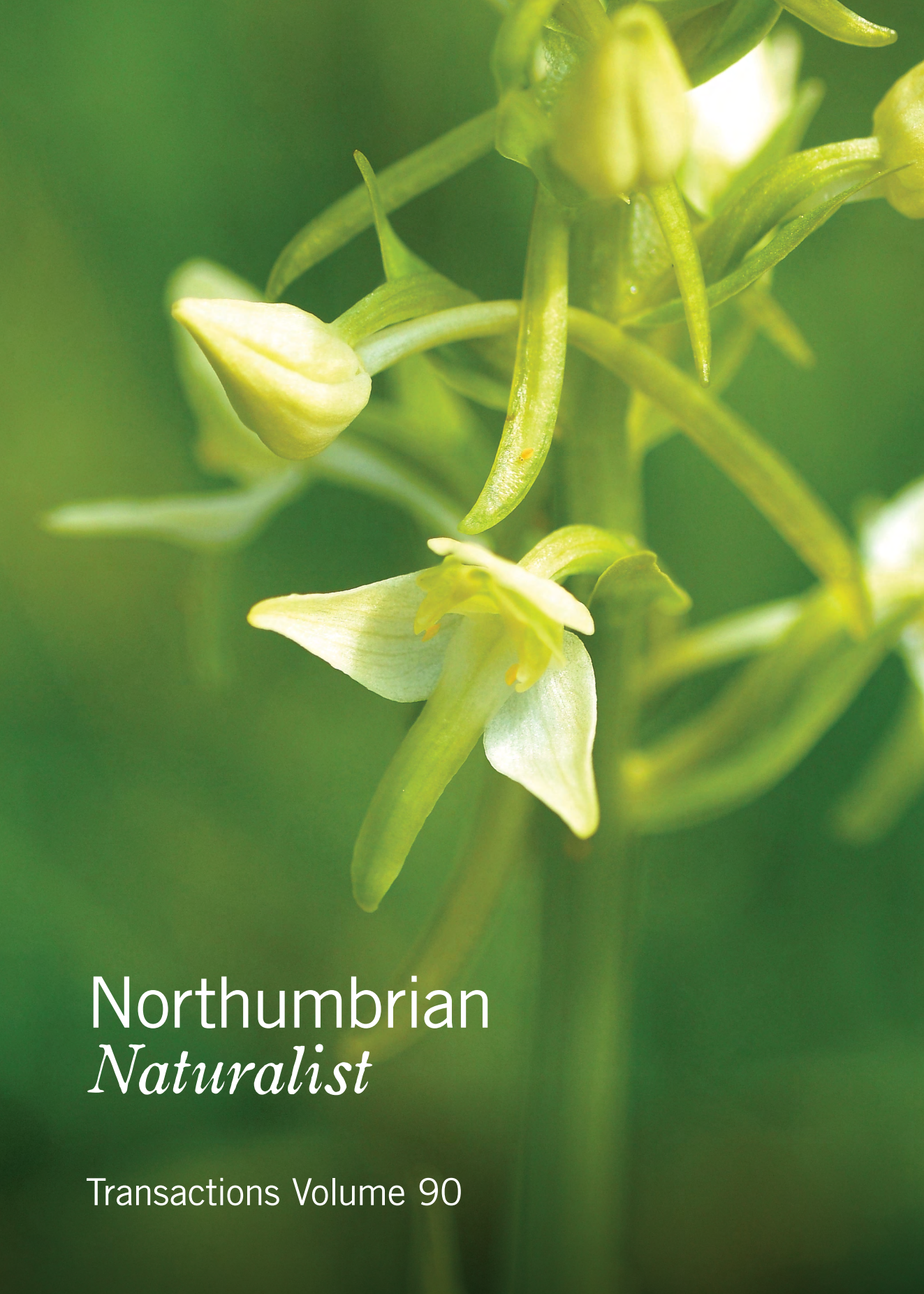

Northumbrian *Naturalist*

Transactions Volume 90

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Volume 90

Natural History Society of Northumbria
Great North Museum: Hancock
Newcastle upon Tyne NE24PT
www.nhsn.org.uk

Natural History Society of Northumbria

Sea Bindweed, *Calystegia soldanella*.

Front cover:
Greater Butterfly-orchid, *Platanthera chlorantha* © Ryan Clark

ISSN 2050-4128

Published by the Natural History Society of Northumbria, as volume 90 of its *Transactions*.

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Produced by bpd: www.bpduk.biz
Printed by Aztec Colour Print, Washington, Tyne and Wear NE37 2SG

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FOREWORD

Chris Redfern

This *Northumbrian Naturalist* is mainly about plants. Not just any plants, but those that are rare or scarce in South Northumberland. Birders that get excited about rare or scarce birds are often referred to as 'twitchers', a term usually applied to those that travel long distances to see a rarity found by someone else. Although most such birders are well able to hold binoculars steady for a good view, the term seems to have originated[1] as a reference to a birdwatcher in the 1950s who regularly arrived as a nervous wreck to see scarce birds after a long journey riding pillion on a motorbike! For botanists though, seeking rare or scarce plants can be a more local and less stressful activity and has a purpose of wider environmental relevance; by regularly assessing established sites for scarce plant species and finding new ones it is possible to monitor, maintain and extend local biodiversity, not just for plants but also the insects and other animals that may depend on particular plant species.

It is sobering to see how many rare and scarce plant species seem to be on the decline. Part of that will be the loss of wildlife-rich local habitats, an inevitable consequence of development and agricultural intensification. And yes, climate change will also affect the future distribution of plants and other wildlife. However, under recording may also be a factor in our perceptions of change, so hopefully the article will whet appetites for learning about botany and plant hunting. This will be essential for filling gaps in our knowledge of plant distributions and may lead to the discovery of new sites for scarce species and encourage the conservation of those that still exist. Our wild places, no matter how small, are of immense value.

'Rare and scarce plants' makes this a rather special issue of *Northumbrian Naturalist* and to recognise this we have included autobiographies/biographies of the authors. For me, these were amazing and awe-inspiring reads, emphasising the life-long dedication and enthusiasm of these leading naturalists for their natural world. It is also inspirational to appreciate what can be achieved by bus and on foot, near to home and further afield, patiently searching and just not giving up on any area which might seem, at first sight, to be populated only by common and widely distributed species. But, 'Rare and scarce plants' has relied on the contributions of several hundred people in addition to the authors: a powerful demonstration that we can all contribute to understanding the natural world, even on the most mundane of shopping trips!

It is now over a year since the start of the COVID-19 pandemic and the first lockdown, and, as I write, we are looking forward to the easing of our second lockdown (and a haircut, in my case at least) later in spring 2021. Successive lockdowns have had a profound effect on our appreciation of nature, recorded for posterity in part through the 'Lockdown Naturalist' articles in this and the previous issue of *Northumbrian Naturalist*. It is not just that we appreciate better the importance of nature for our mental and physical wellbeing, but these articles reveal the hidden depths of interest, knowledge, and skills in all aspects of natural history embedded in communities of the North East. It is an absolute privilege to be able to share in these authors' pleasure and delight in the small animals and plants, as well as bigger beasts, of the natural world. The societal and economic constraints of lockdown could bring new opportunities: greater social responsibility for our natural environments, the potential for re-greening our concreted and tarmacked public spaces, faster achievement of sustainable living in a less consumption-driven society, and a re-balancing towards a more equitable and inclusive society. It is up to us; never has natural history been so important.

[1] https://britishbirds.co.uk/wp-content/uploads/article_files/V76/V76_N08/V76_N08_P353_358_L102.pdf

Pyramidal Orchid, *Anacamptis pyramidalis*

THE RARE AND SCARCE PLANTS OF SOUTH NORTHUMBERLAND 2020

Quentin J. Groom [1],Gordon Young[2] and A. John Richards[3]

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Galium boreale. Northern Bedstraw is a mostly montane species, but our sole remaining localities are beside the River North Tyne at low elevations. Here it is growing together with *Genista tinctoria*, Dyer's Greenwood.

SUMMARY

The status of the rare and scarce vascular plants and stoneworts is described for the vice-county of South Northumberland (VC 67). Localities and first and last dates of records are tabulated for each species, and the important habitats in the county for higher plants are described. Where relevant, threats to uncommon species are discussed.

INTRODUCTION

The Vice-County Rare Plant Registers are an initiative of the Botanical Society of Britain and Ireland (BSBI) to summarise the status of rare and conservation-worthy plants in each vice-county. The intention is to create an up-to-date summary of the sites of rare plants and their status at these sites. Rare Plant Registers intend to identify gaps in our knowledge, aid

conservation efforts and encourage monitoring of our rare plants. Most are published on-line and can be accessed via the county pages on the BSBI website. However, a few have now also been printed as hard copy in order to make them more accessible and this is the motive behind the present publication. It has been necessary to reindex the species accounts for the printed version. However, the place names have not been reindexed and the reader is referred to the on-line version if an index to place-names is required (Groom *et al.* 2017). This edition is published only four years after the 2016 edition (Groom et al. 2017). The drive for up-to-date coverage for the BSBI 2020 Atlas has resulted in many new records and renewed assessments of the status of scarce plants in the county, and has stimulated production of this new version (AJR & GY).

METHODS

Criteria for Inclusion

The guidelines of the BSBI were followed in the production of this Rare Plant Register. All native vascular plants with a national status of 'rare' (found in 1-15 hectads in Britain) or 'scarce' (found in 16-100 hectads in Britain) are included even if that species is not native to South Northumberland. In addition, all native species locally rare or scarce in South Northumberland are included, as are extinct native species. These guidelines were occasionally relaxed to include some local specialities and hybrids of note.

In most cases, a site is included if a species has been recorded there since 1970. Sites without detailed locality information or of dubious provenance are not included. Where possible, we have tried to show the known history of a site by noting the date of first and last record. The initials of the recorders were put next to the year of recording.

More information on the history, habitats and status of each species can be found in the Flora of Northumberland (Swan, 1993, 2003) and the Red Data Book for Northumberland (Lunn, 1998)

Geographic Scope and Taxonomic Scope

The Register covers vascular plants and stoneworts in the Watsonian vice-county of South Northumberland (VC 67). The boundary of South Northumberland largely follows the modern boundaries of Northumberland, but includes Newcastle (the portion of Tyne and Wear north of the River Tyne) and excludes the vice-county of Cheviotland (the portion of Northumberland north of the River Coquet). Names used and family order follow Stace, C.A. (2019), 'New Flora of the British Isles', 4th edition.

Definitions

The England conservation statuses for vascular plants are taken from Stroh *et al.* (2014) and for the Characeae from Stewart (2004). Taxonomy and vernacular names follow Stace (2010) and nativeness to VC 67 largely follows Swan (1993) though deviations from this are noted in the text.

Locally Extinct – Not seen in the vice-county since 1971 or the only known site has been destroyed; Locally Rare – Three or fewer sites since 1987; Locally Scarce – Ten or fewer sites since 1987; Locally vulnerable – More than ten sites, but apparently declining and close to scarce.

Abbreviations

AONB – Area of Outstanding Natural Beauty; LNR – Local Nature Reserve; NNR – National Nature Reserve; NWTR – Northumberland Wildlife Trust Reserve; SNCI – Site of Nature Conservation Interest; SSSI – Sites of Special Scientific Interest.

Grid References

Where possible, sites have been located to a 100 m × 100 m Ordnance Survey grid reference or better. In those cases where either a site is large or our records are not detailed, we have given Ordnance Survey grid references to the monad (1 km × 1 km) or tetrad (2 km × 2 km). Grid references for tetrads use the DINTY format, where the letter refers to one of the 25 tetrads in a hectad (10 km × 10 km) (e.g. NY98I). Some records have only been located within a pentad (5 km × 5 km). These grid references use the compass point suffixes NW, NE, SW and SE to distinguish the four pentad grid squares in a hectad (e.g. NY98SE). When submitting new records, please record an accurate grid reference for all rare plants.

Updating the Register

In writing this report, the gaps in our knowledge have become particularly obvious. Many locally rare plants are on the verge of extinction or in serious decline. We encourage people who visit sites of rare plants to let us know, **whether they find these rare species or not during their visit.**

We welcome new records of rare plants and corrections, particularly where they are accompanied by good locality information and estimates of either the numbers of plants or ground covered. This information is highly valuable for monitoring the health of rare plant populations, but is rarely collected. Please send corrections and additions to John Richards (hightreesgarden@btinternet.com).

Data Deficient Species

Known sites of these species are either few, not visited recently or both. In effect, we do not have enough data to categorise them. We suspect many are too common to be classified as scarce, but the records are insufficient to be certain. We list them here to encourage targeted surveys and more detailed recording.

Agrostis gigantea	*Glyceria notata*	*Rosa caesia*
Betula pubescens ssp. tortuosa	*Gymnadenia spp*	*Ranunculus fluitans*
Callitriche hamulata	*Poa angustifolia*	*Stellaria neglecta*
Callitriche platycarpa	*Ranunculus peltatus*	

ANALYSIS

South Northumberland is unremarkable amongst vice-counties for both its number of species and their rarity. However, its central position latitudinally and its mix of habitats makes it an exceptionally good case study for extrapolation to the rest of the UK. Few vice-counties cover such a large area and have a mix of coastal habitats, intensive agriculture, urban and industrial areas, woodland, moors, heaths and a variety of grasslands. One would expect that the causes of species decline and extinctions in South Northumberland reflect the situation in the rest of the country.

Almost one-third of the species of South Northumberland are now either scarce, rare or extinct by the definitions used here (Figure 1). Of the 7% that have become extinct, only a few have become so recently. While this might give us some encouragement, the reality is that conservation measures conducted to save the last remaining sites of a species often avoid the complete extinction of a species. Indeed, we see this effect in the large numbers of species categorised as locally rare (16%). Effectively, uncommon species are being excluded from the larger countryside and are restricted to fragmentary remains of their former habitat. While this does temporarily avoid extinction of a species, it is likely that the isolation and small population sizes will lead to the decline and extinction of many of those species in the future.

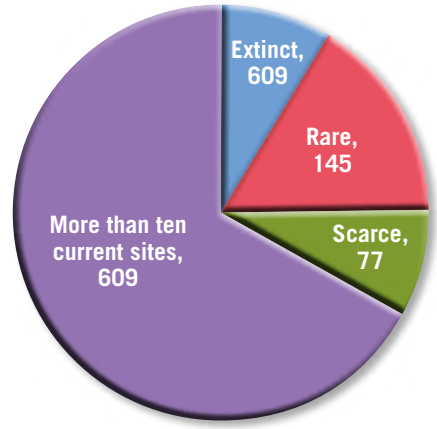


Figure 1. The proportions of scarce, rare and extinct species in the vice county of South Northumberland. Based on an estimated 906 native and archaeophyte species that have been recorded.

PROFILES OF IMPORTANT HABITATS

Ancient Woodland

The wild woods, which once covered much of Northumberland, were cut a long time ago. Their remains, along steep-sided denes, still hold many of their original species. *Drymochloa sylvatica* (Wood Fescue), *Gagea lutea* (Yellow Star-of-Bethlehem), *Hordelymus europaeus* (Wood Barley), *Neottia nidus-avis* (Bird's-nest Orchid), *Ribes spicatum* (Downy Currant) and *Ervilla sylvatica* (Wood Vetch) are just some of the nationally and locally important species of this habitat.

Their steep topography gives them physical protection, and some have legal protection, for example Briarwood Banks SSSI, Derwent Gorge NNR and the valleys of the Irthing and Coquet SSSIs. These woodlands are not particularly threatened, but insensitive management can be a problem. In addition, the inadvertent introduction and planting of non-native species causes problems for native woodland species. *Gaultheria shallon* (Shallon), *Picea sitchensis* (Sitka Spruce), *Prunus laurocerasus* (Cherry Laurel) and *Rhododendron ponticum* (Rhododendron) are examples of common woodland aliens.

The Coast

South Northumberland's coastal flora is not exceptional, particularly when compared to North Northumberland. Nevertheless, much of the coast has SSSI status i.e. Northumberland Shore SSSI, Tynemouth to Seaton Sluice SSSI, Cresswell & Newbiggin Shores SSSI and Hadston Links SSSI. However, these sites were largely established for their importance to bird life rather than their flora.

The coast does hold populations of national rarities such as *Astragalus danicus* (Purple Milk-vetch) and *Salicornia fragilis* (Yellow Glasswort). These habitats are stable, though they are not in perfect health. The stretches of dune are very narrow and are managed primarily for coastal defence. Management for dune stability is not always suitable for species that need open areas and fresh dune slacks to colonise. The biggest threats are sand extraction and sea level rise.

The coast has probably lost more species than any other area of South Northumberland. Extinct species include *Carex maritima* (Curved Sedge), *Centaurium littorale* (Seaside Centaury), *Juncus maritimus* (Sea Rush), *Oenanthe lachenalii* (Parsley Water-dropwort), *Polygonum oxyspermum* (Ray's Knotgrass) and *Samolus valerandi* (Brookweed).

Bogs

The Border Mires are South Northumberland's hidden treasures. They are visually uninspiring and each bog is usually surrounded by monocultures of Sitka spruce, they do not even have a particularly diverse flora. However, they are probably the largest area of active blanket bogs outside Scotland. They are important for their bird life, bryophytes and their vascular plants. Nationally important plant species include *Drosera anglica* (Great Sundew), *Betula nana* (Dwarf Birch) and *Carex magellanica* (Tall Bog-sedge).

The mires have been damaged in the past by drainage and the planting of conifers. More recently, the Northumberland Wildlife Trust has been active in damming old drains and removing trees. The mires have a good chance to recover though they will need continual protection from encroachment of Sitka spruce.

Upland Grassland

The upland meadows of South Northumberland are rather overshadowed by the quality of those in County Durham; however, we do have some good examples. This habitat is important for *Crepis mollis* (Northern Hawk's-beard), particularly in Allendale which may hold 70% or more of the nation's plants, *Alchemilla* spp. (Lady's Mantles), *Euphrasia* spp. (Eyebrights), orchids, particularly *Platanthera chlorantha* (Greater Butterfly-orchid) and *Pseudorchis albida* (Small-white Orchid), though the latter is extinct.

Agricultural improvement, changing farming practices and drainage threaten this habitat. North Pennines AONB's Hay Time project is doing important work, restoring and recreating upland hay meadows, while simultaneously promoting the care of such grasslands with farmers and the local communities.

The Whin Grasslands

The Whin Grasslands of Northumberland are one of the county's special features. The habitat is characterised by heavily grazed nutrient-poor grassland over hard doleritic rock. Its rare plants include *Allium schoenoprasum* (Chives), *Dianthus deltoides* (Maiden Pink), *Geranium columbinum* (Long-stalked Crane's-bill), *Alchemilla micans* (Shining Lady's-Mantle) and *Sedum villosum* (Hairy Stonecrop) to name a few.

This habitat is probably the most threatened in South Northumberland. This document is littered with whin grassland sites where rare species have not been seen for a long time or have been lost. Species such as *Arabis hirsuta* (Hairy Rock-cress), *Cerastium diffusum* (Sea Mouse-ear), *Dianthus deltoides* (Maiden Pink), *Geranium columbinum* (Long-stalked Crane's-bill), *Saxifraga tridactylites* (Rue leaved Saxifrage), *Scleranthus annuus* (Annual Knawel) and *Trifolium striatum* (Knotted Clover) have only a few fragmented sites or have disappeared.

Threats to this habitat include agricultural improvement, atmospheric nitrogen deposition, habitat fragmentation, quarrying and either over or under-grazing. Most sites have some formal protection though this has not halted their decline. One site, Riverhill Farm, has no protection, even though it is probably our last native site for *Filipendula vulgaris* (Dropwort) and one of the last sites for *Viola canina* (Heath Dog-violet), *Orobanche rapum-genistae* (Greater Broomrape), *Campanula glomerata* (Clustered Bellflower) and *Blysmus compressus* (Flat-sedge).

There are current attempts to reverse eutrophication-driven seral loss of the shallow-soil whin habitat under the 'Magnificent Meadows' Plantlife project.

For further information, the reader should read the two recent reports on the status of Whin grasslands in Northumberland (Beamsley 2006, Simkin 2008). Both give a bleak outlook for these grasslands with a slow but inexorable loss of botanical value.

Moors

The uplands of South Northumberland are extensive and often very species-poor, yet they contain some rare species. Some are close to their southernmost limit in Northumberland and are commoner further north. For example, *Betula nana* (Dwarf Birch), *Diphasiastrum x issleri* (Issler's Clubmoss) and *Pyrola media* (Intermediate Wintergreen). Others are more widespread in the country and prefer a more heath-like vegetation, e.g. *Genista anglica* (Petty Whin) and *Juniperus communis* (Juniper). In streams

and flushes draining these moors, rare plants such as *Myosotis stolonifera* (Pale Forget-me-not) and *Epilobium alsinifolium* (Chickweed Willowherb) only survive in small quantities, because many upland areas have become lush and overgrown in recent years, presumably due to increased deposition of nitrogen salts in rainfall. Consequently, *Antennaria dioica* (Mountain Everlasting) has apparently become extinct, and *Sedum villosum* (Hairy Stonecrop) and *Gentianella campestris* (Field Gentian) have been restricted to single localities. There have also been changes in management practices that may influence rare plants, for example, changes in stocking densities, the decline of cattle farming and the burning of heather.

Water plants

The Roman Wall Loughs

The Roman Wall Loughs consist of the SSSIs Crag, Broomlee and Greenlee Loughs, plus the undesignated Halleypike Lough, Grindon Lough and Folly Lake. They are large mesotrophic lakes and are important sites for *Potamogeton* (pondweed) species and hybrids, notably *Potamogeton praelongus* (Long-stalked Pondweed), *Potamogeton × nitens* (Bright-leaved Pondweed) and *Potamogeton × lintonii* (Linton's Pondweed). They are also important sites for the Characeae (Stoneworts) and *Persicaria minor* (Small Water-pepper). The aquatic flora of these loughs requires clean, nutrient-poor conditions. Eutrophication of the water from agricultural run-off and atmospheric deposition could irreversibly change the character of these waters. Their SSSI status gives them some protection and some of the surrounding land is in environmental stewardship schemes to reduce the eutrophication that has already occured. The status of these lakes is vulnerable and will require on-going conservation measures.

Reservoirs

In general, reservoirs are not considered good habitat for aquatic plants. The fluctuating water levels and deep water are unsuitable for many species. Nevertheless, a few shoreline plants have actively colonised local reservoirs, for example, *Alopecurus aequalis* (Orange Foxtail), *Lythrum portula* (Water-purslane), *Persicaria mitis* (Tasteless Water-pepper), *Eleocharis acicularis* (Needle Spike-rush) and *Eleocharis mamillata* subsp. *austriaca* (Northern Spike-rush). While these habitats are not actively conserved for the benefit of plants, they still benefit from the good water quality.

Lowland Ponds

South-eastern Northumberland has an abundance of freshwater and brackish ponds. Although these ponds hold few national rarities, they are particularly rich in aquatic plants and contain many plants of local interest. Owing to their relatively young age, their floras are rather changeable and new species are often introduced to them. Several sites have a conservation status such as Big Waters SSSI and Cresswell Pond SSSI, though their management focuses on their value to wildfowl rather than plants. They are not particularly threatened habitats, though some of the smaller undesignated ponds are vulnerable to drainage and development, such as at the Royal Quays.

Others

Chartner's Lough is one of a handful of English native sites for *Nuphar × spenneriana* (Hybrid Water-lily).

Metallophytes

Another habitat of national significance is the metallophyte floras of the South Tyne and West Allen valleys. These habitats have resulted from the deposition of metal-rich mining spoil by periodic floods during the main periods of lead and zinc mining, chiefly in the nineteenth century. The county has a large proportion of the national populations of *Noccaea caerulescens* (Alpine Penny-cress), *Sabulina verna* (Spring Sandwort) and *Epipactis dunensis* (Dune Helleborine). Other important species of this habitat are *Cochlearia pyrenaica* (Pyrenean Scurvygrass), *Viola lutea* (Mountain Pansy) and *Armeria maritima* (Sea Thrift). However, over the last 50 years, the metal toxicity of these sites has ameliorated as they become eutrophicated. Many sites have no official conservation protection. However, they are protected by the marginal quality of their soil for agriculture. Apart from *Epipactis dunensis*, most species tolerate heavy grazing and are perhaps most threatened by a lack of grazing. *Epipactis dunensis*, on the other hand is a shade-loving plant that will colonise metal-polluted sites that become colonised by birches.

All the grassland metalliferous species require nutrient-poor conditions and any enrichment of the soil will result in their loss from a site. Recently, management regimes under the 'Magnificent Meadows' Plantlife project have attempted to reverse seral eutrophication at several localities.

Some of the protected sites are Ninebanks River Shingle SSSI on the West Allen, Williamston River Shingle SSSI on the South Tyne and Close House (NWTR) on the Tyne.

Simkin (2011) provides a good account of these habitats and their history.

SPECIES ACCOUNTS

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Characeae — Stoneworts

The Characeae are a family of green algae loosely resembling some aquatic vascular plants such as *Myriophyllum* and *Ceratophyllum*. For this reason, vascular plant botanists record them, even though they are algae. Having said this, they are a rather neglected group in the North-East and are not easy to identify.

Chara aspera Dethard. ex Willd.			**Rough Stonewort**
Native			Locally rare
NY8071	2011 JO		Folly Lake
NY670659	2008 CO & JO		Pool in the quarry south of Turret 45B.
NY792696	1839 TBo	2007 CO & JO	Broomlee Lough (part of the Roman Wall Loughs SSSI)

Chara contraria A.Braun ex Kütz.			**Opposite Stonewort**
Native			Locally extinct
There are also two 19th century records for the southeast of the Vice-county neither with an accurate grid reference nor with details of their recorder.			
NY990929	1995 GSi	1999 GSi	Trackside gully in Harwood Forest. Survived for a few years but now gone.

Chara globularis Thuill.			**Fragile Stonewort**
Native			Locally rare
NZ273724	2003 PN		Burradon Pond

Chara hispida L.			**Bristly Stonewort**
Native			Locally rare
NU2700	2008 JSi		Druridge Bay Country Park
NY778730	2007 JO		Little Bellcrags, quarry pond area. The most northerly inland site in the UK.

Chara virgata Kütz.			**Delicate Stonewort**
Native			Locally scarce
The lack of old records seems to indicate that this species has recently colonised the county. It has certainly colonised the two manmade sites.			
NY8071	2011 JO		Folly Lake
NZ3366 NZ3466	2011 QG		The wasteland of the former sewage works, near Percy Main. Common in shallow pools across the site.
NY647834	2010 JO & DF		Pond by Humble Burn
NZ075672	2007 CI		Whittle Dene Water Treatment Works
NY66S	2009 CO & JO		Walltown Crags and Greenhead LNR.
NY7969	2007 CO & JO	2009 QG	Broomlee Lough (Roman Wall Loughs SSSI)
NY770696	2007 ENSIS		Greenlee Lough NNR (Roman Wall Loughs SSSI)

Nitella confervacea (Bréb.) A.Braun ex Leonh.			**Least Stonewort**
Native			Nationally near threatened; locally rare
NY770696	2007 ENSIS		Greenlee Lough NNR (Roman Wall Loughs SSSI). Only the 2nd record for England.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Nitella flexilis (L.) C.Agardh			**Smooth Stonewort**
Native			Nationally scarce; locally scarce
NY701699	2011 JO, PB & QG		Pudgement Sike. *N. flexilis sensu lato*
NY952628	2007 CI		Dukes House Pond. *N. flexilis sensu lato*
NY7969 NY7970	2009 QG		Broomlee Lough (Roman Wall Loughs SSSI). *N. flexilis sensu stricto*
NY66S	2009 CO & JO		Walltown Crags and Greenhead *N. flexilis sensu lato*
Nitella opaca (Bruzelius) C.Agardh			
Native			Locally rare
NY8994	2011 QG		Fawdon Hill. Only a small patch in an acidic stream on moor.
NY7776	2010 JO	2012 QG	White Hill. In pools formed by wheel ruts on a forest track.
NT783006	2008 QG		Blakehopeburnhaugh. Filling a drainage ditch near the River Rede.
Nitella translucens (Pers.) C.Agardh			**Translucent Stonewort**
Native			Locally rare
NZ110928	1992 PH & CP		Rayburn Lake SNCI

Lycopodiaceae — Clubmoss family

Diphasiastrum alpinum (L.) Holub			**Alpine Clubmoss**
Native			Locally vulnerable
Not strictly scarce enough for the criteria and has perhaps increased in sites over the past century. Nevertheless, many of the sites are quarries or gravel tracks in forest that are vulnerable to destruction. Only a few sites are in a natural setting, amongst *Calluna vulgaris* (Heather) on shallow soils at altitude.			
NY71264.98330	2014 BBS		Blakehope Nick Quarry.
NZ024990 NZ024989 NZ022991 NZ025992	1991 GS	2014 WG	Simonside (partly within Simonside Hills SSSI)
NY812539 NY806536	1974 MEB	2014 AJR	Dryburn Moor, 2 patches.
NY639990 NY639991	1988 GS	2012 BH & GY	William's Cleugh (part of Kielderhead & Emblehope Moors SSSI). "Two patches" FJR (2010).
NY648982	2012 BH & GY		Scaup Pikes, disused quarry, one patch 50 cm × 50 cm.
NY824446 NY826446 NY829446 NY827445 NY827446 NY827447	1999 MS	2015 AJR	Allendale Common (Allendale Moors SSSI). 36 plants in 2011, increased to several hundred plants in 2015 (AJR).

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY944542 NY952547 NY952548 NY953548 NY953550	1942 RBC	2011 JBo & GSi	Ladycross Bank quarry (private reserve). Several populations have been recorded in the area of the quarry.
NY739772 NY736772	2005 EM	2011 JC	The Lakes, Wark Forest (part of Kielder Mires, SSSI, NNR).
NY641831	1992 GSi	2010 JO & DF	A disused quarry north of Smooring Sike.
NY975938	2008 GSi		Forest road near Fallowlees Burn
NT739021	1932 RCr	2007 WG	Chattlehope quarry
NY762771	1994 GS		Quarry near to Harelaw.
NY654787	1993 GS		Whaup Crags
NY725737 NY724733	1989 GS	1992 GS & GSi	Old quarry near to Grindon Green.
NY981539 NY982539	1992 GS		Sand-pit near Acton Burn.
NY9384 NY935851	1957 GS	1973 GS	Dismantled railway near Summit Cottages.
NY879794	1967 GS	1972 GS	Millknock quarry

Diphasiastrum x issleri (Rouy) Holub — **Issler's Clubmoss**

Native — Critically endangered; locally scarce

These plants are currently considered to probably represent stabilised hybrids between *D. alpinum* and *D. complanatum*. The latter species no longer occurs in Britain. Confusion is possible with shaded shoots of *D. alpinum*.

NY812539	2012 LF & GY	2014 AJR	Dryburn Moor (Allendale Moors SSSI).
NY827446	2011 GY	2015 AJR	Allendale Common (Allendale Moors SSSI). At least one plant, perhaps four (AJR).
NY63936.99078	1988 GS	2019 BB	Slope above William's Cleugh (part of Kielderhead & Emblehope Moors SSSI). One plant.
NY982539	1993 GS		Acton Burn
NY95M	1991 GS		Ladycross Quarry

Diphasiastrum x issleri (Issler's Clubmoss). This clubmoss is thought to be a hybrid between *D. alpinum* and *D. complanatum*, but the latter species does not now occur in Britain, and the status of *D. x issleri* is at best controversial. In each of its three sites in South Northumberland it occurs with *D. alpinum*. This photo shows one of the few instances when fruiting cones have been found in our county and shows the sparsely-leaved peduncles.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Isoetaceae — Quillwort family

Isoetes lacustris L. — **Quillwort**

Native — Locally extinct

Isoetes lacustris grew at Prestwick Carr during the 19th century before the draining of the Carr. It was also reported in Crag Lough by Winch (1831)

Equisetaceae — Horsetail family

Equisetum pratense Ehrh. — **Shady Horsetail**

Native — Near threatened; locally rare

NU196007	1965 CNP	2013 GY	South bank of River Coquet, east of Felton (River Coquet SSSI). Sixty-four plants in 2012 (GY), reduced to twenty-four in 2013 due to the erosion of the riverbank.

Equisetum variegatum Schleich. ex. F.Weber & D.Mohr — **Variegated Horsetail**

Native — Locally scarce

It grows by upland steams under the shade of trees. Although there are no recent records for some of its old sites, there is also no reason to believe it has died out; it is not easy to find, particularly in the summer once the surrounding vegetation has grown.

NY640910 NY640911	2007 GSi, AY & GY	2019 AJR	Bakethin Reservoir, slipway (NWTR). This site stretched over 80 m and encompassed more than 1000 stems, but is now severely curtailed due to shading from shrubs and plants could not be found in 2020.
NY633934	1960 GS	2014 QG	On the banks of Kielder Burn near Kielder Castle
NY648952	1990 GSi	2012 GSi	The north-west bank of Kielder Burn
NY635668 NY6351.6692 NY6348.6688	Circa 1831 JT	2016 GY	River Irthing, north of Gilsland (SSSI). Three colonies (2010). 2000+ stems. 100 stems upriver.
NT875027	1982 EN	1996 DW & LA	Ramsey's Burn woodland (SSSI)
NY644695 NY637693	1992 SM		Irthing Gorge SSSI, Crammel Linn area.
NY69NE	1964 GS	1972 GS	Kielder Burn and Scaup Burn

Equisetum × *trachyodon* A.Braun — **Mackay's Horsetail**

Native — Locally rare

One of only a handful of sites in England.

NY753823 NY747814	1961 GS	2011 PJ & QG	Along Chirdon Burn, near Allerybanks. At least several hundred stems along 20 m at the upstream site and just 6 stems at the lower. However, earlier records suggest there is another site between these two sites, though it is difficult to reach.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Osmundaceae — Royal Fern family

Osmunda regalis L. — **Royal Fern**

Native — Extinct as a native

The one, presumable, native site was at Chevington Wood where it grew in the 19th century. Almost certainly introduced at other sites in or near ornamental gardens. During the 19th century, Royal Fern was harvested from the wild for planting in gardens, so there is a chance that these plantings come from a local source.

NZ0255	1959 NNU	2010 GSi	Minsteracres Monastery Grounds
NZ0878	1970 GS	2005 JD	Belsay Hall
NZ033843	1987 AJR		Wallington, now lost when the pond was drained.
NY8774	1970 GS	1985 GS	Nunwick

Hymenophyllaceae — Filmy fern family

Hymenophyllum tunbrigense (L.) Sm. — **Tunbridge Filmy-fern**

Native — Locally Scarce

NY668862	1987 MOH	2014 QG	Bull Crag
NY649787 NY650787	2012 PB	2013 PB	Paddaburn Crags
NY658778 NY657779 NY658779	2012 PB		Johnny's Crags
NY625798	2012 PB		Jamie's Lodge
NY689756 NY688757 NY688758	2011 FJR	2012 JA & GY	Spy Crags (part of Lampert Mosses SSSI). Eleven groups of plants scattered along the length of these crags.
NY732836	1990 GS	2012 WG	Roughside Moor

Hymenophyllum wilsonii Hook. — **Wilson's Filmy-fern**

Native — Locally scarce

At the eastern edge of its British distribution.

