



Nottinghamshire Vice County 56

Rare Plant Register 1st Edition

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The Rare and Scarce Vascular Plants of Nottinghamshire Vice County 56

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Front Cover photographs: *Hypochaeris glabra* at Besthorpe (Steve Hammonds)
Dactylorhiza viride at Teversal (Ken Balkow)

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Introduction

This register provides details of the distribution and abundance of rare, scarce and threatened plants found in Vice County 56 Nottinghamshire. The register is intended to contribute to the national initiative of the Botanical Society of the British Isles (BSBI), which aims to produce rare plant registers for all of the Vice Counties (VC) of the British Isles. This first edition will be updated on a regular basis.

The register includes records of plants recorded between 1970 and 2012 and the last known records of plants, which are now extinct in the county, if the records are pre-1970. Although this is a relatively long period of time it is considered to be necessary, because it is now 50 years since the publication of the last County Flora by Howitt & Howitt (1963). The only other publication since 1963 being a flora of the City of Nottingham, written by Dr. P. Shepherd and published in 1998.

Although there has been relatively little by way of published works relating to Nottinghamshire's plants, extensive survey work has been carried out by individuals and organisations, which has contributed to the production of this register. It is anticipated that publication of this register will provide a baseline to continue with and promote further survey work so that the distribution and abundance of the plants in this register will continue to be studied and better understood. In addition, the register will provide for conservation organisations, local authorities and individuals information regarding those species at risk and requiring protection; those species that are vulnerable to declines and may need protection, and those species that have already become extinct. In order to be an effective tool for the conservation of rare and scarce plants this register will be updated at periodic intervals and re-issued electronically on the BSBI website.

In the latter part of the 20th Century, industrial development and agricultural intensification has had a profound impact on the flora of the county. The west of the county and the Trent valley has been particularly affected by industrial development including surface and underground mineral extraction and the construction of power stations. Sherwood Forest has lost much of its heathland, because of afforestation and intensive arable farming on the more productive soils. Agricultural intensification has modified farming systems on the Lias Clays and Keuper Marls leading to a significant reduction in livestock farming and large-scale conversion to rotational arable systems. A noticeable impact of this conversion has been the removal of hedgerows in order to increase field sizes and maximise efficiency. A further outcome of agricultural intensification has been the general eutrophication of soils and aquatic ecosystems.

In recent years there have been successful efforts by conservation organisations, land-owners and land-managers to reverse some of the adverse impacts described above and to conserve rare and scarce plants as part of larger initiatives to promote biodiversity. This has coincided with a greater public awareness of conservation and environmental issues, and a greater desire to see environmental improvements and protection of wildlife. For example, the colliery spoil tips have provided opportunities to create new habitats. The cessation of deep mining has also seen the return of higher water tables, which has aided the restoration of wetlands and rivers in the county. Other initiatives include heathland restoration on previously afforested land and the reinstatement of traditional management of semi-natural habitats such as low-intensity grazing. The sympathetic management of semi-natural habitats is being supported by a general trend towards larger scale conservation schemes that link up the County Wildlife Sites and Statutory Sites of Nature Conservation interest, which are at present isolated islands of biodiversity. The Environmental Stewardship Scheme has provided financial assistance for landowners and land-managers to facilitate some of the initiatives that are described above.

The County

In the last county flora, Howitt & Howitt (1963) described Nottinghamshire as being a fairly typical Midlands county and although lacking dramatic landscapes was not without its own charm. The rivers of the county dominate the landscape, particularly the River Trent, which drains most of the county. Low rolling hills adjoin the river valleys in the south, west and central parts of the county. Elsewhere the lands to the east and north are relatively flatter with occasional hills that form prominent landscape features.

Nottinghamshire has a varied geology that was separated into divisions by Professor J. W. Carr in the Victoria County History. Howitt & Howitt for their 20th Century flora subsequently adopted the divisions for their 1963 County Flora. The divisions are still useful to this day and form the basis for understanding the distribution of plants within the county. The divisions include Permian Marls, Coal Measures and Dolomitic Limestones; Bunter Sandstones; Keuper Waterstones and Marls, and Lias Clays.

Howitt & Howitt (1963) provides a detailed but succinct description of the geological formations of the county and the flora that each geological formation supports. As the work is out of print and no longer readily available, it is considered that the inclusion of a brief description of the geology and land use is appropriate in order to provide an insight into the modern distribution and abundance of the rare and scarce plants of the county.

In broad terms the bedrock geology of Nottinghamshire is relatively simple, consisting of a succession of rock formations, from oldest in the west to youngest in the east, which outcrop in a series of belts running the length of the county (Figure 1). In detail there are minor complications to this apparently simple arrangement which result from folding, faulting and overstep. For botanical purposes the bedrock succession can be conveniently grouped into four principal divisions, each yielding a specific range of soil types and plant habitats. A fifth division covers superficial deposits of Glacial and Recent age (Figure 2).

I. Coal Measures and Permian Mudstones and Dolomitic Limestones

The Coal Measures and overlying Permian formations are confined to the western edge of the county, and although variable in composition, are here considered together because of their relatively restricted outcrop within the county. The Coal Measures consist chiefly of mudstones with subordinate siltstones, sandstones and coals, giving rise to a topography characterised by rolling hillsides and small river valleys. The legacy of coal mining has left behind it a heavily industrialised landscape with sprawling settlements intermingled with farmland. One of the most significant features of the landscape are the numerous colliery spoil tips, and there are also extensive areas of post-industrial brownfield land that are of botanical interest and provide a reservoir for wildlife in built-up areas. The Coal Measures dip eastward beneath younger formations, and this concealed part of the coalfield has been exploited from a number of deep mines situated well to the east of the Coal Measures outcrop. The sites of these collieries are marked by large spoil tips.

In the north, the Rivers Meden and Maun flow east towards Sherwood Forest. Both rivers join the River Idle, which is a significant tributary of the River Trent. The rivers are fairly small and of moderate flow-rate. They are now slowly recovering from the legacy of deep coal mining, the surface expression of which has had a significant impact on the quality and quantity of the water they carry. The River Erewash, which forms part of the county boundary, flows south to the River Trent at Attenborough and has similarly suffered from the same adverse impacts of coal mining.

Rocks of Permian age include Mudstones and Siltstones of the Edlington and Roxby formations (formerly named the Middle and Upper Permian Marls respectively), and Dolomitic Limestones of the Cadeby and Brotherton formations (formerly the Lower and Upper Magnesian Limestone). Both the Permian and Coal Measures Mudstones and Siltstones produce acid to circum-neutral, poorly drained clays that are of limited value for growing arable crops. As a consequence, livestock farming is still fairly frequent in the area. Permanent grasslands are a common feature, but very few examples of semi-natural Coal Measures and Permian Mudstone/Siltstone grasslands still exist.

Dolomitic (Magnesian) Limestones support arable farming where the topography is favourable, giving rise to calcareous loams that are suitable for growing a variety of crops, with cereals being the most prevalent. The well-bedded Dolomites of the Cadeby Formation have long been quarried for building stone, roadstone and agricultural lime. There are a few natural rocky Limestone outcrops, such as are found at Creswell Crags and Pleasley Vale, which support semi-natural grassland and woodland habitats, but it is the disused quarries, dismantled railway lines and river valleys that support most of the remaining semi-natural limestone habitats within the county. Unmodified sections of these rivers support a characteristic emergent flora dominated by branched bur-reed *Sparganium erectum*.

Woodland cover in this division is patchy, but there are some areas with significant tracts of woodland. The Annesley and Warsop areas support several ancient woodlands that overlie the Coal Measures and Permian Mudstones. Many have been coniferised, but extensive areas of broadleaved woodland still exist and in places are of significant botanical interest with species such as wood barley *Hordelymus europaeus*, herb paris *Paris quadrifolia* and columbine *Aquilegia columbinum*. Woodlands on the limestone are less common, but are of equal botanical interest and support species such as nettle-leaved bellflower *Campanula trachelium*, large-leaved lime *Tilia platyphyllos* and Solomon's seal *Polygonatum multiflorum*.

