. Stevens in 1848. It grows on high level slopes exposed to wind and late snow where the vegetation is short and the willow hugs the surface. All records are from within NT11. It has been reported from other summits by D.A.R. Ratcliffe such as Hartfell Craig but no actual records have been located. It should still be present on these hills.

Site	Gridref	Date	Recorder
Nether Coomb Craig (NT1211)	NT12991103	13/08/2017	Miles, C.J.
Firthhope Rig NT11M	NT11M	25/07/2009	Miles, C.J.
Carrifran Gans (NT1513)	NT15871380	06/07/2018	Miles, C.J., Miles, A.
Gupe Craig (NT1514)	NT15741415	06/07/2018	Miles, C.J., Miles, A.
Carrifran Gans	NT1613	03/08/2012	Averis, A.

White Coombe monad NT1615	NT16751543	22/06/2014	Roberts, J., Brown, P., Miles C. J.
Mid Craig	NT1616	03/08/2012	Averis, A.
Loch Craig (NT1617)	NT16451721	23/07/2016	BSBI Field Meeting 2016

Salix lapponum L.

Downy Willow

*National Status: Scarce, Vulnerable.**Status in Dumfriesshire: Rare.*

A low shrub of moist or wet, moderately base-enriched sites on rocky mountain slopes and cliffs. This species tolerates a wider range of soil conditions than most montane *willows*, but is now largely confined to cliffs. National trends in the distribution of this species are unclear, but some small, ungrazed colonies appear to be producing no or very few seedlings, and may be in decline. Eurosiberian boreo arctic montane element.

First recorded in 1762 by the Rev. Dr. Walker from the NE slopes of White Coombe. Another record was for the Spoon Burn by E.F. Linton. It still survives on the White Coombe slopes though under constant grazing pressure from wild goats and sheep. It responded well when NTS had fenced off some of the slope. However the fence was demolished by snow in 2014/15. Consequently some cuttings have been put inside an enclosure around the Midlaw Linn. Some *S. lapponum* has also been transplanted into Carrifran Wild Wood in the upper Firthhope Burn valley.

Site	Gridref	Date	Recorder
Gupe Craig (planted)	NT1514	06/07/2018	Miles, C.J., Miles, A.
Rough Craigs, White Coomb	NT1615	30/07/2019	Routledge, G.
Midlaw Linn (planted)	NT1616	23/07/2016	BSBI Field Meeting 2016

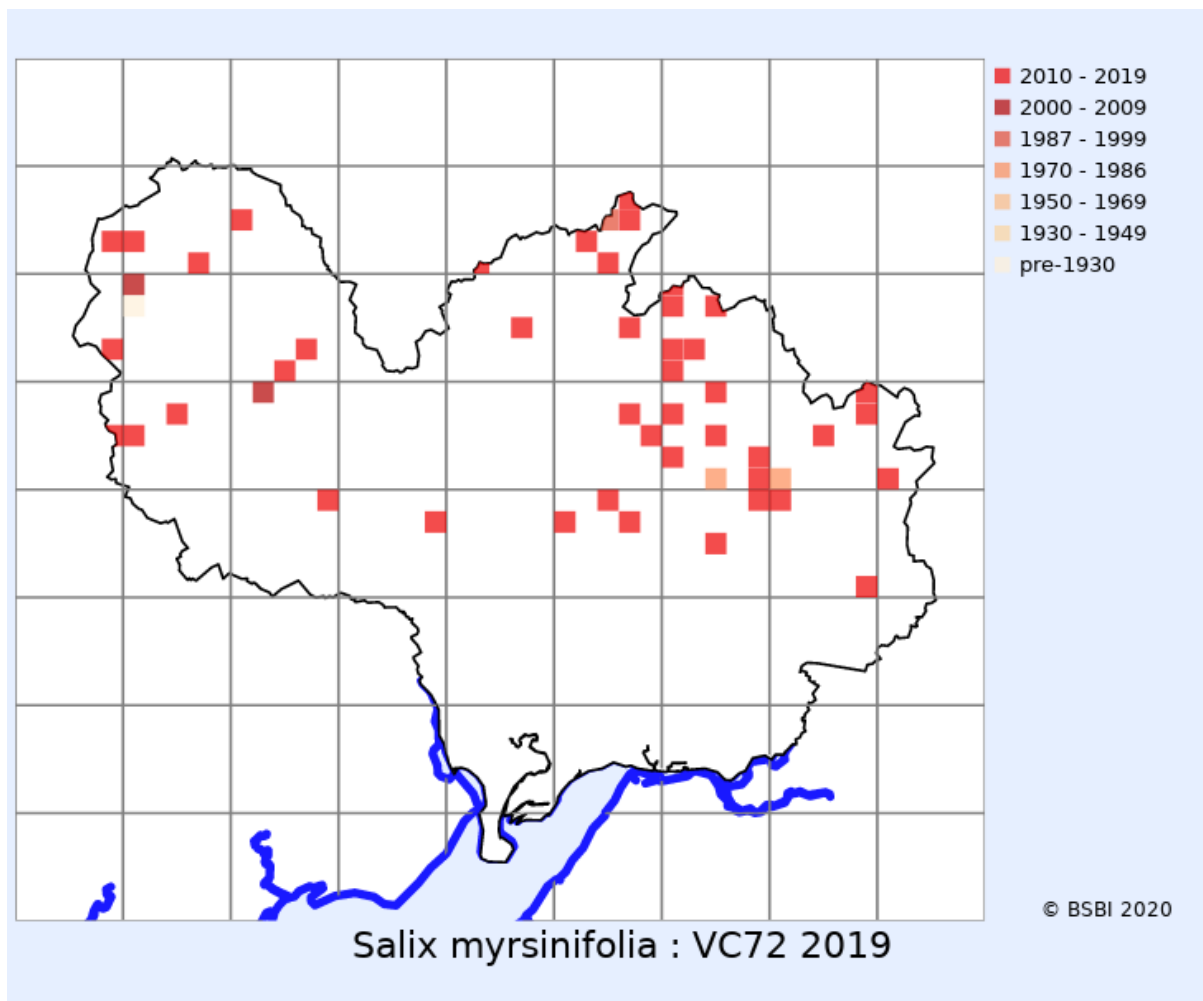
Salix myrsinifolia Salisb.

Dark Leaved Willow

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not Scarce.*

A shrub, or less often a small tree, which grows mainly on rocks or on gravelly river-banks and lake shores, less frequently in thickets on marshy ground or by wet woodland margins. In Scotland it sometimes grows in wet dune-slacks and as a dwarf, spreading shrub on wet rock ledges. Nationally there has been no significant recent change in the distribution. Eurosiberian boreal montane element.

This willow is referenced in The Flora (as *S. nigricans*) under *S. phylicifolia* and as a hybrid with *S. cinerea* which highlights the confusion between these two taxa. The record from 1886 by Dr. A. Davidson in the Euchar may therefore refer to *S. phylicifolia* or both! It is more widespread than older records suggest occurring on riversides, hill slopes and mires. It has a variety of leaf sizes and hairiness but all darken markedly on drying and are prone to attack later in the season by leaf mining insects.

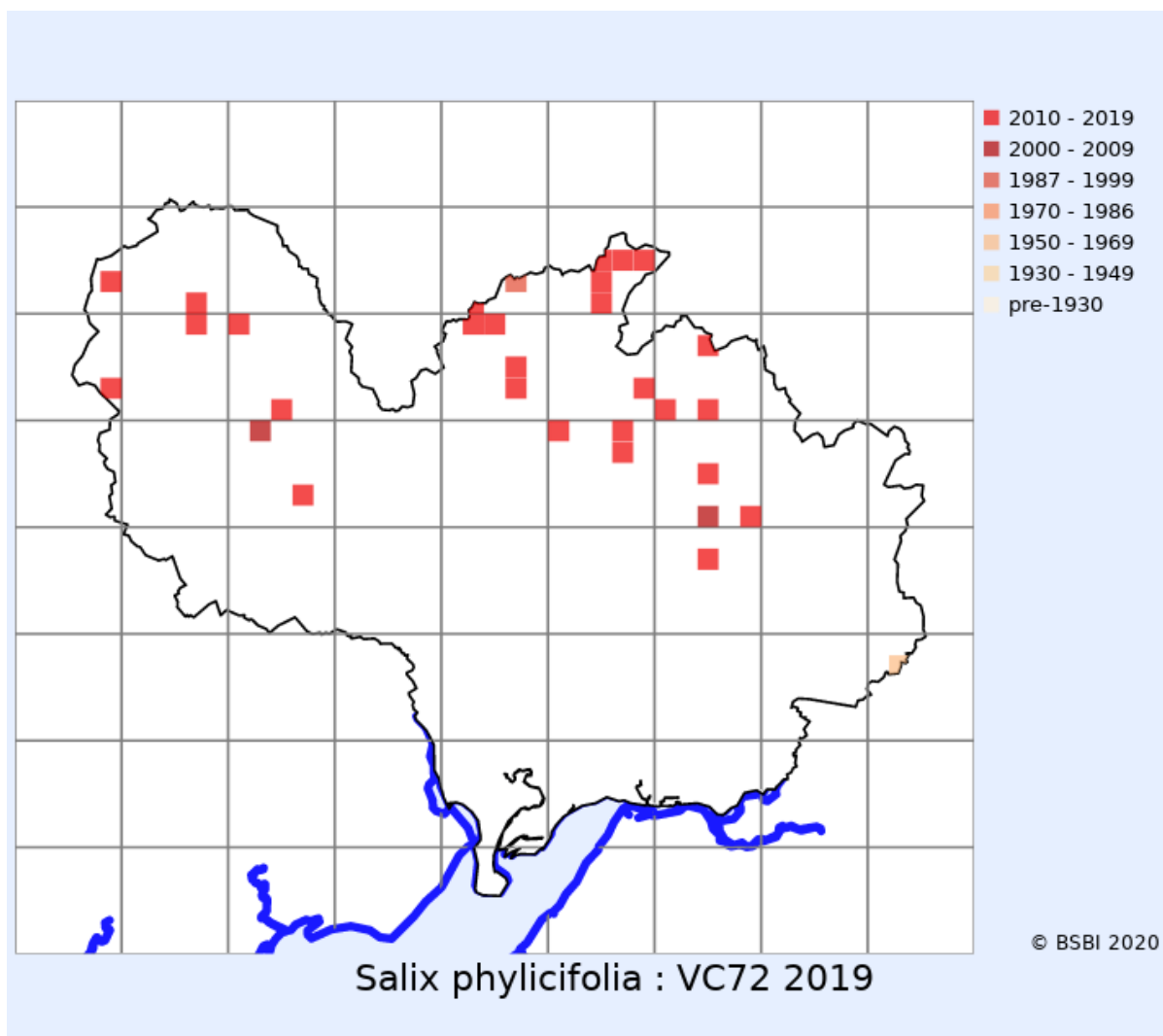
**Salix phylicifolia. L.**

Tea Leaved Willow

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not Scarce.*

A much-branched shrub or small tree which grows by ponds, streams and rivers, and in damp rocky places, preferring base-rich soils and sometimes associated with Carboniferous limestone. Although now much better recorded, the distribution of this species has not changed significantly since the 1962 *Atlas*. It is very similar to *S. myrsinifolia*, and may be mis-identified for it and the hybrid between them.