NY615838	1985 CMO	2015 WG	Gill Pike (Kielder Mires SSSI unit 5, NNR)
NT740021	1929 RBC	2014 RP	Cave to the east of Chattlehope Crag. "4 patches 75x55 cm, 130×20 cm, 100×30 cm, 30×30 cm" (GY, 2007).
NY951957	1985 JSt	2008 BH & GY	High Cove, Carrow Rigg. "Approximately 2 square metres in area." GY (2008).
NY687802	1995 APo	2007 WG	Seven Linns on Chirdon Burn. "A very small patch at Seven Linns (appox. 10×10 cm)" GY (2007).

Trichomanes speciosum Willd. — **Killarney Fern**

Native — Internationally rare; locally rare

Trichomanes speciosum is listed in annex II and annex IV of the European Union Habitats Directive, (1992) and appendix I of the Bern Convention (1979). Only present as the gametophyte.

NY733837 NY733838	1994 AJ & GS	2012 WG	Roughside, Cragshield Hope.
NY840847 NY841851	2012 BPS	2015 AJR	Hareshaw Linn (SSSI)
NY688758	2011 FJR		Spy Crags (part of Lampert Mosses SSSI).

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Marsileaceae — Pillwort family

Pilularia globulifera L. — **Pillwort**

Native — Vulnerable; locally extinct

Only ever known from two sites and was last seen in 1963 by AJR at a site mentioned in Baker & Tate (1868). However, this site was destroyed soon after its rediscovery as part of the development of Newcastle airport.

Aspleniaceae — Spleenwort family

Asplenium ceterach L. — **Rustyback**

Colonist — Locally rare

The species is relatively common in the south and west of the country. It has colonized South Northumberland on mortar walls and has probably benefited from a decline in air pollution and a warming climate.

NY973577	2014 JBo	2017 JBo	Slaley Post Office. Noticeably more abundant on the north side of the mortared stone wall.
NY985620	2010 JA & CI	2016 GY	Temperley Grange. Six clumps growing on a wall.
NZ348686 NZ348687	2006 AY & GY	2019 AY & GY	North Shields. 23 plants in 2006; 42 in 2011; 39 in 2012 and 51 in 2013, 46 plants in 2014 and 62 plants in 2019.

Asplenium marinum L. — **Sea Spleenwort**

Native — Locally rare

NZ343761	1868 BT	2019 MC & GW	Crag Point (Northumberland Shore SSSI). 46 plants in 2001.

Asplenium septentrionale (L.) Hoffm. — **Forked Spleenwort**

Native — Vulnerable; locally rare

Threatened by collectors

NY929496	1892 WF	2016 Ro & J Bo	Beldon Shield mine (Hexhamshire Moors SSSI). Twelve plants in 2007 (WG) & 2010 (AJR), some increase in 2016.

Asplenium trichomanes subsp. *pachyrachis* (Christ) Lovis & Reichst. — **Lobed Maidenhair Spleenwort**

Native

Near threatened; locally rare

NY841854	1992 JI	2015 AJR	Hareshaw Dene SSSI. About 15 plants in 2010. Over 250 plants counted in 2012.

Asplenium trichomanes subsp. *pachyrhachis* (Lobed Maidenhair Spleenwort). This distinctive race of Maidenhair Spleenwort has only about 20 British colonies. There is a large population by Hareshaw Linn waterfall in Bellingham.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Asplenium viride Huds.			**Green Spleenwort**
Native			Locally vulnerable
If all of these sites still exist, then this species should not be classified as scarce. However, further research is necessary to confirm whether it still exists at all of these sites. It has never been common in the county, being at the eastern boundary of its British distribution. Its sites are not particularly threatened.			
NY842855 NY841853 NY841854 NY842846	1925 GWT	2015 AJR	Hareshaw Dene SSSI.
NY635689 NY635692 NY637693 NY638695 NY633695 NY640696 NY641696 NY644695	c. 1819 NJW	2019 AJR	River Irthing, near Wardew (Irthing Gorge SSSI)
NY955928 NY953925 NY954921	1964 GS	2013 BH & GY	Mill Burn, Whiskershiel (NWTR). The population at NY953925 was looked for in 2013, but not found (BH & GY), but on the same occasion, two plants were found at NY954921 outside the reserve.
NY717661 NY720663	1980 HSJL & SP	2012 JBo	near the Milecastle Inn
NY639501 NY639502	1975 GS	2012 AL	Gelt Burn
NY778482 NY778483 NY779482	1964 GS	2010 AJR	Yew Crag on Wellhope Burn (Allendale Moors SSSI). Six plants in 2010.
NY926834	2008 KC, AY & GY		Little Wanney Crag
NY784672	1996 HSJL & SP	Not found by WG, 2014.	East Crindledykes Quarry (Roman Wall Escarpments, geological SSSI, NWTR)
NY752703	1995 SPr		Chatley Crags
NY64NE	1966 GS	1994 GS	Highshield Crags, Gilderdale
NY685668 NY681667 NY687668	1980 HSJL & SP	1992 SM	East of Arthur's Well & Walltown (Allolee To Walltown SSSI)
NT798055 NT796053	1939 RCr	1987 GS	Cottonshope Burn
NY679679	1980 HSJL & SP		Tipalt Burn below Low Tipalt (Tipalt Burn, geological SSSI). Searched for in 2012 but not found (JBo).
NY7367	1980 HSJL & SP		Caw Gap (Roman Wall Escarpments, geological SSSI)
NY758676	1980 HSJL & SP		Milecastle 39 (Roman Wall Escarpments, geological SSSI)

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Dryopteridaceae — Buckler-fern Family

Dryopteris expansa (C.Presl) Fraser-Jenk. & Jermy — **Northern Buckler-fern**

Native — Locally rare

This species is easily overlooked and, when not fertile, it is difficult to distinguish from *D. dilitata*. No obvious threats.

NY689756	2012 WG		Spy Crags
NY6297 NY6296	1988 GS	2010 FJR, AJR	Deadwater Fell (Kielderhead & Emblehope Moors SSSI). "...quantities ... of *Dryopteris expansa* growing below the scarp" (FJR, 2010). "Six plants on the scarp next to the *Salix herbacea* (AJR, 2010)

Dryopteris oreades Fomin — **Mountain Male-fern**

Native — Locally scarce

NY753675	2018 AJR		Steel Rigg
NY684668 NY686668	1967 GS	2014 AJR	Walltown
NY762676 NY758678	1986 KH	2012 AJR	Peel Crags & Highshield Crags
NY799699 NY806702 NY800700	1980 HSJL & SP	2011 AJR	Sewingshield Crags
NY87SE	2006 DH & TH		Low Teppermoor
NY929496	2002 AJR		Beldon Shield mine
NY84NW	1988 GS		Carr Shield
NY95A	1987 AJR		Harwood Shield
NY786688 NY785688	1976 anon.	1980 HSJL & SP	Housesteads Crags north
NY75SE	1975 GS		Sandyford Sike
NY962813	1972 GS		Sweethope Crags
NY639533	1968 GS	1972 GS	Hazely Crags

Dryopteris × ambroseae (C.Presl) Fraser-Jenk. & Jermy — **D. dilatata × D. expansa**

Native — Locally rare

NY69NW	1997 KT		Deadwater Fell (Kielderhead & Emblehope Moors SSSI).

Polystichum setiferum (Forssk.) T. Moore ex Woyn. — **Soft Shield-fern**

Native — Locally vulnerable

Increasing in the county. Swan (1993) mentions only one site. It appears rather scattered and only ever in small numbers, mostly single plants. Perhaps, some plants are introductions or garden escapes. Not threatened.

NY771657	2018 EY		Low Fogrigg
NY766734	2015 QG		Shepherdshield. One plant in rocks at the side of a forest track.
NY939677	2014 NW & AJR		Fallowfield Dene. One plant.
NY938632	2016 AJR	2020 AJR	South Park, Hexham, self-sown.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NZ346738	2011 AY & GY	2013 AY & GY	Brierdene, south-facing bank. Two plants.
NZ139985	2012 QG		The embankment of the A1 near Weldon. Only a single large plant.
NY928635	2011 AJR	2020 AJR	Hexham, introduced.
NZ248838	2008 JD		Choppington Woods. One plant.
NY929610	2000 QG	2006 JD	West Dipton Burn. One plant.
NZ0878	1993 DM	2006 JD	Belsay Hall
NZ230862	2002 JD		River Wansbeck, north bank. One plant.
NZ2579 NZ2680	2002 JD		River Blyth, Bedlington
NZ221860	2002 JD		Morpeth, Lady's Well. Three large plants.
NZ093549	2002 JD		Mere Burn Wood. One plant.
NT945024	1997 GS		Dovecrag Burn
NY814852	1992 DW & LA		Closehill Wood. Requires confirmation.
NY816833	1992 DW & LA		Hesleyside Park SSSI, Requires confirmation.
NU218037	1971 GS	1973 GS	Morwick Banks

Pinaceae — Pine family

Pinus sylvestris L. — **Scots Pine**

Native — Nationally scarce (as a native)

Pinus sylvestris is included in the register because of its national status. It is undoubtedly native to the region, as there is plenty of evidence of preserved pollen and wood. Yet it has been so widely planted, it is impossible to know if any original Northumberland stock still exists. Edlin (1961) reviewed whether some pines in the county are native. In places, old trees exist in a fairly natural setting, but little natural regeneration occurs. See Swan (1993) and Manning *et al.* (2010) who summarise the current position.

Cupressaceae — Cypress family

Juniperus communis L. — **Common Juniper**

Native — Near threatened; locally vulnerable

Still has some 30 sites in the vice-county, with some sizeable populations, particularly in the Allendale and Holystone regions, but it has disappeared from some former sites and at the remaining sites it rarely regenerates from seed. Now threatened by a newly described fungal disease *Phytophthora austrocedri* (Green et al. 2012).

Nymphaeaceae — Water-lily family

Nuphar × spenneriana Gaudin — **Hybrid Water-lily**

Native — Locally rare

NZ009958	c. 1819 NJW	2006 JA & CI	Chartners Lough
NZ030843	1804 JTr	2013 WG	Wallington Hall, China Pond. It was introduced into a pond at this site during the 19th century, presumably from the site at Chartner's Lough. Approx. 2 × 2 m

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Nymphaea alba L.			**White Water-lily**
Native & introduced			Locally rare (as native)
This species is widely planted in lakes and ponds; however, it is included here because of possibly native sites. Swan (1993) considered Greenlee, Broomlee and Grindon Loughs to be native sites, though there are few records.			
NY7669	1769 JW	2010 AJR	Greenlee Lough NNR (Roman Wall Loughs SSSI)

Ceratophyllaceae — Hornwort family

Ceratophyllum demersum L.			**Rigid Hornwort**
Native			Locally rare
Recently refound, this species was at one time thought to be locally extinct.			
NZ311784	2013 AY & GY		Newsham South Farm, disused reservoir
NZ225733 NZ229733	2010 GD		Small ponds at Big Waters nature reserve (NWTR, SNCI)
NZ268798	2010 VA		A small pond within Cramlington Sewage Treatment Works. Abundant within the pond.

Papaveraceae — Poppy family

Roemeria argemone (L.)			**Prickly Poppy**
Introduced			Endangered; locally rare
Until 2012 it had not been recorded since the 1960s. In Winch's Northumberland flora (1831) it is described as "In corn fields", but there is no description of its abundance. However, it is described as "frequent" in Baker and Tate (1868).			
NZ238856 NZ238855	2012 QG		A total of 23 plants in a field of barley north of Paddock Hall Farm east of Morpeth

Fumaria bastardii Boreau			**Tall Ramping-fumitory**
Native			Locally scarce but increasing
Swan (1993) called this species 'very rare', but it is being reported increasingly in greater Newcastle.			
NZ255646	2019 GW		Shieldfield, Newcastle
NZ362686	2019 GW		North Shields
NY848486	2016 AJR		Spartylea, in 'amenity seed mix'
NZ246669	2014 GW		Wallsend

Ranunculaceae — Buttercup family

Helleborus foetidus L.			**Stinking Hellebore**
Native? and introduced			Locally rare
There are at least seven other sites where this plant has been introduced or escaped from gardens, but the site below is the only one that might be native.			
NY907663 NY908662 NY907661 NY912659	Circa 1831 AHa	2020 AJR	Bridge End. In 2010 there were probably more than 50 plants, but in 2020 only about 25.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Myosurus minimus L.			**Mousetail**
Native and casual			Vulnerable; locally probably extinct
It was known on Newcastle Town Moor during the 19th century and was briefly rediscovered in 1982 when the ground was disturbed during the creation of a new experimental bed at Moorbank Garden. The cattle grazed moor could be good habitat, but the grazing has been "improved" and is now a monoculture of *Lolium perenne*.			
NZ233658	1831 RBB	1982 NSc	Newcastle Town Moor
Ranunculus arvensis L.			**Corn Buttercup**
Introduced			Endangered; locally extinct
Last recorded in 1953, though at one time it was not uncommon as an arable weed (Winch 1831; Baker & Tate 1868).			
Ranunculus baudotii Godr.			**Brackish Water-crowfoot**
Native			Locally scarce
Well surveyed in the 1980s, but lacking recent records.			
NZ27310.99730	2015 AJR		Druridge Bay Country Park
NZ288940 NZ282949 NZ286946 NZ282945	1982 JL	2012 AJR	Cresswell ponds SSSI; not found 2015, 2016
NU2700	1985 GS	1988 CD	Hadston Links north (SSSI)
NZ28SW	1987 GS		Willow Burn
NU20SE	1985 GS		Hadston Links south (SSSI)
NZ27SW	1984 GS	1985 GS	Big Waters (NWTR, SNCI)
NZ2486	1983 GS		Pond near Bothal Barns
NZ38E	1974 AJR	1983 GS	Newbiggin Moor
Thalictrum flavum L.			**Common Meadow-rue**
Native			Locally rare
NY900868	2010 AJR		Between West and East Woodburn
NY856793	1967 GS		West bank of the River North Tyne near The Green. Looked for in 2015 but not found (AJR).

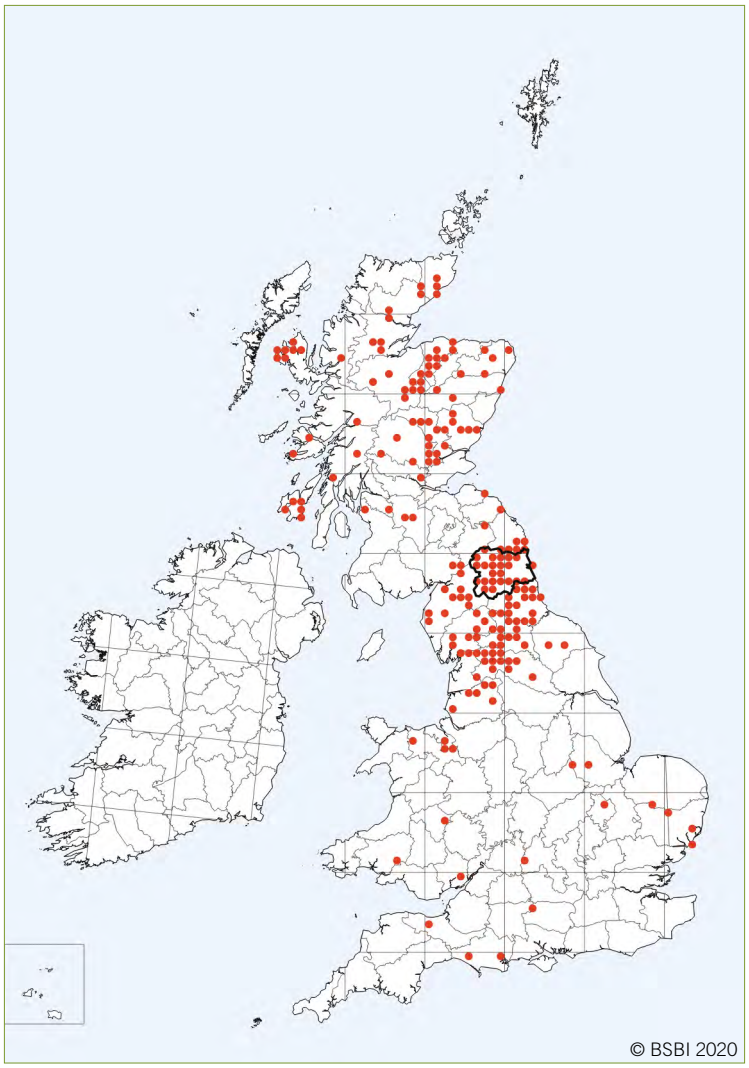
Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Grossulariaceae — Currant family

Ribes spicatum E.Robson — **Downy Currant**

Native — Nationally scarce

More than 20 sites remain in the vice-county, often of persistent old stands. Many of these sites are not legally protected, though there are not any particular threats to these sites and they are often steep wooded riverbanks, which affords some physical protection. Most reproduction is vegetative and evidence for establishment of new seedlings is rarely found. The county contains a significant proportion of British populations.



Map 1. Distribution map of *Ribes spicatum* in Britain and Ireland. Occurrence records are displayed at hectad level (10 km x 10 km). South Northumberland (VC 67) is outlined in bold black.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Saxifragaceae — Saxifrage family

Micranthes stellaris (L.) Galasso, Banfi & Soldano — **Starry Saxifrage**

Native — Locally scarce

This species is at the eastern limits of its UK distribution in South Northumberland. All sites are small and confined to streams at altitude. Though populations appear stable, they are likely to be vulnerable to even small changes in their habitat or the climate.

NY801449	2012 BH & GY	2018 AJR	Coalcleugh, gorge S of road.
NY83254.44853 NY83283.44853	2015 WG	2020 LM AJR	Carriers Way, flush N of path.
NY801449 NY807448	2012 BH & GY	2016 JBo RBo	Whetstone Mea, three patches.
NY629557	2012 PB		Glendue Fell
NY797468	2012 BH & GY		Smallburns Moor (Allendale Moors SSSI).
NY636528	2012 PB		Thinhope Burn (Geltsdale & Glendue Fells SSSI), 1000+ rosettes
NY668476 NY656474 NY651486 NY656474	1975 GS	2010 PB	Woldgill Scar, Grey Nag, Wolf Cleugh, Thornhope Burn & Knar Burn. Along streams draining Grey Nag.
NY925496	1807 NJW	2009 AJR	Beldon Burn, near Heatheryburn (Hexhamshire Moors SSSI). Less than 25 plants (AJR 2009).
NY837454	1991 GS		Hefty Well (Allendale Moors SSSI)
NY84NW (NY801466)	1975 GS		Black Hill (Allendale Moors SSSI)
NY84SW	1805 NJW	1978 GS	Coalcleugh area (Allendale Moors SSSI), probably same as at NY801449.

Saxifraga aizoides L. — **Yellow Saxifrage**

Native — Locally rare

This is a large population of an uncommon species. The population is well isolated from the next nearest populations in Durham and Cumbria and, as such, is quite an important site. It is not particularly threatened and is protected by the cliffs it grows on.

NY640696 NY641696 NY644695 NY644696 NY643696 NY645695 NY645696 NY637693 NY638695	1769 JW	2018 AJR	Near Wardrew on the River Irthing) (SSSI). In large numbers on cliffs along the River Irthing. Mostly from upstream of Crammel Linn, but it also grows downstream from there.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Saxifraga hypnoides L. **Mossy Saxifrage**

This species was included in the register in previous years due to a supposed native record from Crag Lough. However, further investigation of this record showed that it was from J.E. Heslop-Harrison whose records are known to be suspect. Swan (1993) states that the record comes from R.B. Cooke, but this appears to be an error. Details can be found in the Vasculum (1916) volume 2, number 3, page 93. However, a large native patch was discovered in 2020, growing in high moorland grassland with *Chrysosplenium alternifolium*. All other records of this species are of casual occurrences or escapes from cultivation.

NY83248.44816	2020 LM		Bowey Mere, Allendale Moors SSSI

Saxifraga tridactylites L. **Rue-leaved Saxifrage**

Native Locally rare

Extinct from native habitats, but recently rediscovered as a colonist.

NY989635	2011 JBo	2015 JBo	Corbridge Station
NY8972	1976 MB	1986 GS	The Scroggs SSSI. The original Scroggs SSSI was destroyed and a "New Scroggs" SSSI was established next to it. However, this species had probably become extinct here before the transfer.
NY97SW	<1900	1985 GS	Gunnerton crags (Gunnerton Nick SSSI)
NY680665	1831 NJW	1980 JB	Walltown SSSI
NY7667	1974 AJR		Above Crag Lough (Roman Wall Escarpments, geological SSSI)

Crassulaceae Stonecrop family

Sedum telephium L. **Orpine**

Native Locally scarce

This species has been widely grown in gardens from where it has escaped. This means that the limits of its natural distribution are difficult to know. Nevertheless, it is clear that it has a westerly distribution in northern England and has always been uncommon in Northumberland.

NY9657	2019 JHe		Highclear, Slaley
NY67N	2008 CO & JO		Windy Hill
NZ2163	2007 AY & GY		Benwell Nature Park
NY740787			
NY737780	1979 GS	1996 NB	Green Bothy
NY97NE	1988 GS		near Bavington Hall
NZ08SE	1982 GS	1985 GS	Bolam
NY66NW	1972 GS	1979 GS	A roadside near Irthing House.

Sedum villosum L. **Hairy Stonecrop**

Native Vulnerable; locally rare

Declining rapidly, both in Northumberland and nationally. It is close to extinction in South Northumberland and is threatened by agricultural improvement. Probably its last remaining site is protected as a SSSI, is monitored by Natural England and has been subject to management by NWT.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY818456	1979 GS	2013 BH & GY	White Mere (Allendale Moors SSSI). Only one plant in fruit in 2013. Not seen in 2016 (NA).
NY9880	1805 NJW	2020 AJR	Great Bavington, exposed whin NW of farm (Bavington Crags SSSI). "...becoming less common here and needs monitoring. Still occurs over an area of about 120 × 40 m. More than 2000 plants in 2016, most not flowering size. Colonising newly scraped areas.
NY7946	1968 GS	1983 GS	Carr Shield, Coalcleugh & Smallburns Moor. (Allendale Moors SSSI). Several sub-sites in this area. Probably extinct here.

Haloragaceae — Water-milfoil family

Myriophyllum verticillatum L.			**Whorled Water-milfoil**
Native			Near threatened; locally rare
NZ21543.71631	2018 LKo		Havannah SLCI, 2nd largest pond
NZ148658	1985 GS	2009 AY & GY	Throckley Reeth Pond SNCI. The most northerly site in Britain.
NZ217637	1996 AY & GY		Benwell Nature Park. Introduced.

Fabaceae — Pea family

Astragalus danicus Retz.			**Purple Milk-vetch**
Native			Endangered; locally scarce
The lack of recent records might suggest a gradual decline, but it can be difficult to find in short turf, so a targeted survey is required to confirm its status at some of these sites.			
NZ272986	2015 GY		Hadston Links SSSI
NU2700 NZ273999	1962 GS	2015 AJR	Hadston Links SSSI
NZ323785 NZ325780 NZ326779 NZ326780 NZ327776 NZ328775 NZ328776 NZ329775	1937 GS	2013 AY & GY	Seaton Sluice dunes (Northumberland Shore SSSI).
NZ308896 NZ308897 NZ305899 NZ307899	1972 AJR	2012 QG	South of Lynemouth Power Station
NZ301911 NZ301912 NZ301913 NZ302909 NZ302910 NZ302911	2012 QG		North of Lynemouth Power Station. Perhaps the best site in South Northumberland. The short turf that this species needs is maintained by grazing of horses and rabbits. The site is threatened by coastal erosion.
NU281036	1987 RFS	2012 GY	Amble Dunes, one patch 1 m × 1 m.
NZ3474 NZ3475	1991 NTBC	c. 2000 AY & GY	Curry's Point and St. Mary's Island (Tynemouth to Seaton Sluice SSSI; St Mary's Island LNR).

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NZ275969	1982 JL	1988 CD	Druridge Bay (Northumberland Shore SSSI)
NZ2894	1988 GR		Cresswell Dunes (Northumberland Shore SSSI)
NZ299855	1972 AJR		Sandy Bay
NZ317893	1972 AJR		Beacon Point

Astragalus glycyphyllos L.			**Wild Liquorice**
Native			Locally rare
NY90811.66202	1769 JW	2020 JBo & AJR	Bridge End, near Warden. Increase to three large plants, both sides of path.

Astragalus glycyphyllos. Our only site for Wild Liquorice near Warden was first reported in 1769. It grows alongside *Helleborus foetidus* (Stinking Hellebore), also in its only presumed native location in the county.

Ervilla sylvatica (L.)			**Wood Vetch**
Native			Locally rare
There is no obvious explanation for the decline of this species. It lives in woods and denes, which in general, have lost fewer species than other habitats.			
NZ2379	1974 GS	2020 LKo	Plessey Woods SNCI. About 140 plants scattered along the steep banks of the River Blyth.
NY790609 NY76SE	1959 GS	2014 AM	Kingswood Burn to Plankey
NT80NW	1987 GS		Ridlees Burn
NY874673	1978 JDS & TB		Settlingstones Burn. Looked for in 2012 but not found (AJR).
NY75SE	1975 GS		Blackett Bridge to Taylorburn
NU20SW	1971 GS	1973 GS	Morwick Banks
NY97SW	1974 GS		North bank of River North Tyne near Barrasford

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Genista anglica L.			**Petty Whin**
Native			Vulnerable; locally scarce
Genista anglica has disappeared from large areas of lowland England and the reasons for this are not entirely clear. Land use changes are likely to be a factor, though it has also disappeared from some sites where no obvious changes have occurred.			
NY79267.66888	2018 RFr		Muckle Moss
NY875568 NY876568 NY878569 NY879569 NY887566 NY887567 NY887568 NY888565 NY888566 NY889566 NY889570	2011 JBo	2020 JBo RBo	Whapweasel Burn (Hexhamshire Moors SSSI). 346 plants counted in 2013 (JBo).
NY787664 NY7766	1993 GS	2011 QG	Thorngrafton Common, Barcombe Hill. 24 plants in 2011.
NT949020 NT949019 NT950020 NT950021	1959 GS	2011 MWR & RCR	West of Five Barrows, Holystone (Holystone Burn Woods SSSI). A total of 125 plants found in 2011.
NT937014	1959 GS	2011 MWR & RCR	Cat Law, Harbottle (Holystone Burn Woods SSSI). Five plants.
NY961996	2011 JA & MR		Harehaughhill
NY870555	2009 ND		Burntridge Moor, Allendale (Hexhamshire Moors SSSI)
NY9696 NY9697	1973 GS	2008 WG	Darden Burn and the crags below Key Heugh (Simonside Hills SSSI). At several places in this area.
NY9853	1993 GS		Acton Burn Area
NY9555	1978 GS	1991 GS	Potter Burn
NY99NE	1988 GS		Rimpside Hill
NY65SE	1984 GS		Cow Burn
NY97NW	1868 BT	1978 GS	Gunnerton Crags (Gunnerton Nick SSSI). This site has been visited many times since 1978, but *G. anglica* has not been recorded. It is likely that it has become extinct here.

Ornithopus perpusillus L.			**Bird's-foot**
Native			Vulnerable: locally rare
Until 2019 only ever recorded at Seaton Sluice in 1911. It was considered native in Northumberland and Durham by Swan (1993) and Graham (1988). However, all its known sites are man-made and it is perhaps more likely to have be an introduction.			
NZ307899	2019 MW		South of Lynemouth Power Station in path.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Trifolium fragiferum L.			**Strawberry Clover**
Colonist			Vulnerable; Locally rare
Perhaps only casual, but it is easily overlooked. First mentioned by Winch, Thornhill & Waugh (1805).			
NZ26SE	1990 GS		St Anthony's
Trifolium micranthum Viv.			**Slender Trefoil**
Native			Locally rare
NY982804 NY981805	2008 WG	2020 AJR	West of Great Bavington (Bavington Crags SSSI)
NY960805	2008 MM		Great Bavington
Trifolium scabrum L.			**Rough Clover**
Native			Locally extinct
Last recorded in the 19th century.			
Trifolium striatum L.			**Knotted Clover**
Native			Locally scarce
NY891727	1981 GS	2009 AJR	The Scroggs. This species was successfully translocated from the old Scroggs SSSI, to the New Scroggs SSSI at Keepershield Quarry.
NY913749 NY914749 NY9175	1860 TN	2011 BH & GY	Gunnerton Crags (Gunnerton Nick SSSI). Two populations in 2007 (JSi). One small patch in 2011 (GY).
NY97NW	1985 GS		Reaver Crag quarry
NZ08SE	1977 GS		Harnham
Ulex gallii Planch.			**Western Gorse**
Native			Locally rare
At the north-western limits of its English distribution. One specimen has also been planted at Hauxley nature reserve (AJR, 2009).			
NY642638	1975 GS	2010 PB	A tributary of Poltross Burn near Shawfield. Eleven bushes (2010, PB)
Vicia lathyroides L.			**Spring Vetch**
Native			Locally scarce
NZ272998 NZ273995	1997 AJR	2014 WG	Druridge Bay, +/- opposite main bird-hide.
NY9175	1985 GS	1989 AJR	Gunnerton Nick SSSI. Searched for, but not found in 2011 (AJR).
NU274002 NZ274999	1988 CD	2016 AJR	Hadston Links North SSSI, 20-25 in 2016.
NZ272986 272983	2016 AJR	2019 MW	East Chevington dunes, ca. 20
NY946763 NY945762 NY946760	1831 NJW	2016 AJR	Colwell. 100+

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Rosaceae			**Rose family**
Alchemilla acutiloba Opiz			**Starry Lady's-mantle**
Native			Vulnerable; locally rare
NY957501 NY956503	1976 GS	2020 AJR	Baybridge. 35 plants with seedlings.
NY951550	2007 AJR		Ladycross Bank quarry (private reserve).
NY831533	2020 AJR		Wooley Park
NZ056490	2005 KC	2006 KC	Derwent Gorge NNR, Combe Bridges. 20-40 plants.
Alchemilla filicaulis subsp. *filicaulis* Jacquet			**Slender Lady's-mantle**
Native			Locally extinct
NY933760	1978 GS		North of Great Swinburne. It was looked for in 2010, but not found. Its survival seems unlikely as the site has been subjected to agricultural improvement (AJR).
Alchemilla glomerulans Buser			**Clustered Lady's-mantle**
Native			Endangered; locally rare
NY708654	1982 FJR	2012 AJR & NW	Haltwhistle Burn Four plants in 2010; In 2011, only one plant remained and was found falling into the Burn by AH and AJR. Part was removed and yielded lots of good seed. Nine mature offspring were reintroduced to a site about 500 m upstream in 2020.
NT750030	2012 SH		Haugh grassland below Catcleugh.
NY668658	1981 FJR	2010 AH, MBr & LC	Greenhead

Alchemilla glomerulans (Clustered Lady's-mantle). A scarce montane Lady's Mantle which has recently been reintroduced to near its former site by the Haltwhistle Burn. Seedlings were raised from the original individual.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Alchemilla micans Buser			**Shining Lady's-mantle**
Native			Endangered; locally scarce
Not currently known outside South Northumberland, the only native species to be so delimited.			
NY905729 NY905731 NY904733 NY904730 NY910730	1978 MB	2010 IDe	Near to Coldwell. Several small populations. Where the vegetation has grown long, some patches have disappeared, however other new populations have been found.
NY892727 NY892728 NY893724 NY891727	1976 GS	2016 AJR NW	The Scroggs SSSI. The site was destroyed in 1999 but the owners moved the vegetation and soil to a nearby site that has now been included in the SSSI boundary within Keepershield Quarry. Estimated to be about 2500 plants in 2016.
NY879721 NY879720 NY878727 NY878722 NY878721	1985 GS	2009 MM, AY & GY	Road verge south of Sharpley. Several small populations amounting to about 60 plants in 2007, though the grass is becoming overgrown.
NZ226963	1998 GS		Roadside verge near to Ned's Whin. Far from the main populations and not seen since, even though it has been looked for. This site is close to a quarry, so it may have been carried on quarrying equipment from the Scroggs site.

Alchemilla micans (Shining Lady's-mantle). The only British plant whose current distribution is restricted to South Northumberland, *A. micans* is known from a few sites where Whin grassland abuts the North Tyne Valley. The main colony now resides in a restoration scheme at Keepershield Quarry in Humshaugh near Hexham after the original site was destroyed by quarrying.

Map 2. Distribution map of *Alchemilla micans* in Britain and Ireland. Occurrence records are displayed at hectad level (10 km x 10 km). South Northumberland (VC 67) is outlined in bold black.

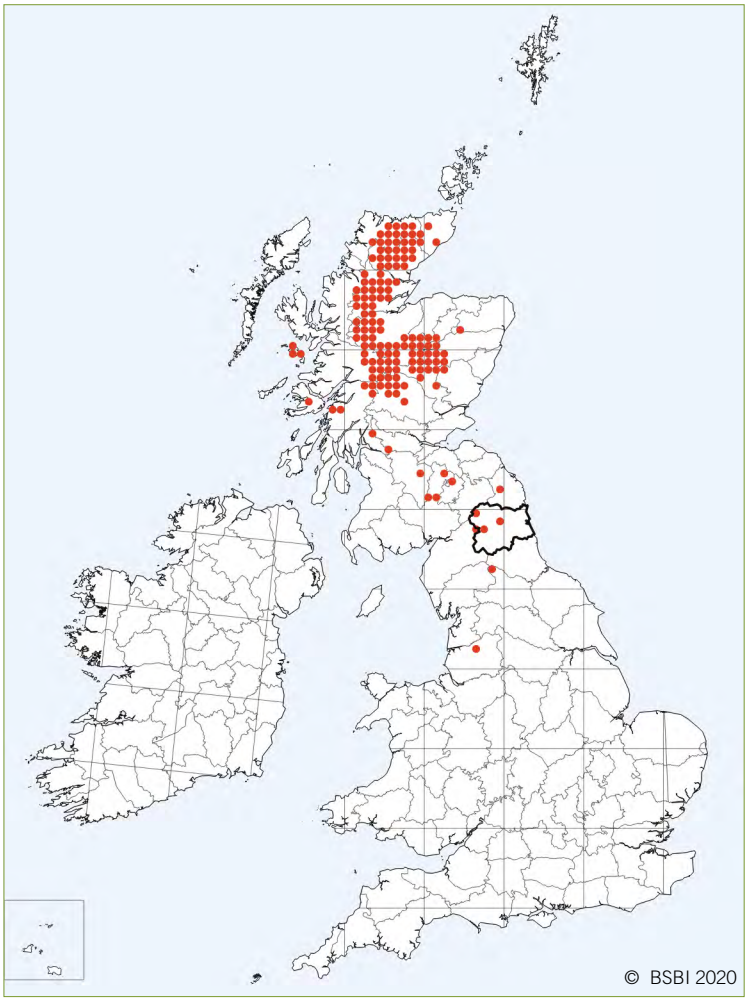
Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Alchemilla subcrenata Buser			**Large-toothed Lady's-mantle**
Native			Endangered; locally rare
One of only two locations outside Co. Durham.			
NY831552 NY832553	2007 JO	2020 AJR	Wooley Park

Filipendula vulgaris Moench			**Dropwort**
Native			Locally rare
The sites for this species have been reduced to smaller and smaller areas due to quarrying and agricultural improvement. It probably only exists at the Riverhill site where it has no official protection. This site is small, ungrazed and probably also suffers from eutrophication from neighbouring farmland. Its long-term prospects are poor.			
NU2823.0239	2019 DHu		Hauxley NR, presumed unrecorded introduction.
NY905732 NY906732 NY907731	1978 MB	2014 RBo & JBo	Riverhill Farm. "Abundant for at least 50 m of bank" (AJR).
NY9175	1769 JW	1982 GS	Gunnerton Nick SSSI. Intensively surveyed by JSi in 2006-2007, but not found.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Potentilla anglica Laichard.			**Trailing Tormentil**
Native			Locally rare, one surviving site
Apparently, close to extinction in the vice-county, with one recent discovery of a strong population. It has a western distribution in the British Isles and is declining nationally.			
NZ09SE	1977 GS		Nunnykirk
NZ082838	1976 GS		Old quarry, Millgreens. Searched for in 2013, but not found (AJR).
NZ28SE	1974 GS		North bank of River Blyth, near Mount Pleasant.
NZ19NW	1970 GS		South bank of River Coquet Woodbine Cottage to Weldon Bridge.
NY966607	2016 R & J Bo		Dipton Forest. Spread over about 10 m of trackside.
Rosa arvensis Huds.			**Field Rose**
Probable introduction			Locally scarce
A southern rose with a very distinctive habit which has been introduced mainly in 'conservation plantings' and may have been over-recorded. Most records come outwith the 'botanical community'			
NU2802	2013 BK	2018 FSa	Hauxley NR, probably planted
NZ3080	2007 JD		Delaval, Bede Academy site
NY917668	1969 GS		Nether Warden
NZ26	<1831 NJW		Elswick Dene
Rosa caesia subsp. *caesia* Sm.			**Hairy Dog-rose**
Native			
	Locally rare		Styford Hall
NY85NW	1999 GS		Catton
NZ17NW	1998 GS		Kirkley
NY681518	1962 GS		River South Tyne, near Williamston
Sorbus rupicola (Syme) Hedl.			**Rock Whitebeam**
Native			Nationally scarce; locally rare
This is a remote outlier from the larger populations in Durham; it is limited by the lack of suitable habitat in South Northumberland. The presence of a single specimen makes it is vulnerable to loss.			
NY682517	1988 AJR	2019 AJR	Williamston river bank (NWTR, SSSI) beside the Pennine Way. A single tree, though a seedling was found in 2009, but has since disappeared (AJR). The tree had disappeared in September 2020 and is presumed to have fallen into the river due to bank erosion.