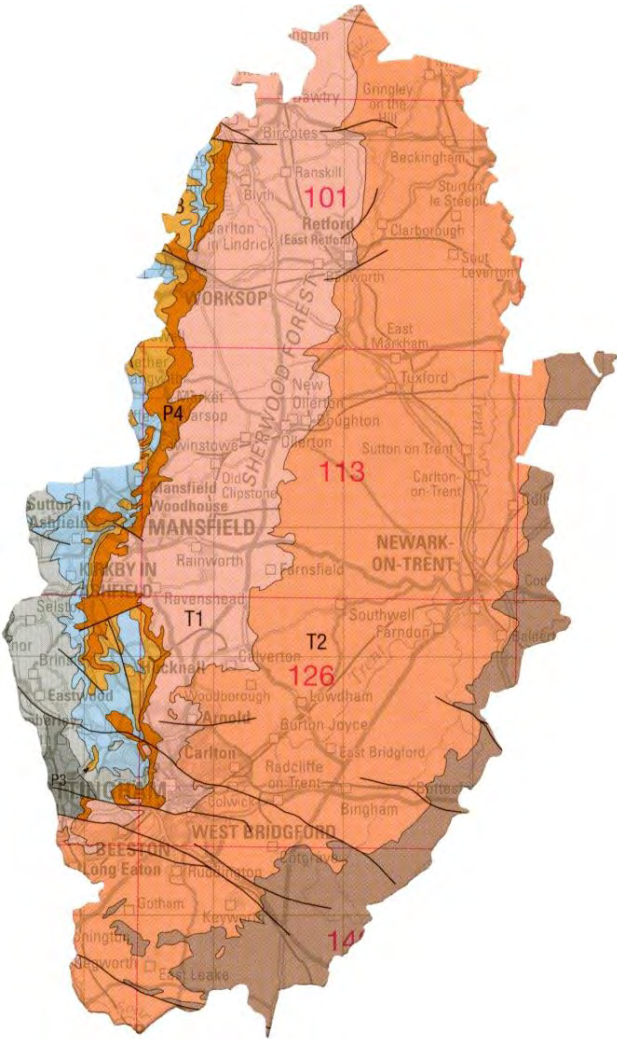


Figure 1. Nottinghamshire bedrock geology

Extracted from British Geological Survey 1:625 000 scale Bedrock Geology map, 5th ed. 2007. (CP13/031 British Geological Survey © NERC. All rights reserved. Topographic base map © HarperCollins Publishers Ltd. 2007).

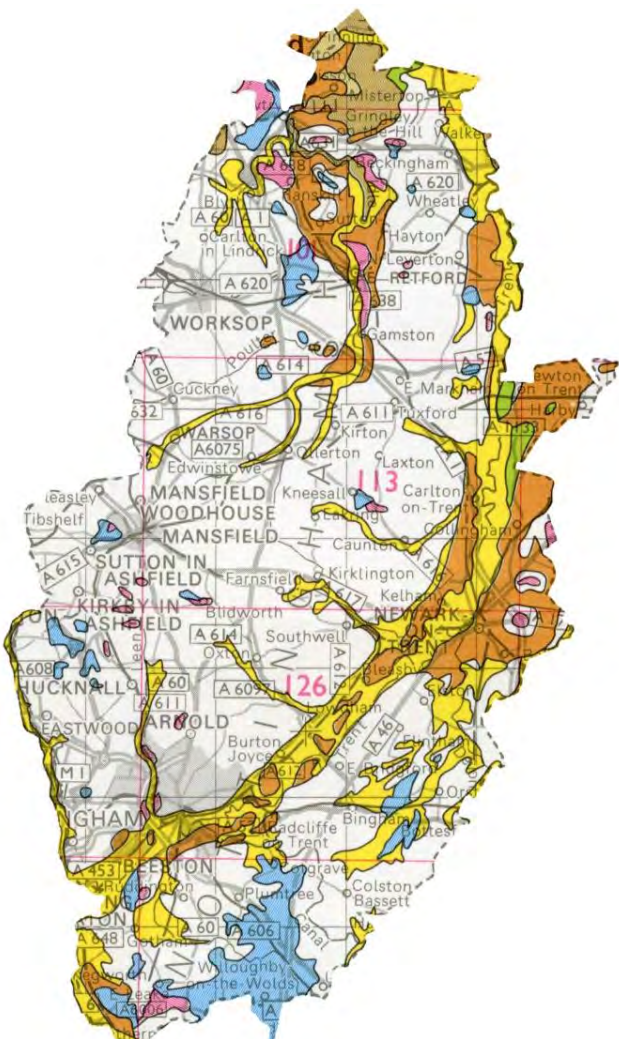


Figure 2. Nottinghamshire superficial geology

Extracted from British Geological Survey 1:625 000 scale Quaternary map, 1977. (CP13/031 British Geological Survey © NERC. All rights reserved. Contains Ordnance Survey data © Crown copyright & database rights 1977).

J1	Lias Group	mudstone and limestone
T2	Mercia Mudstone and Penarth groups	mudstone with siltstone and evaporite
T1	Sherwood Sandstone Group	
P4	Lenton Sandstone Formation	Zechstein and Cumbrian Coast gps
P3	Edlington, Roxby, Eden and St Bees Shales fms	
P2	Cadeby and Brotherton fms	
P1	Exeter Gp, Appleby Gp and Kinnerton and Bridgnorth sst fms	
C8	Warwickshire Group	sandstone, siltstone and mudstone
C8	Halesowen Fm	coal-bearing mudstone, siltstone and sandstone
C7	Pennant Sandstone Formation	Pennine and South Wales Coal Measures
C7	Upper Coal Measures	
C6	Middle Coal Measures	
C5	Lower Coal Measures	coal-bearing mudstone, siltstone and sandstone

	Blown sand
	Peat
	Lacustrine clays, silts and sands
	Alluvium
	River Terrace Deposits (mainly sand and gravel)
	Glacial sand and gravel
	Boulder clay and Morainic Drift

Note: County boundary approximates to that of Howitts' 1963 *Flora of Nottinghamshire*.

II. Permo-Triassic Sandstones

The Sherwood Sandstone Group (formerly named the Bunter Sandstone) and Lenton Sandstone Formation (formerly Lower Mottled Sandstone) together, occupy a belt of land stretching northward from Nottingham into Yorkshire, with an outcrop width of up to 14km. A large part of the division underlies Sherwood Forest, an area of approximately 40,000 ha that was Royal Forest until the end of the sixteenth century. Up to the beginning of the twentieth century the sandy soils of this area supported extensive areas of heathland, acid grassland, open birch woodland and bracken. Following the break-up of the Royal Forest, much of the land passed into the ownership of a few families and areas such as Welbeck, Osberton, Thoresby, Rufford and Clumber Park became known as the Dukeries. To this day Osberton, Thoresby and Welbeck are still privately owned estates. The National Trust purchased Clumber Park, whereas the Rufford estate was sold off piecemeal with Nottinghamshire County Council taking over the gardens and ruins of the hall and abbey.

During the twentieth century the Forestry Commission and private landowners afforested vast areas of heathland. More productive soils were agriculturally improved and converted to arable cropping maintained by repeated inputs of artificial fertiliser. The legacy is a landscape of large conifer woodlands and relatively large arable fields with poor, scrubby hedgerows. Despite the widescale changes, rare and scarce plants have managed to persist on the scattered fragments of heathland, woodland rides, sand pits and other marginal lands. In recent years there has been a major change in woodland policy, which has seen a return to heathland at the expense of conifer plantations, along with targeted management of semi-natural habitats. This change of policy appears to be having a beneficial impact on the characteristic plants of the area, with heathland, acid grassland and ruderal habitats all significantly increasing their extent over the last decade.

The rivers Meden, Maun, Ryton, and Rainworth Water flow across the Sherwood Forest area, draining eastward to join the rivers Idle and Trent. There are few rare plants associated with the rivers, but the estates through which some of the rivers flow have created lakes by damming the rivers in close proximity to the Great Houses. The margins of the lakes add to the local botanical interest and in some cases support rare species such as wood club rush *Scirpus sylvatica* and wild celery *Apium graveolens*. The River Leen also flows through the Sherwood Forest area, but originates at the south end of the Forest and, unlike the other rivers, flows in a south-westerly direction from Newstead towards Nottingham, where it joins the River Trent at Lenton. The margins of the river support a fairly species-rich botanical assemblage, and where the river traverses the Permian dolomitic limestone, rare plants such as whorl grass *Catabrosa aquatica* can be found.

III. Mercia Mudstone Group

This group of formations, formerly named the Keuper, consists predominantly of red-brown mudstones with a significant sandstone at its stratigraphical base (Sneinton Formation, formerly named Keuper Waterstones) and numerous indurated siltstone and sandstone 'skerries' which form upstanding topographic features. The group is of wide extent and occupies half of the county. It underlies the Trent Valley from Nottingham to Newark, but for the most part gives rise to a rolling rural landscape dotted with small villages. Nowadays the land is mostly arable, being used for cereal and rape crops. The remaining areas of wetter land that still support grassland are fragmented and confined to small fields, many of which are grazed by ponies rather than farm livestock. The Sneinton Formation occupies the western area of the Mercia Mudstone outcrop; its flaggy sandstones and siltstones give rise to an undulating incised topography yielding a light, slightly acid clay soil that supports 'heathy' semi-natural vegetation with species such as hard fern *Blechnum spicant* and heath milkwort *Polygala serpyllifolia*. Woodlands are most prevalent on the slopes of scarps and tend to be oak-birch dominated with fern-rich field layers. The mudstones which form the greater part of this group yield slightly calcareous silt and clay soils, which support a calcicolous semi-natural flora. Gypsum has long been either mined or quarried from various horizons in the Mercia Mudstone, but most operations have been confined to the south-eastern edge of the outcrop, between Gotham and Newark, where former opencast workings provide a substrate for semi-natural calcareous grassland.