The first record for Dumfriesshire may be the 1886 listing by Dr. A. Davidson from the Euchan. There is an older record from 1789 for *S. radicans* by Mr Maughan in *Flora Scotica* which may be *S. phylicifolia*. As currently defined this is distinctive from *S. myrsinifolia* by having hairless leaves that do not darken. It grows in similar places but may require better drained conditions and be able to cope with higher elevations than *S. myrsinifolia*.



Also recorded from NY47 (1981)

Salix x tetralpa Walker.
(*Salix myrsinifolia* x *Salix phylicifolia*)

A Hybrid Willow

National Status: Not Listed, Not Listed.
Status in Dumfriesshire: Scarce.

An erect shrub or small tree of damp rocky ground, river-banks and lake shores. It is found where both parents are present, often in populations showing a complete range of intermediates between them, and also in the absence of *S. phylicifolia* in highland Scotland. Nationally there is no evidence to assess changes in its distribution. It is probably under-recorded. Frequent in N. Europe. In Fennoscandia, as in Britain, it is fertile and backcrosses to its parents are more frequent in some areas than *S. phylicifolia*, or occur in its absence.

Only recorded relatively recently in Dumfriesshire. As in other areas with both parents the hybrid is probably much more common than previously suspected. It seems more frequent than either parent on higher level slopes.

Site	Gridref	Date	Recorder
Polskeoch (NS60W)	NS68580228	09/08/2017	Miles, C.J., Miles, A.
Glenairlie Bridge (NS80H)	NS83290593	25/08/2012	Miles, C.J.
Corehead tetrad B (NT11B)	NT10171356	08/08/2010	Miles, C.J.
Priest Gill (NT1413)	NT14511369	08/07/2017	Miles, C.J., Miles, A.
Grey Mare's Tail (GRM)	NT16541416	25/10/2017	Clarkson, R.
White Coombe monad 1615	NT1615	22/06/2014	Miles, C.J.
Garwald Water (NT20A)	NT21600157	22/09/2013	Miles, C.J.
Capel Burn (NY28M)	NY25268558	15/07/2012	Miles, C.J.
Todshawhill	NY29G	13/06/2010	Miles, C.J.
Boyken Burn and Craigs (NY38E)	NY305888	31/07/2011	Miles, C.J.
Arkleton Cottage (NY48E)	NY4088	19/06/2017	Miles, C.J.

Salsola kali subsp. kali L.

Prickly Saltwort

National Status: Not Scarce, Vulnerable.
Status in Dumfriesshire: Rare.

A somewhat woody native annual of sand and shingle beaches, usually on the drift-line with *Atriplex laciniata*, *Cakile maritima* and *Honckenya peploides* as typical associates. Nationally *S. kali* subsp. *kali* has declined over the last 50 years. Many populations, especially in S. England, have been lost due to excessive recreational pressures, and in some areas there has been a drastic decline. Eurosiberian southern temperate element; widely naturalised outside its native range.

First recorded by J. Fingland between Powfoot and Newbie in 1891. This is a plant of sandy shorelines where it occasionally becomes established. Probably not present every year but seeding in from Cumbrian or Galloway populations.

Site	Gridref	Date	Recorder
Powfoot East Beach	NY15396565	04/08/2019	Dumfries Botany Group

Samolus valerandi L.

Brookweed

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Scarce.

A native deciduous short-lived perennial found in small colonies by permanently wet and often seasonally flooded springs, flushed sea-cliffs, puddles, ditches, lagoons and lake shores. Populations are often impermanent, colonising the small and transient specialised habitats which change as spring lines and water levels shift. Individuals are usually monocarpic, but may take several years to flower. Nationally its distribution is fairly stable. Circumpolar southern temperate element.

This was first listed by Rev. Dr. Burgess in 1789 from Ruthwell. In The Flora it was recorded in other locations where it might still be present. This is a plant of wet muddy or peaty ground along the coast in the saline-freshwater transition zone.

Site	Gridref	Date	Recorder
Castle Wood	NY06H	16/07/2008	Miles, C.J, Wilson, B., Kennedy, D.
Riddingdyke	NY16H	10/07/2009	Miles, C.J.
Lochmaben Stone	NY36C	08/09/2007	Miles, C.J.

Also recorded in NY26

Saussurea alpina (L.) DC.

Alpine Saw Wort

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

Perennial herb of damp, base-rich cliffs, screes and other open ground, occasionally found in flushed areas and sometimes washed down mountain streams to become established on rocky stream banks and riverside shingle. Nationally there is some evidence of local decline although the overall distributional picture appears stable. Eurasian arctic montane element.

Recorded by Rev. Dr. Walker from 1762 from the Midlaw Linn where it still occurs. In The Flora also recorded from White Coombe and Black's Hope and also still present in these locations. Grows on rock ledges and crags and in open high level grassland.

Site	Gridref	Date	Recorder
Hartfell Craig (NT1113)	NT11901329	06/08/2016	Miles, C.J, Miles, A.J.
Falcon Craig (NT11G)	NT12371341	03/08/2010	Miles, C.J.
Rough Craigs, White Coomb	NT1615	30/07/2019	Routledge, G
Mid Craig Monad (NT1616)	NT16331615	04/08/2017	Clarkson, R.

Saxifraga hypnoides.L.

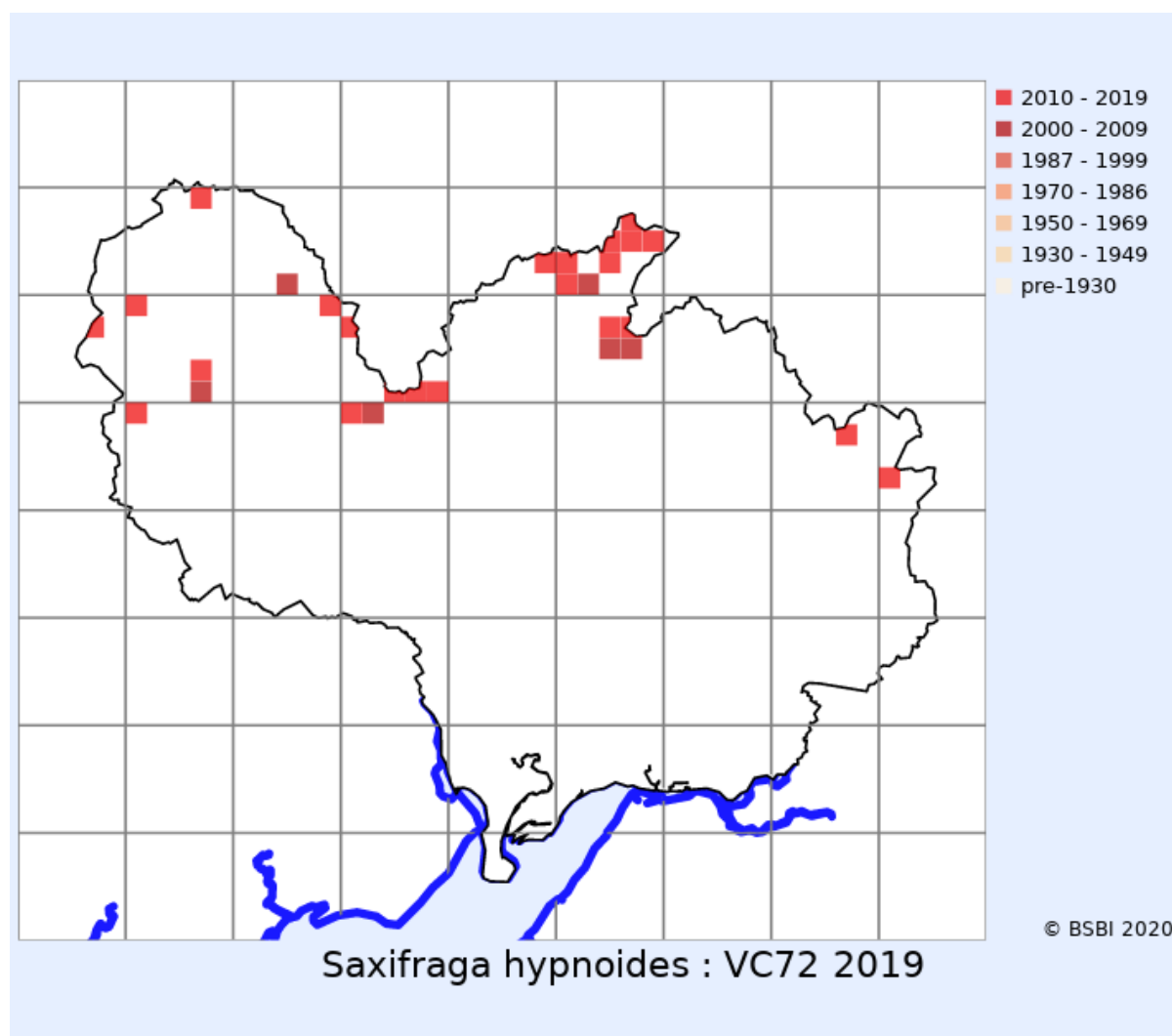
Mossy Saxifrage

National Status: Scarce, Least Concern.

Status in Dumfriesshire: Not scarce habitat restricted.

A perennial, stoloniferous herb growing on moist rocks, screes, cliffs and by mountain streams, rarely on sand dunes, often in partial shade. Substrates are frequently base-rich, although it can grow on acidic rocks. It is also cultivated and sometimes escapes. Generally from 200-760 m.

First recorded by Rev. Dr. Burgess in 1789 at Penbreck, Queensberry where it still occurs. Wet rocks and scree in gully's with water movement and sheltered mossy slopes with water seepage.



Also recorded in NT00, NT20, NY38 (1955), NY39 (1969), NY48

Saxifraga oppositifolia L.

Purple Saxifrage

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A prostrate to more or less densely caespitose perennial herb, growing on open, moist but well-drained, base-rich rocks and stony ground, mainly on cliff-faces, ledges, stony flushes and scree slopes, the southern sites having a northerly aspect. The distribution of the species nationally is stable. Circumpolar arctic montane element.

First listed by Rev. W. Singer in 1848 from the Grey Mares tail. Found on near inaccessible rock face beside the lower waterfall. It has never been found anywhere else in this part of the Southern Uplands despite suitable habitat. Richard Clarkson reported 53 patches present in 2014. It also occurs very rarely in the Galloway Hills.

Site	Gridref	Date	Recorder
Tail Burn main falls (NT1814)	NT18281489	24/07/2016	BSBI Field Meeting 2016

Saxifraga tridactylites L.

Rue Leaved Saxifrage

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Rare.*

A winter-annual that occurs in dry open habitats such as sandy grassland, limestone pavement and rock ledges, cliffs and screes, and on man-made structures like mortared walls, pavements and railway tracks. It is most commonly found on base-rich substrates, often on skeletal soils or virtually bare rock. Nationally there has been a widespread decline in S. and E. England but elsewhere populations appear to be stable. European southern temperate element.