Sorbus rupicola. A solitary tree of Rock Whitebeam occurred beside the River South Tyne on a limestone exposure. It could not be found in 2020 and is presumed to have fallen into the river. It was propagated from berries by the late Viscount Ridley and its offspring grow at Blagdon.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Myricaceae			***Bog-myrtle family***
Myrica gale L.			**Bog-myrtle**
Native			Near threatened; locally vulnerable
This species is more common nationally, but it is restricted to a small area of North-East England, remote from other populations. It is declining nationally at lowland sites. The area around Billsmoor Park contains a good quantity of plants. Some sites are well known and are visited regularly, such as Holystone Burn. Recent recording has shown that the population is healthy and stable.			
NY962971 NY963971 NY9696 NY958977 NY957977	1961 GS	2012 MR	Area to the east of Grasslees, along Darden Burn (Simonside Hills SSSI)
NT921054	2012 AJR	2019 AJR	Angryhaugh
NY9699 NY9599 NY99NW	1957 GS	2012 QG	Keenshaw Burn. A large population containing several thousands of plants.
NY9697	1973 GS	2012 QG	Darden Lough & Darden Burn (Simonside Hills SSSI)
NT919058	1939 GS	2011 QG	Barrow Burn (NWTR, LNR, Harbottle Moors SSSI). More than 30 plants in 2011.
NT937033 NT937037 NT936034 NT936035 NT941038	<1900	2012 TD	Seal Burn, Harbottle (NWTR). Rare at the site, which is within a conifer plantation.
NT940020 NT942021 NT944021 NT948017 NT948016	1769 JW	2011 RCR & MWR	Holystone Burn (NWTR, SSSI). A large population of plants.
NT910035 NT911034	1967 GS	1998 DW	Crane Moss (Harbottle Moss SSSI)
NT80SE	1960 GS	1972 GS	Ramsey's Burn, Whitelee Sike & Linshiels Lake SSSI.
NY99NW	1974 GS		Billsmoor Park
NY9899	1961 GS		Stream near Hepple Whitefield.
Betulaceae			**Birch family**
Betula nana L.			**Dwarf Birch**
Native			Critically endangered; locally rare
Apparently relictic plants, which are almost 200 km from large populations in Scotland. Of five English populations, three are in South Northumberland.			
NY9190.8414	2020 DH		Elishaw Moss. A large colony at only 300 m asl. There is a single individual of *B. x intermedia,* the only plant known in England.
NY751721	2014 GSi	BH GY 2015	Wark Forest (Burlton et al, 2014). A substantial diffuse population in a forest firebreak.
NY694945	1973 ALH	BB 2019	Buck Lake Sike (Kielderhead & Emblehope Moors SSSI. Estimated to cover about 50 m^2 in 2008. Another estimate in 2010 was 30 ft across.



Map 3. Distribution map of *Betula nana* in Britain and Ireland. Occurrence records are displayed at hectad level (10 km x 10 km). South Northumberland (VC 67) is outlined in bold black.

Betula nana. Dwarf Birch is a subarctic shrub for which the main British sites are mostly north of the Great Glen. It has five English locations, three of which are in South Northumberland. The most recent was discovered near Ridsdale north of Hexham in 2020.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Betula pubescens subsp. *tortuosa* (Ledeb.) Nyman			**Downy Birch**
Native			Waiting list; data deficient
Swan (1993) suggests that this subspecies is widespread in the hills; however, there are no detailed records and further work is required to separate the distribution of this subspecies from subsp. *pubescens*.			
NZ09NW	1989 GS		near Simonside

Cucurbitaceae — White Byrony family

Bryonia dioica Jacq.			**White Bryony**
Perhaps native, but it has also been introduced in the past.			Locally extinct
NZ0561	1936 GWT		Stocksfield station railway embankment. Searched for in 2010 without success (JBo).

Celastraceae — Spindle family

Euonymus europaeus L.			**Spindle**
Native			Locally scarce
At the northern limits of its natural distribution, but also introduced. Historically it was planted for its wood, but in recent years, it has been planted in amenity woodland.			
NY959640	2018 JD		Sam's Island Plantation.
NU2002	2018 FSa		Hauxley NR, probably planted.
NZ297801	2015 MR JA		Newsham, Blyth
NZ0521	2015 MR, JA		Stocksfield
NZ002633	2014 NW & AJR		Thornbrough Wood. One large bush, apparently native.
NZ054622	2012 AM		Riverbank of Tyne at Bywell Bridge
NZ0783.6449	1976 GS	2017 WG	Whittle Dene. Four trees.
NY835642	2010 JBo		Haydon Bridge B6319. Six small saplings, apparently self-sown, though there are no mature trees nearby.
NY920662	2010 AJR	2019 AJR	Hexham Golf Club. Two trees, one large and ancient.
NY914749	2006 CI & LS	2007 JSi	Gunnerton Crags (Gunnerton Nick SSSI)
NZ18NE	1983 GS	1990 GS	River Wansbeck, north bank
NZ17SE	1987 GS		Prestwick Carr
NZ106648	1977 GS		Wylam
NY9372	2016 AJR		Hedge, A6079 N of Chollerton.

Euphorbiaceae — Spurge family

Euphorbia amygdaloides L.			**Wood Spurge**
Native			Locally extinct
This species is considered native by Swan (1993), but it is extinct as such. Now increasingly found as a garden escape as subspecies *robbiae*, rather than the native subsp. *amygdaloides*.			

Euphorbia exigua L.			**Dwarf Spurge**
Introduced			Vulnerable; locally rare
Perhaps only ever casual, however, arable fields are not popular sites for botanical recording and this species is easily overlooked.			
NZ265745	1984 GS		A barley field near Annitsford.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Mercurialis annua L.			**Annual Mercury**
Archaeophyte			Locally scarce
In Northumberland this species is far north of its main range in southern England. In recent years it has become well established at Seaton Sluice and is spreading along the coast in both directions.			
NZ3280	2019 GW MC PHa		South Beach, Blyth.
NZ37I	2018 PHa		Seaton Sluice to St Mary's.
NZ336767	2004 AY & GY	2019 GY	Seaton Sluice harbour.
NZ19NE	1981 GS	1992 GS	Morpeth. Garden weed.
NZ2465	1935 AB	c. 1982 AJR	Near Armstrong building, Newcastle, garden weed.
NU271047	1971 GS	1973 GS	Amble
NZ2466	1973 GS		Newcastle, Highbury allotments.

Salicaceae — Willow family

Populus nigra subsp. *betulifolia* (Pursh) Dippel			**Black Poplar**
Native?			Locally rare
The Humshaugh tree is of considerable girth (>3.5 m dbh) and apparent antiquity and lies on an ancient field boundary associated with a small stream about 600 m north of the village. About three-quarters of the tree was lost in a gale during 2011-12. However, material collected in 2011 was DNA fingerprinted by Stuart A'Hara and found to be the female clone 32 of the National Register, suggesting that it was originally planted.			
NY917717	2010 AJR		Humshaugh. A single female tree.

Salix herbacea L.			**Dwarf Willow**
Native			Locally rare
NY625975	1863 JHB	2019 BB	Deadwater Fell (Kielderhead & Emblehope Moors SSSI). At one time, there were one male and one female plant at this site. The male plant was first to be found, but in 1991 RC reported that the male plant had gone, nevertheless, he managed to find a female plant, which still survives.

Salix herbacea. Least Willow is a tundra specialist, mostly confined to mountain-top debris at above 800m. All the other English sites are in the Lake District and Yorkshire Fells, so the survival of a lonely individual at only 570 m on Deadwater Fell is remarkable.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Salix triandra L.			**Almond Willow**
Native (archaeophyte) & hortal			Locally scarce
Like most willows, this species is under-recorded due to inexperience and mis-identification. Although, there have been few recent records of the type subspecies, it may still exist at its former sites. An unidentified form or hybrid has been extensively planted in the SE of the county, and this is not reported here.			
NZ064866	1984 GS		near to Hartburn Grange
NZ162674	1977 GS		Throckley Dene (SNCI)
NY97NE	1973 GS		Hallington
NY89SE	1970 GS		Otterburn

Violaceae — Violet family

Viola canina L.			**Heath Dog-violet**
Native			Vulnerable; locally scarce
Whin and sand-dune grasslands. Has perhaps been overlooked.			
NZ273984	2017 AJR		East Chevington, dune grassland.
NZ3083	2016 DB		Cambois, dunes N of car park
NY944763 NY953766	c. 1959 JHH	2020 AJR	Colwell. 50+. Two sublocalities
NY91495.75107	1985 GS	2015 AJR NW	Gunnerton (Gunnerton Nick SSSI). On a ledge at the north-east end of the crag, less than 10 plants (2007, AJR).
NY905732	2007 WG		Riverhill Farm
NZ2799	1988 GR		Hadston Links SSSI
NU2700	1985 GS	1988 GR	Hadston Links SSSI
NZ2894	1982 JL	1988 GR	Hemscotthill Links
NZ2796	1982 JL	1988 GR	Druridge Links
NZ17SE	c. 1939 JHH	1987 GS	Prestwick Carr
NY9882	1985 GS		Northside

Viola reichenbachiana Jord. ex Boreau			**Early Dog-violet**
Native			Locally scarce
At the northern limit of its range in the British Isles. Ancient oak woodland in the south of the county. Hybridises extensively with *V. riviniana*.			
NY79464.62158	2017 AJR		Plankey Mill
NY80045.59198	2017 AJR		Cupola
NY950662	2011 WG		Oakwood
NY904616	1996 AJR	2020 AJR	West Dipton Burn. 20+.
NY913750	1987 AJR	1988 GS	Gunnerton (Gunnerton Nick SSSI)

Viola tricolor subsp. *curtisii* (E.Forst.) Syme			**Seaside Pansy**
Native			Near threatened; locally rare
NZ3090	1985 GS		Swan's Hill
NZ285946	1972 AJR		Cresswell Dunes (LNR)

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Viola tricolor subsp. *tricolor* L.			**Wild Pansy**
Native			Near threatened; locally vulnerable
This species is included due to its national status, it is scattered across the vice-county as a weed of agriculture and is perhaps under-recorded. However, the number of records per decade has fallen abruptly in the last decade.			

Linaceae — Flax family

Linum radiola			**Allseed**
Native			Vulnerable; locally extinct
Only ever known from the Town Moor in Newcastle and very doubtfully native there (Winch, Thornhill & Waugh 1805).			

Geraniaceae — Geranium family

Geranium columbinum L.			**Long-stalked Crane's-bill**
Native			Locally scarce
Borderline rare. Largely restricted to whin sites and threatened by quarrying. The remaining sites have some protection, but it continues to decline.			
NY89123.72751	2016 AJR, NW		'New Scroggs'. transplant site
NY917747 NY913749 NY914749 NY914750	1831 NJW	2016. AJR, NW.	Gunnerton Nick, SSSI. Five plants in 1980, one plant in 2007. More than 25 plants in 2016.
NY891727	1976 MB	2009 AJR	The Scroggs, SSSI. "20+ plants" (JSi 2007).
NY677666 NY679665 NY680666 NY680665 NY683665 NY683664	1831 NJW	2016 AJR	Walltown SSSI. 120+ in 2008. 30 in 2016.
NY685848	1990 GS		Memorial Cairn, Little Whick Hope. One large plant.
NY99NE	1979 GS		Grasslees (Simonside Hills SSSI, LNR). It is not clear whether this site is within the SSSI and LNR.
NY686665	2016 AJR		Limestone quarry E of Walltown. 500++

Lythrum portula. Water Purslane has long been known from wet rocks at Shaftoe, but has recently colonised the drawdown at reservoir margins where it can occur in huge numbers.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Lythraceae			**Purple Loosestrife family**
Lythrum portula (L.) D.A.Webb			**Water-purslane**
Native			Locally scarce
NZ025525	2011 JBo		Derwent Reservoir. “literally millions” AJR. Known from the Durham side of the reservoir since 2008.
NY942788 NY934779 NY924783 NY926783 NY936786 NY937779	2009 CO & JO	2020 AJR	Folly Moss and Colt Crag Reservoir. “all along the reservoir margin between NY938777 and NY934779 and another population at NY938779”.
NZ055821 NZ055822	1872 JCo & ER	2016 AJR	Pond at Shaftoe (SNCI). Also by small flush.
NY701621	1897 JEH	2005 CI & WP	Broomhouse Common (Whitfield Moor, Plenmeller & Ashholme Commons, SSSI)
NZ05SW	1997 GS GS		Millshield
NZ007852	1978 GS		near Fawns
Onagraceae			**Willowherb family**
Circaea × *intermedia* Ehrh.			**Upland Enchanter’s-nightshade**
Native			Data deficient
Few recent records, declining and may only survive in about six sites. Found in woodland close to rivers and streams.			
NY7959	2019 EM & RFr		Cupola
NY798635 NY797634	1963 GS	2015 BH & GY	Allen Banks
NY949592	2014 NW & AJR		Ordley
NY6851 NY65SE	1974 GS	2014 QG	Lintley, Williamston to Barhaugh Burn
NY802598 NY804597	1963 GS	2013 GY	Stawardpeel Wood
NY683567	2011 PB		Towsbank
NY941645	2003 MH & AJR		Hexham, R Tyne gravels, S side E of Bridge
NZ05NE	1985 GS		Hindley Hall, near to
NZ28NW	1980 GS		Northstead Banks to Morpeth
NZ149866	1969 MSw & GS	1980 GS	River Font, opposite Broomy Banks
NZ28SE	1979 GS		Humford Mill
NY65SE	1975 GS		Thornhope Burn
NY86SW	1974 GS		Langley
NZ06SE	1974 GS		South bank, east of Bywell Bridge
NY74NE	1972 GS		Limestone Brae
NY86NE	1971 GS		old railway near Glendue

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY782573 NY782566	1969 GS	1971 GS	Monk Wood area
NZ143876	1969 GS		Pigdon Banks
NZ05NE	1968 GS		Mill Burn, to W of road
NZ06SE	1967 GS		Stocksfield Burn near Old Ridley
NY675583	1966 GS		Lambley
NY797641	1964 MSw & GS		Near Ridley Hall
NY686552	1964 GS		Snope Burn

Epilobium alsinifolium Vill. **Chickweed Willowherb**

Native Locally rare

One of the few arctic-alpine species found in South Northumberland.

NY807448	2012 BH & GY	2013 BH & GY	Whetstone Mea, Coalcleugh Moor . Only a few plants.
NY8312.4574	1969 GS	2012 BH & GY	Todd's Sike at 495 m (Allendale Moors SSSI). It grows in one of two small flushes that drain into Todd's Syke. An estimated 500+ stems grow in an area 10 × 1m.
NY84NW	1989 AS		Near Middlehope Burn. May refer to one of the above records.

Epilobium × haynaldianum Hausskn. **Epilobium alsinifolium × palustre**

Native Locally rare

First confirmed English site.

NY807448	2012 BH & GY	2013 BH & GY	Whetstone Mea, Coalcleugh Moor.

Epilobium lanceolatum Sebast. & Mauri **Spear-leaved Willowherb**

Native (Archaeophyte) Single recent site

NZ250640	2019 GW		St Nicholas Cathedral, Newcastle; several subsites on different sides.

Malvaceae Mallow family

Malva neglecta Wallr. **Dwarf Mallow**

Native (Archaeophyte) Locally scarce

NZ317879 NZ315880 NZ316881	1999 HE & CE	2012 AY & GY	Newbiggin-by-the-Sea
NZ307899	2011 BA, TA, JHa, BH, AY & GY		Lynemouth Power Station
NZ2263	2010 JBo		Elswick. One plant.
NZ319795	1937 GS	2019 AY & GY	Blyth, South Beach (Blyth to Seaton Sluice Dunes LNR). These sites have now been built upon but survives by road.
NZ38SW	1983 GS	2017 GY	North Blyth harbour
NZ38NW	1974 GS		Newbiggin golf-links

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Brassicaceae			**Cabbage family**
Arabis hirsuta (L.) Scop.			**Hairy Rock-cress**
Native			Near threatened; locally scarce
There were at least 10 pre-1987 sites but it is unlikely that *Arabis hirsuta* still occurs at more than five.			
NY784672	1976 CMW	2014 WG	Crindledykes quarry (NWTR). 200 plants.
NY914751 NY915751	1960 GS	2013 GY	Gunnerton Nick SSSI. Embankment near old quarry. Small group of five plants.
NY6862	2012 JA & JSu		On the wall by Wydon Eals Farm, just after small paddock.
NT958027	2011 QG		River Coquet at Holystone (River Coquet & Coquet Valley Woodlands SSSI). One plant.
NY6665	2008 AY & GY		Walltown Quarry. A Public recreation site owned by Northumberland National Park Authority. "One rosette in 2008 but not found in 2010" (GY).
NZ023888	1996 DHu		Gallows Hill
Cochlearia anglica L.			**English Scurvygrass**
Native			Locally rare
NZ314667	1989 GS	2011 AY &GY	Willington Gut
NZ2985	1972 AJR	1989 GS	Saltmarsh on North bank of River Wansbeck. Not found 2015, 2016, presumed extinct.
Crambe maritima L.			**Sea-kale**
Native			Locally rare
Sea-kale is very rare and scattered on the north-east coasts of England and the coast of Scotland. It has been planted on St Mary's Island, near Whitley Bay and these wild plants may have originated from there. However, there is an old record from Whitley Bay in 1948.			
NZ373692 NZ373693	2012 JBo	2016 BH, AY &GY	Single plants on the foreshore, Prior's Haven. Disappeared during 2019.
Draba incana L.			**Hoary Whitlowgrass**
Native			Locally extinct
Recorded at two sites in the 1920s by George Bolam (Swan 1993). Given that this species has never been recorded by anyone else, before or since, these records have to be treated with some suspicion.			
Erophila majuscula Jord.			**Hairy Whitlowgrass**
Native			Locally rare
This seems rather doubtfully native, given that its only site is artificial. The quarry is increasingly overgrown.			
NY8868	1988 GS		Fourstones, old limestone quarry
Lepidium campestre (L.) W.T. Aiton			**Field Pepperwort**
Native			Near threatened; locally scarce
This species has declined since the 19th century when Winch (1831) and Baker and Tate (1968) described its abundance as "not rare" and "not uncommon". It was a weed of cultivated ground, but all recent records have been from waste places.			
NY907661	2019 AJR	2020 AJR	Roadside at Low Cottages west of Low Warden. One plant in 2019, many more in 2020.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NZ328685 NZ327685 NZ322693	2000 AY & GY	2012 AY & GY	Dismantled railway at North Shields. Eleven plants in 2009, none in 2010, nine in 2011 & 3 in 2012. None in 2013, AY & GY.
NZ327686	2019 GY		Dismantled railway near Coast Road, North Shields
NZ336693	2012 AY & GY	2013 AY & GY	Billy Mill, garden weed.
NZ0764	1991 DH		Whittle Dene. One plant.

Lepidium coronopus (L.) Al-Shehbaz — **Swine-cress**
Archaeophyte — Locally rare

	2020 MW		
NZ1780	2014 QG		Saltwick
NZ328777	1975 GS	2001 AY & GY	Seaton Sluice, links north of car-park
NZ289825	2013 AJR		Blyth estuary

Lepidium didymum L. — **Lesser Swine-cress**
Colonist — locally rare

This casual may be becoming more frequent.

NZ31116.87793	2020 MW		Newbigin-by-Sea promenade
NZ20224.85922	2020 MW		Morpeth
NY943655	2018 SDa		West Oakwood, garden weed.
NY942639	2013 AJR		Hexham hospital
NZ2373	1989 DM		Seaton Burn waggon way

Lepidium heterophyllum Benth. — **Smith's Pepperwort**
Native — Locally scarce

NY621945	1985 GS	2010 QG	Chubbies Knowe, Kielder. On a disused railway.
NZ1764	2003 JO		Newburn Riverside
NZ148659 NZ149658	1970 GS	2000 AY & GY	Waste ground near Reeth Pond, Throckley (SNCI).
NZ093562	1972 GS	1988 GS	Broom Hill sandpit.
NZ1056	1985 GS		Broad Oak Farm

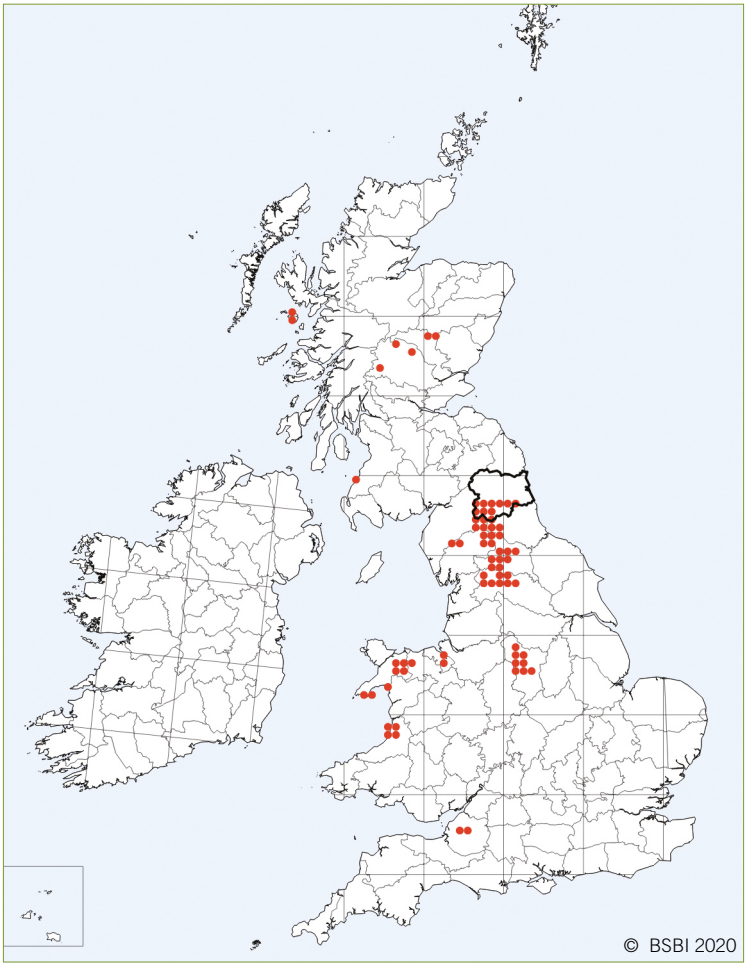
Lepidium latifolium L. — **Dittander**
Native? — Locally extinct

Noccaea caerulescens (J.Presl & C.Presl) F.K.Mey — **Alpine Penny-cress**
Native — Locally vulnerable

This montane species is found mainly along the South Tyne and its tributaries on soil polluted with heavy metals. South Northumberland holds a significant number of all the sites in Britain (substantially more than 20) and although this species is not locally scarce its sites are threatened by riverbank erosion, eutrophication and under-grazing. Nevertheless, it does seem to be able to colonise new sites.

Teesdalia nudicaulis (L.) W.T.Aiton — **Shepherd's Cress**
Native — Near threatened; locally extinct

Not uncommon in North Northumberland, but there is little suitable habitat in South Northumberland and it has not not been known since the 19th century



Map 4. Distribution map of *Noccaea caerulescens* in Britain and Ireland. Occurrence records are displayed at hectad level (10 km x 10 km). South Northumberland (VC 67) is outlined in bold black.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Turritis glabra L.			**Tower Mustard**
Native			Endangered; locally extinct
Known at several sites in South Northumberland in the 19th century and last seen in 1934. Swan (1993) considered it as native, but the habitats it occupied, such as walls and waste places, suggest it was introduced.			

Plumbaginaceae — Sea-lavender family

Limonium aff. humile Mill.			**Lax-flowered Sea-lavender**
Native			Recent colonist
Apparent long-distant colonist. The nearest locations on the east coast are in north Norfolk although it occurs frequently in the Solway. Although the plant keys down to *L. humile*, it has a morphology suggestive of *L. vulgare* and may well be a hybrid. This is typical of many populations containing both species. *L. vulgare* occurs on Teeside and on Lindisfarne.			
NZ319881	2020 MW		Newbiggin Point, rocks N of headland above high water mark. One large plant, two seedlings.

Limonium aff. humile. Sea-lavender. A single large plant and two seedlings were discovered close to Newbiggin-by-Sea Point in 2020. These are the first sea-lavenders ever to be recorded in VC 67. The plant was first identified as *L. humile*, Lax-flowered Sea-lavender, and seems to be self-fertile like that species, but may in fact be *L. humile x vulgare*. This hybrid commonly occurs where the parents grow together, further south on the east coast.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Polygonaceae — Dock family

Persicaria hydropiper (L.) Delarbre — **Water-pepper**

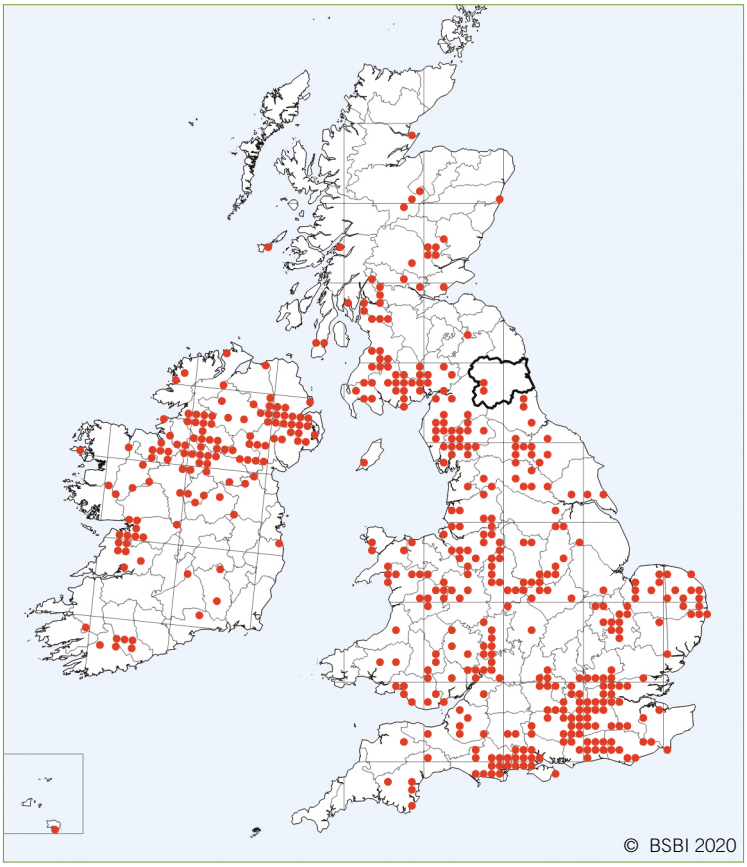
Native — Locally frequent and increasing.

Included here and mapped in the 2016 version of RPR. However, has been recorded in 14 sites since 2010, many of them new, and is no longer considered a scarce plant in VC 67.

Persicaria minor (Huds.) Opiz — **Small Water-pepper**

Native — Locally rare, needs revisiting at its classic sites.

NY795698	1968 GS	2008 WG	Broomlee Lough (Roman Wall Loughs SSSI). Nine plants in 2008 (AJR, 2008).
NY769698 NY773699 NY772695 NY772693 NY776701	1992 GS	2010 SH	Greenlee Lough (Roman Wall Loughs SSSI and NNR). Common and widespread on the southern and eastern shores (AJR, 2009).
NY930652	1992 GS		Tyne gravels in Hexham, apparently only casual.



Map 5. Distribution map of *Persicaria minor* in Britain and Ireland. Occurrence records are displayed at hectad level (10 km x 10 km). South Northumberland (VC 67) is outlined in bold black.

Persicaria minor. Least Water-pepper is one of several rare plants which are typical of the Roman Wall Loughs. An annual, it varies in quantity from one year to another.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Persicaria mitis (Schrank) Assenov			**Tasteless Water-pepper**
Native			Vulnerable; locally rare
NT70SW	1959 GS	1983 GS	Ramshope Burn
NZ0393 NZ0493	2016 AJR		Fontburn Reservoir, locally plentiful, mostly S side.

Bistorta vivipara (L)			**Alpine Bistort**
Native			Locally rare, perhaps extinct.
Between 1961 and 1992 GS found it at various places along the South Tyne between Kirkhaugh and Featherstone (Swan, 1993). However, there are few recent records, nor old records with exact localities.			
NY9049	1966 GS	2008 AJR	Heatheryburn (Hexhamshire Moors SSSI). "A small amount" AJR. 2008. Could not be found in 2020.
NY6949 NY6950	c. 1923 GB	1991 GS	Kirkhaugh and near Lintley. JO searched this site in 2008 and 2010, but could not find it.

Polygonum oxyspermum C.A. Mey. & Bunge			**Ray's Knotgrass**
Native			Locally extinct
The occurrence of this species is rather erratic and it could probably crop up on any of the Vice-county's sandy beaches, though it has not been found since the early 1970s. Records exist for Amble, Cresswell, Lynemouth and Newbiggin-by-the-Sea.			

Droseraceae — Sundew family

Drosera anglica Huds.			**Great Sundew**
Native			Endangered; locally rare
These sites are all part of the Kielder Mires SSSI and NNR. Needs revisiting in its classic sites.			
NY7071 NY7072	1966 AL	2007 WG	Hummel Knowe (Kielder Mires SSSI unit 26). Estimated to be 1000 plants in 2007.
NY7174 NY7175	1956 BHT	2014 GSi	Haining Head Moss (Kielder Mires SSSI unit 22). Estimated to be 500 plants.
NY7377	1968 AL	1993 GS	Felecia Moss (Kielder Mires SSSI unit 18).

Drosera × *obovata* Mert. & W.D.J.Koch			**D. rotundifolia × D. anglica**
Native			Locally rare
NY703714	2007 WG		Hummel Knowe (Kielder Mires SSSI unit 26)

Caryophyllaceae — Campion family

Cerastium arvense L.			**Field Mouse-ear**
Native			Near threatened; locally scarce
NZ306839 NZ309830 NZ309831 NZ306837	2016 DB	2017 GY	Cambois, dunes N from car park
NZ322787 NZ322786 NZ325780 NZ329773 NZ327776 NZ333773	1937 GS	2019 GY	Seaton Sluice Dunes & Meggie's Burn outflow (Blyth to Seaton Sluice Dunes LNR). Widespread.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NU277043	2012 GY		Amble dunes, one patch 1m × 1m.
NZ3085	2012 AY & GY	2016 AJR	Sandy Bay. "Several good patches" (GY).
NU283018	1982 GS	1988 CD	Togston Links (Druridge Bay Country Park)
NZ38SW	1978 GS	1983 GS	North Blyth
NZ38NW	1973 GS	1975 GS	Newbiggin to and north of Cambois

Cerastium diffusum Pers. **Sea Mouse-ear**

Native Locally scarce

Nationally, this species is stable on its coastal sites. However, it is threatened at its inland sites by eutrophication and changes in land use.

NZ273982	2018 AJR		East Chevington dunes
NZ273995 NZ274999	1988 GR	2016 AJR	Druridge Bay Country Park (Hadston Links SSSI)
NZ37327.69271 NZ371693	2000 AY & GY	2016 GW	Tynemouth Priory
NZ329773 NZ3278	2008 AY & GY	2012 AY & GY	Seaton Sluice dunes, near Gloucester Lodge Farm and Astley Arms (Northumberland Shore SSSI and Blyth to Seaton Sluice Dunes LNR)
NZ337767 NZ335768 NZ333768 NZ333779 NZ327777	1998 AY & GY	2019 AY & GY	Seaton Sluice
NU278041	2012 GY		Amble dunes
NY982805	2008 WG		Bavington Crags SSSI
NY76NW	1999 DH & TH		Cawfield, 1/2mile from (Roman Wall)
NU2405	1995 RF		Warkworth Castle
NU2904	1991 GS		Coquet Island SSSI
NZ28NE	1987 GS		River Wansbeck, south bank at Stakeford Bridge (Wansbeck Riverside Park).
NY6766	1980 HSJL & SP		Walltown Crags
NY9779	2015 AJR NW		Newonstead, only 1 plant
NZ2985	2015 AJR		Sandy Bay

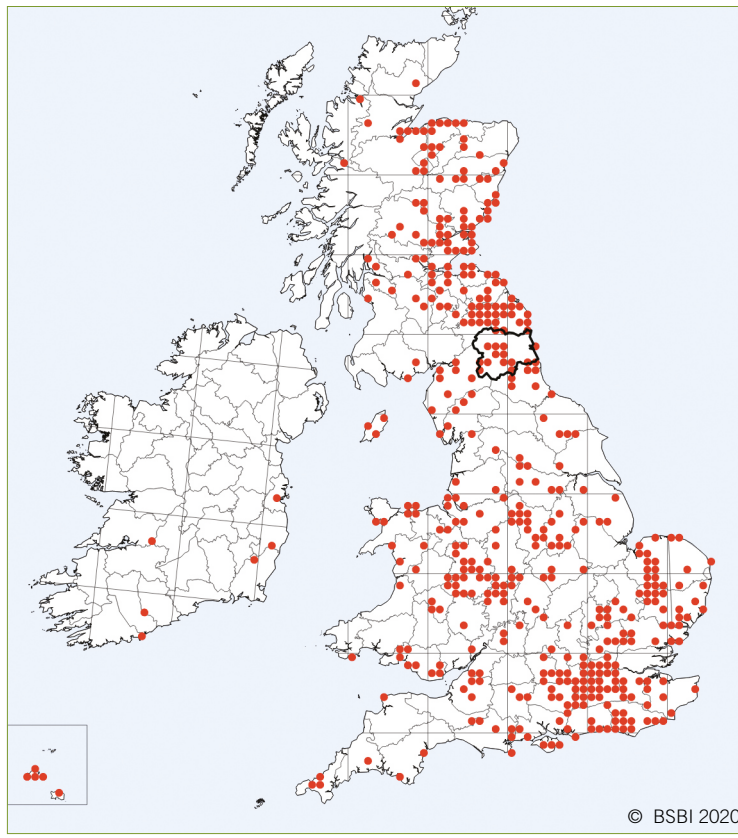
Dianthus deltoides L. **Maiden Pink**

Native Vulnerable; locally scarce

Threatened mostly by quarrying of whinstone, one of our most iconic native plants.