The woodlands, which are often located on the wetter clay soils, are some of the most botanically diverse in the county, with a mixed canopy of tree and shrub species subject to local variation. Some of the richest woodlands in the county are located on the Mercia Mudstone, and rare and scarce species such as greater butterfly orchid *Platanthera chlorantha*, small teasel *Dipsacus pilosus* and bird's nest orchid *Neottia nidus-avis* are present. Between Nottingham and Southwell there are several fern-rich strips of broadleaved woodland, which occupy narrow gorges known as Dumbles. These are small streams, which run over skerry beds and cut through the softer clays. In places they are impenetrable, but they can support a diverse flora represented by both calcicoles and calcifuges.

IV. Lias Group

This group is located along the southern and eastern margin of the county and consists of grey mudstone with bands of flaggy grey limestone. The mudstone weathers to a sticky clay, which is calcareous. The semi-natural grasslands of this group support a typical calcareous grassland flora which has a similar suite of species to the Permian dolomitic limestone assemblages, but there are more species normally associated with the south of England. Arable land supports cereal production and there are species in this division, such as spreading hedge parsley *Torilis arvensis*, night-flowering catchfly *Silenenociflora* and corn gromwell *Lithospermum arvense*, that are absent or very rare elsewhere in the county. The limestones were formerly worked for the manufacture of hydraulic cement, most notably at Barnstone.

V. Superficial Deposits of Glacial and Recent age (Figure 2)

Nottinghamshire is relatively free of glacial deposits, but in the south of the county a large sheet of glacial till (boulder clay of older usage) caps the Lias Group. This sheet, the Oadby Till, forms the Nottinghamshire Wolds, a rolling landscape of low hills. The flora is not dissimilar to that of the Lias mudstones, from which in part this silty-clay stony till is derived. Small, localised patches of till occur in other parts of the county, their composition commonly reflecting that of the underlying bedrock. The tills may be associated with small spreads and pockets of glacially-derived sand and gravel, which support an acid grassland flora.

The floodplain of the River Trent is characterised by neutral river gravels, which produce light sandy soils that support a heathy flora with species such as common cudweed *Filago vulgaris*. There are however extensive areas of calcareous gravels, which support a calcicolous flora similar to the assemblage that is found on calcareous mudstones adjacent to the floodplain. Virtually all of the semi-natural floodplain grasslands have been agriculturally improved in the last 50 years and nowadays support a species-poor sward, but relict areas of grassland can still be found on the margins of the numerous gravel-pits alongside the river.

Within the floodplain there are numerous gravel-pits, ox-bow lakes and borrow pits, which provide habitats for a diverse aquatic and wetland flora. Some of these areas were planted with willows, which supported a thriving basket industry until the start of World War II. Relic patches of willows *Salix* spp. are still found on the banks of the river and in marginal areas of the floodplain, species such as green-leaved osier *Salix x rubra* are indicative of relic willow holts. The tidal section of the River Trent is characterised by finer silts, which give rise to extensive areas of pasture grassland that is productive and relatively species-poor. The margins of the river that are not reinforced support an inundation flora that can be diverse, with a mix of species such as oak-leaved goosefoot *Chenopodium glaucum* and sea aster *Aster tripolium* adapted to both brackish and freshwater habitats.

The River Soar in the south of the county has similar characteristics to the Trent, but has been less modified in the latter part of the twentieth century. As a consequence, the margins of the river support extensive and diverse assemblages of emergent plants that are reduced to isolated fragments on the banks of the River Trent. Rare species associated with the River Soar include the only remaining population of shining pondweed *Potamogeton lucens* left in the county and greater duckweed *Spirodela polyrrhiza*.

To the east of the River Trent is an area of light soils associated with the former course of the Trent. The lightest soils are blown sands, which form inland dune systems and are of very limited agricultural use. The less mobile soils support a heathland type flora, which is stabilised by sand sedge *Carex arenaria*, which is characteristic of this area. The less stable areas and lightest soils support a range of rare and scarce species such as smooth cat's-ear *Hypochaeris glabra*, shepherd's-cress *Teesdalia nudicaulis* and blue fescue *Festuca longifolia*.

At the north end of the county is an area of fenland on the southern fringe of the more extensive fenland of Hatfield Chase and the Isle of Axholme. The area has an extensive cover of superficial deposits including alluvium, peat, blown sand, old river terrace and glacial deposits. The fenland has been much modified following drainage works started by Vermuyden in the seventeenth century. The land is drained by the rivers Idle, Torne, Went and Don, which before modification formed a complex pattern of channels and pools that were flanked by mires and swamp. Numerous drainage schemes since the seventeenth century have resulted in uniform, canalised river channels along with numerous field and flood drains, which rapidly transfer water into the River Idle and neighbouring flood channels. As a consequence the botanical interest is nowadays largely restricted to the drains and a few sites such as Misson Carr and Misson Line Bank, which have managed to escape wholesale modification. These sites support a large number of rare and scarce wetland and aquatic plants such as whorled water milfoil *Myriophyllum verticillatum*, lesser marshwort *Apium minundatum* and lesser water plantain *Baldellia ranunculoides*.

See Appendix IV for further details about the availability of geological information for Nottinghamshire

Criteria for Inclusion in the Register

The register is separated into two sections. A total of 281 extant taxa are described in the register and details of 119 extinct taxa are also included. The first section includes the extant and extinct taxa within the county. Extant taxa are listed under international, national and county criteria as being endemic, rare or scarce; or listed as occurring in IUCN categories; or are listed as UK or County Biodiversity Action Plan species. The first section also describes all of those species, which have been recorded in the county, but have become extinct. The decision to include extinct species is influenced by the re-appearance of taxa that were not recorded for over a century. Examples include grass-poly *Lythrum hyssopifolia* and small-flowered catchfly *Silene gallica*, which re-appeared in the VC after a gap of 271 years and 119 years respectively. The second section includes taxa that occupy more than ten 1km squares in the VC, but have showed obvious declines since 1970 or have a restricted distribution within the county. In both cases the taxa are vulnerable to losses and without protection are at threat of further decline. More detailed information regarding criteria for inclusion is provided at the beginning of each section. Appendix I summarises the conservation criteria for each species described in the text. Appendix II lists all of the sites described in the text that support rare and scarce species that are extant in the county.

The register includes species, which are native in the British Isles, though not necessarily native in Nottinghamshire. In some cases, taxa have been included such as large leaved lime *Tilia platyphyllos* and whitebeam *Sorbus aria*, which have been recorded as both native and introduced in the county

The botanical and common names follow the nomenclature of Stace (2010) and the species are arranged in alphabetical order.

Exclusions

There are some hybrids whose distribution is inadequately understood in the county and these have been omitted from the register. However, it is considered that the distribution of the hybrids that are included in this register is sufficiently understood to justify their inclusion in the register.

Stoneworts *Characeae*, microspecies of Dandelions *Taraxacum* spp. and Brambles *Rubus* spp. have been omitted because of the lack of targeted surveys in modern times. However, the lack of hawkweed *Hieracium* spp. records is because there are relatively few taxa occurring in the county and none of them fulfil any of the criteria for inclusion in this register.

Records and Recorders

The records contained in this register originate from a variety of sources, but the county recorder David Wood is responsible for the majority of the records, with lesser, but still valuable contributions from a large number of recorders. Records have also been collected by systematic recording at various geographic scales such as hectad recording for the BSBI National Atlas scheme, tetrad recording for the BSBI Local Change Project and sites visits to County Wildlife Sites organised by the Nottingham Natural History Museum. Recording schemes carried out by other conservation organisations such as the Nature Conservancy Council and Nottinghamshire Wildlife Trust under various initiatives and schemes have also made a significant contribution to the work. After 42 years of recording there is now sufficient information to be confident that the distribution and abundance of the county's rare and scarce plants is relatively well known and at a stage where it is worth publishing.

In some cases, the origin of records has been allocated to an organisation rather than an individual because the names of individuals were not recorded. For example, the Nature Conservancy Council (NCC) carried out systematic surveys of ditches and drains in the north of the county during the early 1980s and the Natural History Museum at Wollaton Hall organised county surveys in the 1980s. In both cases the archives do not always contain the names of the recorders. The names of all of the recorders who have contributed to this register are listed in Appendix III.

Confidentiality

It is the policy of this register to try and provide the most detailed information available with regards to the distribution and abundance of rare taxa in the county. As a general rule, the location of plants is provided at 100m x 100m resolution, but there are exceptions. There are private landowners who do not wish to provide detailed locations of the whereabouts of plants on their land. In such cases plant records are provided at monad or hectad scale.