Recorded by David Hawker for the first time in 2010 in the old limestone quarry at Kinmount. It has since been seen in Dumfries and Annan towns colonising open stone work and derelict sites and on the old runways at Chapelcross.

Site	Gridref	Date	Recorder
Dumfries Station (NX9776)	NX97577623	01/04/2017	Macfarlane, F.
Kinmount NY16P (NY16P)	NY1512669274	25/06/2011	Miles, C.J.
Annan - River crossings (NY1866)	NY18496639	26/05/2019	BSS and BSBI urban flora team
Annan centre	NY1966	26/05/2019	BSS and BSBI urban flora team
Watchhill Annan (NY2066)	NY20186649	26/05/2019	BSS and BSBI urban flora team
Chapelcross North (NY2170)	NY21467025	03/07/2019	Miles, C.J., Davidson, D.

Schoenoplectus lacustris (L.) Palla.

Common Club Rush

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A tall rhizomatous perennial herb of standing or flowing fresh water, in conditions ranging from eutrophic and base-rich to oligotrophic and base-poor. Substrates include silt, clay, peat or gravel. It occurs in ponds, lakes, canals, dykes and slow moving rivers, usually in water 0.3-1.5 m deep, but can also be found in deeper water. Nationally the population appears to be stable. Eurosiberian wide- emperate element.

First listed from Dumfries by P. Gray in 1842. It was also reported in The Flora from Lochmaben where it is still present. It is found on the edge of Lochs and slow flowing rivers. It can be confused with Grey Club Rush which can also grow in freshwater conditions.

Site	Gridref	Date	Recorder
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Loch Urr	NX760845	10/09/1996	Day, J. Willby, N.J.
Blind Lochs (NY0683)	NY06988356	10/09/2019	Miles, C.J.; Miles, A.J, Davidson, D.
Castle Loch	NY086814	18/09/1996	Lassiere, O.L. Dines, C.
N end Castle Loch	NY0882	Aug-73	

Also recorded in NY07,

Schoenoplectus tabernaemontani (C.C.Gmel) Palla.

Grey Club Rush

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A rhizomatous native perennial herb, most frequent in coastal sites where it grows in brackish water in rivers, dykes, tidal channels, lagoons and dune-slacks; also in depressions in saltmarsh and in wet pasture. Inland, it occurs by lakes, ponds, slow-flowing rivers, streams and canals, and in flooded quarries and pits. Nationally the plant is increasing. This might, in part, be due to better recording now that its ability to grow inland is appreciated. It has also colonised newly created gravel-pits, and may have been planted at some of its inland sites. Eurasian southern temperate element.

Not reported from Dumfriesshire in The Flora so the earliest record may be that of C. Newbold in 1977 from the Upper Loch Lochmaben. Otherwise recorded from more brackish conditions along the coast.

Site	Gridref	Date	Recorder
East Park WWT Centre	NY0565	17/07/2018	Miles, C.J., Miles, A.
Upper Loch	NY0783	13/08/1977	Newbold, C.
Lochmaben Stone	NY36C	08/09/2007	Miles, C.J.

Scleranthus annuus L.

Annual Knawel

National Status: Not Scarce, Endangered.

Status in Dumfriesshire: Scarce.

An annual or biennial herb found in soil pockets on summer-droughted rocks, and on disturbed sandy soil on heaths, commons, waste places, arable fields and, rarely, river or maritime shingle. It has declined significantly throughout its range. European temperate element; widely naturalised outside its native range.

It was first listed in 1796 by Rev. Dr. Burgess at Broomholm, Langholm. It was widespread at the time of The Flora but appears to have declined significantly. Its habitat, dry sandy waste ground, appears to have become scarce with more intensive cultivation. Recent finds have been of small populations on tracks.

Site	Gridref	Date	Recorder
Dumfries	NX9676	06/10/1993	Stewart, O.M.
Carnsalloch Shingle Bank LWS	NX963804	16/09/2005	McCleary, J.

Glenmaid (NX9789)	NX97168993	06/09/2017	Miles, C.J., Miles, A.
Jericho Loch	NX9980	22/08/1982	Martin, M.E.R.
Lochar Moss	NY0177	21/07/1977	Martin, M.E.R.
Lochmaben	NY076834	1973	Martin, M.E.R.
Shieldhill Bridge, River Ae	NY03478573	30/07/2018	Miles, C.J., Miles, A.
Nutholm Hill (NY171)	NY12227784	05/10/2017	Miles, C.J.

Also recorded in NY18, NY19, NY38 (1956).

Scrophularia auriculata L.

Water Figwort

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A native perennial herb of wet places on the margins of lakes, rivers, streams and canals, and in ditches, marshes and wet woodlands. Nationally the species' distribution remains stable. Suboceanic southern temperate element.

First listed in The Flora by Rev. Dr. Singer in 1843 (as *S. aquatica*) from Annan. This is a southern species that is sparse in Scotland. The few scattered records are generally near larger rivers with a particular concentration in the lower Annan.

Site	Gridref	Date	Recorder
Samye Ling	NT2400	1999	Walls, R.M.
River Nith shingle	NX98	04/09/1999	Miles, C.J.
Auchencairn (NX99F)	NX92529093	02/07/2016	Miles, C.J.
Loch Ettrick (NX9493)	NX94209347	15/09/2019	Dumfries Botany Group
Annan - River crossings (NY1866)	NY18996646	26/05/2019	BSS and BSBI urban flora team
Annan centre	NY1966	26/05/2019	BSS and BSBI urban flora team
Everholm	NY1967	26/05/2019	BSS and BSBI urban flora team
Distillery Farm (NY1968)	NY19066808	20/08/2018	Miles, C.J., Miles, A.
Woodcock Air NY17R	NY16817254	20/05/2009	Miles, C.J.

Also recorded in **NY38 (1955)**

Scrophularia umbrosa Dumort

Green Figwort

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A rhizomatous perennial herb which grows on fertile soils by streams and rivers, and in damp woodland, in both open and shaded places. Nationally increasing. Eurosiberian temperate element.

The only record by J.D.S. Martin was confirmed by A. Silverside. This is well established in the eastern Borders and Cumbria on the Eden and should be looked for in ditches.

Site	Gridref	Date	Recorder
Johnstonebridge, nr fish farm	NY1091	28/07/1980	Martin, J.D.S.

Sedum rosea (L.) Scop.

Roseroot

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not scarce suitable habitat restricted.*

A rhizomatous perennial herb which grows on sea-cliffs and in mountains in rock crevices and on moist rock ledges. In montane habitats it usually occupies sites which are at least slightly base-enriched. Nationally the species' distribution is stable. Circumpolar arctic montane element.

First listed for Dumfriesshire by Rev. Dr. Singer in 1843. On dry or moist basic rocks and ledges in the high hills. Mostly confined to the Moffat Hills but one small population continues to survive in the Lowthers (known at the time of The Flora). The record from NY38 is possible though lacks a specific location.

Site	Gridref	Date	Recorder
Earnraig (NS90Q)	NS97720122	28/06/2014	Miles, C.J.
Capplegill	NT1409	19/07/1974	Stewart, O.M.
Arthurs Seat (NT1112)	NT11641289	13/08/2017	Miles, C.J.
Hartfell Craig (NT1113)	NT11921326	13/08/2017	Miles, C.J.
Upper Coomb Craig, Moffat Hills SSSI	NT12261176	24/05/2007	Waddell, J.
Black Hope (NT11G)	NT12581252	25/07/2010	Miles, C.J.
Redgill Craig monad (NT1312)	NT13361288	26/09/2017	Miles, C.J.
Whirly Gill (NT1313)	NT13141316	07/09/2014	Miles, C.J., Miles, A.J.
Priest Gill (NT1413)	NT14521373	08/07/2017	Miles, C.J.
Firrhope Rig NT11M	NT11M	25/07/2009	Miles, C.J.
Carrifran Gans (NT1513)	NT15121368	06/07/2018	Miles, C.J., Miles, A.J.
Gupe Craig	NT1514	06/07/2018	Miles, C.J., Miles, A.J.
White Coombe monad (NT1615)	NT16801551	22/06/2014	Roberts, J., Brown, P., Miles C.J.
Midlaw Linn, Midlaw Burn	NT162161	30/07/2019	Routledge, G.
Loch Craig	NT1617	23/07/2016	BSBI Field Meeting 2016
Tail Burn main falls	NT1814	24/07/2016	BSBI Field Meeting 2016
Deacon Snout	NT182150	22/05/2010	Hillier, F.

Also recorded in NT00 and **NY38 (1955)**

Sedum villosum L.

Hairy Stonecrop

*National Status: Scarce, Near Threatened.**Status in Dumfriesshire: Not Scarce, declining.*

A small biennial or perennial herb which grows in at least slightly base-enriched, wet, stony ground and on streamsides in hilly areas, and in montane, often bryophyte-rich, flushes.

Nationally there has been a decline in more lowland areas and it may be under-recorded in many upland parts of Scotland. European boreo arctic montane element; also in N. America.

The first record appears to be by W. Keddie from the Auchencat Burn in 1854. This species is still widespread though often in small quantity and easy to overlook when not in flower. It likes the gravelly edges of small hill streams and also hillside flushes and must have disappeared from many hills with conifer plantations. It is found in the Moffat, Ettrick, Lowther and Langholm Hills and Dumfriesshire is one of the strongholds for this North Pennine and Southern Upland specialist.

Site	Gridref	Date	Recorder
Graystone Hill	NS60S	01/05/2017	Watson, K.
Pikiestone Burn Slope	NS60T	01/05/2017	Watson, K.
Corserigg Forest, Mynwhirr Hill	NS69060910	12/07/2011	Waddell, J.
Glenglass Burn-Euchan Water	NS709063	1886	Davidson, A.
Corserig Hill NS70E	NS70E	30/07/2011	Miles, C.J.
Carlinstane Burn	NS7802	14/08/1975	Stewart, N.F.
Knockenhair Fm+Crawick Water.	NS71W	15/09/2003	White, A., Miles, C.J.
Mennock Pass	NS80E	1933	Taylor, G.
Mennock Pass	NS80J	1933	Taylor, G.
Kettleton Reservoir (NS80V)	NS89510096	03/06/2011	Miles, C.J.
Dalveen, Blue Scar (NS8908)	NS89470863	21/07/2016	Miles, C.J., Miles, A.J.
Nether Cog-Crawick Water	NS807151	-1886	Scott - Elliot, G.F.
Cogshead-Sanquhar Moor	NS829131	-1886	Scott - Elliot, G.F.
White Dod NS81K	NS81K	20/06/2009	Miles, C.J.
Whiteside (NS81V)	NS88121135	10/07/2011	Miles, C.J.
Durisdeer, nr	NS903047	05/07/1978	Sladen, Capt.
Durisdeer Hill (NS9105)	NS91430588	12/08/2018	Miles, C.J., Miles, A.J.
Cheese Wells (NT01A)	NT11701044	02/09/2012	Miles, C.J.
Lochan Burn	NT01W	05/07/2004	Braithwaite, M.E. Gaskell, L.W.
Braefield,Warnphray Water	NT140002	1973	Martin, M.E.R.
Selcoth Burn (NT10N)	NT15500626	28/08/2011	Miles, C.J.
Corehead tetrad B (NT11B)	NT10414131 36	08/08/2010	Miles, C.J.
Dobs Linn monad (NT1915)	NT19451527	20/06/2017	Clarkson, R.
Garwald Water	NT219011	1955	Watt, G.
Hazel Linn (NT2406)	NT24150641	05/09/2018	Miles, C.J., Miles, A.J.
Thornhill	NX89	1896	Johnstone, J.T.
Auchenleck hill NX99J	NX99J	15/09/2006	Miles, C.J.
W. side of Track near Burleywhag	NX972988	04/07/2000	Corner, R.W.M.
Queensberry	NX99Z	1896	Scott - Elliot, G.F.
Ministers Moss/Moss Knowe nr	NY008904	26/08/1959	Milne-Redhead, H.
Burnswark	NY17	1896	Scott - Elliot, G.F.
Lockerbie, 'Hutton of Dryfe'	NY18	1896	Scott - Elliot, G.F.
Finniegill (NY19U)	NY17349862	15/08/2013	Miles, C.J.