NY669658 NY668659	2015 BH & JHa		Walltown Nature Reserve
NY979802 NY979798 NY981797	1831 NJW	2017 NW	Newonstead. 100+ flowering.
NY945761 NY946760	1978 GS	2020 AJR	Colwell Quarry. 100+ flowering, 2016.
NY913749 NY915749	1807 FS	2009 AJR	Gunnerton Crags (Gunnerton Nick SSSI). Five plants found in 2009 (AJR). *Ex situ* seedlings introduced 2016.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY976795	1981 GS	2016 NW	Divethill, Clay Walls. A few.
NT80SE	(1963 GS)		Linshiels (Harbottle Moors SSSI). All current sites are on the north bank of the Coquet in North Northumberland.
NY9376	2016 NW		Reaver Crag. 'large population'.



Map 6. Distribution map of *Dianthus deltoides* in Britain and Ireland. Occurrence records are displayed at hectad level (10 km x 10 km) and coloured by record date class. South Northumberland (VC 67) is outlined in bold black

Dianthus deltoides. Maiden Pink is a most attractive late summer flower which is typical of several steep grassy slopes on the Whinstone. Several colonies have disappeared due to quarrying, and others may be threatened this way.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Honckenya peploides (L.) Ehrh. **Sea Sandwort**

Native Increasing.

Only 16 records between 1970 and 2016, but an additional 13 to 2019 including five new tetrads and no longer a candidate for RPR.

Polycarpon tetraphyllum **Four-leaved Allseed**

Native and colonist Vulnerable; very locally abundant

A remarkable discovery of this rare south-coast native, which is well-established in a limited urban area.

NZ358683	2019 GW		Stephenson and Tyne Streets, North Shields

Sabulina verna (L.) Hiern **Spring Sandwort**

Native Locally vulnerable

Sabulina (Minuartia) verna has been lost from former sites on whin outcrops, but remains fairly widespread on calaminarian grasslands and shingles in the Allen and South Tyne catchments, with more than 20 sites. However, it has been lost from all but one site downstream from Bardon Mill. As the riverside sites become eutrophicated and lose their toxicity, it is becoming scarcer.

Sagina maritima **Sea Pearlwort**

Native Locally scarce

Easily overlooked and should be sought especially on salted verges.

NY92896.84771	2019 AJR		Striddlehill Common, saline verge
NY8582.8915	2018 AJR		White Rigg, saline verge
NZ3672	2019 GW		Rockcliffe, Whitley Bay
NY851887	2016 AJR	2020 AJR	Hareshaw Head, saline verge, 308 m. Altitudinal record for British Isles.
NZ320790	2012 AY & GY		A193 roadside near South Beach.
NZ318880 NZ319880	1966 GS	2012 A & GY	Newbiggin-by-the-Sea
NU20SE	1997 GS		Amble
NZ36NE	1984 GS		Tynemouth
NZ3376	1971 GS		Seaton Sluice Harbour

Scleranthus annuus L. **Annual Knawel**

Native Endangered; locally scarce

This species is declining nationally and is suffering from eutrophication and land use changes. Its remaining sites in the county are small in area and isolated, but numerous in some years.

NT943020	2015 AJR & SR		Holystone Oaks .
NY982794 NY984794 NY982805 NY982804 NY980805 NY9780	1977 GS	2015 AJR & NW	Clay Walls crags, Divethill & Holm Crags .
NY679665 NY680665 NY682665	1972 GS	2017 A & GY, J & BH	King Arthur's Well & Walltown (Allolee to Walltown, SSSI). Estimated to be about 100 plants in 2008 (AJR). "a few only" (2011 GY), "Many hundreds, probably thousands in 2012" (AJR).

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY771679 to NY773680	1981 GS	2008 AJR	Hotbank (Roman Wall Escarpments, geological SSSI). More than 120 plants in 2008 (AJR).
NY76NW	1988 GS		Winshields
NZ093562	1972 GS	1988 GS	Broom Hill sandpit
NY894726	1976 GS	1984 GS	The Scroggs (SSSI). Lost when quarrying took place circa 1999.
NY9880	2016 AJR NW		Great Bavington. Possibly accidentally introduced from Holm Crags.

Scleranthus annuus. Annual Knawel is mostly found with us on very shallow but frequently wet soils above plates of whinstone rock. Populations vary between seasons, but can be very large. In many parts of the country it is threatened with extinction.

Silene gallica L. **Small-flowered Catchfly**

Casual Endangered; locally rare

Silene gallica has never been any more than a casual in South Northumberland and was only included due to its national status. The following record is apparently only the third for the vice-county.

NY836638	2009 JBo	Haydon Bridge by-pass. One plant.

Silene noctiflora L. **Night-flowering Catchfly**

Colonist Vulnerable; locally rare

Only casual in the vice-county.

NY97SW	1981 GS	River North Tyne, west bank near Humshaugh.

Silene uniflora Roth **Sea Campion**

Native Locally rare

Silene uniflora is common on practically the whole coast of the UK, except along the north-east coast of England from South Northumberland to South-East Yorkshire. It does however appear to be native as it was recorded in the 19th century (Winch 1831). It may occur on Coquet Island, but the island is rarely surveyed and only a handful of records exist.

NZ317880 NZ317879	2013 AJR	2019 AJR	Newbiggin Point. More than 30 plants, probable introduction.
NZ364712 NZ363713	2013 JA	2014 AJR	Cullercoats. Probably introduced to this site.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Stellaria aquatica L.			**Water Chickweed**
Native			Locally rare
Not recorded by Swan (1993) in VC 67, but has established in three localities since the Millenium			
NZ0835.8150	2006 CI		Bolam Low House
NZ3348.7522	2007 HE & CE	2009 WG	Holywell Dene
NZ2647.8157	2009 A&GY HE & CE		R Blyth near Bedlington

Stellaria neglecta Weihe			**Greater Chickweed**
Native			Locally scarce
At the northern limits of its range in the UK. Favours wet disturbed ground at the edge of woodland. Probably overlooked.			
NZ350736	2019 A & GY		Whitley Bay, small stream.
NY681741	2017 WG		Lampert, wet wood edge above R. Irthing.
NZ231736	2015 AJR		Big Waters
NZ3175	2015 AJR		Holywell Pond
NZ0255	2006 WG		Minsteracres
NZ2890	1983 GS		Wooded banks of the River Lyne "plentiful" (Swan, 1993)
NZ1398 NZ1599	1983 GS		South bank of the River Coquet at Weldon Bridge (River Coquet & Coquet Valley Woodlands SSSI). These are doubtful sites, see Swan, 1993.

Stellaria palustris Ehrh. ex Hoffm.			**Marsh Stichwort**
Native			Vulnerable; locally extinct
Formerly at Prestwick Carr before it was drained (Baker & Tate 1868).			

Amaranthaceae — Amaranth family

Atriplex glabriuscula Edmondston			**Babington's Orache**
Native			No threat, locally vulnerable
This species appeared in earlier versions of RPR, perhaps because it was under-recorded due to confusion with *A. patula* forms. Populations fluctuate wildly in this annual and it some years it can be difficult to find and in others it is abundant. It occurs right round the coasts of Britain and Ireland and there is no justification for featuring it here.			

Atriplex laciniata L.			**Frosted Orache**
Native			No threat, apparent increase.
Having received only about 10 records prior to 2010, this conspicuous and easily identified species has received 22 records in the last decade. Again, populations fluctuate wildly, but in 2019 and 2020 plants could be found in almost every suitable maritime habitat in the vice-county, often in abundance. It is now recorded from every maritime hectad and most maritime tetrads in the county. Anecdotal evidence would suggest that it has become much more common in recent years.			

Atriplex longipes Drejer			**Long-stalked Orache**
Native			Nationally scarce; locally rare
NZ272979 NZ27143.98186	2011 AJR	2018 BSBI	East Chevington (Druridge Bay Country Park & Hadston Links SSSI). In 2016, 4 flowering, several probable seedlings and several hybrids.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Atriplex praecox Hülph			**Early Orache**
Native			Critically endangered; locally rare
A subarctic species, the southernmost sites on the east coast.			
NU28244.01686	2017 AJR		Hadston. Was not found in 2018-20
NZ273987 NZ273991 NZ273995	2011 AJR	2016 AJR.	East Chevington. A total of nine plants (Druridge Bay Country Park & Hadston Links SSSI) in 2011. Only one found in 2016. Not found in 2017-20.
Atriplex portulacoides L.			**Sea-purslane**
Native			Locally scarce
At the north limits of its British range. It is not abundant at any of its sites and is rather poorly recorded, probably because it is not considered uncommon.			
NZ302853 NZ294854 NZ295854 NZ296854 NZ297854	1972 AJR	2016 AJR	Sandy Bay, North Seaton Colliery
NU2604	1985 GS	2012 QG	The Braid, Amble
NZ320817	2002 QG	2017 GY	North Blyth
NZ28W	1999 AY & GY		Sleekburn
NZ287939 NZ2893	1974 GS	1995 NCC	Croft Letch & mouth of Blakemoor Burn (Cresswell Ponds SSSI)
NZ273975 NZ2798	1988 CD	NCC 1995	Chibburn Mouth, Chibburn (Druridge Bay country park & Hadston Links SSSI)
NZ304908	1972 AJR		Lynemouth
Beta vulgaris subsp. *maritima* (L.) Arcang.			**Sea Beet**
Native and colonist			Locally rare
Towards the north-eastern limits of its distribution in the British Isles. Last previous record 1971.			
NZ271981	2020 AJR		Chibburn Mouth, East Chevington. One plant.
NZ312824	2019 MW		Between Cambois beach and N Blyth.
NZ3494.725	2014 GW		Whitley Sands. Disappeared 2019.
Blitum bonus-henricus (*L.*)			**Good-King-Henry**
Naturalised hortal			Vulnerable; locally vulnerable
Included due to its national status. However there are at least 15 sites recorded since 1987 and it is not considered threatened in South Northumberland. It is often found near houses and farms as a relic of cultivation.			
Chenopodium glaucum L.			**Oak-leaved Goosefoot**
Colonist			Vulnerable; locally extinct
Included owing to its national status, only casual in South Northumberland, last recorded in 1929 (BEC).			
Oxybasis rubra (L.)			**Red Goosefoot**
Native			Locally scarce
Probably under recorded, it grows in ruderal locations in the east of the vice-county.			
NZ28918.62996	2017 AJR		Walker, Riverside Park
NZ2979	2016 QG		Chevington Burn, near mouth

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY924783 NY936786 NY937779 NY942788	2013 AM		Colt Crag Reservoir
NZ0672	2011 AJR		How Burn, Fenwick
NZ291854	2010 QG		North Seaton Colliery (Wansbeck Riverside Country Park). Scattered plants, particularly on bare ground near rabbit burrows.
NY941642	2010 AJR		Hexham railway station yard.
NZ363685	2008 WG		Low Lights quayside
NY7885	1999 GS		Chirdonburn Bridge
NZ2894	1983 MWa	1988 GS	Cresswell ponds SSSI
NY98A	1988 AJR		The Waterfalls area.

Salicornia Glassworts

Salicornia are difficult species to identify, further complicated by historic changes in the species concepts. Nevertheless, it is clear that taxa from both the *S. europaea* agg. and the *S. procumbens* agg. grow in the vice-county. Indeed, *Salicornia* is abundant along the shore of the Blyth estuary, perhaps more so than formally. Nevertheless, all are threatened by coastal developments such as the construction of sea defences and dredging. There are few records for the last decade and the genus is in need or review in the county.

Salicornia dolichostachya Moss			**Long-spiked Glasswort**
Native			Locally rare
NZ28SW NZ2982	1999 AY & GY	2013 AJR	Sleekburn and Blyth Estuary SSSI
NU2604	1983 GS		The Braid

Salicornia europaea L.			**Common Glasswort**
Native			Locally rare
NZ2982 NZ2983	1983 GS	2011 JO & QG	Sleekburn and Blyth Estuary SSSI
NU2604	1983 GS		The Braid

Salicornia fragilis P.W.Ball & Tutin			**Yellow Glasswort**
Native			Locally rare
NZ2982 NZ2983 NZ3083	1987 GS	2011 JO & QG	Sleekburn and Blyth Estuary SSSI

Salicornia ramosissima J.Woods		**Purple Glasswort**
Native		Locally rare
Taxonomic authorities differ in the boundaries between *Salicornia ramosissima* and *Salicornia europaea*. It might be that the records for these species refer to the same taxon.		
NZ2982	1999 AY & GY	Sleekburn and Blyth Estuary SSSI
NZ3376	2009 WG	Holywell Dene LNR

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Salsola kali subsp. *kali* L.			**Saltwort**
Native			Increasing, locally scarce but abundant.
In common with some other formerly localised strand species, has increased spectacularly in the last few years and is now a common sight on many sandy beaches in the county.			
NU278008 NZ273996 NZ272988 NZ271980	2020 AJR		Druridge Bay
NZ320796 NZ320798	2018 GY	2019 AJR	South Beach, Blyth
NZ327778	2017 GY		Hartley Links
NZ321789	2017 GY	2019 GY	Meggies Burn to South Beach
NU2803	2009 AJR	2020 AJR	Hauxley NWTR (Amble Dunes LNR & Northumberland Shore SSSI)
NZ2798	1983 GS	2019 AJR	Mouth of Chevington Burn and Chibburn Mouth (Druridge Bay country park & Hadston Links SSSI)
NZ38NW	1998 GS		Unknown
NZ2799	1983 GS	2019 AJR	Hadston Links (Druridge Bay country park & Hadston Links SSSI)
Suaeda maritima (L.) Dumort.			**Annual Sea-blite**
Native			Locally scarce
NZ2985	2010 QG	2016 AJR	Mouth of the River Wansbeck. Scattered over a small area of saltmarsh.
NZ28W	1999 GS	2010 QG	River Blyth Estuary & Sleekburn (Northumberland Shore SSSI). Common along the shore of the estuary.
NZ334765	1990 AY & GY	2019 GY	Seaton Sluice saltmarsh (Holywell Dene LNR). Four plants in 2011.
NZ320817	2002 QG		North Blyth
NZ2798	1988 CD	2020 AJR	Chibburn Mouth (Druridge Bay country park & Hadston Links SSSI)

Cornaceae — Dogwood family

Cornus suecica L.			**Dwarf Cornel**
Native			Near threatened; locally rare
NZ023987	1976 EE	2014 WG	Simonside, north of summit (Simonside Hills SSSI). "Best flowering/fruiting site in VC 67 & VC 68" (GY)

Balsaminaceae — Balsam family

Impatiens noli-tangere L.			**Touch-me-not Balsam**
Native or naturalised hortal			Locally rare
NY9262	1996 JA & CI		Hexham, Cockshaw Burn. "long gone" (CI, 2010)
NZ087819	1986 CC	1987 GS	Wood near Bolam

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Primulaceae — Primrose family

Lysimachia tenella L. — **Bog Pimpernel**

Native — Locally rare

May now survive at only one location.

NY927609	2012 AJR	2016 AJR	Dipton Mill, a patch about 2.5 m across in each direction, spreading 2016. Not found 2019.
NY971868	1977 AJR	2011 AJR NW	Chesters Burn. “not very much; two patches” AJR (2011).
NU2700	1965 GS	2002 GS	Hadston Links SSSI
NY96	1921 RBC		Dipton Wood

Primula farinosa L. — **Bird’s-eye Primrose**

Native — Near threatened; locally extinct

NZ077665	1846 JFB	1987 AJR & GS	Spital. This site was visited in 2009, but *P. farinosa* could not be found (AJR).

Samolus valerandi L. — **Brookweed**

Native — Locally extinct

Last recorded in 1972 by AJR, and Swan (1993) thought it probably was extinct. It has not been recorded since, but has several thriving stations in the north of the county.

Ericaceae — Heather family

Arctostaphylos uva-ursi (L.) Spreng. — **Bearberry**

Native — Near threatened; locally rare

While widespread in Scotland, this species is rare in England where there are only a few isolated populations.

NY967532 NY969532 NY969531 NY970532	1807 WR	2014 TC	Ravens Crags and Potter Burn (Muggleswick, Stanhope & Edmundbyers Commons & Blanchland Moors SSSI)
NY966969 NY966968 NY966971 NY966970 NY969970	1839 Anon.	2008 WG	Crags below Key Heugh and near Darden Burn (Simonside Hills SSSI)

Hypopitys monotropa subsp. *monotropa* Crantz — **Yellow Bird’s-nest**

Native — Endangered; locally rare

Found once in the 19th century and then considered extinct, but now apparently resurgent at one site.

NY854686	2008 AJR	2012 AJR & NW	Stonecroft mine on the Settlingstones mine SSSI. Nine plants in 2008, at least 20 in 2010 & at least 100 in 2011 (AJR). Not seen since 2015 and probably extinct here.
NY825659 NY826660 NY827660	1996 LCC	2020JBo	Honeycrook Burn. Originally,17 spikes were found, but this has since increased. 68 spikes in 2007 (WG); and many more in 2020 (JBo).

Hypopitys monotropa. Yellow Bird's-nest. Both of our colonies of this strange saprophyte have occurred in plantations on metal spoil. It still thrives at one location.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Pyrola media Sw.			**Intermediate Wintergreen**
Native			Endangered; locally rare
There have been no records in the last decade and may now be extinct in the county.			
NY966968	1991 GS	2008 WG	Darden Burn (Simonside Hills SSSI). Six flowering spikes seen in 1993 (Swan, 2001).
NY7266	1969 LCC	1991 GS	Thorny Doors, Cawfield Crags (Roman Wall Escarpments, geological SSSI)
NZ055493	1918 KB	1984 GS	The Sneap (Derwent Gorge and Muggleswick Woods NNR & SSSI)

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Pyrola minor Sw.			**Common Wintergreen**
Native			Near threatened; locally scarce
This species has been recorded from a number of new sites in recent years. It is able colonise conifer plantations and is tolerant of heavy metal pollution. However, it is known to have become extinct at several sites for no obvious reason.			
NZ236831	2019 MW		Bothal
NZ2088.7619	2019 MW		Pegswood Lake
NZ15120.73452	2016 JB RB	2017 JB	Limestone Lane, Ponteland.
NY96937.60470	2017 LKo	2020 AJR	Dipton Forest. A very large population.
NY796629	2015 GY		Allen Banks
NY853687 NY854688 NY85500.63650	1974 GS	2019 AJR	Settlingstones SSSI.
NY927778	2013 AM		Next to Colt Crag Reservoir
NZ05V	2011 KC		West bank of River Derwent
NZ040900	1958 GS	2016 WG	Rothley Lakes
NY621945	2010 QG		Chubbies Knowe, Kielder
NY631925 NY632926	2002 GSi, AY & GY	2008 WG	Kielder viaduct
NY9462	1995 AY & GY	2000 AY & GY	Ochrelands Cross-roads. Extinct from about 2005.
NZ167823	1991 GS		Cockhill Plantation Searched for in 2012 but not found NF.
NY88NE	1975 GS	1984 GS	Near West Woodburn and on a dismantled railway near Cragg Farm. Perhaps two different sites, but it is not clear from the records.
NZ0356	1984 GS		Wild Wood
NY9463	1977 GS		Halfmile Wood
NY96SW	1973 GS	1975 GS	West Dipton Burn. Not seen for many years.
NZ27SE	1972 GS		Gosforth Park SSSI. Not seen for many years.
NY76SE	1974 GS		Kingswood Cleugh

Vaccinium microcarpum (Turcz. ex Rupr.) Schmalh.			**Small Cranberry**
Native			Waiting list; locally rare
Difficult to separate from *Vaccinium oxycoccus* and more work should be done before this species is considered extinct in the county.			
NY7982	1974 GS	GQ 1992	Mesling Crags. Swan (1993) stated that this species was “almost extinct” at this site.

Vaccinium uliginosum L.			**Bog Bilberry**
Native			Locally rare
NY571865	2009 AJR, JO & QG		Glendhu Hill (Kielder Mires SSSI, unit 3). One small plant.
NY6466	1868 BT	1979 GS	Baron House Bog
NY6469	1955 DR	2011 AJR & FJR	Butt Rigg (Irthing Gorge SSSI). One bush (2002, RC). What is believed to be the remaining plant is on an inaccessible cliff and further visits are required to ensure its identity.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Rubiaceae — Bedstraw family

Galium boreale L. — **Northern Bedstraw**

Native — Vulnerable; locally scarce

Most of our sites for this northern subalpine are on rocks close to lowland rivers. Formerly known from the Irthing, South Tyne, Tyne, Beldon Burn and Derwent, it is now almost confined to the North Tyne and has become much rarer.

NY997660	1971 AJR	2020 AJR	Nether Warden
NY921731 NY93337.72976	2015 AM	2020 J&RBo	Barrasford
NY0750	2013 JD		Allensford Bridge
NY783853	2015 AM		Chirdonburn Bridge
NY917730	2004 AY GY	2015 AJR	Haughton Castle
NY907731 NY905732	2006 GY AJR		Riverhill
NZ0063	2002 JD		Thornborough Scar
NY9073	2004 MEB		Long Rack, Haughton
NY9173	2004 MEB		Coldwell Wood, N Tyne
NY811846	1993 SP		Hesleyside
NY641684	1805 NJW	1993 GS	Wardrew, Irthing
NY686748	1992 DJ		Lampert, Irthing
NY634682	1992 SM	1992 SM	Irthing Gorge

Galium sterneri Ehrend. — **Limestone Bedstraw**

Native — Locally vulnerable

This species has perhaps been overlooked in its main habitat in the county, river gravels on the South Tyne and elsewhere and there are a number of recent records.

NY94345.91423	2018 AJR DH		Benshaw Moor NR
NY652702	2018 WG		Forsters Hill
NY8867	2016 JD		R S Tyne SW of Fourstones
NY670660	2014 AJR & NW		Walltown Nature Reserve
NY6862	2015 AJR & NW		Burnfoot river gravels
NY681520	2014 AJR	2017 NW	Williamston
NY723499	2012 AJR		Kate's Well
NY970544	2010 AJR		Winnows Hill. "several patches" AJR.
NY6949	1971 GS	2008 CO & JO	Near to Kirkhaugh
NY708637	1989 MSw & GS	2014 AJR plant not found	River South Tyne, south bank near Haltwhistle
NY65NE	1984 GS		Eals
NY74NW	1966 GS	1977 GS	Gilderdale
NY65SE	1974 GS		Barhaugh Burn
NY76SE	1971 GS		Riverbank near Bardon Mill

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Galium tricornutum Dandy			**Corn Cleavers**
Casual			Nationally Critically endangered, locally extinct
Only mentioned due to its status in the England Red-list, but never established in the county.			
NZ26	c. 1829-1856 WGo		Newcastle-upon-Tyne

Gentianaceae — Gentian family

Centaurium littorale (Turner ex Sm.) Gilmour			**Seaside Centaury**
Native			Nationally scarce; locally extinct
Some unconfirmed records exist from the 1980s from the East Chevington part of Hadston Links.			

Centaurium pulchellum (Sw.) Druce			**Lesser Centaury**
Native			Locally rare and probably extinct.
In need of a targeted survey. The site name does not closely match the given grid reference however, as an annual its site may change location readily.			
NZ273990	1991 GS		Near the mouth of Chevington Burn (Druridge Bay country park & Hadston Links SSSI). Looked for in recent years and not found.

Gentianella amarella subsp. *septentrionalis (Druce) N.M.Pritch.*			**Autumn Gentian**
Native			Vulnerable; locally rare
NU273000 NZ273003	2017 AJR		Druridge Bay CP (Druridge Bay country park & Hadston Links SSSI)
NZ272986 NZ272988	2014 AJR	2016 GY	East Chevington (Druridge Bay country park & Hadston Links SSSI)

Gentianella campestris (L.) Börner			**Field Gentian**
Native			Endangered; locally rare
This species has declined severely in South Northumberland and may become extinct here soon. It requires open patches in mineral-rich turf which are disappearing due to atmospheric nitrogen deposition. However, two new sites have recently been found in the Cheviots and it should be sought for there.			
NT6815.0325	2015 CI		Whitelee
NT68130310	2015 CI		Battlinghope Burn
NY849464 NY849465 NY850464 NY850465 NY850467 NY851465	1963 GS	2020 LM	Bell's Grove, near Dirt Pot. Three patches originally, only one surviving in 2020 (LM). 44, 2012 BH & GY. >80, 2015 AJR. <20 in 2016.
NY815532	2002 MB		Dryburn Moor (Allendale Moors SSSI). Not found when AJR searched this site in 2008 and GY & BH searched it in 2012.
NY826537	1985 GS		Haggburn Gate SSSI. It has been looked for repeatedly, but is almost certainly extinct here.

Gentianella campestris. Field Gentian was formerly not that uncommon in well-drained upland localities, but it has become almost extinct in our county, hanging on at one site where it is closely monitored.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Boraginaceae — Borage family

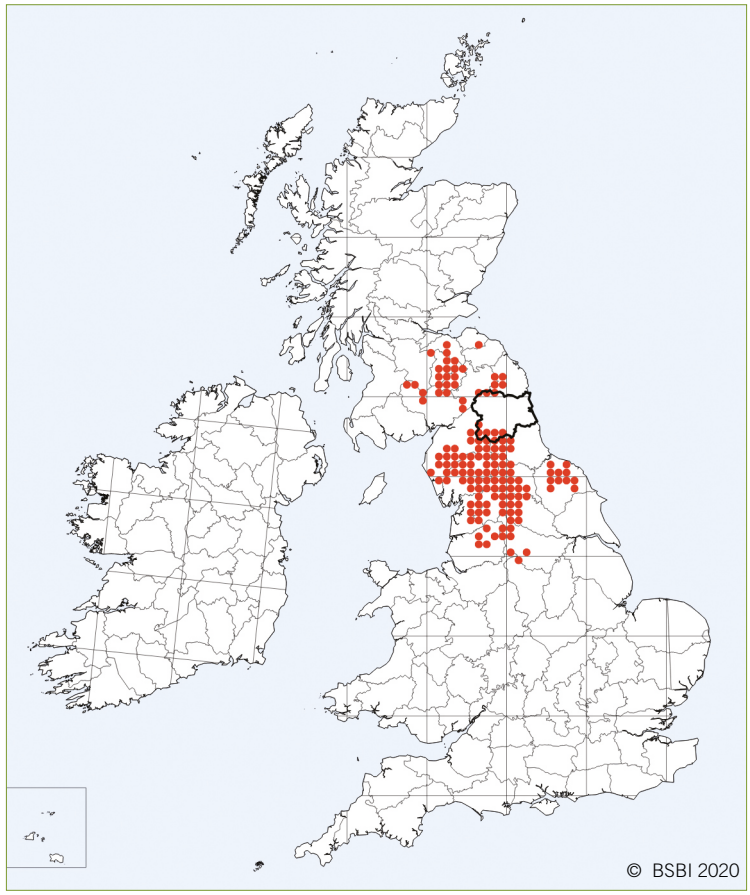
Cynoglossum officinale L. — **Hound's-tongue**

Native — Increasing, vulnerable

Hound's-tongue was stated by Swan (1993) to be 'rare' in VC 67. It has undoubtedly become much more common on the northern half of the coast in recent years, and occurs frequently in sand-dunes from NZ2794 north to the Coquet. There is only one recent record inland, from Hogger's Cleugh, NY9397, 2017 WG.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Myosotis stolonifera (DC.) J.Gay ex Leresche & Levier			**Pale Forget-me-not**
Native			Locally scarce
After a flurry of records between 2010 and 2015, in the absence of targeted searches it had not been recorded until several new finds in 2020. A decreasing Pennine speciality, know outside Britain only in N. Iberia.			
NY91122.52893	2020 MH		Lilswood Grange
NY90518.54311 NY905537	2020 MH		Whitehall Sike
NY832448 NY834448 NY832449 NY837453 NY837454 NY83764.45315	1969 GS	2020 LM	Middlehope Moor, near Carriers Way, Roundhill Sike & Hefty Well, with *M x bollandica.*
NY671480	2012 PB		Grey Nag
NY808452	2012 BH & GY		Whetstone Mea
NY929507 NY930509 NY927510 NY926511 NY929512	2012 MH & AJR		Blackburn Head
NY797468 NY798468 NY800468 NY801468	1968 GS	2012 BH & GY	Smallburns Moor
NY9752 NY971533	1992 GS	2012 MH	Acton Burn
NY678468 NY679467 NY671471	1969 GS	2010 JO	Above Woldgill Scar and below Watchcurrick Spring.
NY84SW	1989 GS		Coalcleugh Moor
NY902517	1975 GS		Stobbylee Burn. Searched for in 2011 but not found (AJR).
NY913505	1972 GS		Beldon Cleugh. Searched for in 2011 but not found (AJR).

Myosotis stolonifera. Pale Forget-me-not. This scarce and decreasing plant of montane springs and rills has a remarkable distribution, being confined to the mountains of northern Spain and Portugal, the Pennines, North York Moors and the Southern Uplands of Scotland. Several new sites have been found recently in our county where it often hybridises with *M. secunda* (Creeping Forget-me-not).



Map 7. Distribution map of *Myosotis stolonifera* in Britain and Ireland. Occurrence records are displayed at hectad level (10 km x 10 km). South Northumberland (VC 67) is outlined in bold black

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Convolvulaceae — Bindweed family

Calystegia soldanella (L.) R.Br.			**Sea Bindweed**
Native			Vulnerable; locally rare
NZ321789	1973 JP	2019 AY & GY	South Beach, dunes at Meggie's Burn outflow (Blyth To Seaton Sluice Dunes LNR). 20+ flowering plants.
NZ2798	1988 CD		Chibburn Mouth (Druridge Bay country park & Hadston Links SSSI). Presumed extinct here.

Cuscuta epithymum (L.) L.			**Dodder**
Casual			Vulnerable; locally extinct

Solanaceae — Nightshade family

Hyoscyamus niger L.			**Henbane**
Archaeophyte			Vulnerable; locally extinct
NZ36NE	1822 HL	1844 JSy	Tynemouth

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Veronicaceae — Speedwell family

Linaria × sepium G.J.Allman — **L. vulgaris × L. repens**
Native — Locally extinct

NY912662	1972 GS		Old railway, west of Bridge End

Veronica catenata Pennell — **Pink Water-speedwell**
Native — Locally extinct

NZ29	1972 AJR		Ellington Pond. Searched for several times since.

Callitrichaceae — Water-starwort family

Callitriche obtusangula Le Gall — **Blunt-fruited Water-starwort**
Native — Locally scarce

Callitriche spp. cannot be reliably identified without flowering and/or fruiting material, which is best confirmed using good optical equipment and Northumberland populations are notoriously shy-flowering. Most records accepted here are from GS who had their identity verified by an expert.