Many of the rare and scarce plants included in this register grow on private property and the publication of their locations does not provide a right of access without landowner permission. For the most part landowners are likely to grant access to visit sites with rare or scarce plant species upon receipt of a courteous request, but exceptions may occur because of considerations such as site safety.

Extant and Extinct Taxa

The extant taxa in this part of the register qualify under the following categories:

- Endemic to Britain (see Cheffings & Farrell 2005);
- Restricted distribution internationally (EC Habitats and Species Directive Annex IIb, IVb or Vb; or Appendix I of the Bern Convention or Appendix I or II of CITES);
- Schedule 8 of the Wildlife and Countryside Act 1981;
- IUCN criteria: Critically Endangered, Endangered, Vulnerable and Near Threatened (Cheffings & Farrell 2005);
- Nationally rare (occurring in 15 or fewer 10km squares in Britain);
- Nationally scarce (occurring in between 16 and 100 10km squares in Britain);
- County rare (occurring in 1 to 3 monads in VC56);
- County scarce (occurring in between 4 and 10 monads in VC56);
- UK Biodiversity Action Plan (UK BAP) Species, and
- Nottinghamshire Local Biodiversity Action Plan Species (LBAP).

Extinct taxa have been historically recorded in the county, but are no longer extant.

Adiantum capillus-veneris L.

Maidenhair Fern

National Status: Nationally Scarce

Nottinghamshire Status: Rare

Monads: 2

As a native, maidenhair fern *Adiantum capillus-veneris* is mainly found near to the coasts in southern England on damp calcareous cliffs. Inland it is introduced or an escape that is occasionally found growing out of mortar on sheltered walls or in old greenhouses. The two recent records for the VC are both located on sheltered walls. The original record for Hodsock Priory is undated and the recorder is unknown, however, during 2013, the presence of the plant was confirmed.

Location	GR	Date	Recorder
Hodsock Priory Wall	SK611854	2013	RAJ
Tottle Brook Retaining Wall	SK522387	2003	RAJ

Adonis annua L.

Pheasant's Eye

National Status: Endangered, Nationally Rare

Nottinghamshire Status: Extinct

Pheasant's eye *Adonis annua* has been recorded only once in the VC at an unspecified location near Bingham. According to Howitt & Howitt (1963) the record was published in the Botanical Chronicles of 1863, but no further information is given.

Location	GR	Date	Recorder
Bingham	SK73	1863	Unknown

Agrimonia procera Wallr.

Fragrant Agrimony

National Status: Least Concern

Nottinghamshire Status: Scarce

Monads: 9

Fragrant agrimony *Agrimonia procera* is generally found in 'scrubby' grasslands and 'grassy' woodland rides on lighter soils such as the sandy loams that are associated with the Sherwood Sandstones. Since the 1960s the species has been lost from several sites in the Sherwood area and one site in the east of the county. It is now restricted to only five sites in the VC and none of the populations are large.

Location	GR	Date	Recorder
Gamston Airfield	SK6976	1972	RCLH
Normanton Larches	SK655745	2003	DCW

Agrimonia procera (Continued)

Location	GR	Date	Recorder
Clumber Park	SK622763	2011	DCW, RAJ
Clumber Park	SK617752	2006	DCW, RAJ
Clumber Park	SK615752	2006	DCW, RAJ
Clumber Park	SK622721	2012	RAJ
Clumber Park	SK617747	2006	DCW, RAJ
Clumber Park	SK623741	2006	DCW, RAJ
Clumber Park	SK639739	2006	DCW, RAJ
Clumber Park	SK635748	2006	DCW, RAJ
Harlow Wood	SK554565	2011	DCW
Harlow Wood	SK553578	2011	DCW, RAJ
Harlow Wood	SK557576	2011	MW
Harlow Wood	SK552576	2010	DCW, RAJ
Harlow Wood	SK556575	2010	DCW, RAJ

Agrostemma githago L.

Corncockle

National Status: Nationally Rare

Nottinghamshire Status: Uncommon (as a neophyte)

Monads: 16 (as a neophyte), 1 (as an archaeophyte)

Corncockle *Agrostemma githago* is an annual weed of arable crops, which is now extinct in the VC as an archaeophyte. R.C.L. Howitt was the last person to record the species as an archaeophyte in the northwest of the VC (in bold). Nowadays the species is often a component of wildflower seed mixes and all but one of the seventeen modern records are either deliberate introductions or garden escapes, often casual and not persisting.

Location	GR	Date	Recorder
Norwell	SK75	1952	RCLH
Brackenhurst Gardens, Southwell	SK695523	1999	MW
Brackenhurst Estate, Southwell	SK694523	2001	MW
Colwick Hall Bank	SK602391	2001	MW
Eaton and Gamston Roadside Verges	SK726773	2003	MW
Misson Line Bank	SK715962	2008	MW
Blidworth Colliery Tip and Disused Railway Line	SK604579	2010	MW
Burntstump Landfill	SK588499	2012	MW
A60 - B6011 Junction, Papplewick	SK569509	2012	MW, DCW
Collingham Arable Field*	SK85616066	2012	RAJ
Southwell Trail, Edingley	SK669566	1997	DCW
Southwell Trail, Edingley	SK675566	1997	DCW
Hucknall	SK537504	1997	DCW
Stoke Bardolph Fly-ash Lagoons	SK638399	2004	DCW
City Hospital	SK5643	2010	WM

*Possibly an archaeophyte

Agrostemma githago (Continued)

Location	GR	Date	Recorder
Queens Walk, The Meadows	SK5738	2010	WM
Victoria Park	SK5740	2010	WM
Woodthorpe Grange	SK5743	2010	WM

*Possibly an archaeophyte

Agrostis x murbeckii Fouill. Ex P.
Fourn.

A. capillaris x stolonifera

National Status: Data deficient
Nottinghamshire Status: Scarce
Monads: 6

This hybrid is a vigorous, highly sterile tetraploid that has been recorded from scattered localities in Britain. It is widespread in northern Europe and is probably common in Britain wherever the parents occur together, Sell & Murrell (1996). In the VC this hybrid was not recorded before 1970, but since that time it has been recorded at six locations in a variety of habitats and soil types and it is probably under-recorded.

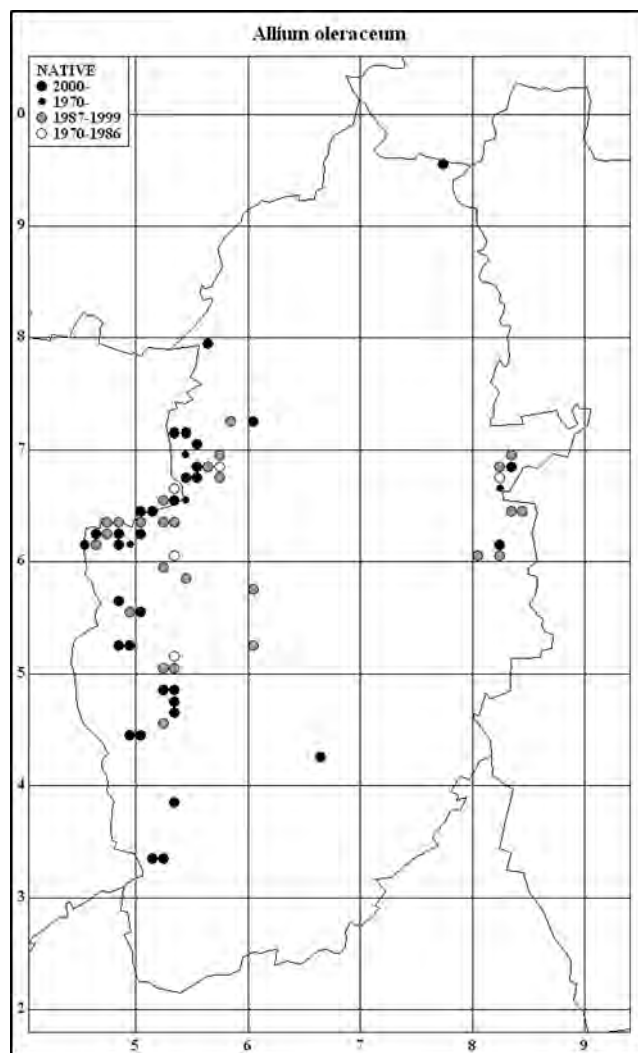
Location	GR	Date	Recorder
Holme Pierrepont Gravel Pits	SK6037	1988	DCW
Holme Pierrepont Gravel Pits	SK6038	1988	DCW
Holme Pierrepont Gravel Pits	SK6137	1988	DCW
Holme Pierrepont Gravel Pits	SK6138	1988	DCW
Holme Pierrepont Gravel Pits	SK6238	1988	DCW
Wellow Park	SK689673	2010	MW

Allium oleraceum L.