Martingill Bridge,E of Bailliehill	NY264909	10/06/1955	Watt, G.
Roan Fell, Tarras Water	NY4493	05/05/1983	Ratcliffe, D.A.

Also recorded in NX79

Serratula tinctoria L.

Saw Wort

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A perennial herb of calcareous grassland, hay and fen-meadows, wet heaths and heathy mires, open scrub and woodland, rocky lake shores and cliff-tops; also in artificial habitats including roadside verges and railway banks. Nationally the species has declined in the UK due to drainage, the improvement of pastures and the loss of grasslands in woods and on wood-margins. European temperate element.

List by D. Bell in 1837 from “Eskdale”. There is just the one record since then from Liddesdale. This species is rare in Scotland and Dumfriesshire is on the edge of a Cumbrian population where the species is not scarce. Needs some further survey effort to see if it survives but grassland improvement might have caused its loss.

Site	Gridref	Date	Recorder
Penton Bridge, Liddel Water	NY4377	1972	Martin, M.E.R.

Sherardia arvensis L.

Field Madder

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

An annual of open, droughted grasslands, sheltered cliffs, sand dunes, arable fields, waste ground, waysides and verges. Formerly frequent, this species is now much decreased due to agricultural intensification. Whilst remaining common in some coastal localities and locally inland, it is now no more than a rare casual over parts of its range. European southern temperate element; it is widely naturalised outside its native range.

Listed by P. Gray in 1842 from Dumfries. This southern species is found in disturbed ground and verges.

Site	Gridref	Date	Recorder
Coatsgate Quarry (NT00S)	NT06180527	07/06/2014	Miles, C.J.
Dragons pool (NT0703)	NT07030343	24/06/2017	Miles, C.J.
Lambholm	NY035862	04/10/2009	Miles, C.J.
Lochbank,disused rly+Upper Loch	NY075834	25/05/1988	Martin, M.E.R.
Kirkton Farm	NY18F	1996	Davidson, A., D.
Eastriggs Ordnance depot	NY260650	24/07/2002	Miles, C.J., Galley, J.

Also recorded in NT10

Sparganium angustifolium Michx

Floating Bur Reed

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

A perennial herb of clear, oligotrophic water, only rarely extending into mesotrophic conditions. It is most frequent in upland lakes but also grows in pools, rivers, streams, canals and ditches. Nationally the distribution of this species is difficult to ascertain due to previous taxonomic uncertainty. European boreal montane element; also in E. Asia and N. America.

The first record is from G.N. Lloyd (as *S. affine*) in 1837 on the Lochar Moss. This is infrequent in nutrient poor water and has been lost from some old sites. It is a very western species and Dumfriesshire is on the edge of its distribution.

Site	Gridref	Date	Recorder
Loch Urr	NX760845	10/09/1996	Day, J. Willby, N.J.
Drumlanrig Castle	NX89P	12/05/2012	Miles, C.J.
Jerico loch	NX98	1985	Martin, M.E.R.
Loch Ettrick	NX99L	18/08/2012	Miles, C.J.

Sparganium natans L.

Least Bur Reed

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Not scarce limited habitat.*

This species grows in shallow, sheltered waters at the edges of lakes, or in ponds, slowly flowing streams and drainage ditches. It is found in mesotrophic, highly calcareous to acidic waters. Nationally many populations were lost in the lowlands, in the first half of the 20th century and this decline has continued. These losses are attributable to the drainage of wetlands in historic times, and perhaps to eutrophication of surviving sites. The distribution elsewhere appears to be more stable. Circumpolar boreo temperate element.

First listed in Dumfriesshire by Rev. Dr. Burgess in 1777 from Holywood and Lochmaben. More frequent than *S. angustifolia* as more tolerant of nutrient enriched water though will grow in oligotrophic conditions. It does not produce the same length of floating lvs. as *S. angustifolia*.

Site	Gridref	Date	Recorder
Balshaw Bog (NT0501)	NT050017	08/08/2016	Miles, C.J., Miles, A.J.
Craigielands	NT0701	24/06/2017	Miles, C.J.
Loch Urr	NX755849	03/08/1988	Stewart, O.M.
Loweberry Loch	NX882815	28/07/2017	Miles, C.J.
Capenoch Loch	NX837927	11/06/2016	Miles, C.J.
Drumlanrig Woods	NX8499	01/09/2019	Dumfries Botany Group
Dalswinton (NX9484)	NX94368423	05/09/2019	Miles, C.J., Miles, A.J., Davidson, D. Muir, J.

Cowhill Tower (NX98L)	NX95458280	08/09/2012	Miles, C.J.
Jericho Loch, S end	NX995804	04/08/1985	Martin, M.E.R.
Lochar Moss	NY07	8/1839	Balfour, J.H.
Meikleholm Loch	NY0389	06/06/1988	Martin, M.E.R.
Old Broomhill	NY098835	31/07/2017	Miles, C.J.
Nether Murthat	NY1098	21/05/2019	Miles, C.J., Miles, A.J., Davidson, D.

Also recorded from NY27.

Spartina anglica C.E. Hubb.

Common Cord Grass

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce but expanding.

A rhizomatous perennial herb of tidal mud-flats and saltmarshes, much planted as a mud-binder and forming extensive stands in many estuaries. It originated in Southampton Water in about 1890 as an amphidiploid derivative of *S. x townsendii*. Nationally it has become widespread both through deliberate planting and natural colonisation. It is not possible to separate native and planted populations. Endemic as a native to Britain, but widely planted in W. Europe.

Not recorded at the time of the 1896 Flora (it arose in the wild about 1890 on the South coast of England) so the first record appears to be that from J.D.S. Martin in 1978 at Powfoot. Forming patches on bare mud at edge or within merse (saltmarsh). So far not forming extensive stands as in other estuaries where there is perhaps finer sediment but appears to be continuing to spread.

Site	Gridref	Date	Recorder
Caerlaverock	NY03076478	15/08/2012	Haynes, T.
Riddingdyke	NY1365	04/08/2019	Dumfries Botany Group
Powfoot NY16M	NY16M	12/07/2009	Miles, C.J.
Annan Waterfoot NY16X	NY18106436	27/08/2018	Miles, C.J., Miles, A.
Dornock	NY221652	03/09/2006	Dalby, G.
Dornock	NY235650	03/09/2006	Dalby, G.
Eastriggs works west	NY26M	18/06/2017	Miles, C.J.
Baurch	NY26X	20/07/2014	Miles, C.J.

Stachys arvensis (L.) L.

Field Woundwort

National Status: Not Scarce, Near Threatened.

Status in Dumfriesshire: Scarce.

An archaeophyte summer- or winter-annual of arable fields, allotments and gardens, waste ground and road verges, usually on non-calcareous soils. It occurs on limestone outcrops in W. Ireland. *S. arvensis* was formerly a frequent weed of arable land which is now declining nationally. Suboceanic southern temperate distribution; it is widely naturalised outside this range.

Not in The Flora for Dumfriesshire so probably first recorded by H. Milne-Redhead though he gives no specific location or date other than pre 1969. It has always been rare and has probably declined because of a reduction in arable farming in hillier sites and improved control of weeds with sprays.

Site	Gridref	Date	Recorder
Dalmacallan (NX7988)	NX79848871	26/07/2018	Miles, C.J.
Jericho Loch	NX994808	22/08/1982	Martin, M.E.R.
Birset	NY0774	08/09/2012	Miles, C.J.
Lochmaben	NY080824	30/09/1975	Martin, J.D.S.
Sandhills (NY2065)	NY20786516	09/10/2019	Miles, C.J., Davidson, D.

Also recorded in NY17 and NY18

Stuckenia pectinata (L.) Borner

Fennel Pondweed

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

This native rhizomatous, linear-leaved aquatic is a characteristic species of eutrophic or brackish waters, where it may form dense stands in lakes, reservoirs, rivers, streams, canals, ditches, ponds and flooded mineral workings. It is tolerant of disturbance in canals and navigable rivers. It is occasionally found in highly calcareous but nutrient-poor lakes. Nationally its distribution is stable. Circumpolar Wide-temperate element.

First recorded in Dumfriesshire in 1971 by H. Proctor at Hightae Mill Loch and later in nearby Castle loch. It was only found in a brackish pool in 2014 at Caerlaverock NNR. This is its more typical habitat in the north and west of Britain,.

Site	Gridref	Date	Recorder
Castle Wood (NY06H)	NY03946511	13/08/2017	Miles, C.J.
Eastpark WWT Centre Monad	NY0565	11/06/2015	Miles, C.J.
Castle Loch and Motte	NY08W	18/07/2003	White, A., Miles, C.J.
Castle Loch	NY086814	18/09/1996	Lassiere, O.L., Dines, C.
Hightae Mill Loch	NY085800	1974	Martin, M.E.R.
Kinmount Holly Bush Wood	NY1368	15/08/2018	Dumfries Botany Group

Subularia aquatica L.

Awlwort

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

An annual aquatic plant, sometimes overwintering as a rosette, growing on silt, gravel or stony substrates in acidic, oligotrophic lakes. It is normally a plant of water shallower than one metre, and is only rarely found in other water bodies, such as outfall streams. Nationally eutrophication seems to have caused declines along the eastern fringe of its range, and also in

the Lake District and N. Ireland. Circumpolar boreal montane element, with a disjunct distribution.

First reported from Loch Skeen in Dumfriesshire in 1830. It still grows submerged in the shallows of the loch with more plentiful *Littorella*. It can be separated from the latter by the more pointed leaves.

Site	Gridref	Date	Recorder
Loch Skeen	NT1616	01/07/2000	Dalton, A.
Loch Skeen (NT11T)	NT17261595	22/06/2014	Roberts, J., Brown, P., Miles C.J.
Loch Skeen	NT171165	16/09/1996	Willby, N.J. Lassiere, O.L.

***Teesdalia nudicaulis* (L.) R. Br.**

Shepherd's Cress

National Status: Not Scarce, Near Threatened.

Status in Dumfriesshire: Scarce.