NZ232849	1984 GS	1989 GS	Near Hepscott and Healeywood
NZ28SE	1983 GS	1987 GS	Sleekburn
NZ244840	1984 GS		Willow Burn Pasture SSSI
NZ1676	1983 GS		River Pont

Callitriche hermaphroditica L. — **Autumnal Water-starwort**
Native — Locally scarce

NZ0582	2011 AJR		Shaftoe Crags SNCI
NY7667 NY7668	1942 JHH & WC	2017 RVL	Crag Lough (Roman Wall Loughs SSSI)
NZ19B	1970 GS	1992 CP & PH	Rayburn Lake SNCI
NZ0881	1942 KB	1984 GS	Bolam Lake Country Park
NZ0589	1984 GS		Rothley Park Lake
NY77SW	1983 GS		Cadgeford
NZ116986	1980 GS		River Coquet, pond on south bank, north of Brinkburn
NY76NE	1971 GS		Broomlee Lough (Roman Wall Loughs SSSI)

Lamiaceae — Dead-nettle family

Clinopodium acinos (L.) Kuntze — **Basil Thyme**
Native — Vulnerable; locally extinct

Galeopsis angustifolia Ehrh. ex Hoffm. — **Red Hemp-nettle**
Colonist — Critically endangered; locally extinct

Galeopsis speciosa Mill. — **Large-flowered Hemp-nettle**
Colonist — Vulnerable; locally extinct

Lamium confertum Fr. — **Northern Dead-nettle**
Casual — Endangered; locally extinct

Only two known observations and last recorded in 1967.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Lamium hybridum Vill.			**Cut-leaved Dead-nettle**
Archaeophyte			Locally scarce, recent increase
This species may have been more common in the past, but historical records are largely from waste places and ballast hills (Wallis 1769; Winch 1831; Baker and Tate 1868). There are number of new records from urban sites in the south-east of the county suggesting that it may have been overlooked until recently.			
NZ341758	2020 WG		Old Hartley, Delaval Arms
NZ2535.6438	2016 GW		Manors Business Park
NZ3416.6872	2017 GW		Balkwell, North Shields
NZ3480.7383	2017 GW		Whitley Bay
NZ3225.6868	2017 GW		Silver Link
NZ3450.7015	2020 GW AJR		Preston Grange
NY918728	1995 MB		Haughton Castle, old walled vegetable garden
Lycopus europaeus L.			**Gipsywort**
Native			Locally scarce
This species is apparently increasing in the vice-county, particularly around Newcastle, though it usually has been introduced. Swan (1993) noted only one extant site, but it has benefited from the designation of nature reserves and the formation of ponds.			
NZ275709	2016 GY		Killingworth, large lake
NZ308725	2016 GY		West Holywell Pond.
NZ141649	2019 AJR GY		Leazes Park, Newcastle
NZ249816	2016 JLD		Woodside, Widdrington
NZ144945	2014 QG		Longhorsley pond (introduced)
NZ215716 NZ2271	2002 AY & GY	2018 LKo GY	Havannah LNR (SNCI). Rare in the reserve, but at several locations.
NZ265696	2011 JBo		Pond at West Baliol business park
NZ2163	1996 AY & GY	2007 AJR	Benwell Nature Park (LNR)
NT9900 NU0001	2006 JD	2018 JLD	Caistron lakes (River Coquet & Coquet Valley Woodlands SSSI)
NZ2394	2003 NF		Stobswood
NZ2471 NZ2472	2003 SW		Sacred Heart Fen and Pond (SNCI)
NZ3467	2001 JD		Royal Quays Pond
NZ3069	1996 DM, DC & LK		Rising Sun Country Park, Swallow pond LNR
NZ2298	1991 ASa	1991 GS	Chevington Wood, small pond.
Nepeta cataria L.			**Cat-mint**
Native			Vulnerable; locally extinct
Salvia verbenaca L.			**Wild Clary**
Native			Near threatened; locally rare
Swan (1993) considered this species native, but commented that it has been cultivated as a medicinal herb. All of the current and historic sites are near habitation and could be escapes from cultivation.			
NZ371693	1805 NJW	2016 AJR, BH & GY	Tynemouth Priory. Six plants at top of bank but none to be seen on the bank where there used to be more that a hundred plants in the mid to late 1990s.
NY840483	2012 AJR & NW		Thorneyknowe Quarry, a single plant, presumably a garden escape.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Scutellaria minor Huds.			**Lesser Skullcap**
Native			Locally rare.
Probably extinct here, but needs a thorough targeted search. Inaccessible from the north.			
NT903032	1987 GS	1991 GS	Black Cleugh (Harbottle Moors SSSI)
Stachys arvensis (L.) L.			**Field Woundwort**
Colonist			Locally rare
Not recorded for many years, but with two recent records.			
NZ2329.6527	2017 LKo		Nun's Moor, Newcastle
NZ322685	2017 GW		Silver Link

Orobanchaceae — Broomrape family

Euphrasia arctica subsp. *arctica* Lange ex Rostrup			**Arctic Eyebright**
Native			Data deficient; locally scarce
A rather dubious taxon, not easily separated from the much commoner subsp. *borealis*.			
NY706637	2014 AJR		Haltwhistle
NY67N	2008 CO & JO		Windy Hill
NY65R	2008 JO		Slaggyford
NY6949	2008 CO & JO		Near Kirkhaugh
NY956503	2007 JO		Coat House Farm
NY955515	2007 JO		Pennypie
NY828536	2007 JO		Haggburn Gate SSSI
Euphrasia micrantha Rchb.			**Slender Eyebright**
Native			Stable or increasing.
A plant of dry, nutrient poor, acid soils, frequent beside forest tracks. It has been Under-recorded, but there have been 20 localised records over the last decade and it is no longer considered a RPR species.			
Euphrasia officinalis subsp. *monticola* Silverside			**Montane Eyebright**
Native			Vulnerable; locally scarce
Neither of the two subspecies of *E. officinalis* in the county are common and are associated with species-rich upland meadows. Subsp. *monticola* (*E. montana*) is mostly found south and east of the S Tyne gap and subsp. *pratensis* (*E. rostkoviana*) north of this.			
NT793070	2013 NW & AJR		Canker Cleugh
NY836477 NY839480	2012 NW & AJR		Swinhope Burn
NY904494	1967 GS	2009 AJR	Heatheryburn Bank SSSI
NY665525 NY667524 NY663518	1963 GS	2008 JO	Knar Burn (Aules Hill Meadows SSSI)
NY973834	1972 GS		Crook Dean

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Euphrasia officinalis subsp. pratensis Schubl. & G. Martens			**Rostkov's Eyebright**
Native			Vulnerable; locally scarce
NY68102.74119	2017 WG		Lampert
NT91654.06056	2017 WG		Barrow Wood meadow
NY0596	2014 BB	2017 AJR	East Kielder Farm
Euphrasia tetraquetra (Bréb.) Arrond.			**Western Eyebright**
Native			Near threatened; locally scarce
NZ27245.98000	2018 AJR		Chibburn mouth (Druridge Bay country park & Hadston Links SSSI)
NZ272983	2014 AJR		Hadston Links (Druridge Bay country park & Hadston Links SSSI)
NU285023	2013 AJR	2020 AJR	Low Hauxley NR
NZ38NW	1966 GS		Newbiggin-by-the-sea
Orobanche hederae Duby			**Ivy Broomrape**
Colonist			locally rare
Usually a hortal, introduced with ivy varieties.			
NY943651	2013 WG	2020 JBo RBo	Bridge End, Hexham.
NZ235658	2012 AJR		Moorbank garden, Newcastle. This garden has been destroyed by the Freemen of the City of Newcastle.
NZ280693	2007 AJR		Lyndhurst Road, Benton
Orobanche rapum-genistae Thuill.			**Greater Broomrape**
Native			Vulnerable; locally scarce
This species should perhaps be considered rare as there are so few plants at each site. Furthermore, the sites are vulnerable to clearance of Gorse. It has not been seen at known sites for several years.			
NZ0152	2007 AM	2009 AM	Cronkley Bank. From 2 to 6 plants.
NY926575	1976 MP	2013 WG	Near Whitley Chapel. Not found recently.
NY927609 NY930611 NY931611 NY931612	1868 BT	2016AJR	Dipton Mill. From 7 to 10 plants. From 1 to 20 plants in two separate populations. Four plants in 2013. One large multistemmed plant in 2016. Not seen in subsequent years.
NY856658	1993 MP	2006 JBo	Near Haydon Bridge. Two plants in 2006 (JBo).
NY907731	2006 WG	2009 MM, AY & GY	Riverhill Farm. Two plants in 2006, 1 plant in 2009.
NY953617	1977 MB		Mill Haugh, Linnels
NY9461	1977GS		near Newbiggin.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Lentibulariaceae — Bladderwort family

Utricularia intermedia Hayne — **Intermediate Bladderwort**

Native — Data deficient; locally extinct

Utricularia minor L. — **Lesser Bladderwort**

Native — Vulnerable; locally extinct

NY98NW	1959 GS		Linnheads Lake

Utricularia vulgaris L. — **Greater Bladderwort**

Native — Locally rare

Not seen for 30 years, but perhaps still present.

NY7769 NY7770	1982 MPa		Greenlee Lough NNR (Roman Wall Loughs SSSI)

Campanulaceae — Bellflower family

Campanula glomerata L. — **Clustered Bellflower**

Native — Locally scarce

Probably only native on the banks of the RN Tyne and its tributaries. Often stressed and fails to flower. It appears highly threatened in the vice-county as few sites have legal protection. This species needs a targeted survey to assess its status accurately.

NY910731 NY911731 NY912731	2017 AJR		RN Tyne N bank below Barrasford.
NY917664	1969 GAS	2020 AJR	Howford Banks
NY905732 NY911737	1978 GS	2009 MM, AY & GY	Riverhill Farm
NY946659	2005 MH		Egger Factory Hexham, introduced.
NZ356714	1994 AY & GY		Marden quarry LNR Plant introduced with seed mix.
NY97SW	1937 GS	1987 MO	Chollerton area on the banks of the N Tyne.
NY87NW	1984 GS		Houxty Burn
NZ06SW	1984 GS		Near to Newton Hall.
NY78NW	1983 GS		Falstone
NZ06SE	1974 GS	1976 GS	South bank of the Tyne between Bywell Bridge and Eltringham.

Jasione montana L. — **Sheep's-bit**

Native — Vulnerable; locally extinct

Apart from a dubious J. Heslop-Harrison record it was also recorded in the 19th century near Gilsland, Hexham and Haltwhistle, but no reliable records exist from the 20th century.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Asteraceae — Daisy family

Antennaria dioica (L.) Gaertn. — **Mountain Everlasting**

Native — Vulnerable; extinct

Extinct in VC 67, although formerly recorded from 22 hectads, possibly the most striking loss in the county in recent years. Swan (1993) considered it localised and decreasing. The most recent sites are listed here, but it has not been seen for more than a decade.

NY97NE	1975 GS	2006 JSi	Divethill. Very little and possibly lost.
NY639502	2000 AL		Gelt Linn, looked for in 2012 but not found.
NY964930	1986 GS	1991 GS	Old quarry near to Eastnook. Searched for in 2014, but not found (AJR).
NY94NE	1988 GS		Dirt Pot
NY76NW	1988 GS		Winshields
NY953766	1963 GS	1985 GS	Colwell . Searched for since but not found.
NY76NE	1981 GS		Steel Rigg, eastwards

Anthemis arvensis L. — **Corn Chamomile**

Casual colonist — Endangered; locally scarce

Only found as a casual along roadsides and on wasteland. All recent introductions are believed to be from seed sown on road verges. It does not persist long and there are no permanent sites. However, in recent years it has been regularly resown at many sites.

Bidens cernua L. — **Nodding Bur-marigold**

Native and colonist — Extinct as a native. Three recent records of casuals.

NZ2929.7882	2020 MW		Wansbeck Hospital
NZ319881	2020 MW		Newbiggin-by-the-Sea Point
NY927638	2018 JBo	2020 JBo	Bottom of Causey Way, Hexham

Bidens tripartita L. — **Trifid Bur-marigold**

Native — Locally rare

NY94189.788389	2013 AM	2020 AJR	Colt Crag Reservoir, 100+ in 2020 as var. *integra*
NZ3175	1968 OG	2015 AJR	Holywell Pond SSSI. About 15 to left of members' hide.

Carduus tenuiflorus Curtis — **Slender Thistle**

Native — Increasing, locally frequent

Swan (1993) calls this species 'rare' in VC 67. However, there have been 28 records in the last decade and it is now quite commonly encountered on disturbed ground and waste places near the sea. Although it is still very rare inland, no longer considered a candidate for RPR.

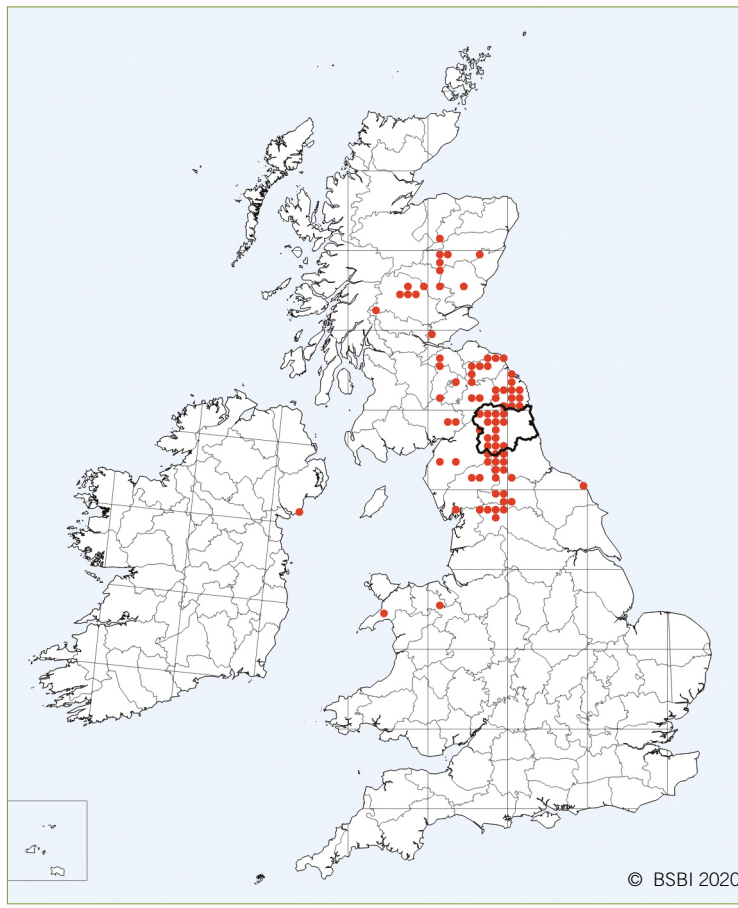
Carlina vulgaris L. — **Carline Thistle**

Native — Near threatened; locally scarce

NU2802 NU285022	2013 AJR & NW		Hauxley Nature Reserve
NZ2894	2013 SL		Near outfall channel from Cresswell Pond, two plants.
NY892567	2010 AJR		Whapweasel Burn
NZ008633	1966 GS	1972 GS	Thornbrough Scar

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Centaurea debauxii Gren. & Godr.			**Chalk Knapweed**
Native or colonist			Recent colonist
NZ28626.70744	2018 AJR		Warkworth Woods estate, Gosforth. Abundant and probably introduced with wild flower seed.
Cirsium × wankelii Reichardt			**C. heterophyllum × C. palustre**
Native			Locally rare
These are only the third and fourth English sites.			
NY6092.9633 NY6106.9608	2018 RVL		Kittyhirst cottage
NY672528	2010 PB		Knarsdale near Slaggyford. One plant.
Cirsium eriophorum (L.) Scop.			**Woolly Thistle**
Casual			Extinct
Recorded in the 19th century in Wallsend, but it was presumably introduced there (Winch 1831).			
Crepis mollis (Jacq.) Asch.			**Northern Hawk's-beard**
Native			Vulnerable; locally scarce
Following a severe decline throughout its range (now perhaps extinct in Scotland), Richards (2020) has estimated that VC 67 may contain more that 50% of sites (12) and possibly as many as 90% of the plants (950+) in Britain. All except one of our large stands, one of which may hold more than half the British population, are confined to Allendale where it grows on steep, species-rich, unmanaged river terraces.			
NY85239.47061 NY85198.47782	2020 LM		Peasmeadows turn, two disjunct sites on main road. Four plants.
NY84715.48767	2017 LM AJR		Upstream from Spartylea Bridge on E side of E. Allen. Eight flowering plants.
NY85081.48507	2019 AJR	2020 AJR	St Peter's Cottage. 17 plants in 2019.
NY84609.49179 NY84644.49137	2018 LM	2020 RF	West Studdon Farm. 537 flowering plants in 2019.
NY84440.51962	2017 RS-K	2020 AJR	S of Sinderhope Community Centre. 150+ plants in 2020.
NY84662.55975	2017 LM	2020 AJR	Prospect Hill. 30 flowering plants in 2019.
NY835476	2012 AJR & NW		Swinhope Burn, eight plants.
NY839501	1983 JL	2019 AJR	High Knock Shiel, bank of small stream, 31 plants in 2016. Only one in 2019.
NY629928 NY6293 NY622944 NY622945	1962 GS	2020 AJR	Along the abandoned railway line at Chubbies Knowe, Kielder. Twelve plants (AJR, 2008). It has been found at several areas along the old railway, but this is the only survivor. Only one found in 2020.
NY904494	1967 GS	2020 RF, MH	Heatheryburn Bank SSSI.157 plants.
NY846491	1962 GS	2020 AJR	West bank of River East Allen, N of Spartylea Bridge. At least 30 plants in 2008 (JO). 40 in 2019.
NY844512 NY847522 NY844523 NY845522	1962 GS	2020AJR	Road verges near High Sinderhope. "One plant in the pasture, about 7 in the road verge" JO 2008. 57 flowering plants in 2019.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY813573	2008 JO & FC	2019 AJR	Bank behind Kittygreen. Over 500 plants counted by JO & FC in 2008, 85+ in 2019.
NY814573	2016 AJR	2019 AJR	Flat meadow by path to east of Kittygreen house. Four plants in 2016, nine in 2019.
NY827572	2008 JO & FC		unmanaged meadow west of Catton sewage works. Three plants in 2008 (JO & FC). Could not be found by AJR in 2016 or 2019.
NY820552	2007 JO		Verge of lane close to Frolar Meadows. One plant. Not found by AJR, 2016
NY7690	1963 GS	2002 GS	Near Comb. Not found by AJR in 2016.
NY916931	1963 GS	2002 GS	Near Overacres.
NY9592 NY9593	1963 GS	2002 GS	Whiskershiel
NY8696	1987 GS		Durtrees Burn
NY888725	1985 GS	c. 1995 AJR	On a bank on the road near the Scroggs. Extinct here.
NY8197	1977 GS		Wind Burn



Map 8. Distribution map of *Crepis mollis* in Britain and Ireland. Occurrence records are displayed at hectad level (10 km x 10 km) and coloured by record date class. South Northumberland (VC 67) is outlined in bold black.

Crepis mollis, Northern Hawk's-beard, is one of our most iconic plants. It has mostly vanished from the rest of England and is on the verge of extinction in Scotland. Our main colonies are in Allendale which may hold 50% of British populations and 75% of British individuals.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Filago vulgaris Lam.			**Common Cudweed**
Native			Near threatened; locally scarce but rapidly increasing
NZ3372.6676	2012 DB		Percy Main
NY95970.77444	2015 AM		Carriers Lane
NY940780	2013 SH		Colt Crag Reservoir embankment
NY913750	1960 GS	2020 J & RBo	Gunnerton Crag and adjoining quarry. Many thousand in 2016.
NZ300832	2012 DF		On the demolished Blyth Power Station site. "hundreds".
NY671660 NY671661	2010 AY & GY	2019 R & J Bo	Walltown LNR (old quarry). A dozen small plants in 2010, 30–100 plants in 2011, 20 in 2012 (GY). An estimated 5000 plants in 2014.
NY9952763 NY949762	2007 JSi	2015 AM	Little Swinburne
NZ008633	1966 GS	2002 WG	Thornbrough Scar
NY6578	1977 GS		Cow Crag

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Hieracium.			
Unfortunately, there has been little targeted interest in the county for many years, and no unusual species have been reported recently.			
Hieracium argutifolium Pugsley			**Sharp-toothed Hawkweed**
Native			Near threatened; locally rare
NY679596	2010 JO		Thorneyhall Wood
Hieracium auratiflorum Pugsley			**Dark-flowered Hawkweed**
Native			locally rare
NY912732	1984 MSw & GS		near Barrasford
NY697502	1963 MSw & GS		near Kirkhaugh
Hieracium piligerum (Pugsley) P.D.Sell & C.West			**Brindled Hawkweed**
Native			[Nationally critically endangered]; locally extinct
A verified specimen is present in the HAMU herbarium from 1800 and this is considered the only verified English locality. The England redlist status is therefore probably wrong and it should be considered extinct in England.			
Hieracium prenanthoides Vill.			**Rough-leaved Hawkweed**
Native			Endangered ; locally extinct
Last recorded in the 1833 in Allendale.			
Hieracium rhomboides (Stenstr.) Johanss.			**Rhombic-leaved Hawkweed**
Native			locally rare
NY959499	1984 GS		Baybridge
Lactuca serriola L.			**Prickly Lettuce**
Colonist			Locally scarce, increasing
Only a single record until 2008 but now increasingly frequent in urban sites.			
NY9432.6519	2020 JBo		Oakwood
NZ308835	2020 MW		Cambois
NZ297675	2019 A&GY		A1058 roadside, Wallsend
NY971648	2019 AJR	2020 AJR	Hexham, rubbish disposal road
NY974634	2018 AJR		Dilston
NZ219634	2011 JBo		Scotswood Road, Newcastle
NZ224632	2010 JBo		Newcastle Business Park
NZ3266	2010 RS-K QG		Willington
NZ264695	2010 JBo		Balliol Business Park
NZ341703	2008 A&GY		N Tyneside Hospital
NZ336693	2009 A&GY		Billy Mill, garden weed

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Lactuca virosa L.			**Great Lettuce**
Native			Locally scarce
At one time considered extinct in the vice-county, but it has recently been found at urban sites where it presumably has been unintentionally reintroduced.			
NZ259740 NZ260740	2014 JBo		Northumberland Business Park, Cramlington. Hundreds of plants along a 90 m stretch of ditch.
NY935644 NY935645 NY935646 NY933646 NY933647 NY942648 NY946649	2009 JBo	2020 AJR	Hexham Trading Estate and verge of railway. Thirty plants in 2009; 50 in 2010, 34 in 2013 (JBo). 100+ rosettes in 2016.
NZ331715	2012 DB		West Monkseaton, three plants.
NZ260745	2011 JBo		Dudley. More than 50 plants (JBo).

Logfia minima (Sm.).			**Small Cudweed**
Native			Near threatened; locally rare
NY750758	2014 GSi		The Haining Farm
NU00SW	1983 GS	2000 JH	Near Thropton
NZ093562	1972 GS	1988 GS	Broom Hill sandpit
NZ1056	1985 GS		Broad Oak
NT90SE	1968 GS	1972 GS	River gravels of the Coquet near Holystone. Seen in the 1980s on the North bank of the Coquet in Cheviotland.

Omalotheca sylvatica (L.)			**Heath Cudweed**
Native			Endangered; locally scarce
Declining nationally and locally, it is restricted to the borders of forest tracks, particularly in Redesdale and in Kielder Forest.			
NY75758.99260	2019 BB		Blakeburnhaugh, Kielder
NY62017.84306	2011 GSi	2015 WG	Gill Hassock, Broomylinn. One plant in 2011, 17 flowering plants in 2014 and more seedlings (GSi). About 100 rosettes in 2015 (AJR).
NY801956 NY802955 NY802956	2004 GSi	2012 BH, AY & GY	Near Kell's Pike. Twenty plants (2009, AJR). More than 100 plants in 2011 & at least 99 in 2012 (GY).
NY620883 NY621883 NY639892	1990 GSi	2011 GSi	Lewis Burn, just a few plants (GSi)
NY7599 NY748983	1993 GS	2005 GSi	Redesdale Forest, Just half a dozen plants in 2005 (GSi)
NY939887	2003 QG		Long Fell. One plant at the edge of a forest track.
NY726821	1992 GSi		Beacon Hill, looked for since, but not found (GSi).

Picris hieracioides L.			**Hawkweed Oxtongue**
Native or colonist			Locally extinct
Probably only a casual introduction in recent years.			

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Seriphidium maritimum (L.) Poljakov			**Sea Wormwood**
Native			Near threatened; locally extinct as a native, one recent introduction.
Recorded during the 19th century in the Tyne estuary and on the ballast hills (Winch 1831).			
NZ31116.87793	2020 MW		Newbiggin-by-the-Sea promenade, probably planted.

Serratula tinctoria L.			**Saw-wort**
Native			Locally rare
These are some of the most northernly sites in the UK, though the Darras Hall site is likely to be the only native site.			
NZ157713 NZ158713	1975 GS AGL	2011 JA	Darras Hall, recreation area SSSI. 336 plants counted in 2011 (JA).
NU282022	2006 FA		Hauxley NWTR. Introduced and plentiful.
NZ28SW	1977 GS	1987 DW	Above Willow Burn near Netherton Colliery.

Caprifoliaceae — Honeysuckle family

Linnaea borealis L.			**Twinflower**
Native?			locally rare
NY997564	1979 BL	2020 JBo	Kellas. Greatly reduced since plantation felled to within 150 m to east. Now restricted to three patches around raised tree bases near to the road. Has not flowered in recent years.
NY911496	1973 GS	2001 GS	The junction of Norham Burn and the Beldon Burn (Hexhamshire Moors SSSI). “a very small colony” Swan (1993). “almost extinct” Swan (2001).

Valerianaceae — Valerian family

Valerianella dentata (L.) Pollich			**Narrow-fruited Cornsalad**
Archaeophyte			Endangered; locally extinct
Not recorded since the 19th century			

Valerianella carinata Loisel.			Keel-fruited Cornsalad
Colonist			One recent record
NZ25548.75108	2019 LKo		Footpath entrance E of Arcot pond

Valerianella locusta (L.) Laterr.			**Common Cornsalad**
Native			Locally scarce
Although it is probably native in Druridge Bay dunes, populations seem rather transient.			
NZ273984	1988 CD	2017 AJR	E Chevington dunes (Druridge Bay country park & Hadston Links SSSI)
NU274000	2015 GY		Hadston Links (Druridge Bay country park & Hadston Links SSSI)
NZ019615	2011 JBo		Riding Mill Station
NZ3266	2010 QG		Willington
NZ245944	2003 NF	2004 NF	Widdrington Station
NZ06NE	1987 GS		Whittle Dene

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Dipsacaceae — Teasel family

Dipsacus laciniatus L.			**Cut-leaved Teasel**
Introduction			A single locality
NU2802	2006 DH	2020 AJR	Hauxley Nature reserve. Well established. In 2018 some individuals of *D. x pseudosilvester* Schutt were also present.

Dipsacus pilosus L.			**Small Teasel**
Native			An occasional adventive in NE England, rarely establishing
NZ2570	2017 PD AJR		Gosforth Park Nature Reserve, established in quantity on clear fell.
NZ245648	2009 GY	2013 GY	St Thomas St., Newcastle
NZ261651	2003 QG	2003 GY	Jesmond Vale, Ouse Burn

Apiaceae — Carrot family

Anthriscus caucalis M.Bieb.			**Bur Chervil**
Native			Locally scarce
Grows on sand banks and pathsides under marram grass, often best looked for in winter.			
NU285032	2017 AJR		Beacon Hill
NZ272987	2015 AY GY	2016 AJR	East Chevington (Druridge Bay country park & Hadston Links SSSI)
NZ3278	2005 AY & GY	2008 AY & GY	Seaton Sluice Dunes, near Gloucester Lodge Farm. (Northumberland Shore SSSI and Blyth to Seaton Sluice Dunes LNR). Looked for but not found since 2008 (AY & GY).
NU276005	1985 GS	2015 GY	Hadston Links SSSI

Apium graveolens L.			**Wild Celery**
Native			Locally scarce
Probably increasing along the banks of the Tyne where it is well established. Swan (1993) described it as "rare and very scarce", but further searching may prove that it can be removed from the list of scarce species. Some old records reach up to the upper shores of the tidal Tyne (1978, 1985 GS).			
NU243056	2009 AJR		The Coquet at Warkworth (River Coquet & Coquet Valley Woodlands SSSI)
NZ2163 NZ2263 NZ2262 NZ2362	2001 JD	2012 QG	Along a long stretch of Newcastle riverside
NZ284630	2001 JD		Walker Riverside Park (SNCI)
NZ314667	1999 AY & GY	2001 JD	Willington Gut
NZ272983	1988 JL		near mouth of Chevington Burn (Druridge Bay country park & Hadston Links SSSI)

Apium inundatum (L.) Rchb.f.			**Lesser Marshwort**
Native			Vulnerable; locally scarce
Few recent records, but should be looked for, sterile, on reservoir draw-down.			

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY91487.62201	2017 WG		Hexham Racecourse, pond edge
NY976769	2013 NW & AJR	2014 WG	Hallington Reservoirs
NZ033839	2013 WG		River Wansbeck at Wallington
NZ2064	1998 AY & GY		John Marley Community Garden. Introduced from Ryton Willows Gut Pond (VC 66).
NZ2793	1984 GS		Ponds near to Warkworth lane, near Cresswell.
NZ17SE	1923-6 NHT	1983 GS	Prestwick Carr
NZ116986	1980 GS	1983 GS	Pond on south bank of River Coquet , north of Brinkburn.

Berula erecta Besser ex W.D.J.Koch — **Lesser Water-parsnip**

Native — Locally rare, probably extinct

There are no records since 1985 and no records with precise localities. However, it should be searched for along the banks of the River Pont west of Ponteland where forms of *Oenanthe crocata* can resemble it.

NZ140723	1984 GS	River Pont, Ponteland; searched for in 2017 and not found.

Carum carvi L. — **Caraway**

Casual — Nationally critically endandered; locally extinct

This species is included due to its national status, but present in South Northumberland only as an escape from cultivation. It has never been common and was last recorded in the 1920s.

Cicuta virosa L. — **Cowbane**

Native — Locally extinct

Last recorded in 1950.

Meum athamanticum Jacq. — **Spignel**

Native — Nationally scarce and near threatened; locally rare

This is one of about 10 sites in England and is the first recorded site in Britain.

NY9579	1548 WT	2020 J & RBo	Houky Hill, Thockrington. Estimated to be 2100 plants in 2008 (AJR).

Oenanthe aquatica (L.) Poir. — **Fine-leaved Water-dropwort**

Native — Locally rare

NY643664	1979 GS		Small pond north-east of The Gap, Gilsland.

Oenanthe fistulosa L. — **Tubular Water-dropwort**

Native — Vulnerable; locally rare (perhaps extinct)

Never common in the county, but it has declined, presumably because of the drainage of marshes.

NZ256706	1972 GS	1990 NES	Gosforth Park SSSI. Searched for in 2009 but not found (AJR).
NY9565	1959 GS	1990 AJR	Pond near Anick. Searched for in 2009 but not found (AJR).
NZ17SE	1923-6 NHT	1987 GS	Prestwick Carr. It's unclear where the 1987 site is and whether it was within Prestwick Carr SSSI.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Oenanthe lachenalii C.C.Gmel. **Parsley Water-dropwort**

Native — Near threatened; locally extinct

Not recorded since the 19th century, but could occur. There are several sites on the coast in VC 68.

Scandix pecten-veneris L. **Shepherd's-needle**

Introduced — Endangered; locally extinct.

Last recorded 1958. Once a common weed of arable land.

Sison amomum L. **Stone Parsley**

Introduced — Locally extinct

Stone Parsley was last seen in the 19th century, but there was only ever one site, far from its normal range in southern Britain.

Torilis nodosa (L.) Gaertn. **Knotted Hedge-parsley**

Native — Locally extinct

Last recorded 1921.

This species is only questionably native in South Northumberland. All its known sites are from wasteland or ballast hills. However, it does grow in a more natural setting in North Northumberland.

Alismataceae — Water-plantain family

Baldellia ranunculoides (L.) Parl. **Lesser Water-plantain**

Native — Vulnerable; locally extinct

Found in Woodhorn Pond in 1972 (AJR), but the site was destroyed soon afterwards.

Lemnaceae — Duckweed family

Spirodela polyrhiza (L.) Schleid. **Greater Duckweed**

Native — Locally rare

Has only ever been recorded from two sites, but currently abundant at Bolam Lake.

NZ080818	2008 BC	2020 AJR	Bolam Lake
NZ177820	1967 GS	2002 JD	Saltwick Plantation. Site subsequently destroyed.

Lemna gibba L. **Fat Duckweed**

Native — Recent introduction

NZ2824.0218	2017 AJR	2020 AJR	Hauxley NR, probable intentional introduction

Lemna minuta Knuth **Least Duckweed**

Introduced hortal — Recent introduction, scarce

NZ2979	2019 LKo	New Delaval
NZ0895.6734	2017 AJR	Northside
NY980797	2015 AJR NW	Newonstead
NZ349671	2008 WG	Royal Quays
NY984756	1999 GS	Hallington Reservoir
NY932593	1988 GS	Smelting Sike

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Hydrocharitaceae			**Frogbit family**
Hydrocharis morsus-ranae L.			**Frogbit**
Native			Vulnerable; locally rare
NZ293759	2011 ASt & JHu	2017 GY	East Cramlington Pond (LNR). Probably introduced.
NZ239839	1986 NSc	1991 GS	Pond near to Healeywood.. In 1986 it was described as "in great plenty" and in 1991 "large areas of water, white with flowers" (Swan, 1993).
NU2802	ca 1980 NES		Hauxley lakes, introduced.
Lagarosiphon major (Ridl.) Moss			**Curly Waterweed Hortal**
Recent introduction, scarce			
NY934610	2018 AJR		Dipton Mill, pond in wood to south-east
NZ1760.9818	2017 SM		Eshott
NY6766	2015 QG		Walltown Crags
NZ2717.9833	2016 QG	2018 AJR	East Chevington Dunes ponds
Zosteraceae			**Eelgrass family**
Zostera noltei Hornem.			**Dwarf Eelgrass**
Native			Vulnerable; locally rare
NZ275988	2012 AJR		Druridge Bay (Northumberland Shore SSSI)
NU265048 NU264047	1973 GS		The Braid, Amble
Potamogetonaceae			**Pondweed family**
Groenlandia densa (L.) Fourr.			**Opposite-leaved Pondweed**
Native			Vulnerable; locally rare
NU2405	1965 GS	1988 GS	River Coquet SSSI, south bank, opposite Hermitage. Looked for in 2012, habitat appears unsuitable.
NU00SW	1974 AJR		Caistron Lakes (River Coquet SSSI)
Stuckenia filiformis (Pers.)			**Slender-leaved Pondweed**
Native			Regionally extinct; locally rare (probably extinct)
NZ110929	1969 MS & GS	1992 PH & CP	Rayburn Lake SNCI. The only site in England. Has been looked for several times in recent years without success.
Potamogeton lucens L.			**Shining Pondweed**
Native			Locally rare
NY7869 NY7969	1959 GS	2012 AJR	Broomlee Lough (Roman Wall Loughs SSSI)
NY812719	2011 WG		Halleypike Lough
NZ063615	1976 GS		Sand-pit at Merry Shield

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Potamogeton praelongus Wulfen			**Long-stalked Pondweed**
Native			Endangered; locally rare
NY807711	1970 GS	2011 AJR & WG	Stream south of Halleypike (Roman Wall Escarpments, geological SSSI)
NY770680 NY769679 NY765679	1942 JWHH WAC	2017 RVL	Crag Lough (Roman Wall Loughs SSSI)
Potamogeton × angustifolius J. Presl			**Long-leaved Pondweed**
Native			Locally rare
NY976769	2013 NW & AJR		Hallington Reservoirs
NY795696	1971 GS	2012 AJR	Broomlee Lough
Potamogeton × lintonii Fryer			**Linton's Pondweed**
Native			Locally rare
NY8071	2011 WG		Halleypike Lough
NU046013	1973 MS & GS		River Coquet SSSI, south bank west of Rothbury.
Potamogeton × nitens Weber			**Bright-leaved Pondweed**
Native			Locally scarce
NY7869	1975 GS	2010 SH	Broomlee Lough (Roman Wall Loughs SSSI)
NY765692	1959 GS	1992 SM	Greenlee Lough NNR (Roman Wall Loughs SSSI)
NY744687	1988 GS		Caw Burn
NZ131920	1984 GS		Haredean Pond
NZ022616	1984 GS		River Tyne near Riding Mill Station.

Ruppiaceae — Tasselweed family

Ruppia maritima L.			**Beaked Tasselweed**
Native			Near threatened; locally scarce
In brackish water of ponds, streams and saltmarshes along the coast. There is only a small amount of suitable habitat, which makes this species vulnerable to habitat loss.			
NZ297854	2015 WG		North Seaton Colliery. Only a small amount.
NZ334762 NZ334761 NZ334763 NZ334764 NZ335761	1864 TN	2019 GY	Seaton Sluice, salt-marsh (Holywell Dene LNR). The plant can appear in different pools from year to year.
NU282019 NU285022	1984 AJR	2020 AJR	Pond at Hauxley NWTR
NZ283944 NZ286945	1988 GS	2010 AJR	Cresswell Ponds SSSI
NZ272981 NZ273982 NZ271981	1986 A&MS	1988 CD	Chibburn Mouth (Druridge Bay country park & Hadston Links SSSI)
NZ3278	1805 NJW	1844 JSy	mouth of Meggie's Burn

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Dioscoreaceae — Black Byrony family

Tamus communis L.	**Black Bryony**
Native	Locally extinct
Not recorded since the 19th century.	

Melanthiaceae — Herb-Paris family

Paris quadrifolia L.	**Herb-Paris**
Native	Locally vulnerable

This species is borderline scarce in the county. There are several pre-1987 sites that have not been visited recently, a few of which are mentioned below.