Field Garlic

National Status: Vulnerable, Nationally Scarce
Nottinghamshire Status: Local
Monads: 68

Field garlic *Allium oleraceum* is a bulbous perennial herb that grows in dry grassy places, usually on circum-neutral to base-rich soils. Most of the records in Nottinghamshire are associated with the Magnesian Limestone formations. Nationally there is evidence to suggest that the species has undergone declines, Preston, Pearman & Dines (2002), but this does not appear to be the case in Nottinghamshire. Howitt & Howitt (1963) stated that the species was uncommon, but widespread and the number of records since 1970 suggests that declines have not occurred. However, the species may have been under recorded or mis-recorded as wild onion *Allium vineale*.



Allium scorodoprasum L.

Sand Leek

National Status: Nationally Scarce
Nottinghamshire Status: Scarce
Monads: 6

Before 1970 sand leek *Allium scorodoprasum* was recorded only once in the east of the VC, at ballast pits near Barnby Moor, Howitt & Howitt (1963). Since 1970 the species has not been re-found at this site and the extant sites are a considerable distance from Barnby Moor. A population is present on the base-rich clays in the centre of the county on the verge of a ride in Kirton Wood SSSI and the population at Harworth is on a roadside verge on sandy soils; most of the population is located in Southwest Yorkshire (VC63). The two other larger populations are located in the northeast of the county at various locations alongside the River Idle. The population at Misterton extends along a 1km section of sandy riverbank and at West Stockwith the population extends along a 1.2km section of the floodbank.

Location	GR	Date	Recorder
River Idle, Misterton	SK782949	2003	DCW, RAJ
River Idle, Misterton	SK778953	2003	DCW, RAJ
River Idle, Misterton	SK773956	2011	DCW, RAJ
River Idle, Misterton	SK779950	2011	DCW, RAJ
River Idle, Misterton	SK779952	2011	RAJ
River Idle, Misterton	SK777953	2011	RAJ
Kirton Wood	SK708686	2012	DCW, RAJ
River Idle, West Stockwith	SK787949	2011	RAJ

Allium scorodoprasum (Continued)

Location	GR	Date	Recorder
River Idle, West Stockwith	SK787950	2011	RAJ
River Idle, West Stockwith	SK780950	2011	RAJ
River Idle, West Stockwith	SK786950	2011	RAJ
River Idle, West Stockwith	SK787950	2011	RAJ
River Idle, West Stockwith	SK786951	2011	RAJ
A631 Trunk Road (south side), Harworth	SK627925	2012	DCW, MW, RAJ

Alnus incana (L.) Moench. x *Alnus cordata* (Loisel.) Duby

Hybrid Alder

National Status: Nationally Rare
Nottinghamshire Status: Scarce
Monads: 4

This hybrid has been found at four locations where both parents have been planted together as part of landscape reclamation schemes on colliery tips. Stace (2010) states that this hybrid was found as a self-sown sapling in Cambridgeshire in 2007, but in Nottinghamshire the hybrid was first recorded five years earlier, at Kirkby Bentinck. This is likely to be the first record in the wild, because the two species are geographically isolated from each other and as such, the hybrid has been given honorary native status. The distribution of *A. cordata* is described above and *A. incana* is found in the Carpathian Mountains, a distance of over 1000km between the two species. Further searches for this hybrid are planned, particularly on the numerous colliery tips, wherever the two species have been planted together.

Location	GR	Date	Recorder
Bentinck Colliery Tip	SK490548	2002	DCW
Harworth Colliery Tip	SK615901	2004	DCW
Gedling Colliery Tip	SK613437	2012	DCW
Freckland Wood, Newstead Colliery Tip	SK527521	2012	MW

Alnus cordata (Loisel.) Duby x *Alnus glutinosa* (L.) Gaertn.

Hybrid Alder

National Status: Nationally Rare
Nottinghamshire Status: Rare
Monads: 1

This hybrid was found on the shoreline of a gravel pit at Hoveringham, in the River Trent valley. It was found growing with both parents, which were planted together as part of a landscape restoration scheme following the cessation of gravel extraction. Clive Stace (*pers. com.* 2012) indicated that the hybrid has also been recorded in Cheshire by Graeme Kay in 2010, but the Nottinghamshire record was recorded four years earlier and as such is probably the first time this hybrid has been recorded in the British Isles. It is likely that this hybrid has not been recorded anywhere else in the wild, because the two species naturally occur in different habitats and *A. cordata* is restricted to small areas of the southern Apennines and mountains in northeastern Corsica at altitudes between 200m and 1600m. Further searches for this hybrid will target landscape restoration schemes associated with old gravel extraction works and colliery shale tips, which are frequent across the county.

Location	GR	Date	Recorder
Hoveringham Gravel Pits	SK717478	2006	DCW

Alopecurus aequalis Sobol.

Orange Foxtail

National Status: Nationally Scarce
Nottinghamshire Status: Scarce
Monads: 4

Preston, Pearman & Dines (2002) state that between 1962 and 1999, orange foxtail *Alopecurus aequalis* appears to have declined nationally, but losses may have been offset by the species ability to readily colonise new sites. The situation may have also been confused by the species lack of appearance in years when water levels remain high and the ease with which the species can be mistaken for marsh foxtail *Alopecurus geniculatus*. In the VC the species was not recorded until 1973 and since then has only been recorded at three other sites at the edge of lakes or ponds. Essentially, the species is a casual in VC56.

Location	GR	Date	Recorder
Eastwood Hall	SK463476	1973	RCLH
Bestwood Country Park, Colliery Tip	SK556469	1990	Woll.
River Leen subsidence pond, Hucknall,	SK550493	1991	GL
Bleasby Gravel Pits	SK705493	2008	RAJ, DCW

Alopecurus x brachystylus Peterm.

A. geniculatus x *pratensis*

National Status: Data Deficient
Nottinghamshire Status: Extinct

A highly sterile hybrid that is intermediate in characters and habitat. It is scattered throughout lowland Britain by ditches and streams and widespread in continental Europe. It was last recorded in Nottinghamshire in 1905 near Kegworth Bridge on the River Soar.

Location	GR	Date	Recorder
River Soar, Kegworth	SK4927	1905	JWC

Anacamptis morio (L.) R.M. Bateman, Pridgeon & Chase

Green-winged Orchid

National Status: Near Threatened, Nationally Scarce
Nottinghamshire Status: Scarce
Monads: 17

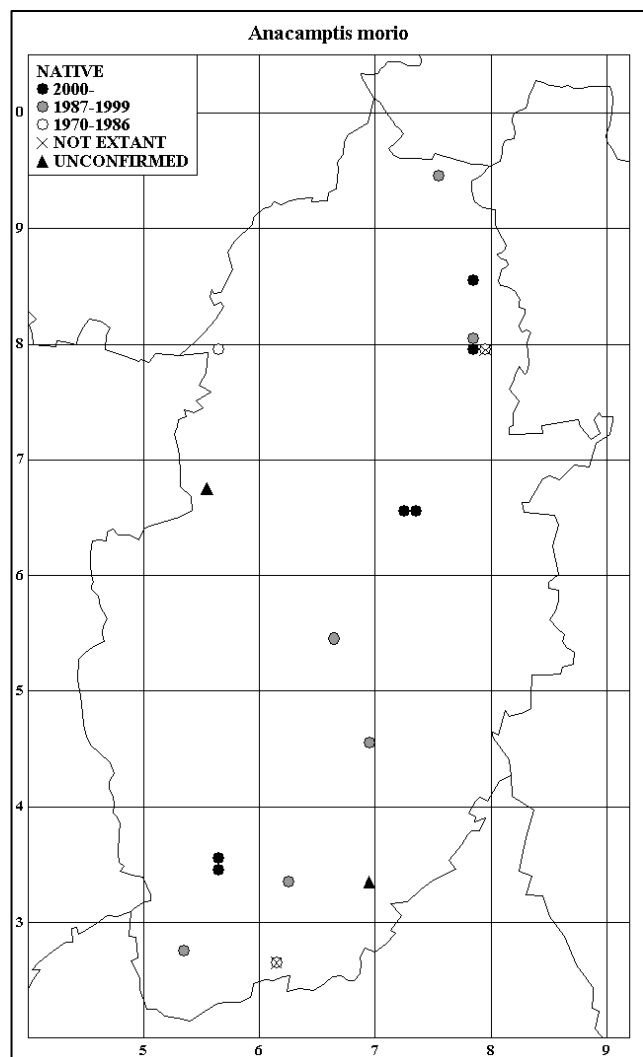
In the VC green-winged orchid *Anacamptis morio* was formerly common and widespread in meadows on basic soils, but the loss of unimproved grasslands since 1945 has caused dramatic declines. Since 1970, the species has been recorded at 14 sites, but is probably extant at only ten sites. The loss of two populations at Treswell (SK791795) and Annabel's Farm (SK6125-6126) has been caused by agricultural improvement and habitat destruction. Only three of the remaining sites including Wilwell Cutting, Ashton's Meadow and West Burton Meadow support large populations. All of these sites are nature reserves and their long-term future is relatively secure. At other sites the populations are smaller and are possibly more vulnerable to decline or loss.