A winter-annual of acidic, well-drained sandy soils on heathlands, sand dunes, shingle and gravels, by railways and on coal and cinder tips. It prefers bare or disturbed ground. Nationally it is declining probably due to scrub invasion and afforestation. European temperate element.

First recorded by J Wilson at Locharbriggs in 1882. This has never been common and is infrequently seen probably because the conditions it requires are limited. It has been found rarely on forest tracks.

Site	Gridref	Date	Recorder
Beattock, Evan Water	NT00	1896	Johnstone, J.T.
Jericho Loch, Locharbriggs	NX996806	05/05/1985	Martin, M.E.R.
Lochmaben, cemetery	NY08Q	14/11/1988	Martin, M.E.R.
Powfoot, golf course	NY146655	01/06/1979	Cameron, J.
Powfoot NY16M	NY158654	12/07/2009	Miles, C.J.
Watcarrick Forest (NY29I)	NY22849711	04/07/2019	Miles, C.J., Miles, A.

Also recorded in NT01

***Thalictrum alpinum* L.**

Alpine Meadow Rue

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Not Scarce habitat restricted.

A small, rhizomatous perennial of mountain habitats. It is found on damp rock ledges, at the open edges of stony streams and flushes and in thin grassland. It is a good indicator of substrates which are at least slightly base-rich. Nationally its population is stable. Circumpolar arctic montane element, with a disjunct distribution.

It was first listed for Dumfriesshire from Hartfell by W. Sheffield in 1777. It is now better mapped and known from a number of hills across the Southern Uplands in flushed high

pasture and on rocky ledges and exposures. It is only plentiful in the VC in certain places in the Moffat and Ettrick Hills and elsewhere occurs as small populations restricted to flushes.

Site	Gridref	Date	Recorder
S. side of Earncraig Hill from 450-580m	NS972010	04/07/2000	Corner, R.W.M.
E. side of Ganna Shank at 500m	NS963008	04/07/2000	Corner, R.W.M.
Spout Craig	NT0813	12/05/2018	Miles, C.J.
Middlefield Knowe	NT09461365	13/06/2017	Miles, C.J.
Capel Fell (NT1606)	NT16370663	23/08/2017	Miles, C.J.
Corehead tetrad B (NT11B)	NT10171356	08/08/2010	Miles, C.J.
Nether Coombe Craig NT11F	NT11F	10/06/2007	Miles, C.J.
Falcon Craig (NT11G)	NT12581252	03/08/2010	Miles, C.J.
Nutberry Knowes (NT1213)	NT12791317	06/08/2016	Miles, C.J.; Miles, A.J.
Whirly Gill	NT1313	07/09/2014	Miles, C.J.; Miles, A.J.
Saddle Yoke NT11L	NT11L	27/07/2008	Miles, C.J.
Carrifran (NT11M)	NT14781457	21/08/2010	Miles, C.J.
Gupe Craig (NT1514)	NT15131430	06/07/2018	Miles, C.J.; Miles, A.J.
White Coombe monad 1615	NT1615	22/06/2014	Roberts, J., Brown, P., Miles C.J.
Moffat Hills SSSI, Midlaw Linn	NT16331615	04/08/2017	Clarkson, R.
Grey Mare's Tail	NT184148	13/07/2006	Whild, S.J.; Lockton, A.J.
Summer Cleuch Knowe (NT20D)	NT21270738	04/08/2014	Miles, C.J.
Mitchell Hill	NT21120866	21/07/2012	Miles, C.J.
Bloodhope Head (NT20J)	NT22030870	21/07/2012	Miles, C.J.

Thalictrum minus L.

Lesser Meadow Rue

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

A morphologically variable, native perennial herb found in calcareous or other base-rich habitats where competition is low, including fixed dunes, scrubby banks, rocky lake and river edges, limestone and serpentine cliffs, limestone grassland and pavement and montane rock ledges. It also occurs in other habitats, including churchyards, hedge banks and roadsides, as a garden escape. Nationally its native distribution is stable. Eurasian boreo temperate element.

This was first recorded in Dumfriesshire from the Grey Mares tail in 1856 by Dr. J.H. Balfour. This has also been recorded from Nithsdale but has not been recorded there for over a 100 years. It appears to be restricted to a few rocky ledges in the Moffat Hills.

Site	Gridref	Date	Recorder
Nether Coomb Craig, Moffat Hills SSSI	NT12591140	24/05/2007	Waddell, J.

Falcon Craig (NT11G)	NT12581252	03/08/2010	Miles, C.J.
Tail Burn, Grey Mare's Tail	NT179152	30/07/2019	Routledge, G.
Dobs Linn	NT11X	03/07/2011	Miles, C.J.
Tail Burn main falls (NT1814)	NT18441483	24/07/2016	BSBI Field Meeting 2016
Tail Burn	NT181151	10/07/2013	Clarkson, R.

Crassula tillaea Lest-Garl.

Mossy Stonecrop

*National Status: Rare; Least concern.**Status in Dumfriesshire: Rare*

A tiny annual, growing on bare, often compacted, sandy or gravelly ground. It is often found on rutted tracks, paths and other areas where the ground is kept open by disturbance and periodic flooding. It can withstand only minimal competition from other vegetation. Lowland. The British range of this species appears to be expanding. Since the 1962 *Atlas* it has become much more frequent in S.W. England and has colonised forestry rides in N.E. Scotland. In Cornwall, where it was not known until 1988, it is known from several car- and caravan-parks on sandy sites.

This has recently been discovered in Dumfriesshire. Each occurrence is where vehicles may have brought propagules that have now established themselves.

Site	Gridref	Date	Recorder
Broom Fishery (NY1665)	NY16326552	10/06/2019	Miles, C.J., Miles, A.J., Davidson, D.
Canonbie (NY37Y)	NY38977661	07/10/2017	Miles, C.J.
Canonbie (NY37Y)	NY38647750	07/10/2017	Miles, C.J.

Trichophorum cespitosum (L.) Hartm.

Northern Deergrass

*National Status: Rare; Least concern.**Status in Dumfriesshire: Rare*

A perennial herb known only on acidic, peaty moorland where it occurs mainly on the margins of *Sphagnum* mires in areas subject to some base-enrichment. From 75 m to 620 m. Although this taxon has traditionally been included in British Floras, its presence as separate from the widespread *T. germanicum* was only recently confirmed (Swan, 1999). Herbarium specimens date back to 1840 (Salop). It appears to be rare, but its distribution requires further study. The hybrid with subsp. *germanicum* which is more widespread, often occurs near populations of *T. cespitosum* and in its absence.

Only recently confirmed from a bog near Eskdalemuir where it was widespread. It must be present elsewhere in Dumfriesshire. An excellent guide to id by J. Roberts will help increase recording.

Site	Gridref	Date	Recorder
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Bellstone Bottom (NY2398)	NY23969878	22/7/2018	Miles, C.J.; Miles, A.J.
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Trientalis europaea L.

Chickweed Wintergreen

*National Status: Not Scarce, Least concern.**Status in Dumfriesshire: Scarce.*

Perennial herb of moist, acidic and humus-rich, but often fertile, soils and on moorland; less commonly on heaths. It is highly localised, colonies often being separated by much apparently suitable ground. Nationally the species is declining in N. England but is stable elsewhere. Circumpolar boreal montane element.

Recorded in The Flora by A. Hutton from Eskdale but with some uncertainty and without a date. Since then recorded only a few times. Populations are small and on moorland or peatland. The recent small population found in Nithsdale on the edge of a peat hag is well outside the previous known range and may suggest there are other populations still to be found.

Site	Gridref	Date	Recorder
Kettleton Reservoir (NS80V)	NS89160089	03/06/2011	Miles, C.J.
Garwald	NT20	1981	Ellis, D.E.
Bell's Flow SSSI	NY318764	07/07/1995	Miles, C.J.
Whita Hill	NY3784	03/07/1975	Martin, M.E.R.
Cronksbank, nr	NY391828	02/06/1994	Tinker, Dr M.D.
Tinnisburn Forest	NY428822	1988	Ellis, D.

Trisetum flavescens (L.) P. Beauv.

Yellow Oat Grass

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce.*

Perennial of well-drained neutral and calcareous grassland, found in lowland pasture and hay meadows, on downland, banks and roadsides, and occasionally rocks. It is most abundant in old, ungrazed hay meadows. Nationally its distribution is stable. European temperate element; widely naturalised outside its native range.

Recorded first by Dr. Davidson in 1886 from Crawick Bridge. It was seen not far from here in 1987. Despite this being common in Cumbria and the Eastern Borders this remains a scarce plant across the Border in western Scotland. It is usually seen in small quantity on the edge of older pasture or on grass verges.

Site	Gridref	Date	Recorder
Knockenhair Fm	NS784128	06/08/1987	Martin, M.E.R.
Georgetown (NX97X)	NX98877465	05/07/2013	Miles, C.J.; McKinnel, J.
Robertland	NX9982	01/07/1990	Martin, M.E.R.

Lochar Moss	NY011777	12/06/1984	Martin, M.E.R.
Powfoot, W of	NY1465	15/06/1978	Martin, J.D.S.
Kinmount	NY1468	10/08/1996	Stewart, O.M., Stirling, A. McG, Miles, C.
Powfoot, E of	NY1565	1972	Martin, J.D.S.
Tundergarth House	NY170810	19/06/1984	Martin, M.E.R.
Old Graitney	NY316663	12/07/1981	Martin, M.E.R.
Canonbie (NY3976)	NY39577612	12/06/2017	Miles, C.J.; Miles, A.J.
Penton Linns	NY4377	17/08/1997	Miles, C.J.

Also recorded in NY29, NY48 (1958)

Trocdaris verticillata (L.) Raf

Whorled Caraway

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Not Scarce, declining.