NU00254.00454	1992 LA	2019WG	Bickerton Wood. A massive population.
NY952605 NY951599	2014 NW		Strothers Wood, Windy Hill
NY829616 NY829617 NY830617	2012 NW & AJR	2013 GY	Langley Burn
NZ1986	1548 WT	2019 WG	Cottingwood, near Morpeth. Well established covering a large area in damp areas of the wood. Estimated to be about 3000 plants (2014).
NY940602	2011 CO & JO	2020 AJR	Letah Wood. A large population.
NY845794	2011 NW		Houxty Burn
NY842846 NY843843	1973 GS	2015 WG	Hareshaw Dene SSSI, about 100 plants in 2010.
NY7760	1974 GS	2010 JO	Kingswood Burn
NY923728	2010 AJR, BH, CL, AY & GY	2019 JBo RBo	Barrasford, riverside wood. About 250 plants.
NY822656	2007 JBo& GY		Tony's Patch (NWTR). One plant in 2007.
NZ087781	1998 GS		Belsay Hall
NZ066499 NZ066500	1984 GS	1992 Anon.	Moss Wood
NZ166861 NZ18NE	1988 GS	2013 NW	Mitford Hall
NZ081871 NZ078871	1967 GS	1987 GS	North bank of Hart Burn, near Garden House.
Approx. NY7962	1983 GS		Briarwood Banks SSSI (NWTR).
NZ030706	1978 GS		Matfen
Approx. NZ1487	1969 GS	1977 GS	Pigdon Banks
NY87NW	1950 BHT	1973 GS	Fawlee Sike
NY9559	1971 GS		Linnelswood Bridge

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Liliaceae			**Lily family**
Gagea lutea (L.) Ker Gawl.			**Yellow Star-of-Bethlehem**
Native			Locally scarce
Gagea lutea is difficult to find later in the year when it disappears under taller vegetation. Most sites do not contain many plants, and these plants are well scattered, but there is one large population. Nevertheless, the known sites have persisted for many years and there is no clear evidence of decline.			
NZ0500.6248	2017MW		Bywell to Ovington riverside
NZ182646	2019 MW	2020 AJR	Howden Bridge, west of Wylam
NY90538. 73167 NY90429. 73113	2016 QG	2019 AJR	Coldwell, wood above the N Tyne. One large population and a smaller one near the river.
NZ138847	2012 NF & ID		Rivergreen Mill (1 plant)
NY917661 NY917662 NY917663	1807 Anon.	2020 JBo & AJR	Howford Banks by the N Tyne (SNCI, SSSI). Only three plants flowering in 2006; four in 2011; one in 2012, 16 in 2014, 10 in 2015 and at least 30 in 2020.
NZ188862 NZ187860	2003 GS	2019 WG	The north bank of the River Wansbeck, Scotch Gill Woods LNR. Seven flower spikes were found in 2007 (AY & GY), but there are many more non-flowering plants at this site. 15 spikes were noted in 2010 (NF); 18 in 2011 (GY); 25 in 2012 (AY & GY); 20 in 2013 (JHa & BH) and 15 in 2014.
NY822655 NY822656	1970 RH	2020 R & JBo	Tony's Patch (NWTR). Four plants, two in flower.
NZ2278 NZ2379 NZ2580 NZ2479	1942 GWT	2005 HE & CE	Plessey Woods SNCI, along the River Blyth until Hartford Hall. Found in scattered locations throughout this area.
NY9073 NY9172 NY9272	1973 MB	2004 MB	Haughton Castle by the N Tyne
NZ161854	1983 GS		The north bank of the River Wansbeck. "leaves only".

Gagea lutea. Yellow Star-of-Bethlehem. This early bulb is best sought in late March in ancient woodland close to rivers. It has flowered well in recent years and some large colonies have been discovered.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Orchidaceae — Orchid family

Anacamptis morio (L.) R.M.Bateman, Pridgeon & M.W.Chase — **Green-winged Orchid**

Native — Vulnerable; locally extinct

Probably always uncommon and at the northerly limits of its UK range.

NZ053598	1975 EM		Near Broomley. Not found in 2016 (AJR)

Anacamptis pyramidalis (L.) Rich. — **Pyramidal Orchid**

Native — Locally scarce

More populations formally existed, either in or near limestone quarries inland. Although this species crops up occasionally, it never appears to have formed permanent or large populations, perhaps due to the lack of ideal habitat. However, massive populations are now commonplace on the coast north of the River Coquet, and it can only be a matter of time before our county is invaded.

NZ023749	2012 RW		Mootlaw Quarry, "less than half a dozen spikes".
NU278041	2012 GY		Amble Dunes, Five plants. None in 2015.
NZ295686	2011 HE & CE		Rising Sun Country Park. One plant.
NZ3466	2002 AY & GY		Formally derelict land near the North Sea Ferry-terminal. One plant, but it was destroyed by the construction of a car park in same year as it was found.
NZ320791	2007 AY & GY HE & CE	2008 HE & CE	South Beach dunes, opposite churchyard (Blyth to Seaton Sluice Dunes LNR). One plant in 2007. Looked for in 2012, but not found.
NZ303855	1997 HE & CE		Sandy Bay, dunes, two plants.
NY894689	1977 GS	1996 DHu	Park Shield Quarry. Originally a large population, but extinct here by 2000.

Cephalanthera longifolia (L.) Fritsch — **Narrow-leaved Helleborine**

Native — Endangered; locally extinct

Not recorded since the 1830 near Bywell.

Coeloglossum viride (L.) Hartm. — **Frog Orchid**

Native — Vulnerable; locally scarce

This species is apparently declining and there has never more than a few plants at any one site.

NY93674.59297	2017 MH		Oakfield House. About 50 plants in an old meadow.
NY643969	2012 BH & GY		Irthing Gorge, one plant.
NY851466 NY851467	2011 LM	2018 LM & AJR	Bell's Grove. Between 5–20 plants in 2012 and 12 plants in 2013 (LM). About 15-16 plants in 2014 (AJR), three in 2016.
NY767687	2010 WG		Caw Lough (Roman Wall Loughs SSSI)
NY635919	2008 WG		Kielder, Bakethin, calcareous flush (NWTR).
NY904494	1967 GS	2003 WG	Heatheryburn Banks SSSI
NY98A	1958 GS	1988 AJR	Waterfalls quarry. This area was extensively surveyed in 2003 and 2004 for the BSBI's Local Change project, but *C. viride* was not found.
NY826537	1983 JL	1985 GS	Haggburn Gate SSSI, Allendale. Surveyed by JO in 2008, but not found.

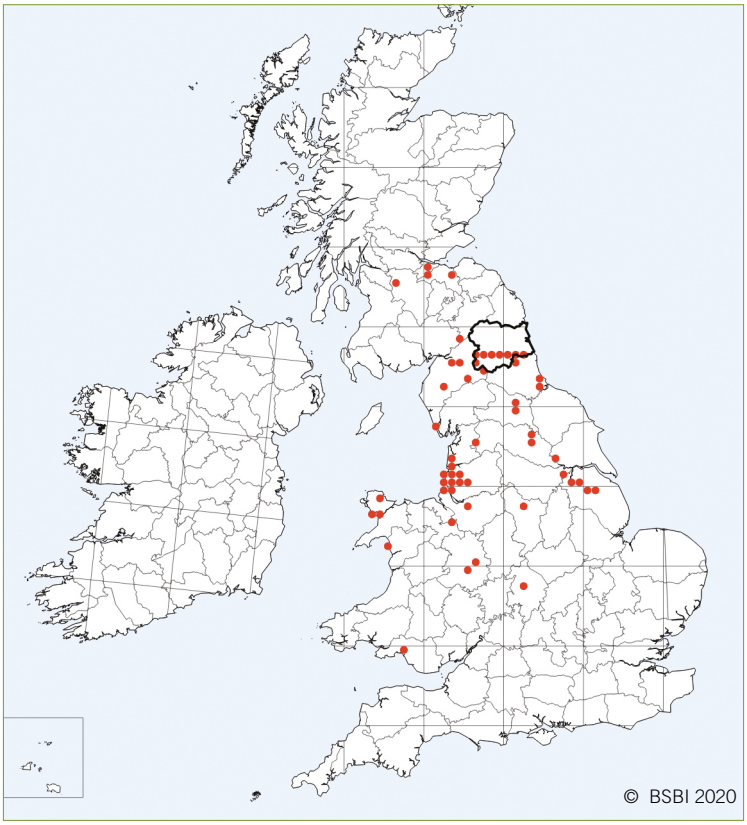
Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY75NE	1984 GS		Dewsgreen Burn, below Oaks Wood. This area was surveyed recently, but *C. viride* was not found (AJR, 2010).
NY86NW	1964 GS	1983 GS	Honeycrook Burn

Corallorhiza trifida Châtel.			**Coralroot Orchid**
Native and perhaps a colonist			Vulnerable; locally rare
NZ257702	1963 AT	2019 AJR	Gosforth Park SSSI. Numbers vary from year to year, but 210 were recorded in 2008; 460 in 2010 and 168 in 2013 (PD). Since then in low double figures.
NZ102787	1909 JF	1970 GS	Belsay. It is not clear what happened to this site, though the lack of recent records suggests it has gone. Searched for in 2013 but not found (NW).

Dactylorhiza praetermissa (Druce) Soo			**Southern Marsh-orchid**
Native			Locally rare, spreading north.
NZ239707	2017 LKo	2018 WG	Warkwoods Estate, Newcastle Great Park. Several subpopulations, 100+ in total, not including hybrids with *D. purpurella* and *D. fuchsii*.

Dactylorhiza praetermissa x purpurella. Southern Marsh-orchid and Northern Marsh-orchid scarcely overlap in distribution, but the former species has recently colonised Northumberland from the south. Showing a promiscuity typical of other Marsh-orchids, it has immediately spawned hybrids with the 'sitting tenants', Northern Marsh-orchid (the hybrid pictured here) and Common Spotted-orchid, *D. fuchsii.*

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Dactylorhiza incarnata (L.) Soó			**Early Marsh-orchid**
Native			Locally scarce
NZ271983	2019 AJR		East Chevington (Druridge Bay country park & Hadston Links SSSI)
NY948911	2019 DH		Benshaw Moor NR
NZ273997	2015 AJR		Druridge Country Park
NY958844	2015 MD	2016 WG	Ray Burn, Blackhalls Farm, 20+
NT796072	2013 NW & AJR		Canker Cleugh, two plants.
NY771691	1988 GS	2010 AJR	Caw Lough (Roman Wall Loughs SSSI). All three subspecies!
NY7969	1966 GS	2009 QG	South side of Broomlee Lough, Dove Crag (Roman Wall Loughs SSSI). 27 plants in 2009.
NZ327777	1966 GS	2008 HE, AY & GY	Seaton Sluice dunes LNR. Seven plants in 2008, but not found in 2010, 2011 & 2012 (GY).
NY634921	1996 DMc	2008 AJR	Bakethin (NWTR)
NY7278	1996 GS		Gowany Knowe Moss (Kielder Mires SSSI unit 17)
NZ3188	1985 GS	2002 GS	Newbiggin Moor. subsp. coccinea.
NZ0293	1964 GS	1991 GD	Fallowlees Flush SSSI. subsp. coccinea.
NY99SE	1988 GS		Eastnook. subsp. incarnata.
NY967883	1974 GS	c. 1988 AJR	Ottercops Moss flushes
NY971868	c. 1988 AJR	2010 AJR & NW	Chesters Burn
Approx. NT937017	1982 AJR		Holystone Burn (NWTR, SSSI). subsp. pulchella.
Approx. NY951886	1980 MB		Spring mire near Otterburn. subsp. pulchella. This site has been "improved" and it is probably lost (AJR, 2011).
NZ19SW	1980 GS		Tod Burn
Epipactis dunensis Godfery			**Dune Helleborine**
Native			Data deficient; locally vulnerable
This is a British endemic and its population in South Northumberland is a large proportion of the national total. *Epipactis dunensis* grows on bare, often metal polluted, sites along the Tyne valley. Some sites have been lost as vegetation has grown denser on these sites, but it is able to colonise new sites, some of which are suburban or post-industrial.			
NY92420.65277	2019 AJR		Riverside walk west of Hexham. Two plants.
NY672611 NY672612	2014 QG	2020 AJR	Crow Wood opposite Featherstone Castle. More than 50 fine plants in 2020.
NY928661	2015 AJR	2020AJR	Acomb mine waste pumping station. 30+
NY682521 NY682522	1962 GS	2020 AJR	Williamston (NWTR, SSSI). 160 plants in 2008 (AJR). Estimated to be more the 500 plants in 2014. 170 2016. 140 2020.
NY705637	2012 PB	2020AJR	Haltwhistle riverside near footbridge. A diffuse site over 1.5 km.
NY682547	2012 PB		Knarsdale, five plants.
NY681553 NY679556	2012 PB		River side at Eals & Eals Road Bridge, more than 17 plants.



Map 9. Distribution map of *Epipactis dunensis* in Britain and Ireland. Occurrence records are displayed at hectad level (10 km x 10 km). South Northumberland (VC 67) is outlined in bold black.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NZ1763 NZ181637 NZ181638	2012 DS & JL	2017 MF	Riverside cycleway to west of Stella House on Newburn Riverside, more than 100 plants counted.
NZ100567	2011 DH		Broad Oak Quarry
NY669662	2011 JC, AY & GY		Walltown LNR (old quarry). Not found in 2012 (GY).
NY690623 NY688623 NY672600 NY673613	1974 GS	2015 NW & AJR	Burnfoot River Shingle & Wydon Nabb SSSI 100+ 2015.
NY945645	2003 MH	2009 JBo	Egger Factory Hexham. More than 150 plants in 2003; more than 50 plants in 2003 (MH) and 11 in 2009. Not found 2013.
NY695636	2009 MG	2016 AJR	Industrial estate at the western end of Haltwhistle. Twenty plants. Four in 2016. Not found 2020.
NY772658	2009 AJR		Other side of the ravine from Vindolanda. Eight plants
NY676598 NY676583 NY680573 NY674590	1974 GS	2018 DF	Lambley River Shingles SSSI (though recent reports of plants are outside the SSSI boundaries). Eight plants in 2008. 100+ in 2017 (probably different site)

Epipactis dunensis. Dune Helleborine was first described from sand-dunes on the west coast, but occurs in a number of inland sites, mostly where birch grows on river gravels polluted with heavy metals. The majority of locations are beside the River South Tyne.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY675596	2017 JBo R Bo		Lambley roadside by bridge
NY825659 NY825661	1994 LCC	2020 AJR	Honeycrook Burn. 24 plants (2007, JBo, RBo, AY & GY) and 25 (2006, JA & CI).
NZ217637	2007 AY & GY		Benwell Nature Park. 30 plants.
NY727638	2007 SL		Seldom Seen Caravan Park, Haltwhistle. 3 plants.
NZ129652 NZ130652	1974 GS	2019 AJR	Close House (NWTR). More than 100 plants in 2000 (MF), >200 plants in 2006 (WG). 100 plants in 2019.
NZ159655 NZ160655	2003 AJR		Newburn Country Park & the east bank of Reigh Burn. 127 plants (AJR, 2007).
NY786640 NY785641 NY784641	1974 GS	2000 AJR	Beltingham (NWTR, SSSI). About 35 plants (AJR, 2000). Not seen post 2010.
NZ031619	1997 NB		Upstream of Styford Bridge.
NZ095639 NZ095640	1996 LK & SD, AY & GY		Spetchells, looked for but not seen since (GY).

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Epipactis palustris (L.) Crantz			**Marsh Helleborine**
Native			Locally rare
According to historical records, this species used to grow at several inland sites around the county. However it is now restricted to one coastal site. Its former sites have been lost either due to drainage or agricultural improvement (Winch 1831; Baker & Tate 1868).			
NZ271986 NZ273985 NZ272993 NZ272987 NZ273986 NZ272985 NZ272984 NZ272988	1966 GS	2018 AJR (BSBI meeting)	Hadston Links (Druridge Bay country park & Hadston Links SSSI). Perhaps represented by more than one group of plants, though there are never many in any one place. Eight plants were recorded in 2004 (NF). More than 69 flowering plants in 2014, 72 in 2016 (GY).
Epipactis phyllanthes G.E.Sm.			**Green-flowered Helleborine**
Native			Nationally scarce; locally rare
Also, see Richards and Swan (1976).			
NY854683 NY854688 NY855685 NY855685	1974 GS	2018 AJR	Stonecroft Mine, Settlingstones Burn (Stonecroft Mine SSSI). About 20 plants in 1994, about 30 in 2009 and 2011 and 90 plants in 2012, 200+ in 2016, 100 in one stand.
NZ041901	1982 GS	2000 JH	Rothley Lakes. Five stems in 1982 and four in 2000, none found in 2010 and extinct here

Epipactis phyllanthes. Green-flowered Helleborine. Our solitary locality for this delicate orchid was the northernmost in Britain until its recent discovery at Findhorn. Our plants grow where trees are colonising a Witherite ore spoil heap.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Goodyera repens (L.) R.Br.			**Creeping Lady's-tresses**
Native or colonist			Locally rare
Under *Pinus sylvestris* plantations, together with *Vaccinium myrtillis* and *Calluna vulgaris*. At risk from clear-felling and a change in the species of trees that are planted. However, it seems these are active populations able to colonise new plantations.			
NY968599 NY968607 NY969604 NY963613 NY966613 NY971603 NY974611 NY974612 NY976607 NY978614	1917 NT	2020 AJR	Dipton Wood. Several small patches scattered through the wood. Over 100 spikes counted in 2012. Lost from many subsites in 2016 due to felling but still at 970605 where it was severly damaged by very insensitive thinning operations involving heavy plant in spring 2020.
NZ010590 NZ003591 NZ007589 NZ008589	c. 1935 GW-A	2020 AJR	Broomley Fell Plantation. A diffuse population.

Goodyera repens. Creeping Lady's-tresses has occurred in several old pine plantations, and was probably introduced from abroad with young trees in the nineteenth century. It survives at two localities, but has suffered badly from thinning and harvesting operations in recent years.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Gymnadenia conopsea s.l.

The three species that make up the *Gymnadenia conopsea* complex are not difficult to tell apart, but only in recent years have the crucial characters been clarified. In the *Flora of Northumberland (*1993) Swan admits that there is more work to be done to identify the taxa and sites in the county, but states that *G. conopsea* was present at every site investigated. Although this is unlikely, it is certainly the commonest taxon in the county and usually the only one present on limestone grassland. *G. borealis* is typical of more acidic sites, and *G. densiflora* should be sought in wet base-rich localities. Despite Swan (1993), we consider that there is only a single confirmed record from East Chevington, although there are large populations on the Durham Magnesian limestone. *G. borealis and G. conopsea* are still under-recorded.

Gymnadenia borealis (Druce) R.M.Bateman, Pridgeon & M.W.Chase			**Heath Fragrant-orchid**
Native			Data deficient; data deficient
NT92239.05368	2017 WG		Angryhaugh
NY627888 NY622891	1989 GS		Lewis Burn
NY85M	2007 JO		The Spittal
NY67X	2007 JO		Stower Hill
NZ025937	1989 GS		Fallowlees Burn
NZ037893	1989 GS		Donkin Rigg
NY627888	1989 GS		Lewis Burn
NY622891	1989 GS		Lewis Burn

Gymnadenia conopsea (L.) R.Br.			**Chalk Fragrant-orchid**
Native			Least concern; data deficient
Underrecorded, most records still as aggregate species.			
NY711658	2020 AJR		Haltwhistle Burn. One large plant.
NZ2729.9863	2017 ME		East Chevington (Druridge Bay country park & Hadston Links SSSI)
NY68271.74267	2017 WG		Lampert, Irthing
NY613897	1964 MSw & GS		Akenshawburn

Gymnadenia densiflora (Wahlenb.) A. Dietr.			**Marsh Fragrant-orchid**
Native			Vulnerable; locally rare
This is the only record confirmed in recent years using modern criteria. Previous recorded by GS from more than 11 sites, but all these except perhaps Whiskershield Burn are unlikely habitats.			
NZ2727.9865	2014 GY	2016 GY	Hadston Links (Druridge Bay country park & Hadston Links SSSI). Four plants, then six plants.

Hammarbya paludosa (L.) Kuntze			**Bog Orchid**
Native			Vulnerable; locally rare
NT911034	c. 1929 RBC	2004 JS & DG	Crane Moss (Harbottle Moors SSSI). 155 plants in 2004 (JS & DG) and 167 in 2001(DH & TH). The numbers of plants seem to have increased. GS recorded 11 and 7 spikes in 1967 and 1988 respectively.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY901547 NY900546 NY900547	1964 RS	2020 AJR	King's Law (Hexhamshire Moors SSSI) 54 in 2001 (DH & TH) 103 in 2002 (DH & TH) 6 in 2003 (DH & TH) 14 in 2004 (AY & GY) 11 in 2010 (CS) 5 in 2011 (CS) 8 in 2014 22+ in 2016 14, 2020
NY896515 NY896513	1991 DH & TH		Stobbylee Burn (Hexhamshire Moors SSSI). Revisited in 2002, but the site had been largely destroyed and the plants were not found.
NY69SE	1967 GS	1973 GS	Head of Buck Lake Sike (Kielderhead & Emblehope Moors SSSI). Has frequently been looked for since, unsuccessfully.
NY867564	1971 GS		Lambrigg Sike (Hexhamshire Moors SSSI). Not found by GS subsequently, apparently due to overgrazing.

Neotinea ustulata (L.) R.M.Bateman, Pridgeon & M.W.Chase **Burnt Orchid**

Native Endangered; locally extinct

Once found in the dunes between Cullercoats and Tynemouth, but probably never a large population and long gone (Baker & Tate 1868).

Neottia nidus-avis (L.) Rich. **Bird's-nest Orchid**

Native Vulnerable; locally scarce

NU002004	2019 WG		Bickerton Wood
NY792622 NY795626 NY797630	2008 AM & LS	2015 BH & GY	Briarwood Banks and Allen Banks (NWTR, SSSI). Four plants in 2008 (AM & LS); Nine plants in 2014 (GY).
NZ0042.6110	2020 TC		Shepherd's Dene, a large clump
NY889616	2013 JDa		West Dipton Wood, two spikes.
NY846632	2013 AM	2014 AM	Spring Wood
NZ101787	1970 GS	2013 NW	Belsay Woods, 30 plants.
NY799592	1868 BT	2020 J & RBo	Stawardpeel wood, near Cupola Bridge,
NY901648 NY900652 NY900647 NY90072. 64758	1999 AJR	2020 AJR, JBo RBo	High Wood and Coastley area. Three plants in 2009 (JBo). Four in 2011 (JBo & AJR), 22 in 2016.
NY851788	2011 NW		West bank of North Tyne at Houxty, one plant.
NZ151734	1975 GS	2018 DWr	Wood at corner of Limestone Lane and West Road. 21 spikes in 1981 & 1982 (AD); 20 plants in 1991 (AY & GY); 10 plants in 2005 (AY & GY) & 2 plants in 2007 (JS & MR).
NY634678	1819 NJW	1997 DI	Wardrew, Gilsland Gorge
NZ266806 NZ2657.8058	1991 GS	2020 MW	Humford Mill (Bedlington Country Park LNR)

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Platanthera bifolia (L.) Rich.			**Lesser Butterfly-orchid**
Native			Endangered; locally scarce
NZ269982 NZ268990 NZ271990 NZ271987	1993 GS	2020 AJR	East Chevington (Hadston Links SSSI). Several sub-sites existed within this site and between 140 and 50 (ALi) plants have been counted at this site between 2003 and 2009. In 2014 there were an estimated 120 spikes, 60+ in 2019 at one location only.
NZ2795	1999 GS	2008 SL	Druridge Bay Country Park. Six plants in 2008 (SL).
NZ2295 NZ2296	1980 GS	2004 NF	In the area of Colliersdean Plantation. Only three plants in 2004 at which time it was reported that the site was becoming overgrown. The original site within Colliersdean Plantation has gone as the trees have grown up.
NZ264778 NZ265778	1991 NES	2003 CE, HE	Cramlington, near Brockwell Centre. More than 100 plants in 1995 (GY), but only four plants in 2003 (HE & CE).
NZ2475	1975 GS	1993 EN	Arcot Hall Grassland and Ponds SSSI. Not found by AJR in 2016.

Platanthera chlorantha. Greater Butterfly-orchid. This handsome orchid is thriving at several sites in the south of the county.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Platanthera chlorantha (Custer) Rchb.			**Greater Butterfly-orchid**
Native			Locally scarce
NY7373	2012 AJR		Grindon Green
NY82725.53868	2008 CO & JO	2020 R& JBo	Haggburn Gate SSSI. 40 plants in 2010; 8 in 2011; 35 in 2012 (Jbo); 15 in 2013 (JBo), 45 in 2019 (JBo).
NY927609 NY927610 NY930611 NY931611 NY 931612	1983 GS	2020 AJR	Dipton Mill. At a few locations within in this area. Nine plants were reported in 2006 and 2007; ten plants in 2010 (JBo); seven in 2012 (JBo), 13 in 2013 at four subsites, 29 in 2016 and 48 + 18 in 2019.
NY667524 NY666522	1984 GS	2008 JO	Knar Burn (Aules Hill Meadows SSSI). 22 flower spikes (2008, JO).
NY812566 NY813573	2006 JO	2020 AJR	Crockton Burn & Kittygreen. Several populations in this area. 14 in 2016., 100+ in 2019.
NY836547 NY837545 NY843542	2007 JO		Peckriding Meadows SSSI and nearby pasture. Over 1000 plants in the pasture and just a handful of plants in the meadows. The meadows are over half a mile away from the pasture.
Pseudorchis albida (L.) Á.Löve & D.Löve			**Small-white Orchid**
Native			Vulnerable; locally rare (probably extinct)
This species is extinct in the county. It has been declining for many years, probably due to changes in land management, particularly the loss of upland hay meadows. It has also virtually disappeared from Gowk Bank NNR on the west bank of the R. Irthing.			
NY903494	1982 AJR	1995 JL & SH	Heatheryburn Bank SSSI
NY75NE	1984 GS		Dewsgreen Burn, below Oaks Wood (Whitfield Moor, Plenmeller & Ashholme Commons SSSI). Searched for in 2010 but not found (AJR).
NY837478	1963 GS	1988 MP	Swinhope Burn (Allendale Moors SSSI). Looked for in 2014, but not found (BH & GY).

Alliaceae Onion family

Allium oleraceum L.			**Field Garlic**
Native			Locally rare
NY9175 NY913749 NY920754	1850 TBe	2014 NW	Gunnerton Nick, SSSI. A few plants (2011, GY).
NY936648	2015 AJR		Bank of Cockshaw Burn immediately before river, west side. Considerable colony. Extinct in 2018 due to path works.
NU195006	1978 GS	2013 AY & GY	South bank of River Coquet, east of Felton. 16 plants in 2012. Part of the site was lost in 2013 due to riverbank erosion.
NY892675	1996 GS		River S Tyne, North bank near Fourstones. Looked for in 2013, but not found (AJR).
Allium scorodoprasum L.			**Sand Leek**
Native			Locally extinct
Not recorded since the 19th century.			

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Allium schoenoprasum L.			**Chives**
Native			Locally rare
NY671660 NY671661 NY677666 NY678666 NY679665 NY682665 NY680666 NY680665 NY682664 NY683666 NY693667 NY683665	1819 NJW	2019 AJR	Walltown, on exposed whin and whin grassland near the houses and old lime kilns. SSSI. "Many large plants" (2011, GY). The eastern populations have expanded enormously since 2010, possibly exceed the western populations in extent and now cover perhaps 1 ha.
NY9880	1837 JTr	2020 AJR	Exposed whin NW of farm at Great Bavington SSSI
NY747672	1805 JT	2009 AJR	Winshields

Asparagaceae — Asparagus family

Convallaria majalis L.			**Lily-of-the-valley**
Native?			Threatened as a native
There were several probably native sites in ancient woodland on the Allens, Dipton Burn and Wansbeck, but possibly only surviving on the E Allen. Other sites represent escapes from cultivation or deliberate introductions.			
NY87048.63486	2017 JBo		Yexley Cottage
NY917668	1769 JW	2014 JBo	Warden
NY6651	2008 JO		Far House
NZ259702 NZ256706	1990 NES	2008 JO	Gosforth Park Nature Reserve
NZ2063 NZ2064	2007 AY & GY	2007 AY & GY	John Marley Community Garden
NZ253656	2003 QG		Border of Metro line, Jesmond
NZ05NW	1986 GS		Minsteracres
NZ066579	1968 GS		Lynn Burn, at path crossing from Kipperlynn to Apperley
NY834563	1983 GS	2015 GY	River East Allen, NE bank
NZ224860	1868 WR	1980 GS	River Wansbeck, near Morpeth
NY95NE	1972 GS		Linnelswood, Pethfoot
NY797637	1959 FE		Ridley College

Polygonatum verticillatum (L.) All.	**Whorled Solomon's seal**
Native	Regionally extinct; locally extinct
Polygonatum verticillatum grew at one site above the North Tyne during the 19th century but has not been seen since. This was considered the only native site of *Polygonatum verticillatum* in England.	

Grid Reference	First Record (with recorder initials)	Last Record	Site Description

Juncaceae — Rush family

Juncus ranarius Songeon & E.P.Perrier — **Frog Rush**

Native — Locally scarce

This species is probably under-recorded as suggested by the finds along salted roadsides.

NZ266639	2012 QG		Newcastle Quayside, at the side of a road.
NY7359	2009 JO		Limestones Fell. On a salted roadside.
NZ29NE	1988 GS		Near the mouth of Chevington Burn (Druridge Bay country park & Hadston Links SSSI).
NZ279955	1983 MSw & GS		Hemscotthill Links
NZ302856	1983 MSw & GS		Mouth of River Wansbeck
NZ301917	1983 MSw & GS		South of Cresswell (Cresswell Ponds SSSI).

Juncus maritimus Lam. — **Sea Rush**

Native — Locally extinct

Known from the estuary of the River Blyth in the 19th century but not recorded recently.

Juncus subnodulosus Schrank — **Blunt-flowered Rush**

Native — Locally extinct

Juncus subnodulosus grew at Prestwick Carr during the 19th century, but was lost, presumably due to drainage and agricultural improvement of the carr. It has several strong locations in VC 68.

Cyperaceae — Sedge family

Blysmus compressus (L.) Panz. ex Link — **Flat-sedge**

Native — Vulnerable; locally scarce

In addition to the sites noted below, there are many old and unlikely records. This is not an easy species to spot, particularly later in the season and is surely overlooked. However, it is doubtlessly suffering from changing land use and agricultural improvement of grazing land. Has not been seen in coastal sites recently.

NY674590	2019 DF		Lambley shingles
NY9260.9519 NY9316.9412 NY9597.9520	2015 MD	2016 WG	Elsdon Burn. Several subpopulations over 1 km+.
NY769763	1959 GS	2009 QG	Stonehaugh. Only 19 flowering stems counted in 2009. The site is perhaps suffering from undergrazing.
NY676595	1984 GS	2014 AM	East bank of S Tyne near Coanwood. A large site where it flowers in abundance.
NY6887	1963 GS	2009 JO	Sandboard Knowe. The 1963 record is from the adjacent monad now under Kielder Water.
NY9073	1981 GS	2008 AJR	Riverhill Farm. Three fairly small groups (AJR, 2008).
NZ314889	1985 GS	2002 GS	Newbiggin Moor
NU274002	1985 GS	1988 CD	Hadston Links SSSI
NY9392	1957 GS	1987 GS	Elsdon bridge. Not found in 2002.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Bolboschoenus maritimus (L.) Palla			**Sea Club-rush**
Native			Locally scarce
In brackish ponds, streams and seashores. There is little suitable habitat in South Northumberland, but there are no particular threats to this species and it is reasonably common elsewhere in Great Britain.			
NZ274966 NZ276972 NZ272979 NZ272980 NZ271980 NZ271982	1972 AJR	2019 AJR	Chibburn Mouth, locally abundant
NZ304908 NZ302908	1972 AJR	2012 QG	River Lyne
NZ300917	1972 AJR	2012 QG	Lynemouth
NZ2987	2012 JO		North Seaton, Summerhouse lane
NZ316890	2011 GY		Beacon point
NZ335760 NZ334762 NZ332762	1984 GS	2019 GY	Seaton Sluice salt-marsh (HolywellDene LNR)
NZ288940 NZ285946 NZ287939 NZ285944	1972 AJR	1995 NCC	Cresswell
NU282024	1966 GS	1995 NCC	Hauxley
NZ28NE	1984 GS		Stakeford Bridge
NZ28SE	1974 GS	1983 GS	Sleek Burn
NZ2991	1972 AJR		Lynemouth Dene

Carex aquatilis Wahlenb.			**Water Sedge**
Native			Locally rare
NY652770 NY662768 NY661766	1976 FJR CCH (in NY67N)	2016 AJR	Paddaburn (Kielder Mires SSSI unit 8). Not much, mixed in with *C. rostrata* beside river and shy flowering.
NY673711	1979 GS	2010 MM, AY & GY	Rotheryhaugh
NY686748	1992 DJ		Lampert

Carex bigelowii Torr. ex Schwein.			**Stiff Sedge**
Native			Locally scarce
NY625997 NY627998	1970 GS	2010 QG	Summit of Peel Fell (Kielderhead & Emblehope Moors SSSI)
NY625971	1972 RC	2019 BB	Deadwater Fell (Kielderhead & Emblehope Moors SSSI). Much reduced and now in a strip about 50 m × 2 m (AJR, 2010).
NT67361.02185	1993 RC	2019 BB	Limestone Knowe (Kielderhead & Emblehope Moors SSSI)
NY659470	1975 GS	1987 GS	Grey Nag

Carex bigelowii. Stiff Sedge is essentially a tundra plant, typical of high plateaux. It has been recorded from the Border Ridge in a few places, but is best known from Deadwater Fell near Kielder where a dwindling colony persists at the very low altitude of only 570 m.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Carex diandra Schrank			**Lesser Tussock-sedge**
Native			Vulnerable; locally rare
NY771691 NY772691	2009 AJR	2010 AJR	Caw Lough East (Roman Wall Loughs SSSI). “very abundant and widespread” (AJR, 2010).
NY7668	1981 AJR	2010 SH	Crag Lough (Roman Wall Loughs SSSI). “much less than at Caw Lough” (AJR).

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Carex distans L.			**Distant Sedge**
Native			Locally scarce
Although locally common in maritime sites in the north of the county, *C. distans* probably only survives in two localities in the vice-county.			
NZ271982 NZ271983	2014 GY & WG	2019 AJR	Pool edge near Chibburn Mouth
NZ334760 NZ334761 NZ334762 NZ334763	1998 AY & GY	2017 WG	Salt-marsh at Seaton Sluice (Holywell Dene LNR).
NZ3092	1972 AJR	1977 GS	Quarry pond south of Cresswell (Cresswell Dunes SSSI).
NZ288940	1972 AJR		Croft Letch, Cresswell (Cresswell Ponds SSSI)
Carex divisa Huds.			**Divided Sedge**
Native			Locally extinct
There is some doubt as to whether it actually ever grew in South Northumberland, but it has certainly not been seen since the 19th century.			
Carex lasiocarpa Ehrh.			**Slender Sedge**
Native			Vulnerable; locally rare
NY766689 NY770690 NY772691	2009 AJR	2010 AJR	Caw Lough East (Roman Wall Loughs SSSI). The recorder considered this the best site in the county for *Carex lasiocarpa*.
NY786698	2010 SH		Broomlee Lough (Roman Wall Loughs SSSI)
NY728783 NY728787	1988 GS	1994 GS	Gowany Knowe Moss (Kielder Mires SSSI unit 17)
Carex limosa L.			**Bog-sedge**
Native			Endangered; locally scarce
Although this species is much more common in Scotland, the Northumberland populations constitute a large proportion of the English sites. This species is a good indicator of the health of the Border Mires, it requires very wet conditions and drying of the Mires is an important threat to its existence.			
NY634833	2019 BB		Humble Loop
NY6769 NY6770 NY6870	1964 GS AJR	2010 JO	The Wou (Kielder Mires SSSI unit 30). "Hundreds of plants" JO.
NY697943 NY693944	1967 GS	2019 BB	Buck Lake Sike, Emblehope Moor (Kielderhead & Emblehope Moors SSSI). The records of this species are a little confusing, because there are two sites with similar names. One is Buck Lake and the other is Buck Lakes.
NY7377	2009 QG		Butthill Sike (Kielder Mires SSSI unit 18)
NY7772	2009 QG		Bellcrag Flow (Kielder Mires SSSI unit 25)
NY728783 NY728787	1988 GS	1996 GS	Gowany Knowe Moss (Kielder Mires SSSI unit 17)
NY6868	c. 1972 DHa	1988 GS	Outer Dodd Moor
NY686824	1988 AJR		Robin's Knowe
NY5991	1964 HM	1967 GS	Buck Lakes

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Carex magellanica Lam.			**Tall Bog-sedge**
Native			Near threatened; locally scarce
Not uncommon in the border mires, but never much at any locality. It requires very wet conditions in sphagnum peat bogs and has suffered from the drainage of bogs for forestry. However, even where the bogs are not drained they are encroached upon by self-sown Sitka Spruce.			
NY680704 NY677702	1964 GS	2010 JO	The Wou (Kielder Mires SSSI unit 30). JO found 17 plants in 2010 but suggest there may be more.
NY706862 NY707861 NY707860	1968 GS	2010 JO, AJR, JBo & QG	Falstone Moss (NWTR, Kielder Mires SSSI unit 15). In 2010 occupying about 10 m × 4 m of the wettest part of the bog. 22 stems were counted in 2m^2 of the population and it was estimated that there were 60–100 flowering stems in total. The site is at risk of drying out and being invaded by Sitka Spruce.
NY691945	1983 GS	2010 CI	Buck Lake Sike (Kielderhead & Emblehope Moors SSSI)
NY707715 NY7072	1983 GS	2007 WG	Hummel Knowe Moss (Kielder Mires SSSI unit 26). About 25 plants in 2007.
NY7377 NY7477	1988 GS	2005 EM	The Lakes Butthill Sike (Kielder Mires SSSI unit 18). 20+ plants in 2005.
NY6383	1969 GS	2005 GSi	Near pond on The Rigg. In 2005 there were at least 10 plants, but notes on the records suggest there were originally many more at this location.
NY6979 NY6878	1961 GS	1994 GS	Coom Rigg Moss (Kielder Mires SSSI unit 12).
NY7679	1994 GS		Blackaburn Lough
NY7277	1983 GS		Felecia Moss (Kielder Mires SSSI unit 12)
NY8066	1840 JT	1978 GS	Muckle Moss SSSI (NNR)
NZ0095	1957 GS	1972 GS	Chartners Lough
NY7075	1965 GS	1968 GS	Nameless Sike (Lampert Mosses SSSI)

Carex maritima Gunnerus			**Curved Sedge**
Native			Regionally extinct; locally extinct
Last seen c. 1950.			