Location	GR	Date	Recorder
Trent Hills	SK6945	c.1987	NRL
Halam Reservoir	SK662546	1999	DCW, MW
Laxton South Field Sykes	SK729655	2003	DCW
Laxton South Field Sykes	SK730656	2012	DCW, RAJ
Laxton South Field Sykes	SK731656	2012	RAJ
Misterton Grassland	SK759944	2003	Woll.
Normanton-on-the Wolds Grassland	SK626331	1990	DCW
Normanton-on-the Wolds Grassland	SK625332	1990	DCW

Anacamptis morio (Continued)

Location	GR	Date	Recorder
Warsop Hills and Holes*	SK5567	Undated	GL
Colston Basset Old Hall Drive*	SK694335	Undated	per CP
Lady Lee Quarry	SK5679	1986	Woll.
Wilwell Cutting	SK567351	2011	PS, DCW, MW
Wilwell Cutting	SK566349	2010	DCW, MW
Ashton's Meadow, South Leverton	SK787801	1997	DCW
Ashton's Meadow, South Leverton	SK787799	2011	DCW, RAJ
West Burton Meadow	SK787851	2004	DCW
West Leake Grassland	SK537273	1993	DCW

*Unconfirmed

*Anagallis arvensis* L. forma *azurea*
HylanderScarlet Pimpernel
(azure form)

National Status: Data Deficient
Nottinghamshire Status: Rare
Monads: 3

The blue form of scarlet pimpernel *Anagallis arvensis* forma *azurea* is much rarer than the red form and is often confused with blue pimpernel *A. arvensis* subsp. *foemina*, which has not been recorded in the VC since 1962. The three records are widely dispersed across the county and in different habitat types including an arable field, an allotment and disturbed soils on a disused

railway siding. The Newstead record has not been re-found since 2008 and is probably no longer extant.

Location	GR	Date	Recorder
Cropwell Bishop Field	SK671354	1992	DCW
Southwell Allotments	SK708533	2007	RAJ
Newstead Dismantled Railway Sidings	SK523526	2008	MW

Anagallis arvensis L. subsp. *foemina* (Mill.)
Schinz & Thell

Blue Pimpernel

National Status: Data Deficient
Nottinghamshire Status: Extinct

The archaeophyte blue pimpernel *Anagallis arvensis* subsp. *foemina* was always very rare in the VC. The species had a scattered, but largely southern distribution with Sutton-in-Ashfield being the most northern of its former locations. It was last recorded in 1962 by RCLH 'growing in a field of roots'.

Location	GR	Date	Recorder
Owthorpe Arable Field	SK63	1962	RCLH

Anagallis tenella L. (L.)

Bog Pimpernel

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 8

By the early 1960s, this perennial species of peaty, wet soils was considered by Howitt and Howitt (1963) to be rare and decreasing in the VC. Since that time bog pimpernel *Anagallis tenella* has continued to decline, reflecting the overall situation in the south and east of England. Bog pimpernel is presently found in only eight monads in the VC and the populations at many sites are very small, being constrained by a limited availability of suitable habitat and continue to be vulnerable to further decline because of eutrophication of surface and ground waters. Recent losses include Sookholme Bath (SK543668), Idle Marshes at Scrooby (SK659898) and Everton Carr (SK690935).

Location	GR	Date	Recorder
The Dumbles, Annesley	SK497508	2010	DCW
Coxmoor Golf Course, Kirkby-in-Ashfield	SK524574	2009	DCW
Newstead Sports Ground	SK518524	1999	DCW
Newstead Park, Newstead	SK543538	2004	DCW
Selston Common	SK474527	2002	DCW
Sookholme Moor, Sookholme	SK554678	2007	DCW
Teversal Trail	SK490636	2008	DCW
Damsyke, Thorney	SK855738	2001	DCW

Antennaria dioica (L.) Gaertner

Mountain Everlasting

National Status: Least Concern
Nottinghamshire Status: Extinct

Mountain everlasting *Antennaria dioica* is a native perennial that was always rare in the VC and confined to the Sherwood heathlands south of Mansfield. It was last recorded on a heath at Annesley towards the end of the 19th Century.

Location	GR	Date	Recorder
Annesley	SK55	1880	AG

Anthemis arvensis L.

Corn Chamomile

National Status: Endangered
Nottinghamshire Status: Extinct

Before the 1960s this archaeophyte annual had a localised distribution, but was widely distributed on the sandy soils of the Sherwood area. It was last recorded in the VC in the early 1960s by RCLH having dramatically declined in a similar manner to the national decline. The decline is considered to have happened because of the development of increasingly effective herbicide compounds.

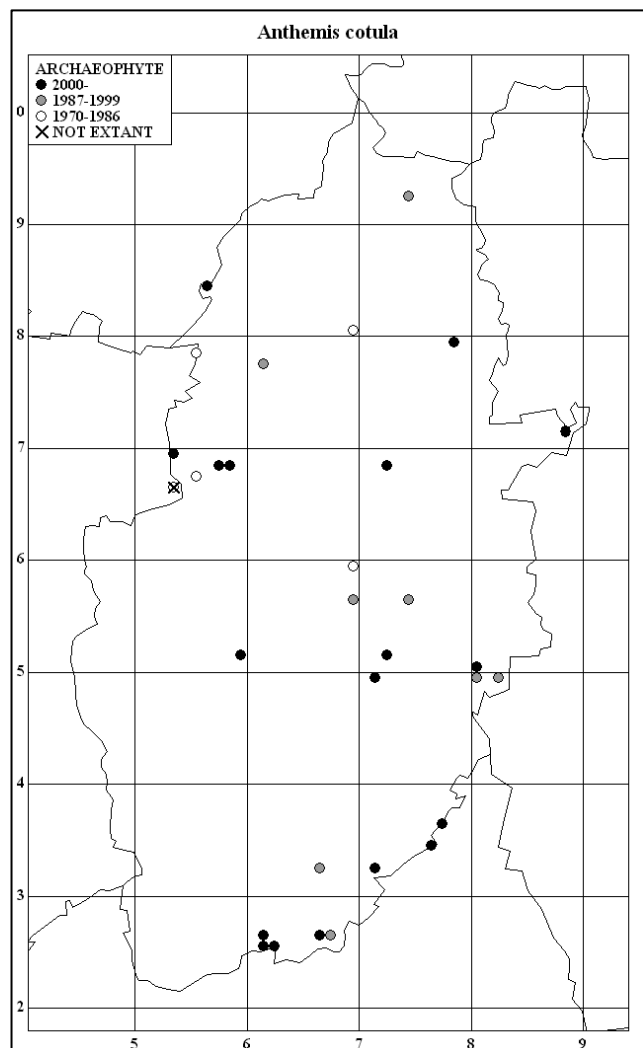
Location	GR	Date	Recorder
Hodsock and Osberton	SK68	1961	RCLH

Anthemis cotula L.

Stinking Chamomile

National Status: Vulnerable
Nottinghamshire Status: Uncommon
Monads: 31

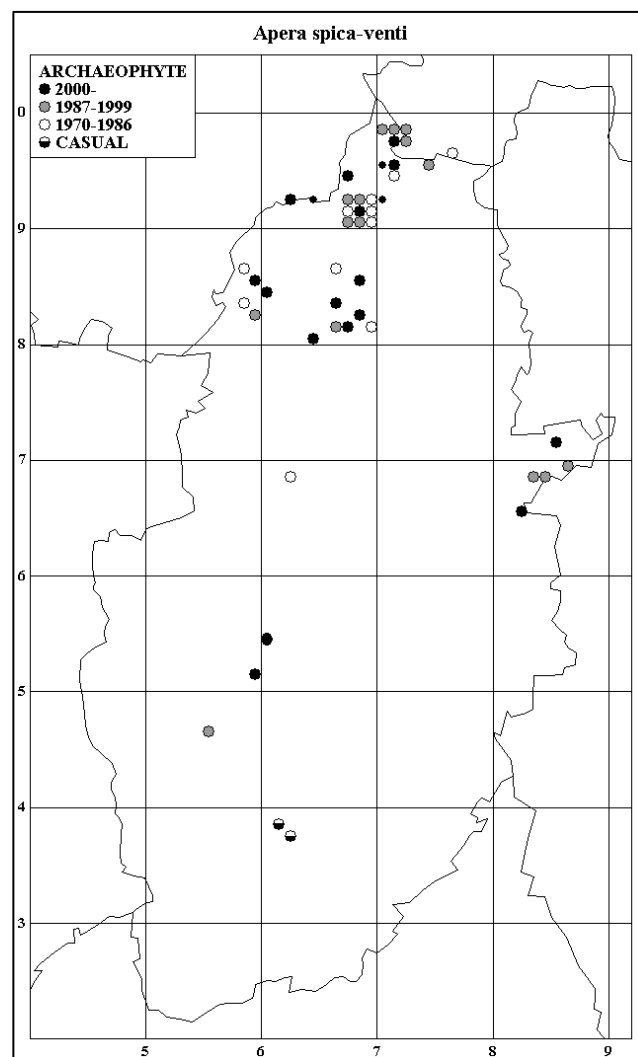
Preston *et al.* (2002) stated that stinking chamomile *Anthemis cotula* declined substantially in the 20th Century despite being fairly resistant to the early phenoxy herbicides. According to Howitt & Howitt (1963) this species of arable fields and roadsides, which was widespread on heavy soils, was also declining in the VC before the 1960s. Since 1970 the species has been recorded in 31 rolling monads, somewhat scattered throughout the VC. The number of records suggests a slight increase in abundance, but in modern times the species has often occurred as a casual.