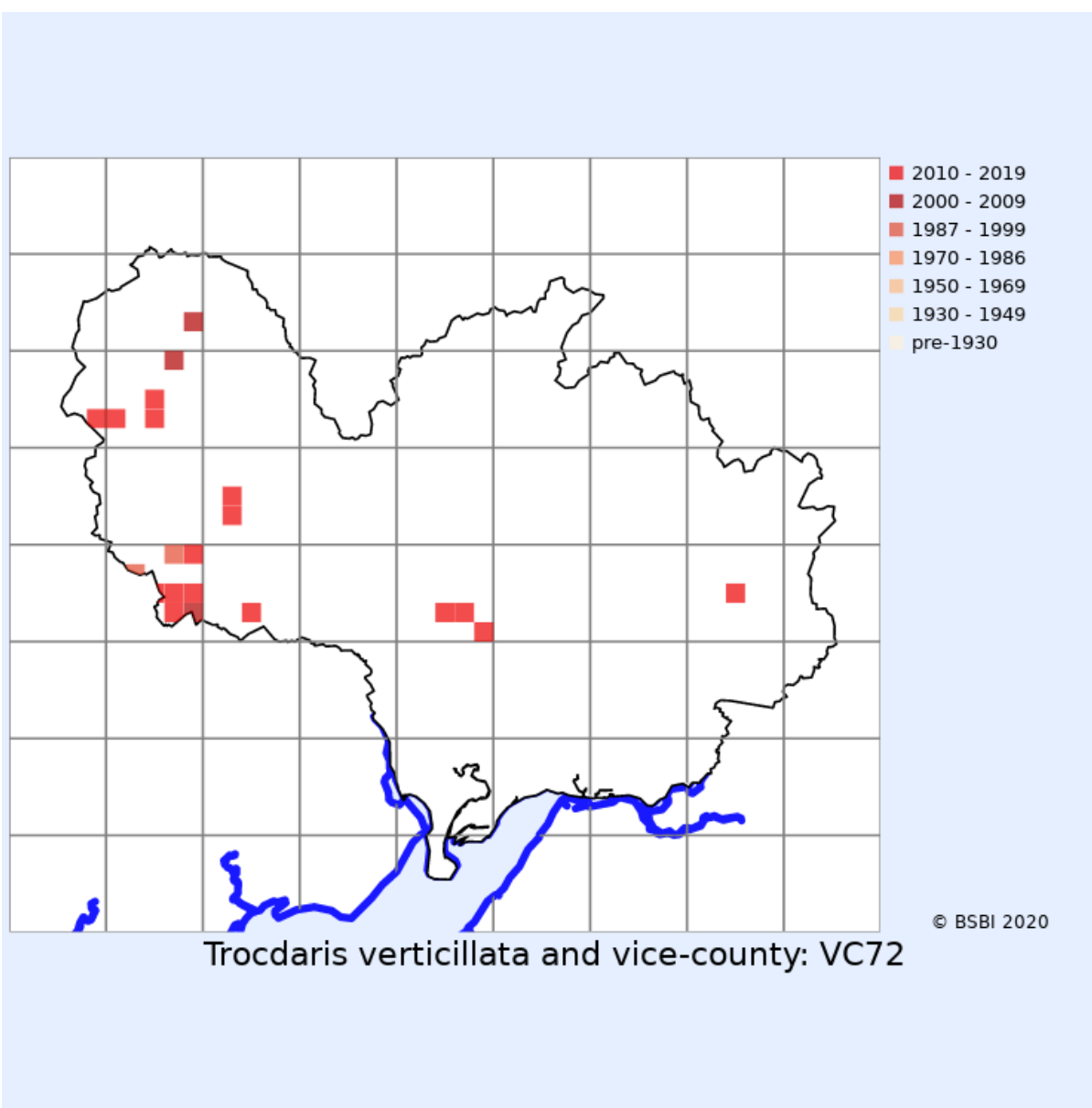
A native perennial, calcifuge herb of marshes, streamsides, damp meadows, rushy pastures and on wet hillsides with a pronounced soligenous influence. Nationally the distribution of this species is generally stable, indeed it may be becoming more frequent in pastures where drainage is increasingly neglected. Oceanic southern temperate element.

Dumfriesshire populations are on the eastern edge of the main distribution in Kirkcudbrightshire hence more records occur in Nithsdale. Listed by Dr. Burgess at Ruthwell in 1789. Found in wet usually rushy/molinia pasture. Most populations are small, confined to wet mires or flushes on steep slopes. In 2019 the species was found at Langholm, 20km east of any other known population in South Scotland.

Site	Gridref	Date	Recorder
Polskeoch (NS60W)	NS69760249	09/08/2017	Miles, C.J, Miles, A.J.
Polskeoch (NS60W)	NS69920301	09/08/2017	Miles, C.J, Miles, A.J.
Dalgonar Craigs (NS70B)	NS7002	00/08/2017	Watson, M.
Burnt Cleuch	NS7404	2017	Hawker, D.
Scaur Water (NS7503)	NS75530365	2017	Hawker, D.
Euchan Falls NS70U	NS764082	02/08/2009	Miles, C.J.
N.W. Knockenhair	NS7913	02/08/2004	Miles, C.J.
Minnygryle Burn	NX7287	03/07/1988	Stewart, O.M. Stewart, F.J.
Blackstone Farm	NX776894	03/09/1988	Martin, M.E.R. Cameron, J.
North end Loch Urr	NX7585	14/08/2019	Dumfries Botany Group
Craigenputtock Moor (NX78R)	NX76158291	03/07/2017	Miles, C.J, Miles, A.J.
Lochurr Moss	NX7684	14/08/2019	Dumfries Botany Group
Craigdasher to Castramont Burn	NX78W	27/07/2004	Miles, C.J.
Bogrie Hill	NX79778413	15/08/2015	Miles, C.J., Miles, A.
Dalmacallan (NX7988)	NX79138880	26/07/2018	Miles, C.J.
Dalwhat Valley	NX706966	01/05/1998	Swan, J.
Speddoch (NX8582)	NX85608275	07/06/2019	Miles, C.J., Davidson, D.
Dalgonar Linn (NX8583)	NX85668340	07/06/2019	Miles, C.J., Davidson, D.

Morrington	NX8781	04/07/2008	Miles, C.J., Wilson, B.
Scaur Water	NX8098	30/07/1997	Stewart, O.M. Miles, C.J.
Capenoch Moor (NX89G)	NX82229335	11/06/2016	Miles, C.J.
Glengar Hill (NX89H)	NX82609587	17/07/2016	Miles, C.J., Miles, A.
Heathery Dam	NX9193	26/08/1984	Martin, M.E.R.
T Wood (NY0482)	NY04348297	26/07/2018	Miles, C.J., Miles, A.J., Davidson, D.
Blind Lochs (NY0683)	NY06228389	10/09/2019	Miles, C.J., Miles, A.J., Davidson, D.
Kirkhirst Plantation, Castle Loch	NY0981	02/09/2018	Dumfries Botany Group
Becks (NY3484)	NY34898437	02/07/2019	Miles, C.J., Miles, A.J., Davidson, D.
New Langholm (NY3584)	NY35188460	02/07/2019	Miles, C.J., Miles, A.J., Davidson, D.

Also recorded in NS80 (1896), NS81(1896), NX97 (1896), NY06 (1896), NY18 (1973)



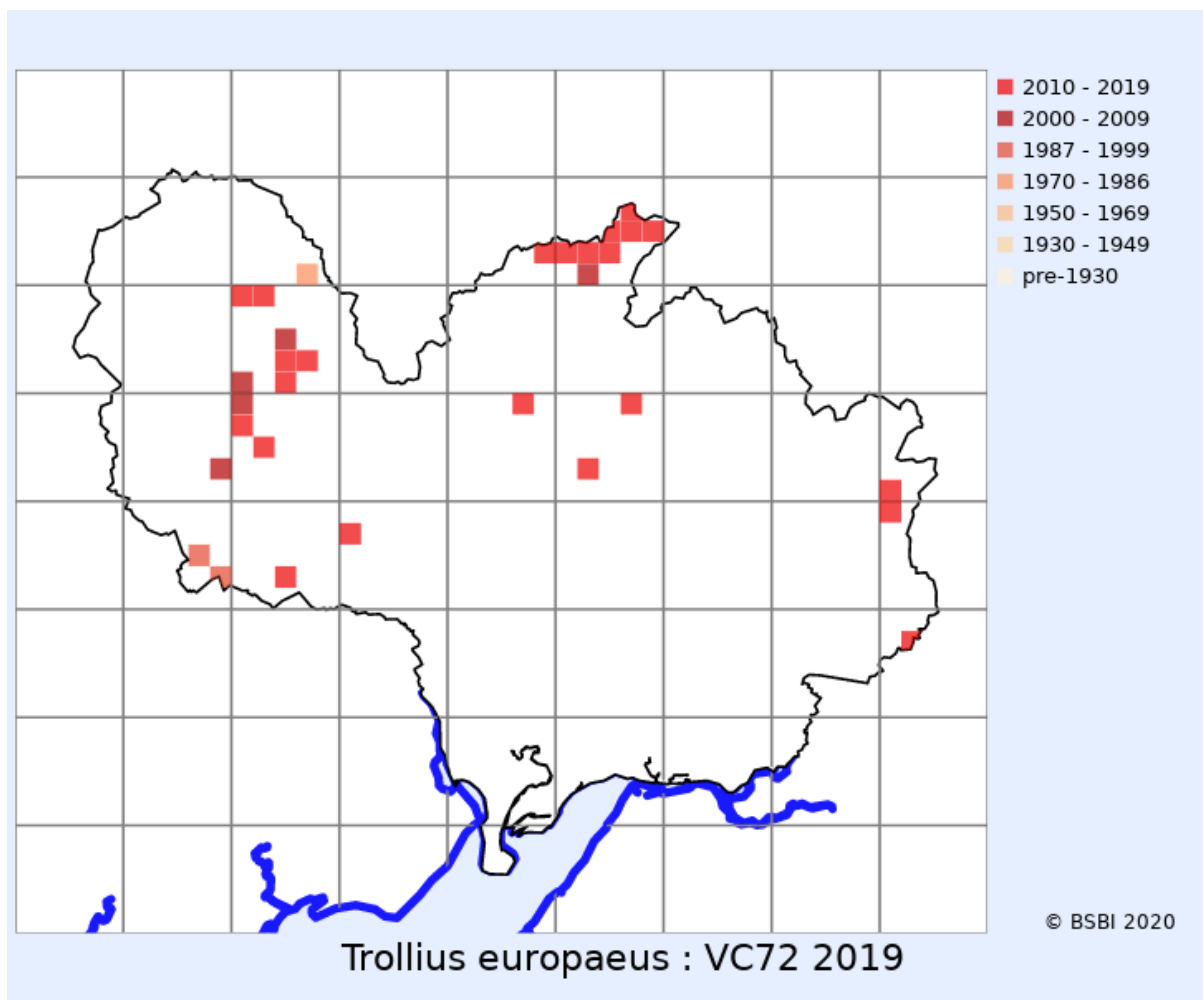
Trollius europaeus L.

Globeflower

*National Status: Not Scarce, Least Concern.**Status in Dumfriesshire: Scarce habitat restricted*

A perennial herb of cool, damp habitats, including hay meadows, stream and river banks, lake margins, open woodland and rock ledges. It prefers basic soils, and is often associated with limestone. It is sensitive to grazing, but can persist as small, non-flowering plants in the uplands. Nationally there has been a small decline through drainage and agricultural improvement to hill pastures.

The first listing was by Rev. Dr. Burgess in 1789. Found in hill grasslands and rock ledges or on riverside rocks on the Nith and Liddel Water where it can be luxuriant. It has become more apparent at high levels in the Moffat Hills where grazing has been reduced or removed. Some populations are small and isolated.



Also recorded in NS70, NS71 (1968), NT00, NT10 (1962), NY29, NY38 (1955)

Typha angustifolia L.

Lesser Bulrush

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

This tall, rhizomatous perennial grows as an emergent in mesotrophic or eutrophic water in lakes, ponds, ditches and flooded mineral workings. It tends to grow in deeper water than *T. latifolia*, and tolerates mesotrophic as well as eutrophic conditions. It also grows as floating rafts at some sites. Nationally its distribution is stable. Eurosiberian temperate element.

First listed by Rev. Dr. Singer in 1843 from Lochmaben, the only location given in The Flora. Much less common than *T. latifolia* and while infrequently recorded likely to be persistent at sites unless subject to habitat change. May be introduced by planting, though less often than *T. latifolia*.