Carex muricata subsp. *pairae* (F.W.Schultz) Čelak.			**Prickly-sedge**
Native			Locally scarce
NY791735	2019 BB		Viewie Knowe
NY7899	2019 BB		Blackburnhaugh
NY9565 NY942652	1969 GS	2012 QG	Near Anick. Site may have been destroyed by road works in 2016.
NY9174	2006 CI, LS & KC	2018 AJR	Gunnerton Crags (Gunnerton Nick SSSI)
NY9476	1963 GS	2015 WG	Colwell

Carex pauciflora Lightf.			**Few-flowered Sedge**
Native			Threatened; locally scarce
Northumberland had a significant proportion of the English sites, though it is relatively common in Scotland. However there has only been a single record in the last decade despite searches in known sites.			

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY679791	1956 BHT	2012 PB	Muckles Samuel's Moss (Kielder Mires SSSI unit 10)
NY651770	2008 CO & JO		Bog south of Windy Hill (Kielder Mires SSSI unit 8)
NY775792	1994 GS		Pundershaw Moss (Kielder Mires SSSI unit 16)
NY714748	1992 GS	1994 GS	Haining Head Moss (Kielder Mires SSSI unit 22)
NY745737	1993 GS		Grains Head Moss (Kielder Mires SSSI unit 23)
NY76NE	1803 NJW	1981 GS	Hotbank Moss (Roman Wall Loughs SSSI)
NY967953	1974 GS		South of Darden Pike (Simonside Hills SSSI)

Carex spicata Huds. **Spiked Sedge**

Native Locally scarce

Apparently, this species has recently increased on derelict industrial sites around Newcastle.

NY8668	2014 WG		Lower Stonecroft Farm
NY943651	2013 WG		Oakwood.
NZ214717	2000 WG	2018 LKo	Havannah LNR (SNCI)
NZ347663	2002 AY & GY		Derelict land up-river, North Sea Ferry-terminal. Probably destroyed when a car park was built on the site, however many similar areas are adjacent to this site.
NZ259647	1999 QG		Wasteland on Portland Road, Newcastle.
NY923727	1973 MB	1991 MB	Haughton Castle

Carex oederi Retz. **Small-fruited Yellow-sedge**

Native Locally rare

NY965763 NY966763	1999 JY	2020 AJR	Hallington Reservoir, north shore.
NZ0668	1973 GS		Great Northern Reservoir. Presumed extinct as drawdown no longer occurs there.

Carex acuta × nigra

Native Locally rare

NZ061726	2011 JA & AH		How Burn

Carex × boenninghausiana Weihe **C. paniculata × C. remota**

Native Locally rare

NY771690	2010 AJR		Caw Lough (Roman Wall Loughs SSSI)
NT80SE	1996 GS		Ramsey's Burn SSSI
NZ225923	1980 GS		Ulgham

Carex × fulva Gooden. **C. hostiana × C. lepidocarpa**

Native Locally rare

NY7776	2010 JO		White Hill

Eleocharis acicularis (L.) Roem. & Schult. **Needle Spike-rush**

Native Near threatened; locally scarce

NZ2391.7716	2016 JO		Northumberlandia
NY975770 NY976769	1984 GS	2020 AJR	Hallington Reservoirs

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NT733036 NT747028	1972 GS WC	2016 QG	Catcleugh Reservoir. A small patch, at most 1 m^2 (QG 2011).
NY933780 NY9377 NY9478	1972 GS	2020 AJR	Colt Crag Reservoir
NZ070585	1984 GS		Great Northern Reservoir. Presumed extinct as drawdown no longer occurs there.

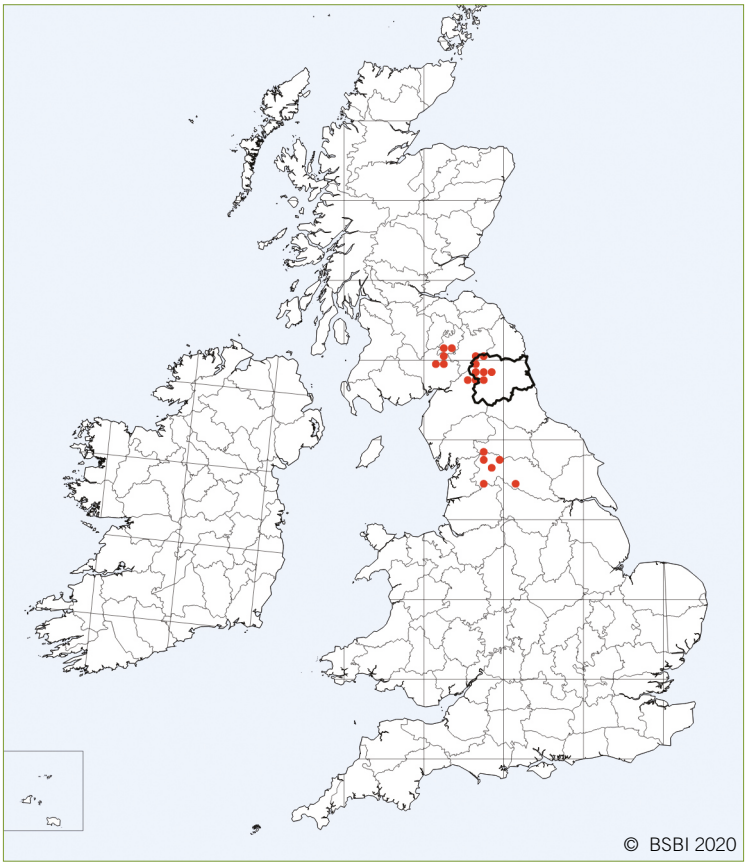
Eleocharis mamillata subsp. *austriaca* (Hayek) Strandh. **Northern Spike-rush**

Native Locally scarce

Most of the old sites of this rare plant have been lost, but a superb new site was discovered in 2018. It seems to be becoming sterile, perhaps through climatic reasons.

NY63205.91464	2018 WG	2020 AJR	Capon Pond, Bakethin. A magnificent fertile population.
NY68120.73629 NY68132.73665	2017 WG		Lampert, R Irthing. Fails to set any mature fruit.
NY640910 NY642909	2006 CI	2016 AJR	Bakethin Reservoir (NWTR). The original site near the slipway has disappeared, but larger patches still exist in Lewie Hope, mixed with *E. palustris*.
NY664710	2016 AJR		Wileysike, edge of R. Irthing. One clump with *E. palustris*. Fails to set any mature fruit. Could not be found in 2018.
NY604864 NY68NW	1969 GS	1989 GS	Lewis Burn
NY663984 NY657991	1970 GS	1990 GS	Scaup Burn

Eleocharis mamillata. Northern Spike-rush. There are currently nine sites for this rare plant in Britain of which four are in South Northumberland, two by Kielder Water and two on the River Irthing. The dark, pointed fruiting heads are a guide to identification.



Map 10. Distribution map of *Eleocharis mamillata* subsp. *austriaca* in Britain and Ireland. Occurrence records are displayed at hectad level (10 km x 10 km). South Northumberland (VC 67) is outlined in bold black.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY649995	1962 GS	1988 GS	Along Kielder Burn
NY649836	1990 GS		Humble Burn
NY753780	1988 GS		Blackie Burn, old pond
NY675773	1977 GS		North bank of River Irthing, between Churnsike & Whitehill. Looked for in 2012 but not found (AJR).
NT732035 NT732038	1972 GS		Catcleugh Reservoir, margins.

Eleocharis multicaulis (Sm.) Desv. **Many-stalked Spike-rush**

Native Locally extinct

It perhaps grew at Prestwick Carr until the 19th century.

Eleocharis uniglumis (Link) Schult. **Slender Spike-rush**

Native Locally rare, probably extinct.

In 2011 AJR visited the Wileysike House and Small Burn sites. He was unable to confirm the presence of *E. uniglumis*. However, at Small Burn a perplexing *Eleocharis* was found with some characters of *E. uniglumis*. He concluded though, it was probably a form of *E. palustris*. This species needs further research.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Approx. NZ3188	1985 GS		Newbiggin Moor
NY666711	1974 GS		near Wileysike House
approx. NY6771	1974 GS		Rotheryhaugh
NY98SE	1972 GS		Small Burn

Eleogiton fluitans (L.) Link — **Floating Club-rush**

Native — Locally extinct

NY7378	1971 AL & MJH		In a pool by a forest road near Gowany Knowe Moss (Kielder Mires SSSI unit 17). "...no longer there" Swan (1993).

Rhynchospora alba (L.) Vahl — **White Beak-sedge**

Native — Near threatened; locally scarce

This is largely a western species and the South Northumberland sites represent isolated eastward extensions of its range.

NY932778	2015 DHu		Folly Moss
NY758673 NY760673 NY760674 NY763674 NY765674	1974 DHa	2012 AJR	Hotbank Moss (Roman Wall Loughs SSSI)
NY7174	1965 GS	2012 JO	Haining Head Moss (Kielder Mires SSSI unit 22)
NY7071 NY7072	1968 AL	2007 WG	Hummel Knowe Moss (Kielder Mires SSSI unit 26). "10,000 plants in 30 m square area" AJR.

Schoenus nigricans L. — **Black Bog-rush**

Native — Locally rare

NY9999	2019 BB SH		Bickerton Knowe
NY957977	1974 GS	2012 MR	Grasslees LNR & NWTR (Simonside Hills SSSI). The largest patch is approximatly 10 m long × 3.5 m but with approx 50 tufts (MR).

Poaceae — Grass family

Agrostis gigantea Roth — **Black Bent**

Native — Locally frequent.

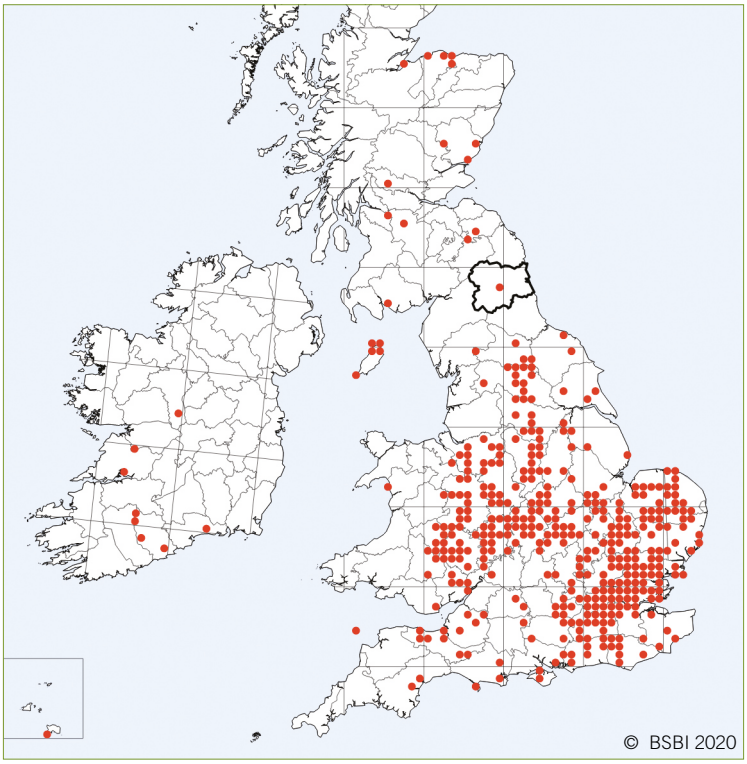
This species appeared in earlier editions as under-recorded and data deficient. There have been a number of new records in the last decade, and it is clear that this species is not uncommon in the county, most often on the edge of footpaths in plantations.

Alopecurus aequalis Sobol. — **Orange Foxtail**

Native — Recent colonist

A remarkable new discovery. This predominantly southern species occurs as a native north to north Yorkshire.

NY942789	2020 MRi		Colt Crag Reservoir, eastern end, near the dam. Dominant over a large area.



Map 11. Distribution map of *Alopecurus aequalis* in Britain and Ireland. Occurrence records are displayed at hectad level (10 km x 10 km). South Northumberland (VC 67) is outlined in bold black. Note all records north of VC 67 are garden introductions.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Apera spica-venti (L.) P.Beauv.			**Loose Silky-bent**
Colonist			Nationally near threatened; locally rare
Probably only ever casual.			
NZ2373	2002 QG		Derelict land up-river from North Sea Ferry-terminal. This site has been built on since.
NZ3466	1990 GS		Brenkley Colliery Plantation
Brachypodium pinnatum (L.) P.Beauv.			**Heath False-brome**
Colonist			Locally rare (data deficient)
In addition to the listed sites, there are several uncorroborated sites from the 1990s. Most old sites are either from quarries or near old railways and this species is at its northernmost limits in Britain.			
NY988754 NY989754	1978 GS	2011 AJR	Near Hallington. There are two large patches, each about 10m long, probably an introduction with seed mixtures.
NY7287	1989 GS		Falstone, near old railway
NY862633	1977 GS	2016 AJR	Old railway near Elrington. Has colonised about 10 m of bank in 2016.
Bromopsis benekenii (Lange) Holub			**Lesser Hairy-brome**
Native			Nationally scarce; locally rare
Perhaps overlooked elsewhere in the area, but this is the only known site in Northumberland and Durham.			
NY798629	2001 GS		Allen Banks, Raven Crag. Not found 2016.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Bromus racemosus Schrad.			**Meadow Brome**
Native			Rare colonist
NZ101783	2018 AJR		West Newham, field edge (as *B. commutatus,* now = *B. racemosus*)
Bromus hordeaceus subsp. *thominei* (Hardouin) Braun-Blanq.			**Lesser Soft-brome**
Native			Nationally scarce; locally extinct
Recorded from the sand dunes in Blyth in 1967, but not recorded since. This subspecies is a rather easily overlooked.			
Bromus secalinus L.			**Rye Brome**
Colonist			Near threatened; locally scarce
Until recently, it had not been seen for a long time.			
NZ234729 NZ232731	2013 QG		Brunswick Village. Apparently, established as a weed of agriculture.
NY640911	2008 AJR		Bakethin Reservoir (NWTR)
NY6391	2008 AJR		Kielder, near car-park.
NZ348661	2002 AY & GY		Derelict land up-river from the North Sea Ferry-terminal. The site has since been built on.
NY843646	2000 NS		Haydon Bridge
Calamagrostis canescens (F.H.Wigg.) Roth			**Purple Small-reed**
Native			Locally scarce
NY763694 NY766694 NY766698 NY768689	2010 SH	2015 AJR, JO & AM	Greenlee Lough NNR & Caw Lough (Roman Wall Loughs SSSI). “abundant over quarter of a hectare”.
NY691591	2012 AJR & NW		Coanwood Fen, a large population.
NY6977	2010 JO		Little Gowany Knowe. A large patch at least 5 m by 20 m.
NY631927 NY632927 NY632926	2002 GS	2019 AJR	Kielder. A large diffuse population persists here.
NY686891	2001 GSi		North side of Kielder Water, near to Wind Hill.
Catabrosa aquatica (L.) P.Beauv.			**Whorl-grass**
Native			Vulnerable; locally scarce
NU258046 NU259046	1990 GS	2014 AJR	Small stream near to Gloster Hill
NY813845	2013 NW & AJR		Hesleyside
NY813683	2009 QG		A small pond near Beamwham. Covering the whole surface of the dried-out pond.
NZ080773	1998 GS		Jock’s Well, near Belsay
NU20SE	1990 GS		A small stream near Amble
NZ38NW	1983 GS		Newbiggin-by-the-Sea

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Catapodium marinum (L.) C.E.Hubb.			**Sea Fern-grass**
Native			Locally scarce
In short turf and bare ground near the sea. While not common it can colonize new sites and does not seem to be declining.			
NZ303843 NZ303847 NZ304847	2017 GY		N of Cambois
NZ309872 NZ309873	2015 AY & GY		Newbiggin Bay, promenade embankment
NZ325778 NZ325779 NZ320790 NZ320791 NZ324780 NZ325780	2005 AY & GY	2018 GY	A193 roadside verge, north of Astley Arms, Seaton Sluice.
NZ374692 NZ371693 NZ371694	1984 GS	2019 GY	Tynemouth pier, growing well for 60 m by the side of path, the best we have ever seen it (GY).
NZ314880 NZ319881 NZ319880 NZ318880 NZ317879	1985 GS	2015 AY & GY	Newbiggin-by-the-Sea, Newbiggin Point. In short turf at the top of the cliffs and behind the sea wall.
NZ320818	1983 AWD	2006 NWT	North Blyth
Drymochloa sylvatica (Pollich) Holub.			**Wood Fescue**
Native			Locally scarce
In shady denes in the Tyne and Derwent valleys. Rarely in large populations, but these populations seem stable. South Northumberland holds a relatively large proportion of all the English sites.			
NY696627	2015 AM		Bellister Castle Woods
NY634666 NY635678 NY638678	2008 AY, GY & AJR	2015 QG	Along the banks of the River Irthing and its tributaries in scattered locations (Irthing Gorge SSSI). The number of plants has not been counted at each location, but there were more than 35 plants in 2010. 52 flowering stems in 2011.
NY948595	2014 AJR & NW		Ordley, Eleven plants
NY803607	2013 AM		Harsondale Cleugh
NY799595 NY802598 NY802599 NY803596 NY804596	2009 AJR	2019 AJR	Stawardpeel Wood, W. Allen, a total of 525 plants. North of Cupola Bridge (Stawardpeel Woods SSSI).
NY798629 to NY798633	1974 GS	2019 AJR	Allen Banks. 48 plants in 2011. Several hundred in 2019.
NY918613	1975 GS	2016 AJR	West Dipton Burn. 11 plants in 2010.
NY697496 NY695496	2000 AJR	2009 AJR	River S Tyne, under footbridge at Underbank.
NY781562	1969 GS	2009 AJR	Monk Wood SSSI.
NY8485 NY8484	1972 GS	2019 AJR	Hareshaw Dene SSSI. 22+ plants in 2009 (AJR), 24 flowering stems in 2010 (GY). Many more in 2019.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY960624	2009 AJR		Devil's Water. 50+ plants.
NZ216859 NZ214860	1980 GS	2009 AJR	Along the River Wansbeck from Northstead Banks to Morpeth. Three plants in 2009.
NY789620 NY792618	1960 OG	2014 GY	Kingswood Burn. Twelve plants in 2009.
NZ0549	1967 GS	1979 GS	Northumberland side of River Derwent (Derwent Gorge and Muggleswick Woods NNR & SSSI). Looked for in 2009 without success (AJR).

Elytrigia atherica (Link) Kerguélen **Sea Couch**

Native Locally scarce

E. athericus can be confused with its hybrids *E.*× *acuta* (*E. atherica* × *juncea*) and *E.* × *drucei* (*E. repens* × *atherica*). The following records are considered reliable, but the presence of hybrids should be considered. There are two records of *E. x acuta* nothosubsp. *obtusiuscula* in the last decade but it is almost certainly overlooked and at Cresswell, Sandy Bay and Chevington Burn probably occurs with *E. atherica*. However, *E.* × *drucei* has not been recorded in Northumberland.

NZ314667 NZ313668	1987 NWT	2001 JD	Willington Gut
NZ3091	2002 GS		South of Cresswell (SSSI)
NU2604	2002 GS		The Braid
NZ2797	2002 GS		Near mouth of Chevington Burn (Northumberland Shore SSSI).

Elytrigia juncea (L.) Nevski **Sand Couch**

Native Locally scarce

Elytrigia juncea is present in most parts of the county with mobile primary dunes, and is well-recorded with 15 records in the past decade, although it is often shy-flowering. It is probably not increasing but was overlooked in previous years.

Festuca arenaria Osbeck **Rush-leaved Fescue**

Native Locally rare

This species is easily overlooked and requires expert determination to separate it from *F. rubra*. It may be more common than the number of records suggests.

NZ3280	2019 GW MC PH		South Beach, Blyth
NZ272980	2002 GS		Near mouth of Chevington Burn (Northumberland Shore SSSI)
NZ3189	1996 GS		Newbiggin-by-the-Sea

Festuca rubra subsp. *juncea* (Hack.) K. Rickt.

Native Locally rare

NZ033922	2010 WG		Greenleighton Quarry SSSI

Festuca vivipara (L.) Sm. **Viviparous Fescue**

Native Locally rare

NY698478 NY696477	1969 GS	2011 AJR	Gilderdale Burn. Only a little growing in rock crevices.
NT690040	1998 JBu		Carter Bar to Buzzard Crag. Diary record.
NY84NW	1975 GS		Black Hill (Allendale Moors SSSI).

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Glyceria notata Chevall.			**Plicate Sweet-grass**
Native			Data deficient
Swan (1993) wrote that the distribution of this species was "Widespread and occasional". However, recent records have been few. Either there has been a decline in its abundance or it is being overlooked.			
NZ0276	2015 JD		Moot Law Quarry
NZ181773	2007 JD		Pont Ends oxbow
NY980797	2016 AJR & NW		Newonstead
NZ2588	2006 JD		Potland Burn
NZ1994	2006 JD		Earsdon Burn at Causey Park
NZ1084	2006 JD		Pow Burn/River Wansbeck
Hierochloe odorata (L.) P.Beauv.			**Holy-grass**
Native			Vulnerable; locally rare
Refer to Braithwaite (2005) for a full account of this species in Northumberland.			
NY919730 NY919731 NY917730	2004 MB	2015 AJR	River N Tyne, near Haughton Castle. The only English site.
Hordelymus europaeus (L.) Jess. ex Harz			**Wood Barley**
Native			Locally rare
NY799592 NY799593 NY799594 NY799595	1966 OG	2019 AJR	North of Cupola Bridge on the River East Allen (Stawardpeel Woods SSSI). Estimated to be at least 300 plants in 2007; 413 plants counted in 2013.
NZ076644	1971 GS	2009 AJR	Whittle Dene.
NZ2186	1868 Msi	1962 GS	Chapel Wood.
Hordeum secalinum			**Meadow Barley**
Native			Recent colonist
Common in the south of the country, but with only scattered records north of south Yorkshire.			
NZ200847	2000 QG		Morpeth
NY672524	2015 DF		Lambley
Lolium temulentum (L.) Desv.			**Darnel**
Casual			Critically Endangered; locally extinct
This species is mentioned in Baker and Tate (1868) as growing in Newcastle, but without further details. No other observations seem to exist, but it is mentioned due to its national status.			
Melica nutans L.			**Mountain Melick**
Native			Vulnerable; locally scarce
Apparently declining, however, targeted searches of the old sites might rediscover it in some of them. It lives in shady places near streams in the upland. These sites are not under any particular threat, but as far as can be told from the records, there are not many plants at each site.			
NY800591 NY800590 NY802590	1974 GS	2020AJR	Cupola Bridge (Stawardpeel Woods SSSI) , more than 100 plants in 2007 (AJR).
NY9460	2009 JBo		Letah Wood

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
NY774907	1958 GS	2008 QG	Gilliehill Clints, one plant in 2008 (QG)
NY96SW	1849 TN	1992 GS	West Dipton Burn
NY634682	1831 NJW	1992 SM	Irthing Gorge Wood
NY941492	1966 GS	1981 GS	Beldon Burn
NY76SE	1974 AJR		Briarwood Banks
NT90SW	1973 GS		Yardhope
NY88SE	1966 GS	1969 GS	Rede Bridge
NZ04NE	1966 GS		River Derwent near Crooked Oak
NY730499	1965 GS		Ayle Burn

Mibora minima (L.) Desv. **Early Sand-grass**

Colonist — Near threatened; locally extinct

Known from Seaton Sluice in the 1930s.

Parapholis strigosa (Dumort.) C.E.Hubb. **Hard-grass**

Native — Locally rare

NZ298853	2012 AJR & NW		Sandy Bay
NZ2798	1988 CD		Chibburn Mouth (Druridge Bay country park & Hadston Links SSSI).
NZ334764 NZ335761	1999 AY & GY	2009 WG	In the saltmarshes near the mouth of Holywell Dene LNR.

Phleum arenarium L. **Sand Cat's-tail**

Native — Near threatened; locally rare

NZ37NW	1961 GS	c. 2004 AJR	Seaton Sluice dunes LNR. Searched for in 2011 but not found.

Poa angustifolia L. **Narrow-leaved Meadow-grass**

Native — Locally rare (data deficient)

Very little is known about this species. It is under-recorded, but it is also rare.

NY96SE	1983 GS	Railway near to Farnley

Poa compressa L. **Flattened Meadow-grass**

Native — Vulnerable

As suggested in earlier editions of the RPR, probably not a native species in the county, colonising new, impermanent or artificial habitats. There has been a spate of recent records in the vice-county, mostly in the SE, but also in the Forests and it is no longer as overlooked as previously, so has been withdrawn from the RPR.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Polypogon viridis (Gouan) Breistr.			**Water Bent**
Colonist			Locally Scarce
NZ301927	2018 AJR		Snab Point, Cresswell
NZ2557.8545	2015 WG		North Seaton Colliery
NZ2888	2009 MU		Woodhorn Museum
NZ2567	1981 GS		Ouse Burn, Gosforth

Puccinellia rupestris (With.) Fernald & Weath.	**Stiff Saltmarsh-grass**
Native?	Locally extinct

Once known near Cullercoats and on the Tyne ballast hills, but not seen since the 19th century and only doubtfully native.

Grid Reference	First Record (with recorder initials)	Last Record	Site Description
Sesleria caerulea (L.) Ard.			**Blue Moor-grass**
Native			Locally rare
NY951924 NY952926 NY953921 NY953922 NY953923 NY953924 NY953925 NY954921 NY955928	1964 GS	2014 AM	Mill Burn (NWTR) NY953921 & NY954921 are outside the reserve.
NY967931	1967 GS	1989 GS	A small stream near Eastnook (Mill & Whiskershiel Burns SSSI).

ACKNOWLEDGEMENTS

The junior authors who are responsible for the 2020 edition would like to thank Quentin Groom who was largely responsible for earlier editions, thus providing the framework for the present version. We are indebted to everyone who provided records, without which this register would not have been possible. Particular thanks go to George Swan, Gordon Simpson, John Durkin & John O'Reilly whose recordings of Northumberland's flora are particularly important.

Thanks also go to all the individuals mentioned in the species accounts and listed below, though there are many others who have contributed over the years.

Adrian Allen (AA), L. Alexander (LA) Janet Angel (JA), Nik Aspey (NA), Argus Ecological Services (AES), Vicky Armitage (VA), Brenda Astley (BA), Terry Astley (TA), J. Bainbridge (JBa), J.H. Balfour 1808-1884 (JHB), Baker and Tate (BT), Chris Barlow (CB), A.W. Bartlett (AB), T. Belt (TBe), Rev. J.F. Bigge (JFB), Kathleen Blackburn (KB), John Blakemore (JB), G. Bolam (GB), T.A. Booth (TB), Botanical Society of Britain and Ireland (BSBI), Botanical Exchange Club (BEC), J.E. Bowman (JEB), R.B. Bowman 1808–1882 (RBB), T.J. Bowman (TBo), Jim Bowyer (JBo), Rosi Bowyer (RBo), Margaret E. Bradshaw (MBr), Michael Braithwaite (MB), British Pteridological Society (BPS), Nick Brodin (NB), D.A.Broughton (DB), Phill Brown (PB), John Burnett (JBu), Bill Burton (BB), R. Cartwright (RCa), Mima Cattan (MC), K.M. Chalkin (KMC), Tom Charman (TC), W.A. Clark (WC), Bill Clarke (BC), Mr J. Cobb (JCo), R.B. Cooke (RBC), Les C. Coombes (LCC), Northumberland County Council (NCC), North Tyneside Borough Council (NTBC), Fiona Corby (FC), Rod W.M. Corner (RC), R. Craigs (RCr), C. Crawford (CC), John Chrisp (JC), Diane Crozier (DC), Keith Cunningham (KC), L. Cuthbert (LC), Graeme Dalby (GDa), Sue Dark (SDa), Alan Davies (AD), A.W. Davison (AWD), Steve P. Davison (SD), Marjorie Davy (MD), Neil Dawson (ND), John Day (JDa), Ian Denholm (IDe), Tom Dearnley (TD), Geoff Dobbins (GD), Charles Douglas (CD), Ian Douglas (ID), Paul Drummond (PD), John Durkin (JD), E. Elliott (EE), C.E. Ellis (CE), Hewett A. Ellis (HE), ENSIS Ltd. (ENSIS), Natural England (NE), F. Evans (FE), Len Fallick (LF), Rev. W. Featherstonhaugh (WF), David Feige (DF), J. Firth (JF), Lady R. FitzGerald (RF), Nigel Foggo (NF), W.E. Foster (WEF), R. Foster-Smith (RFS), Brian William Fox (BF), Richard Friend (RFr). M.E. Frisch (MF), Oliver L. Gilbert (OG), D. Glen (DG), Gourlie, W. (WGo), Quentin J. Groom (QG), Wednesday Group of the Natural History Society of Northumbria (WG), Martin Guerrero (MG), D. Haffey (DHa), Monica Haigh (MH), Alice L. Hale (ALH), P. Hamed (PHa), A. Hancock (AHa), Dorothy Hardy (DH), Trevor Hardy (TH), Brian Harle (BH), Jacqui Harle (JHa), Chris Haworth (CCH), K. Hearn (KH), Stuart Hedley (SH), R. High (RH), John William Heslop-Harrison (JHH), Jonathan Hewitt (JHe), Mark O. Hill (MOH), Pete Hollingsworth (PH), Richard Hopwood (RHo), Angela Horsley (AH), M.J. Hudson (MJH), Rev. J.E. Hull (JEH), Joyce M. Humphris (JH), Jill Hunter (JHu), Duncan Hutt (DHu), J.M. Ide (JI), Dorothy Iveson (DI), Chris Irvine (CI), Denise Jackson (DJ), Mike Jeffries (MJ), Peter Jepson (PJ), A. Clive Jermy (AJ), Linda A. Kergon (LK), Brian King (BK), Lydia Koelmans (LKo), Claire Langelaan (CL), R.V. Lansdowne (RVL), Helen S.J. Lee (HSJL), Alex Lister (ALi), B.A. Little (BL), Henrietta Loraine (HL), Jenny Loring (JL), Steve Lowe (SL), Angus G. Lunn (AL), Anne Middleton (AMi). Elizabeth Maddison (LM), Doug E. Roger Manning (RM), S. Maxwell (SM), McCutcheon (DMc), Malcolm McKay (MM), Andy Mclay (AM), Eric Meek (EM), H. Milne (HM), David Mitchell (DM), P. Nicolet (PN), Tyneside Naturalists' Field Club (TN), John O'Reilly (JO), Clare O'Reilly (CO), Mr E. Robson (ER), Mel Rocket (MRo), Moira Owen (MO), C.M. Owen (CMO), C.N. Page (CNP), M. Palmer (MPa), J.D. Parrack (JP), Sue Penn (SP), Anne Pickering (AP), William (Bill) G. Pickering (WP), Richard Poppleton (RP), Mike S. Porter (MP), Chris D. Preston (CP), Ann Van der Poorten (APo), Steve Preston (SPr), G. Quinn (GQ), Martin W. Rand (MWR), R.C. Rand (RCR), Derek Ratcliffe (DR), Geoff P. Radley (GR), A. John Richards (AJR), Shelia Richards (SR), Mike Richardson (MRi), William Richardson (WR), F. Jeremy Roberts (FJR), Megs Rogers (MR), British Bryological Society (BBS), J.D. Sadler (JDS), Falunjee Sarker (FSa), A. Say (AS), A. Say (ASa), N.S. de Sausmarez (NS), Nick E. Scott (NSc), Mr F. Scott (FS), Colin Scrutton (CS), R.C. Seely (RS), David Shaw (DS), Mike Shaw (MSh), A&M Sheader (A&MS), M.J.F. Sidney (MSi), Lesley Silvera (LS), Janet Simkin (JSi), Gordon Simpson (GSi), J.R. Stacey (JSt), Ruth Starr-Keddle (RS-K), A. Starling (AS), John Steele (JS), Northumberland Ecological Services (NES), Ann Stephenson (ASt), J. Storey (JSy), Judy Summerson (JSu), Mike A. Sutcliffe (MS), George A. Swan (GS), Margaret Swan (MSw), G.W. Temperley (GWT), N. Temperley (NT), B.H. Thompson (BHT), John Thompson (JT), Sir John Trevelyan (JTr), K. Trewren (KT), Rev. William Turner (WT), Northumberland Wildlife Trust (NWT), Antony (Tony) M. Tynan (AT), Northern Naturalists' Union (NNU), Prof Michael Usher (MU), Martin Wakelin (MWa), George Wallace (GW), John Wallis 1714–1793 (JW), Denise Walton (DW), G. Warde-Aldham (GW-A), Naomi Waite (NW), Mark Welfare (MW), Richard Willis (RW), Mark Wilson (CMW), Scott Wilson (SW), Nathaniel John Winch 1768–1839 (NJW), David Wright (DWr), Ann Young (AY), Elizabeth Young (EY), Gordon Young (GY), J. Young (JY).

REFEREES

We are very grateful to the numerous experts who have helped us identify and validate our records. These experts include John R. Akeroyd, P.M. Benoit, Margaret Bradshaw, Tom A. Cope, Arthur Copping, J. Fryer, Richard V. Lansdown, I. Keith Ferguson, Richard Jinks, R.D. Meikle, Clare O'Reilly, Mike S. Porter, Fred J. Rumsey, Alan Silverside, Clive A. Stace and J. Webb.