*Apera spica-venti* (L.) Beauv.

Loose Silky-bent

National Status: Near Threatened, Nationally Scarce
Nottinghamshire Status: Uncommon
Monads: 47

Since 1970, loose silky-bent *Apera spica-venti* has been recorded throughout the VC on arable and open habitats with sandy soils. Howitt & Howitt (1963) stated that the species was abundant on the edge of the Carrs in the north of the VC, which is confirmed by the distribution map. Howitt & Howitt (1963) considered the species to be native, but the transient nature of many populations suggests otherwise and supports Preston *et al.* (2002), who consider the species to be an archaeophyte.

*Apium graveolens* L.

Wild Celery

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 7

Many inland sites for wild celery *Apium graveolens* were lost before 1930, Preston *et al.* (2002). In the VC Howitt & Howitt (1963) considered wild celery to be extinct by the 1960s, but since 1998 the species has been recorded at seven locations. It is likely that these records are recent colonists, because the plant has not been found at any of its pre-1960 locations. The species has been found on lakesides at three sites; a typical habitat for the species. Less typically, the species has been found elsewhere as a casual. The cultivated variety *A. graveolens* var. *dulce* has been recorded as a casual at Hawton (SK801502).

Apium graveolens (Continued)

Location	GR	Date	Recorder
Clayworth Road, Gringley-on-the-Hill	SK736902	1998	DCW
Netherfield Former railway Sidings*	SK631406	1999	DCW
Strelley Trackside Verge (dumped materials)*	SK504427	2002	DCW
Bramcote Hills Landfill*	SK504386	2004	DCW
Clumber Park Lake	SK625743	2004	DCW
Rufford Country Park Lake	SK645650	2006	MW
Colwick Country Park Lagoon	SK609397	2011	DCW

*Casual records

Apium inundatum (L.) Rchb.f.

Lesser Marshwort

National Status: Least Concern**Nottinghamshire Status:** Rare**Monads:** 4

Lesser marshwort *Apium inundatum* has always had a restricted distribution in the county, being chiefly confined to pools and drains in the Trent Valley and the Carrs in the north of the VC. In recent times the decline of the species in the VC has reflected the national situation with losses caused by destruction, land drainage and eutrophication. Two of the remaining four sites where the species is found are gravel pits, which are a typical habitat for the species, but the site at Stanton-on-the Wolds is untypical because the soils are predominantly clay-based in that area.

Location	GR	Date	Recorder
Sutton-cum-Lound Gravel Pits*	SK690842	1972	JH
Collingham Pond	SK836612	1978	NRL, KLJ, CGC
Stanton-on-the-Wolds Pond	SK650307	2010	DCW
Misson Line Bank	SK711959	2012	DCW, JC
Misson Line Bank	SK715960	2012	DCW, JC
Misson Line Bank	SK714959	2012	DCW, JC

*Site destroyed

Aquilegia vulgaris L.

Columbine

National Status: Least Concern**Nottinghamshire Status:** Rare (as a native)**Monads:** 190 (3 as a native)

Howitt & Howitt (1963) described columbine *Aquilegia vulgaris* as very rare and only native in habitats overlying Magnesian Limestone. The species was recorded near all three of its native, extant locations long before the 20th Century, but seems to have disappeared from several other sites on the Magnesian Limestone such as Bulwell, Newstead, Pleasely and Skegby despite the continuing presence of suitable habitat. Away from the Magnesian Limestone, there are approximately 180 records for the species as a neophyte, which are not included in this register.

Location	GR	Date	Recorder
Broxtowe Country Park	SK523431	2005	PA
Broxtowe Country Park	SK523429	2011	DCW
Morning Springs Wood	SK496492	1998	Woll
Morning Springs Wood	SK498494	2011	DCW
Morning Springs Wood	SK497494	2008	DCW, MW
Teversal Trail	SK491637	2004	DCW, RAJ
Teversal Trail	SK49036364	2012	NC

Arabis glabra L.

Tower Mustard

National Status: Endangered, Nationally Scarce**Nottinghamshire Status:** Extinct

The last record for this native species of sandy fields and roadsides dates back to 1904. J. W. Carr recorded Tower Mustard *Arabis glabra* at Barrow Hills, Everton. It was also recorded in the 18th Century between Radford and Lenton near Nottingham and in the 19th Century at Blyth, Cuckney, Warsop, Bestwood Park and Wollaton.

Location	GR	Date	Recorder
Barrow Hills, Everton	SK680920	1904	JWC

Arabis hirsuta (L.) Scop.

Hairy Rock-cress

National Status: Least Concern**Nottinghamshire Status:** Scarce**Monads:** 7

Historically the species was only ever recorded on sites overlying Magnesian Limestone. Howitt & Howitt (1963) described ten sites including four that they visited during the mid-20th Century. Since 1970 the species has been recorded at four sites on the Magnesian Limestone including the Teversal Trail, Warsop Hills and Holes, Pleasley Vale Dismantled Railway Line and Creswell Craggs at Holbeck. In addition the species has been recorded on calcareous sands at Barrow Hills, Everton and at Sutton-cum-Lound Gravel Pit as a casual on imported limestone.

Location	GR	Date	Recorder
Barrow Hills	SK6891	1986	DCW
Creswell Craggs, Holbeck	SK534740	2012	DCW
Pleasley Vale Dismantled Railway Line	SK520649	2007	RAJ, DCW
Northfield House Woodland, Mansfield Woodhouse	SK519649	2011	DCW
Sutton-cum-Lound Gravel Pits*	SK6985	1987	DCW
Teversal Trail, Norwood	SK4863	1970	NRL
Warsop Hills and Holes	SK558681	2012	DCW, RAJ, JC
Warsop Hills and Holes	SK558679	2012	DCW, RAJ, JC

*Casual

Arctium x nothum Ruhmer

A hybrid Burdock

National Status: Data Deficient**Nottinghamshire Status:** Rare**Monads:** 1

This hybrid is intermediate in character and is fertile. It is found in south and central England wherever the parents occur together, but it is infrequent. It was not recorded in the VC before 1970, but in 1998 a single plant was found growing with both parents on a bank of the River Devon, south of Newark-on-Trent.

Location	GR	Date	Recorder
Hawton Fox Covert, Devon Bank	SK787478	1998	DCW

Arnoseris minima L.

Lamb's Succory

National Status: Extinct**Nottinghamshire Status:** Extinct

This archaeophyte was last recorded in the VC before 1963 growing on sandy infertile soils in a field that had not been cultivated in recent years. Earlier in the 20th Century the species was also recorded in sandy fields at Pusto Hill in Everton, Finningley near Doncaster and West Drayton.

Arnoseris minima (Continued)

Location	GR	Date	Recorder
Barrow Hills, Everton	SK680920	1963	RCLH

Asplenium ceterach L.

Rustyback Fern

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 10

With the exception of the record for Creswell Crag, Holbeck, all others in the VC for rustyback fern *Asplenium ceterach* are associated with walls, particularly the mortar. Although it is scarce in the VC there are more recent records than pre-1970 ones. Whilst this may represent a genuine expansion of the species range, given the number of records in the City of Nottingham it may also be due to increased survey effort in urban areas.

Location	GR	Date	Recorder
Collingham	SK86	1979	per. RCLH
Manor Farm, Cotham	SK7947	1980	RCLH
Creswell Crag, Holbeck	SK534740	1997	DCW
Oxpasture Lane / A632 Trunk Road Wall, Nether Langwith	SK527702	1999	MW
Alexandra Park, Nottingham	SK577421	2001	MW
Stanford-on-Soar Railway Viaduct	SK542217	2007	DCW
Arboretum Street Wall, Nottingham	SK56594081	2011	DCW, PA
Derby Road Wall, Nottingham	SK556396	2011	DCW
The Forest Recreation Ground, Nottingham	SK567413	2011	PA
Farnsfield	SK644568	2012	DCW, RAJ

Aster tripolium L.