Site	Gridref	Date	Recorder
Capenoch Loch	NX837927	11/06/2016	Miles, C.J.
Dalswinton	NX9484	05/05/2019	Dumfries Botany Group
Longbridge Muir SSSI. Longbridge Muir	NY0469	24/08/2016	White, A.
Racks Moss	NY07	08/07/1999	Miles, C.J.
Roucan Meadows	NY018780	16/09/1999	Davis, A.R.
Barony College, Parkgate	NY0287	04/12/1982	Muir, J.
Mill Loch, Lochmaben	NY076831	16/07/1984	Martin, M.E.R.
Lochmaben Castle (NY0881)	NY08838125	02/09/2018	Dumfries Botany Group
Lockerbie Curling Pond	NY125804	15/09/1987	Martin, M.E.R.
Bankhead (NY4580)	NY45208080	09/06/2019	Miles, C.J.; Miles, A.J.

Also recorded in NY37

Ulex galii Planchon.

Western Gorse

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A shrub of heaths on infertile acidic soils, including leached soils overlying chalk and limestone; also found on sea-cliffs, in under-grazed or abandoned pastures, and on scrubby banks and waste ground. Nationally its distribution is probably stable. Oceanic temperate element.

First record is By Rev. T. Bell at Dornock in 1882. It is very infrequent in heathy conditions on medium height hill slopes. Recent records have been where ground disturbance has allowed establishment and along the side of forest tracks. Usually the latter are single or small numbers of plants. There are good populations in Cumbria and Kirkcudbrightshire so it ought to be more frequent.

Site	Gridref	Date	Recorder
Moffat (NT0805)	NT08600589	15/07/2019	Miles, C.J., Miles, A.J.

Auchenstroan track	NX70069182	17/08/2017	Miles, C.J.
Clauchrie Plantation NX98 J	NX98J	03/09/2006	Miles, C.J.
Glentemont Height	NY285855	27/08/1995	Corner, R.W.M.
Hallidayhill Moor	NY0873	08/09/2012	Miles, C.J.
Dalton Hook (NY17D)	NY11737758	05/10/2017	Miles, C.J.
Castle O'er (NY29L)	NY25599374	12/10/2017	Miles, C.J.

Also recorded in NY16,

Ulmus procera Salisb.

English Elm

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A large wide-topped tree, often considered a definitive component of the English countryside, found in hedgerows and field-borders, rarely in woodland but sometimes forming small copses. In most areas few mature trees remain, being very susceptible to the current outbreak of Dutch Elm disease which began in about 1965. New sapling growth still succumbs, but the species remains a major hedgerow constituent, particularly in its core area. The natural distribution is much confused by planting, but probably does not extend much beyond England and Wales. European temperate element.

Not recorded in The Flora where *Ulmus minor* was listed (as *U. campestris*). However no sites were given and *U. minor* is not now thought to occur so early records may refer to *U. procera*. Elms other than *U. glabra* are difficult taxonomically. *U. procera* is present on the Solway plain in Cumbria but becomes very scarce across the border. It is now reduced to suckers in hedgerows and scrub as a result of elm disease.

Site	Gridref	Date	Recorder
Bessie's Knowe-Watch Hill	NT01	31/07/1988	Noltie, H.J. Miller, A.G.
Hartfell Spa+Auchencat Burn	NT01	04/08/1957	Collett, T.G.
Auchenknight wood	NX837982	09/06/2009	Terry, P.
Brooms Road and Dock Park	NX9775	24/05/2019	BSS and BSBI urban flora team
Rockhall	NY056754	23/07/1982	Martin, J.D.S.
Kinmount	NY1469	1976	Martin, J.D.S.
Mount Annan	NY1868	1975	Henderson, P.
Ecclefechan (NY17X)	NY18907486	10/07/2016	Miles, C.J.
Burnfoot (NY2574)	NY25347476	20/05/2019	Miles, C.J., Miles, A.J.

Also recorded in NY18

Utricularia intermedia *sens. lat* Hayne

Intermediate Bladderwort

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

Perennial, insectivorous herbs, most frequent in shallow, oligotrophic water in acidic and peaty sites, though also occurring in calcareous sites. They rarely flower. A poorly known aggregate of three species which all appear to be in decline nationally due to habitat loss and

eutrophication. Circumpolar boreal montane element.

Recorded from Loch Urr in 1887 by J Fingland. May still be present though not recorded since 1959 at the site. Likely to have declined due to changes to habitat, particularly improved drainage.

Site	Gridref	Date	Recorder
Dalmaclellan Hill	NX7987	01/09/1973	Milne-Redhead, H.
LUrr+Moniaive,nr	NX78	1959	Stirling, A.McG.

Also recorded **NX89**

Utricularia minor L.

Lesser Bladderwort

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

Perennial herb of nutrient-poor, acidic, or sometimes base-rich, shallow water in bog pools and abandoned peat cuttings, at the edges of lakes amongst emergent vegetation, in ditches and small ponds, and in fens. Nationally it is declining, particularly in S. and E. England, and perhaps also in S.E. Ireland, due to habitat destruction and eutrophication. It may still be under-recorded in the northern and western parts of its range. Circumpolar boreo temperate element.

First recorded 1836 by N.A. Dalzell at Solway Moss. It has been seen more recently in a scatter of sites, though was not refound at Hightown Hill despite the mire still being there. It is likely to have declined due to changes to habitat, particularly improved drainage and nutrient input.

Site	Gridref	Date	Recorder
Shortwoodend Hill (NT1207)	NT12550702	24/08/2016	Merritt, B.
LUrr+Moniaive,nr	NX78	1959	Stirling, A.McG.
Lochar Moss, near Racks	NY07	1896	Grierson, F.W.
Hightown Hill	NY038835	21/08/1959	Milne-Redhead, H.
Applegarth Town	NY18	1896	Singer, Rev. Dr.
White Hill (NY1788)	NY17558813	20/06/2017	Miles, C.J.
Whitehill Moss (NY1787)	NY17548775	20/06/2017	Miles, C.J.
Peat Hill (NT1511)	NT15911198	18/08/2019	Kungu, L.

Utricularia vulgaris sens. lat L.

Greater Bladderwort

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

Free-floating, insectivorous perennials found in still or sluggish, acidic to basic, nutrient-poor waters over inorganic or peaty substrates. Flowering is irregular. It has declined in many areas, mainly due to drainage, peatland destruction and eutrophication.

First listed in 1846 by P. Gray at Lochar Moss. As can be seen rarely recorded since. Likely to have declined due to changes to habitat, particularly improved drainage.

Site	Gridref	Date	Recorder
Loch Urr	NX760845	10/09/1996	Day, J. Willby, N.J.

Vaccinium uliginosum L.

Bog Bilberry

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce declining.

A low shrub, locally common on podsolic or peaty acidic soils in upland dwarf-shrub heaths and blanket bog. Nationally stable. Circumpolar boreo arctic montane element.

First recorded by J.T. Johnstone on White Coombe in 1891. The only other record in The Flora is from Castle O'er. Both this and the Archie Grain Burn population are likely to have disappeared under conifer plantations. Small patches still survive in several places in the Moffat Hills.

Site	Gridref	Date	Recorder
Hartfell	NT109136	26/08/1998	D&G Quadrat Survey Team
Swatte Fell (NT1111)	NT11961148	13/08/2017	Miles, C.J.
Upper Coomb Craig summit	NT120121	26/08/1998	D&G Quadrat Survey Team
Gupe Craig (NT1514)	NT15741440	06/07/2018	Miles, C.J., Miles, A.J.
Donalds Cleuch Head	NT15921612	13/08/2018	Clarkson, R.
Mid Craig Linn	NT16091618	04/08/2017	Clarkson, R.
Mid Craig cliffs	NT16321654	08/08/2015	Miles, C.J.
E of the Long Grain, Archie Grain Burn	NT293065	15/06/1968	Corner, R.W.M.

Valerianella locusta (L.) Laterr.

Common Cornsalad

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce.

A native winter-annual which occurs with other annuals on thin soils around rock outcrops and on scree, and on sand dunes and coastal shingle. It also grows in a wide range of disturbed habitats, including walls, gravel paths, railway tracks, in paving, gardens and, rarely, on arable land. Coastal populations are often the dwarf var. *dunensis*. Nationally the distribution of *V. locusta* is broadly stable, with some local losses. European temperate element; widely naturalised outside its native range.

First listed by P Gray in 1842 and known from along the shore between the Annan and Kirtle Water. Grows on light sandy soil on the coast and more rarely inland.

Site	Gridref	Date	Recorder
Kirkconnel town centre (NS7312)	NS73431221	27/05/2019	BSS and BSBI urban flora team
Collin South (NY0275)	NY02577567	09/05/2019	Miles, C.J., Miles, A.J., Davidson, D.
Powfoot	NY15086575	23/05/2015	Miles, C.J.
Broom Fishery (NY1665)	NY16296530	10/06/2019	Miles, C.J., Miles, A.J., Davidson, D.
Newbiebarns (NY16S)	NY17536457	18/04/2018	Dumfries Botany Group
Annan Waterfoot	NY1864	19/04/1975	Martin, J.D.S.
Dornock Brow	NY2635	1996	Miles, C.J.

Also recorded in NX98

Veronica catenata Pennell.

Pink Water Speedwell

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

This usually annual species is found in shallow water and on the muddy edges of rivers, streams, ponds and lakes, in dune-slacks, and in clay-, gravel- and chalk-pits. Although often found with *V. anagallis-aquatica*, its habitats are more restricted, being more frequent on the muddy edges of standing waters. Nationally its distribution is stable. Circumpolar temperate element, with a disjunct distribution.

Not listed in The Flora so the first record may be by Dr. G. Watt in 1956. Very infrequent compared to *V. anagallis-aquatica* and appears to favour regular disturbance eg through cattle trampling.

Site	Gridref	Date	Recorder
Carthat Hill	NY0677	21/07/1997	Miles, C.J.
Eastpark WWT	NY05456542	11/06/2015	Miles, C.J.
Water of Milk, u/s of Potts Cleuch, Lockerbie	NY18148213	22/07/2015	Sadler, E. Bell, A., Quinn, L.
Eskdalemuir, nr Midraeburn	NY259997	04/09/1956	Watt, G.

Vicia lathyroides L.

Spring Vetch

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Rare.

An annual of sand dunes and short, summer-parched grasslands on sandy soils by the coast; also on disturbed ground, old walls, and in dry heathland on sands and gravels inland. Often overlooked because of its small size and early flowering habit. Nationally its population is stable. European temperate element.

Only one record exists. This was confirmed by an expert. This occurs across the Solway at

Silloth but is also rare there. It needs looking for on the stable sandy shingle at the top of the shore. It is difficult to separate from *V. sativa* which may mean it is under recorded.

Site	Gridref	Date	Recorder
Powfoot	NY1465	13/05/1979	Cameron, J.

***Vicia orobus* DC.**

Wood Bitter Vetch

National Status: Scarce, Near Threatened.
Status in Dumfriesshire: Scarce, declining.