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COMMON NAME INDEX

LATIN NAME INDEX

A LIFELONG OBSESSION WITH NATURAL HISTORY

John Richards

I cannot remember a time when I was not obsessed with natural history. Butterflies came first. At the age of eight, I was taken to the Festival of Britain where I fell deeply in love with L. Hugh Newman's display of living British butterflies; Swallowtails and Purple Emperors come to mind, and I could not be dragged away. The grounds of my school had meadows with Dingy and Grizzled Skippers and woods with White-letter Hairstreaks, and the occasional White Admiral. The pond was full of Red-eyed Damselflies, Tench and Grass Snakes. Despite the tank water freezing to an inch in my bedroom, I bred a variety of dragonflies, fed on mince, which hatched and zoomed around the room. By the age of ten I was cycling 12 miles or more, to Pamber Forest to see Pearl-bordered, High-brown and Silver-washed Fritillaries (only the last is there now), or to the Chilterns to look for rare aberrants in Chalkhill and Adonis Blues.

Birds came shortly afterwards. I remember rigging a baited hide to photograph common garden birds with my Kodak 620 at the age of 10. My senior school had an ornithological headmaster and a thriving bird club. With the school I visited the bird observatories at Dungeness, Gibraltar Point, Tour du Valat in the Camargue, and Ottenby, Sweden. I was a qualified Bird Ringer by the age of 17; the school grounds were full of chardonnay and crow traps for ringing. Mist-nets were only just starting to be used.

I suppose that the study of wild plants, field botany, came last. However, I have a vivid memory of cycling 10 miles one cold March day at the age of 12 to photograph Green Hellebores. As with many others, my entry to the complex world of wild flowers came through a love of orchids. For a school project, at the age of 15 I undertook to photograph and monograph all the species of orchid in Berkshire. I adored the 'New Naturalist' book 'Mountain Flowers'. Aged 15 I sought Shrubby Cinquefoil high above the Wastwater screes (and saw Mountain Ringlets!) and at 16 climbed Ben Lawers alone to see Alpine Forget-me-not and Drooping Saxifrage.

After a summer when a friend and I hitch-hiked to Finnish Lapland, I went to read Botany at University College, Durham, my first introduction to the delights of the North-East. During the epic winter of early 1963, we were imprisoned in Lumley Castle, so I took my mist-nets down to the burn and caught several Jack Snipe. Earlier I witnessed the frozen sea at Pagham harbour where thousands of waders had packed into a warm water outlet, and a Great Northern Diver frozen into Blenheim Castle lake. At Christmas, a friend and I ringed more than 100 Bramblings from a huge flock on the Berkshire downs.

As a student I fell under the spell of a young David Bellamy, who took us to Germany, Italy and Poland on field trips, but it was the Experimental Taxonomy of David Valentine and the Population Genetics of

Jack Crosby which sowed the seeds of an academic career. For my doctorate, Valentine suggested that the study of British dandelions provided a virgin field, certainly the best present I was ever given! After nearly six decades I am just completing my third identification guide to the 250 species of British and Irish dandelion, none of which were known here before I started.

My first job was as a Demonstrator at the Oxford Botany School where I was in nominal charge of the Fielding-Druce Herbarium. My boss Cyril Darlington and I did not get on, and after three years I moved to a lectureship at Newcastle, having first initiated the Oxfordshire County Flora with Stan Woodell and Roy Perry. I remained at Newcastle for 34 years, eventually entitled Professor of Botany. My research interests centered around the evolution of mating systems in plants and concentrated on apomixis (in dandelions and mangosteen); autogamy (in helleborines); and heteromorphy (in primulas and thrift). Later I became interested in the effect of temperature and climate change on plant mating systems. I worked with about 30 excellent postgraduate students and published more than 100 scientific papers, including a text-book, 'Plant Breeding Systems' that went to two editions. Concurrently, I developed a consuming interest in the taxonomy of primulas, eventually culminating in a monograph 'Primula' which also spawned a second edition.

Throughout my career I had a particular interest in field teaching and was proud to help generations of students acquire skills and interest in field botany, many of whom have gone on to careers in Nature Conservation. I joined the Botanical Society of Britain and Ireland in 1965, served on their Committee several times, and when I retired became Joint County Recorder for South Northumberland, serving first with George Swan, then Quentin Groom and now Megs Rogers. I was proud to become a Vice-President and Honorary Member of the BSBI. As a member of the NHSN Committee I have a particular interest in the NHSN's botanical collections, and until lockdown intervened was part of a team helping to curate these collections at the Discovery Museum.

During more than half a century in the North-East my interest in other fields of Natural History have continued. I have been a member of the Northumberland and Tyneside Bird Club throughout (and gave them a poor lecture at the tender age of 18 in 1961!), and was a member of the Northumbria Ringing Group for many years, helping out at Hauxley Ringing Station. Latterly I have acquired a moth trap and have contributed to the Garden Moth survey over several recent years.

Finally, a brief mention of my 'other hat', Alpine Gardening. Ever since we moved to Hexham in 1970, we have had a garden in which I have built up large collections of species, mostly from the mountains. I have served on the Committee of the Alpine Garden Society over many years, was its President, now Vice-President, and am a long-serving exhibitor and judge at Shows, and an RHS Committee member. I have been lucky enough to travel to the mountains of many countries, in particular Greece (60 visits!) about which I wrote a book, New Zealand, and three visits to each of China, South Africa, and the American Rockies.

I am of the firm conviction that had I not been obsessed with natural history throughout my life from an early age, that my life and career would have been very different, and much less enjoyable!

John Richards with *Taraxacum richardsianum*.

Lady's-slipper Orchid, *Cypripedium calceolus*.

Dr Quentin Groom

Quentin trained as a botanist at the University of Reading and obtained a doctorate in Plant Ecophysiology at the University of Essex in 1990. From 1993-1996 he was a post-doctoral researcher at the University of Newcastle and after a spell in the USA returned to the North-East to live in Morpeth to work in IT for the National Insurance Recording System. He joined the Botanical Society of Britain and Ireland (BSBI) in 2000, and immediately started to use his combination of skills in Botany and IT to work as a data manager for the BSBI. He was instrumental in the creation of the BSBI plant distribution database (Ddb), the main higher plant recording system in Britain and Ireland.

While at Newcastle, Quentin became joint County Recorder for South Northumberland with Professor George Swan, and worked hard on the digitization of Swan's records, so that they could be added to Ddb. He created the Flora North-East website (still active) which maps all the species in Durham and Northumberland at a tetrad basis, and offers a variety of other services to local plant recorders. He also helped to organize the Common Plant Survey, and single-handedly wrote the first Rare Plant Register for South Northumberland, of which this is the fourth updated version.

In 2005, Quentin's wife was promoted to a post in Belgium and Quentin and their family joined her there. Quentin has worked since at Meise Botanic Garden, specializing on the use of advanced IT techniques in Biological recording, particular the extrapolation of distributional patterns from uneven data coverage. At times he has been seconded to Institutes in Africa and South America.

For a number of years after leaving England, Quentin continued his interest in North-Eastern botany, and managed an annual visit for a week most years, during which he undertook intensive recording, often armed only with a tent and bicycle! However, as his involvement in International Botanic Garden organizations increased, he could no longer find the time, and resigned as Joint County Recorder for South Northumberland in 2019. Nevertheless, his influence over Botanical activities in Northumberland has been profound, and we are all greatly indebted to him.

AJR

Gordon Young

Born in 1938, I spent my childhood in High Howdon, a couple of miles away from Wallsend – an area of ship-building, coal mines and heavy industry. Living so close to the shipyards on the River Tyne was hazardous during the war and our house was damaged twice from incendiary bombs! I attended Stephenson Memorial Secondary Modern school and, when I left, took up an apprenticeship in electrical engineering at the power-generating company of C. A. Parsons. From there, I moved into the offices of the instrumentation department as an instrument technician, calibrating and repairing all manner of instruments used in the factory but specialised in temperature measurement to accuracies better than a few hundredths of a degree Celsius. It was at Parsons that I met my wife Ann; we married in 1960 and moved to Denton Burn at the west end of Newcastle where we raised our three children.

The countryside always was our preference, so we holidayed in the Lake District, enjoying both the scenery and general wildlife. It wasn't until we joined a rambling club that we took an interest in botany – seeing flowers on a regular basis. Time to study on a walk was difficult, but we met a couple of people who had a mild interest in flowers and they passed on their knowledge of what they knew. We acquired a guidebook but there seemed to be lots only to be found in the warmer south or mountainous areas of Scotland. I then combined my interests of botany and photography, making a local 'flower-guide' using close-up photos to show diagnostic details.

In 1985 we moved from our semi-detached house in Denton Burn to a bungalow in Billy Mill near to North Shields as Ann was having difficulty with the house-stairs and steep banks of the area. We found ourselves in an area with lots of places of botanical interest – many of them waste places. Local industry was in decline leaving old pit-heaps, dismantled railway-lines and derelict shipyards, but in addition to that we also had access to the coast for the first time (an eye operation in 1959 left me with vision problems so driving wasn't an option; therefore, we had to go everywhere by bus). By 1988 we now were finding many flowers new to us,

not just photographing them but also making notes of where they were to found – in effect our own mini-flora of the area.

When the *Flora of Northumberland* was published in 1993 it provided us with information as to where plants were to be found. We had been completely unaware that anything like this existed and found it interesting as some of our records extended the range shown in the Flora and one of them, *Azolla filiculoides* (Water Fern), was actually an addition to the Flora.

When Ann's health was becoming a problem in 1995, I took the opportunity to take early retirement from work. In 1998 we fortunate in joining two small botany groups, one of which was the inaugural meeting of the NHSN Wednesday Group. They were able to take us to places not accessible by bus and to nature reserves, whilst we were able to show them our 'waste places' which in some cases they agreed were better than some nature reserves. Some people interested in botany start off by going to nature reserves with orchids and rarities and progress from there whereas we started with waste places and weeds – working the other way around! We were now heavily involved with botany. Every site that we visited, I recorded and sent copies to the County Recorder. In addition to the organised outings, Ann and I would still visit sites by ourselves, and as well as the more common plants, *Medicago arabica* (Spotted Medick), which we found at Alnmouth, was classed as having been extinct in the county for more than 50 years, and our discovery of *Lepidium campestre* (Field Pepperwort) on a dismantled railway line close to home was the first record since 1977 of a species also considered to be extinct in the county.

I was aware that the Hancock Museum was asking for volunteers to input Durham's records for the forthcoming 2000 Atlas, so I worked there with John Durkin during 1998-1999. In addition, Professor Swan sent me his Northumberland tetrads cards (each one equivalent to a 'dot' in the Atlas maps) and asked if we could add to them whereupon we found that were able to provide about 200 new records to those already listed.

Further involvement with botany came when Professor Swan introduced me to Quentin Groom in 2001. Quentin worked with computers and had been asked, or offered, to input all of Professor Swan's records onto computer, and asked if I would be willing to help with this. So, together with Quentin and John Durkin, we set about this task and over the course of about 4 years I inputted some 40,000 of his records.

I took an interest in Hadrian's Wall for botanising (an area that I hadn't been to before) when we discovered a bus service called 'the AD122 Bus'— 122AD being when the wall was started!

One of the more exciting 'finds' during my few excursions there was the site for *Allium schoenoprasum* (Chives) at East Bog, a site originally recorded (as Winshields Crags) around 1805 but never re-found. Apparently, it had reappeared in 2001 (the year Foot-and-Mouth brought the countryside to a halt), and was noticed by the tenant farmer but the discovery but never made it to the botanical fraternity.

In 2009, Ann's mobility worsened so we had, reluctantly, to leave the Wednesday Botany Group, and whilst something that we missed, we continued to botanise but at our own more-leisurely pace. Ann has excellent eyesight and several of 'our' finds have been down to her. Whilst I struggle to find flowers, Ann would look for grasses or sedges, finding *Brontes secalinus* (Rye Brome) at the North Sea Ferry Terminal, only the 2nd Northumberland record since 1831, *Echinochloa crus-galli* (Cockspur) in a street in North Shields (a new record for the county) and *Parapholis strigose* (Hard-grass) – new to the Isle of Arran, to give a few examples.

As well as going out with Ann, I liked to explore new areas – again by bus! At Felton I found *Mitella ovalis* (Coastal Miterwort), a new record not just for Northumberland but for Britain, and an area near Allenheads with an outstanding area of clubmosses including possibly *Diphasiastrum x issleri* (Issler's Clubmoss), a rare hybrid. I enjoy moorland walking and was joined by Brian Harle who also had a passion for the moors, and together in the Coalcleugh area we found new sites for *Micranthes stellaris* (Starry Saxifrage), *Myosotis stolonifera* (Pale Forget-me-not), *Epilobium alsinifolium* (Chickweed Willowherb), and *Epilobium x haynaldianum*, a hybrid Willowherb which was the first confirmed record for England. I was asked a couple of years later "how on earth did you find something like that in the middle of nowhere". The answer is we didn't 'just' find it, we searched and searched for whatever we could find. I should also add that I don't always know what I find and rely heavily on others such as John Richards or other experts to help identify the finds. I don't consider myself to be a good botanist – I've always said that. But my strength relating to botany is that I record findings for the benefit for others, and explore places where others may not think about. Another attribute is recording which I think is very important, and I'm always asking others to participate in this – over the years we have amassed more than 46,000 records

At present, we are very limited as to what we can do because of health problems but only recently I came across *Stylophorum lasiocarpum* (Chinese Celendine Poppy) when doing the shopping in North Shields - the first record 'in the wild' for Britain, so my advice is keep looking, there is always something to find.

LOCKDOWN AGAIN... OR 'STILL' IN SOME CASES!

Hazel Metherell

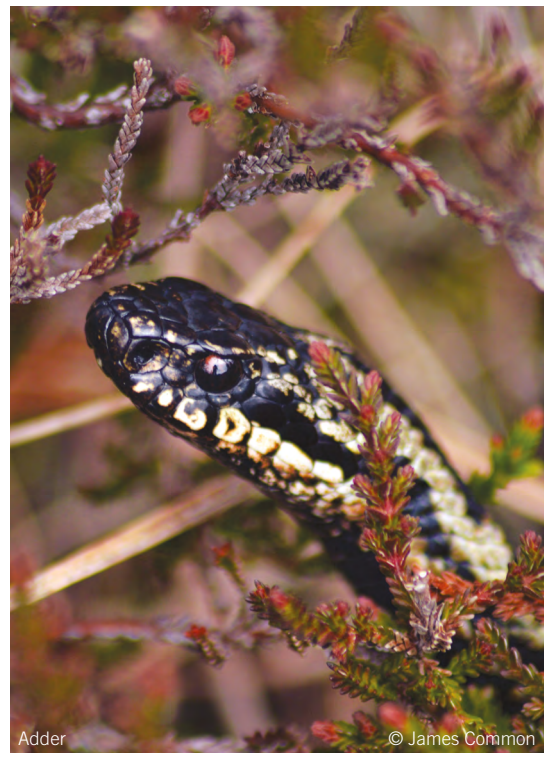
We present more of our members thoughts and observations during these times.

Several people have said that staying close to home has made them look more closely and discover the beauty of the tiny things they had previously overlooked. They have become more aware of the sounds, textures and even smells of nature.

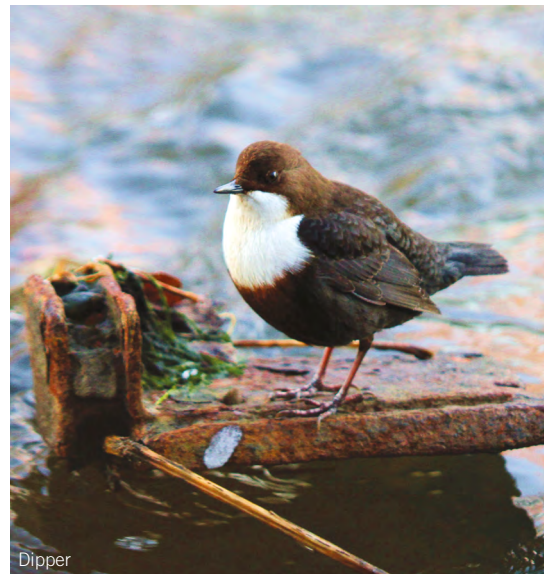
What I found was that, with a narrower range of plants to view, I followed them more closely through their lives. In Botany we are often obsessed with flowers, using them to identify the species. In these slow-motion times you can follow the swelling of buds, the relaxing of the Hazel catkins into dangling lamb's tails, the development of the fruits and dispersal mechanisms, and the gentle unfurling of the leaves. How do all those neatly folded and pleated sheets of fresh green fit into the tiny spaces? It looks like inflating an origami sculpture.

I love the mechanism used by the geraniums, or cranesbills. There are five seeds, like little balls, each is in a long-armed spoon, like the gadgets for throwing tennis balls for eager dogs. The five handles meet at the tip of the 'crane's bill'. As the structure dries, one spoon after another curls up, flinging the seed into its future. When all the seeds have been launched, the curved spoon handles are left, attached to the tip of the bill, like the roof of a carousel. The Bloody Cranesbill is the county flower of Northumberland, and is widespread, so look out for the carousels next autumn. The petals are not scarlet, as you might expect – that would be too easy! They are a strong fuschia pink. So why call it a Bloody Cranesbill? My personal theory is that it is because the leaves turn scarlet as they start to decline in the autumn.

I think we are all missing the social side of watching nature. It is wonderful to have an encounter with an Adder, watch a Dipper, or see a wild orchid, but part of the buzz is sharing it with others, pointing it out to them at the time or recounting it later. I think this is why it has always been popular to keep diary notes, draw sketches and write letters to other enthusiasts who will share your experiences. These 'notes' are from that long tradition of sharing the excitement with others, even in these times of isolation. Feel free to send your pictures and stories to us at the NHSN to spread the joys of nature.



Adder © James Common



Dipper

Crane's-bill *Geranium sanguineum*, the county flower of Northumberland.

Invertebrate photography during lockdown

Ian Beddison

The arrival of the virus disrupted plans for a program of Special Invertebrate Site visits in the North Pennines AONB with a local group, and various invertebrate photography events I was preparing, and travel restrictions, meant that we've all had to look closer to home this year, but the small and slightly unkempt garden of my own home has never failed to reward close scrutiny with sightings of some lovely creatures.

Platybunus pinetorum © Ian Beddison

A very welcome sight in April was this female *Platybunus pinetorum*, a large and striking species of harvestman first recorded in the UK in 2010, which is successfully extending its range. This individual was patient enough to pose for a series of detailed photographs.

Blaste quadrimaculata © Ian Beddison

Platnickina tincta © Ian Beddison

Interestingly, this is only the second time I've seen this species here, a year almost to the day since there was another lone female on the same area of brickwork. This sense of an annual rhythm to the appearance of species was apparent again in the case of *Blaste quadrimaculata*, a tiny and scarce barkfly which I photographed in August. Over a three-week period, numerous individuals were active on a small area of the house wall, during the same dates and in the same location as in 2019.

The necessity of being confined to my home patch soon began to feel like a gift rather than an imposition, and my garden became a nature reserve to be explored and teeming with discoveries. Among the many creatures inhabiting the shrubs, I found the spider *Platnickina tincta*. This small and delicate member of the Theridiidae has a rather patchy distribution this far north, but I seem to have quite a population of them.

Time spent watching the activity around a climbing rose was also rewarded by the opportunity to capture photos of Leafcutter bees (*Megachile sp.*), neatly and rapidly cutting circular leaf sections, to be taken back to their nests and rolled up to form the cells in which their larvae develop.

Once travel restrictions were relaxed, I made a regular haunt of a nearby area of mixed woodland and farmland, but once more I found my attention drawn to one small area, a short stretch of wire fencing where the fence posts were teeming with invertebrate life. On one memorable occasion this included one of

Snakefly and Cream-spot ladybird © Ian Beddison

Leafcutter bee © Ian Beddison

the snakeflies (possibly *Xanthostigma xanthostigma*), my first opportunity to photograph this little-seen inhabitant of the canopy layer. A Cream-spot ladybird *Calvia quattuordecimguttata (Calvia 14-guttata)* also wandered into frame for this picture.

I'm sure that for many of us, the natural world has provided valuable respite during this strange time, and I find that close examination of invertebrates in their habitat, and observing the teeming small-scale life all around us, gives a sense of perspective that can be quite exhilarating, and has been hugely beneficial this year more than ever.

About the Author

Ian Beddison is an amateur naturalist, specialising in photographing invertebrates. He lives in the north of County Durham and mainly documents invertebrates locally, and in the North Pennines AONB, where he was a keen participant in the Cold Blooded and Spineless project (**www.northpennines.org.uk/what_we_do/citizen-science/cold-blooded-and-spineless**). He has a particular interest in true bugs (Hemiptera), spiders, and harvestmen (Opiliones).

Lockdown birding on the fringe

Mike Carr

Patch at Sunset © Mike Carr

Growing up in Gosforth Garden Village I spent my childhood exploring the woods and ponds between my house and Gosforth Nature Reserve. Nothing unusual in those days as that was what kids did then. Many heady memories were forged as I found my first Tawny Owl nests and sussed out the calls of species such as Great Spotted Woodpecker.

After studying in East Anglia and working in various far-flung parts of the world, I returned to Tyneside in the 1990s and settled once again in Gosforth Garden Village. This allowed me to explore my old local patch again. However, such forays rarely involved more than casual observations.

With the advent of lockdown, my previously casual attitude was replaced with an ardent vigour. In order to balance the loss of my ability to bird my favourite haunts such as Holy Island and the Cheviots, I decided to keep a Lockdown bird list for my local patch.

This meant targeting certain areas for specific species. Many hours were spent at the patch's north west frontier, viewing the racecourse through its security fence in the hope of picking up Green Woodpecker, Yellowhammer, and migrants such as Wheatear and Ring Ouzel. Similar forays were made to seek out Grey Partridge and Lesser Whitethroat along Salter's Lane.

The majority of searching, however, took place around Gosforth Subsidence Pond and in the adjacent field that abuts Gosforth Nature Reserve. Not only did the pond generate waterbirds including occasional waders but the area afforded good views of the airspace over the reserve's lake plus the field allowed aural access to the reserve's vocal birds. With the reserve closed because of Covid-19, the latter tactic took me back to my childhood before I'd joined the NHSN when the 'Bird Sanc' was 'out of bounds'.

Covid-19 protocols found me working from home and thanks to the wonderful weather during the initial lockdown, my office became the table in our back garden. With the garden considered to be part of the patch, such a positive alignment of stars grossly boosted the potential for adding species.

As Covid-19 restrictions have waxed and waned through 2020, my lockdown list has morphed into a year list for the patch. Despite considerable distractions by the brighter birding lights of Holy Island at the end of spring and during the autumn, my efforts to find new birds on the local patch were sustained.

The most recent additions were a Water Pipit on 9 December, a totally new and unexpected species for the patch and a very last-minute Mealy Redpoll on New Year's Eve which brought the patch year list up to 129 species.

It's hard to pick out highlights as there were so many but ones that particularly jump out are nocturnal Common Scoter calling on migration, a northward bound Osprey in the spring, a southward bound Snow Bunting in the autumn, the Water Pipit and for sheer bizarre quality, a drake Mandarin Duck.

About the Author

Mike is a birder and general naturalist who lives in Gosforth. He studied Ecology at the University of East Anglia in the 1980s and after many years working as an ecologist around the world, he returned to his native Tyneside in the 1990s. He has worked for Northumberland County Council as the Countryside Service's Project Officer for nearly 27 years now. In his spare time, as a qualified ringer, he studies breeding raptors in north Northumberland as well as taking part in survey work for the BTO and other organisations. Apart from the time spent studying and working abroad, Mike's been a member of NHSN since 1975. He's often to be found in the Cheviots or on Holy Island if there's a hint of bird migration in the air.

Botany in lockdown

Lizzie Maddison

The silence is the thing which strikes me most on my wanders around the fells above Allenheads. Never a busy place, the lack of vehicles is noticeable and has made the local wildlife quite brave. Many more Red Squirrels are about, they come down the track from the wood above our house and drop in for breakfast in the garden. The Great Spotted Woodpeckers have a penchant for the fat balls and a pair of them have been about a lot so I am hoping they will take up residence in the Spring with a new family.

Being forced to stay around the local area has not been difficult for me and it has certainly encouraged more careful exploration of the local flora. The moors are so vast I have always thought that there were still species to discover. Earlier in the year, as I wandered off the track near Kilhope, looking for interesting boggy patches, I found a mass of Mossy Saxifrage *Saxifraga hypnoides* spread across the moss and rushes just beside shooting butt number 7!

A new record for VC67. I have passed close by to that spot so many times, but you need to be literally on top of it before you see it.

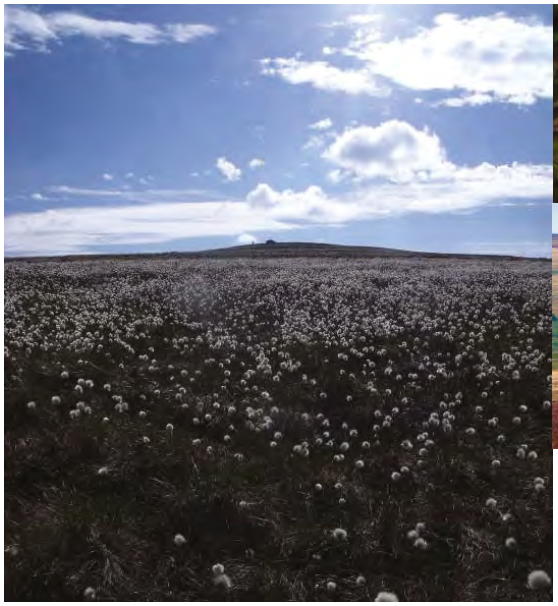
In fact, what you need to be a botanist in the North Pennines is willingness to get down close and friendly with the vegetation and to spend more time on your hands and knees than is normal for human beings!

The fell tops are improving now although they can still look quite dry in the Summer. I recall about 40 years ago, strolling up to the top of Kilhope and encountering our local contractor digging out ditches to drain the fell. Thankfully he was back up 20 years later bemoaning the fact that he was filling them all back again! As you might expect, this has helped to raise the water levels and support the lovely flushes which flow down off the top. Mosses dominate with Starry Saxifrage and Alternate- and Opposite-leaved Saxifrage growing out of the mass of green.

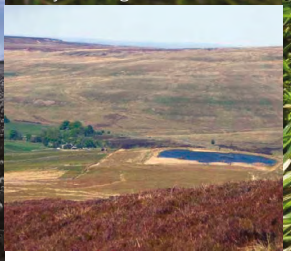
On the last slope up onto Kilhope Law, grows the Cloudberry, a tiny plant with white flowers. In the Autumn, clusters of bright red berries are produced. According to the knowledgeable old gentleman who used to live next door to me, there is nothing like a good 'cloodberry' pie. I have to say I haven't tried it! The berries are a bit gritty, but they look lovely on the fell. Best place for them I would suggest.

Finally, a plant which you can readily spot growing high up on the fells without having to walk up. The Cotton Grass has been particularly lovely this year and formed spectacular drifts of white across the moors.

At a time when perhaps we have felt that our world has shrunk, I hope that soon we can all have the opportunity to experience this vast expanse. As David Bellamy described the North Pennines, England's Last Wilderness.



Mossy Saxifrage



Starry Saxifrage

About the Author

Lizzie Maddison is a local botanist and member of NHSN's Mid-week Botany Group. She lives and botanises in the beautiful North Pennines.

Sanctuary in nature

Marie-Claire Robson

7-spot Ladybird © Marie-Claire Robson

Healing and nourishing, enveloping and enlivening nature has been to me this year. Learning of Aspen and Silver-leaved Whitebeam, salt, and pepper poplar pair, flickering in the breeze and softening the ground beneath my feet. Leaves and petals unfurling their resplendent wings from unassuming cases. The overwhelming beauty in private avenues of voluptuous blossom and exotic orchids dancing in the tall grass.

Insects creeping into consciousness, from buff tails to carders and Ghost Moth, startling with its moonglow wings. A frog nestling under pots, posing for his picture. So new, this chance to look and really see.

First day encounter of Treecreeper and Nuthatch, one up, one down, opposed on the same trunk. A discovery of birdsong calling in the stillness – Chiffchaff and Goldcrest, and the comical woodpecker on unexpected home visits. The exuberance of duckling upon duckling huddling about a fussing mother; seven cygnets swimming silently, soothing.

Then the cacophony of Starlings – full families of fledglings fearlessly feasting. A flash of blue above the twinkling babble, Sparrowhawk with prey on a grey day. A gentle Great Tit, waiting quietly as the baby blues feed, and a lone Yellow Wagtail seen, but not believed. A Redshank on the muddy banks, and Chaffinch love at close quarters.

Then came the Hedgehogs: bristly bustling, endlessly captivating. Following to begin, but with a buffet here, a nudge there, gradually braving separation. A magical dusky garden gathering – a friend sees a prickly visitor about its business around us. Youngsters on daytime wanderings, keen to grow. Learning and feeding, marking, and weighing and homes cosy with leaves. They have not gone.

Nothing entering my heart will go – all the wild array of flitting, swooping, scuttling life to stay now. Like the poplar in my garden, deep rooted and offering much sanctuary.

About the Author

Marie-Claire is a local historian with a love of art, writing and gardening, inherited from her mum. Her love of the natural world stems from a childhood spent investigating nature close to home.

A lockdown note

Ian Burnell

Comma © Ian Burnell

During the first lockdown we all had to seek nature within walking distance of home. We, alongside many others, discovered amazing nature on our home patch. Between Westerhope, Woolsington, and Black Callerton in the North West of Newcastle, OS Grid Ref. NZ1969 and adjacent area, there are four large ponds surrounded by miles of hedgerows and excellent wide tracks that are ideal for social distancing. It was a pleasure to see so many families out walking and getting in touch with nature, many of them for the first time. The bird song was regularly commented on.

We decided to keep a log of the wildlife we saw and were astounded to record 69 species of bird. Many of them on the Red or Amber lists of conservation importance with flocks of up to 30 Yellowhammer, Grey Partridge, Buzzard, Blackcap, Whitethroat and our first Chiffchaff of the year, which to us is always the herald of spring as the summer migrants return. Curlew were often seen and heard with their beautiful cry and Lapwing nested in a couple of the fields.

We saw our first Swallows and martins of the year at "Lockdown Ponds" as we had named them as they have no name on the OS map. Also, as spring arrived so did the frogs and toads to spawn from the surrounding fields and woodlands. Our first dragonfly of the year was spotted newly emerged, a Four-spotted Chaser. Later we were privileged to see Southern and Migrant Hawker patrolling the tracks and Common and Ruddy Darters laying eggs in the ponds along with Blue-tailed and Emerald Damselflies.

© Ian Burnell

The wildflowers were beautiful and attracted seven species of butterfly, our first Orange Tip of the year followed by Small Tortoiseshell, Peacock, Meadow Brown, Speckled Wood, Comma and Red Admiral.

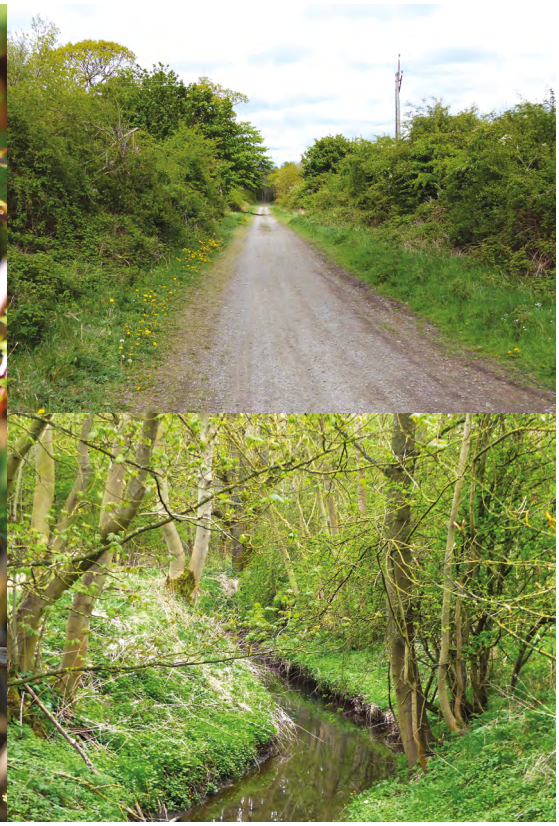
Even now, we visit and are greeted by the winter migrants of Fieldfare and Redwing feasting on the berries in the hedgerows. Taking an early morning walk we have seen Roe deer and Fox alongside the hedgerows.

Inevitably with more people using the area there was some litter left behind, but some voluntarily would pick up the litter as the area is obviously their oasis of peace as well.

We wondered who owned the land and ponds and wondered why this area is not designated as a wildlife reserve. Then recently we have discovered that permission has been granted for yet another expansion for multi-bedroomed "affordable homes" in the nearby fields. A lot of this habitat rich in wildlife will soon be under tarmac and concrete in the guise of progress. Where will the wildlife go and where will the people go that have found solace in the great outdoors and being able to get in touch with nature during one of the most testing times in recent history?

We all agree with David Attenborough and Greta Thunberg against the destruction of habitat in the world yet, sadly, habitat like this is being destroyed on our doorstep?

Four Spotted Chaser

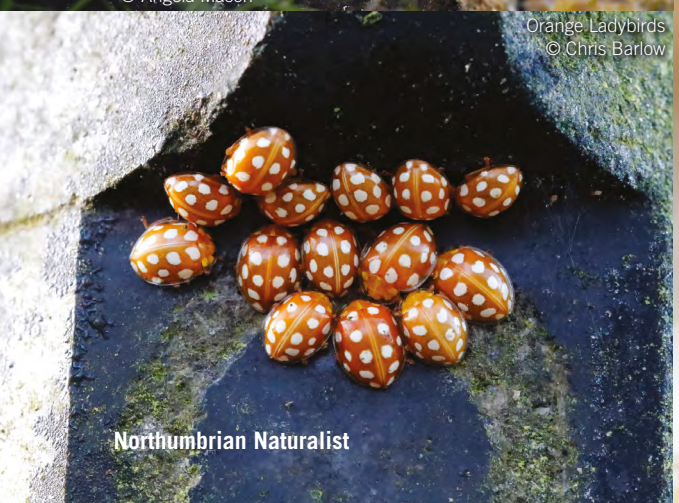


About the Author

Ian was first introduced to the great outdoors and the natural world by his dad as a child. It was the best gift anyone could receive. When not exploring the fells of Northumberland, Durham, Cumbria, and the Scottish Islands Ian can be found volunteering in the North East taking part in wildlife surveys of bats, reptiles and more recently the fascinating world of dragonflies.

Coal Tit
© Chris Castling

Wood Mouse
© Angela Mason



Orange Ladybirds
© Chris Barlow

Stonechat
© Chris Barlow

Wren
© Ron Vipond

Collared Earthstar
© John Dixon

Ring Necked Parakeets
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Red Squirrel
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Natural History Society of Northumbria

Northumbrian *Naturalist*

Transactions of the Natural History Society of Northumbria
Volume 90 (2021)

Autumn Gentian, *Gentianella amarella*

Natural History Society of Northumbria

Great North Museum: Hancock
Newcastle upon Tyne NE2 4PT
www.nhsn.org.uk