A native perennial herb of grassy, often slightly base-enriched habitats on banks and the edges of fields, particularly amongst stones, boulders or bushes. Nationally this species is adversely affected by overgrazing and undergrazing, both of which have contributed to its decline, though losses have also resulted from grassland improvement and land reclamation. Britain has a significant proportion of the world population of this species. Suboceanic temperate element.

This was first mentioned by Mr. Winch in 1777 in the Euchar and Kello Water woods. It grows in small quantity on rocky ground. Long lasting once established unless habitat changes. It appears to have declined possibly due to grazing pressure or habitat changes.

Site	Gridref	Date	Recorder
Hallscar Craig	NS7701	1961	Stirling, A.McG.
Glenwhargen Craig	NS7603	1959	Stirling, A.McG.
Auchentaggert Bridge, Mennoch Burn	NS823087	09/07/1984	FitzGerald, R.
Wanlockhead,nr	NS8710	03/07/1978	Castellan, M.
Moffat, Devil's Beef Tub	NT01	05/07/1894	Linton, E.F.
Firthhope Rig (NT11M)	NT14701403	25/07/2009	Miles, C.J.
Castramon Hill	NX78238355	05/09/2009	Miles, C.J.

Also recorded in NS71, NY27

***Vicia sylvatica* L.**

Wood Vetch

National Status: Not Scarce, Least Concern.
Status in Dumfriesshire: Not Scarce, declining.

A climbing or scrambling perennial of hedges, wood-borders and clearings, scrub, rough ungrazed grassland on cliffs, wooded gorges and also on shingle, screes and railway banks. Apparently declining nationally, perhaps due to a reduction in coppicing. Eurosiberian boreo temperate element.

First recorded by J. Saddler at the Grey Mares Tail in 1857 where it remained but was apparently much reduced in 1957 possibly due to collecting. This species appears to have had

a spectacular decline with very few recent sightings. It may be that reduced management or coniferization of native woodland has caused the decline.

Site	Gridref	Date	Recorder
Capplegill	NT1409	19/07/1974	Stewart, O.M.
Grey Mares Tail	NT11X	1957	Ratcliffe, D.A.R.
Castlemilk Sawmill, Water of Milk	NY1578	16/06/1974	Little, R.; Martin, J.D.S.
Scroggs Bridge (NY1681)	NY16118146	14/07/2019	Davidson, D.
Cocklaw Burn	NY184952	16/11/1991	Corner, R.W.M.
Hollows NY37Z	NY38907811	28/03/2018	Dumfries Botany Group
Canonbie, A7 N of	NY3978	05/06/1983	Watt, G.

Also recorded in NS71, NT11, NT20, NX97, **NY29(1959)**, **NY38 (1956)**, **NY39(1966)**

***Viola canina* subsp. *canina* L.**

Heath Dog Violet

National Status: Not Scarce, Near Threatened.

Status in Dumfriesshire: Scarce, declining.

A native perennial herb of a variety of acid habitats, including heaths, coastal dunes, stony riversides and lake shores, especially in Scotland. Nationally this species has declined severely since 1950, mainly due to habitat loss, drainage and agricultural improvement, but also over- and under-grazing and possibly hybridisation with other *Viola* species. Eurosiberian boreo temperate element; also in Greenland.

First record appears to be by C.E.Milligan in 1892 at Dumfries (as *V. flavicornis*). It has not been recorded in recent years and there must be a concern that it has declined further. Of course it could be being missed by recorders.

Site	Gridref	Date	Recorder
Euchan Cottage	NS757082	06/07/1982	Martin, M.E.R.
Dalveen, nr	NS893067	18/08/1983	Martin, M.E.R.
Closeburn-Cample	NX896931	15/08/1981	Martin, M.E.R.
Lochmaben	NY077834	04/06/1975	Valentine, D.
Marjoriebanks, N of	NY085837	13/08/1983	Martin, M.E.R.
Lochmaben, W of	NY064819	17/11/1983	Martin, M.E.R.
Powfoot	NY1665	30/06/1979	Martin, M.E.R.
Lockerbie Curling Pond	NY125805	01/06/1987	Rae, J.
Rosebank	NY161817	28/07/1983	Martin, M.E.R.
Berryscaur, N of	NY163908	29/07/1984	Martin, M.E.R.
Redkirk Point	NY3065	01/05/1974	Martin, J.D.S.

***Vulpia myuros* (L.) C.C. Gmel.**

Rat's Tail Fescue

National Status: Not Scarce, Least Concern.

Status in Dumfriesshire: Scarce

An annual archaeophyte growing by railways, on walls and waysides, in pavement cracks and on waste ground in built-up areas. Occasionally found as a weed of cultivation and as an introduction from wool shoddy, grain and grass-seed mixtures. Nationally on the increase, perhaps via the rail network. As an archaeophyte *V. myuros* has a Eurosiberian southern temperate distribution

First record is listed by Rev. Dr. Singer in 1843 from Tinwald. This southern species is very infrequent and may occur as a casual especially in urban settings. It is much less common than *V. bromoides* which has colonised many forestry tracks.

Site	Gridref	Date	Recorder
Meikleholmside (NT0709)	NT07290944	24/07/2019	Miles, C.J., Davidson, D.
Ladypark (NX97Y)	NX983779	11/07/2014	Miles, C.J.
Tinwald	NY006802	26/06/1988	Martin, M.E.R.
Castle Loch (Lochmaben)	NY087820	10/06/1985	Martin, M.E.R.

Also recorded in NT10

Woodsia ilvensis (L.) R. Br.

Oblong Woodsia

National Status: Rare, Endangered.

Status in Dumfriesshire: Rare.

An evergreen fern, growing in cracks and fissures in cliffs and crags on rocks ranging from calcareous tuffs and hornblende schists to more acidic tuffs, grits and shales. Sites are very free-draining, with little competition. It suffered serious declines due to collecting in the 19th century. Circumpolar boreo arctic montane element.

First listed by W. Stevens in 1848 from White Coombe. This rare fern, only known from the Moffat Hills in the south of Scotland, was subject to reckless collecting in the Victorian era and reduced to a very small population. Of the five locations mentioned in The Flora, an original population has only been seen in one of them since 1954 when Derek Ratcliffe was searching for it. Today it is found in other places having been the subject of cultivation and translocation (from spores taken from this remnant population) by Edinburgh Botanic Gardens. Some of these plants have survived for a number of years. The most accessible is in the car park at the Grey Mares Tail at the location given. Other site information is withheld.

Site	Gridref	Date	Recorder
Moffat Hills	NT11	3/8/2010	Miles, C.J.
Grey Mare's Tail	NT18591452	13/07/2006	Whild, S.J. Lockton, A.J.

Zanichellia palustris L.

Horned Pondweed

National Status: Not Scarce, Least Concern

Status in Dumfriesshire: Scarce.

This submerged, perennial aquatic grows in a range of shallow-water habitats. The most

characteristic include clear chalk streams, eutrophic lakes and ponds, and brackish lagoons, ponds and ditches. It is a frequent colonist of disused mineral workings. Nationally increasing although decreasing in southern England. Circumpolar southern temperate element.

Not recorded in Dumfriesshire before 1996. Only infrequently recorded to date. It may increase due to eutrophication as is suggested has happened in Cumbria.

Site	Gridref	Date	Recorder
Holmains Moor (NY0776)	NY07597698	05/07/2019	Miles, C.J., Miles, A.J.
Castle Loch	NY086814	18/09/1996	Lassiere, O.L. Dines, C.
Purdomestone Reservoir	NY214775	18/09/1996	Day, J. Willby, N.J.
Enzieholm Height (NY2789)	NY27638911	25/06/2019	Miles, C.J., Miles, A.J.
Enzieholm (NY29V)	NY28399118	25/06/2019	Miles, C.J., Miles, A.J.

Zostera noltii Hornem.

Dwarf Eelgrass

National Status: Scarce, Vulnerable.

Status in Dumfriesshire: Rare.

Although a coastal species, this perennial is found at higher levels of the shore than *Zostera marina*. It grows in sheltered estuaries and harbours, where it is found on mixed substrates of sand and mud. Plants are often concentrated in pools or runnels on the shore. Although declining in some restricted areas overall its distribution is stable nationally. Eurasian southern temperate element.

There are no *Zostera* records for Dumfriesshire in The Flora but it was known from Kirkcudbrightshire. It is probably a rare colonist of the mudflats at Caerlaverock though these tend to be less sheltered than is ideal for the species.

Site	Gridref	Date	Recorder
Caerlaverock	NY0064	00/00/1957	Ranwell, D.S.

Annex 1

List of species currently thought to be extinct in Dumfriesshire

Species Name	National Status	Reason considered extinct
Allium oleraceum		not recorded since 1896
Anacamptis pyramidalis		not recorded since 1891
Atropa belladonna		not recorded since 1955
Baldellia ranunculoides		not recorded since 1896
Brassica nigra		not recorded since 1789
Bromopsis erecta		not recorded since 1896
Cardamine impatiens	Nationally Scarce	not recorded since 1891
Carduus tenuiflorus		not recorded since 1896
Carex elongata	Nationally Scarce	not recorded since 1893
Centaurea cyanus		Not recorded since 1896
Cephalanthera longifolia	Nationally Scarce	not recorded since 1854
Chenopodium urbicum		not recorded since 1896
Cladium mariscus		not recorded since 1896
Crepis biennis		not recorded since 1896
Diplotaxis tenuifolia		not recorded since 1891
Epipactis palustris		not recorded since 1850
Eryngium maritimum		not recorded since 1958
Euphorbia exigua	Near Threatened	not recorded since 1896
Fumaria densiflora		not recorded since 1890
Gagea lutea		not recorded since 1850
Goodyera repens		not recorded since 1854
Hornungia petraea		not recorded since 1850
Juncus trifidus		not recorded since 1858
Lepidium campestre		not recorded since 1896
Leymus arenarius		not recorded since 1950
Lolium temulentum		not recorded since 1896
Lycopodium annotinum	Nationally Scarce	not recorded since 1896
Melilotus officinalis		not recorded since 1896
Oenothera biennis		not recorded since 1885
Onopordum acanthium		not recorded since 1958
Papaver argemone		not recorded since 1950
Phleum arenarium		not recorded since 1950
Picris hieracioides		not recorded since 1957
Pilularia globulifera	Nationally Scarce	not recorded since 1884
Plantago media		not recorded since 1896
Pyrola media		not recorded since 1896
Ranunculus arvensis		not recorded since 1896
Ranunculus x levenensis		not recorded since 1841
Rhamnus cathartica		not recorded since 1896
Salix arbuscula		not recorded since 1934
Salix x mollissima		not recorded since 1891
Sanguisorba minor		not recorded since 1896
Sanguisorba minor subsp. minor		not recorded since 1896

Scabiosa columbaria		not recorded since 1896
Scandix pecten-veneris		not recorded since 1896
Schoenus nigricans		not recorded since 1896
Scrophularia vernalis		not recorded since 1789
Silene noctiflora		not recorded since 1896
Trifolium arvense		not recorded since 1896
Trifolium fragiferum		not recorded since 1970
Trifolium ornithopodioides		not recorded since 1896
Valerianella dentata		not recorded since 1896
Viola hirta		not recorded since 1964