Sea Aster

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 2

This coastal species is located at two sites in the VC on the tidal section of the River Trent. Since 1970 it has been confined to two localities, with only a single plant recorded at West Stockwith and a small population found at Walkeringham. Early in the 20th century, away from the tidal River Trent, the species was recorded in a drain at Misson, but since then has not been recorded at this locality.

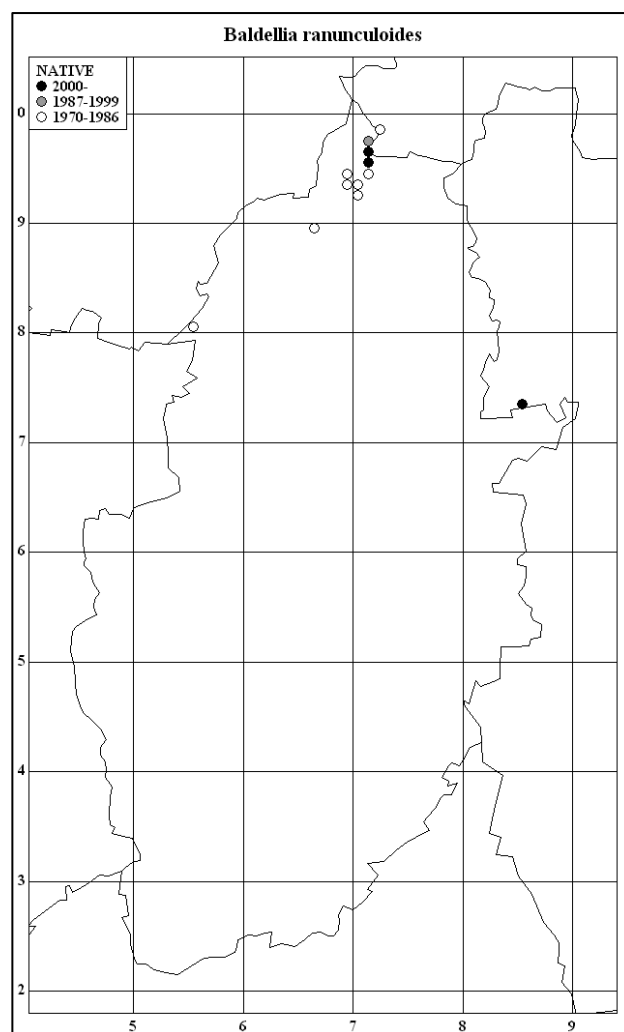
Location	GR	Date	Recorder
River Trent, Walkeringham	SK806916	1994	DCW
River Trent, West Stockwith	SK793949	1998	DCW

Baldellia ranunculoides (L.) Parl.

Lesser Water-plantain

National Status: Near Threatened
Nottinghamshire Status: Uncommon
Monads: 11

Before the 1970s this perennial herb had a localised distribution in the VC, being associated with peat or limestone substrates in shallow drains and pools with fluctuating water levels. Since 1970, the species has been recorded in approximately twelve rolling monads and the decline in the VC appears to follow a similar pattern to the national decline. The declines are attributed to the loss of small water-bodies, eutrophication and a decline in grazing pressure.



Location	GR	Date	Recorder
Everton Carr Drain*	SK700933	1978	Woll, JH
Everton Carr Drain*	SK695932	1980	NCC
Everton Carr Drain*	SK693931	1980	NCC
Everton Carr Drain*	SK698932	1980	NCC
Everton Carr Drain*	SK705931	1980	NCC
Everton Carr Drain*	SK706929	1980	NCC
Everton Carr Drain*	SK703924	1980	NCC
Delve Drain, Everton Carr*	SK698946	1978	Woll, JH
Delve Drain, Everton Carr*	SK690942	1978	Woll, JH
Delve Drain, Everton Carr*	SK698947	1978	Woll, JH
Carr Road East Drain, Gringley Carr*	SK7194 - 7193	1978	Woll
Mother Drain, Gringley Carr	SK717956	2011	DCW, MW
Misson Carr	SK712971	1999	PA, RAJ
Misson Carr	SK712975	1994	DCW
Misson Line Bank	SK716961	2004	DCW, RAJ
Misson Line Bank	SK710960	1982	JNCC
Levels Lane Drain, Misson *	SK712970	1983	JOM
New Idle Drain, Misson*	SK725987	1983	JOM
Ranskill Gravel Pits*	SK667891	1977	Woll
Shireoaks Park Lake*	SK552807	1978	Woll, JH
Darnsyke, Thorney	SK855738	2001	DCW
Misson Line Bank*	SK715960	1978	NRL, KLJ
Misson Line Bank	SK716960	2012	DCW, JC

*Possibly no longer extant

Beta vulgaris subsp. *maritima* (L.)
Arcang.

Sea Beet

National Status: Least Concern
Nottinghamshire Status: Extinct

This species is a rare casual inland and it has not been recorded in the VC in modern times. Deering (1751) implied that the species was widespread in the Nottingham area and 'does not only grow in maritime Places and Salt Marshes'.

Location	GR	Date	Recorder
Nottingham Common	SK54	Extinct by 1839	CD

Blasmus compressus (L.) Panz.
Ex Link

Flat Sedge

National Status: Vulnerable, UK Biodiversity Action Plan
Nottinghamshire Status: Extinct

The species was last recorded in the county in the 1970s and despite repeated searches, the species has not been re-found at Lady Lee Quarry or Skegby and is therefore considered to be extinct in the county.

Location	GR	Date	Recorder
Lady Lee Quarry	SK563794	1972	JH
Skegby Stream	SK495609	1972	JH

Botrychium lunaria (L.) Sw.

Moonwort

National Status: Least Concern
Nottinghamshire Status: Extinct

Despite searches of suitable habitats and historic locations in recent times, moonwort *Botrychium lunaria* has not been seen since 1963 and is therefore, considered to be extinct in the VC.

Location	GR	Date	Recorder
Barrow Hills, Everton	SK680920	<1963	RCLH, BMH
Ranskill	SK68	<1963	RCLH, BMH

Brassica nigra (L.) W.D.J Koch

Black Mustard

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 5

The species used to be frequent in the county, but since 1970 it has only been recorded at five localities in the VC. All records are considered to be casuals. Nationally the species has declined because it is no longer grown for its seed and it is likely that the decline in the VC can be attributed to the same reason.

Location	GR	Date	Recorder
Holme Pierrepont Landfill	SK6339	1981	DCW
Huthwaite Tipped Spoil	SK462579	1994	DCW
Cotgrave Plantation	SK649362	1999	DCW
New Clipstone Colliery Tip	SK590628	1994	DCW
Toton Sidings	SK489346	2001	DCW

Brassica oleracea L.

Wild Cabbage

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 1

As a native the species can grow inland on rock faces in quarries, but it also occurs as a garden escape on roadside verges and waste places. In Nottinghamshire a few plants have become established on the bank of the River Erewash at Toton, but the species has also occurred as a casual elsewhere in the VC.

Brassica oleracea (Continued)

Location	GR	Date	Recorder
River Erewash, Toton	SK501343	2011	DCW

Bromus secalinus L.

Rye Brome

National Status: Vulnerable
Nottinghamshire Status: Uncommon
Monads: 13

This archaeophyte is exclusively associated with arable fields and has a very strong affinity with cereal crops. It has a scattered distribution throughout the VC, but occurs on a range of soil types. Howitt & Howitt (1963) did not provide any modern records, which could be a reflection of 19th and early 20th Century declines, Preston *et al* (2002). A recent comeback has been noted in other counties such as Norfolk and Worcestershire and given the number of recent records this may also be the case in Nottinghamshire. The 2004 Darlton record was determined by L. Spalton

Location	GR	Date	Recorder
Darlton Arable Field	SK758732	2004	DCW
Askham Arable Field	SK738761	2004	DCW
Southwell Arable Field	SK706533	2008	DCW
Grassthorne Arable Field	SK805673	2008	DCW
Granby Arable Field	SK765352	2008	DCW
Misterton Arable Field	SK772951	2009	DCW
Stokeham Arable Field	SK763770	2010	DCW
Headon Arable Field	SK753773	2010	DCW
Headon Arable Field	SK761778	2010	DCW
Dunham-on-Trent Arable Field	SK823755	2010	DCW
Laneham Arable Field	SK815776	2010	DCW
Kirkby-in-Ashfield Arable Field	SK467562	2011	DCW
Cotham Arable Field	SK797468	2012	DCW, MW, AB, WM
Thurgarton Arable Field	SK669506	2012	DCW
Thurgarton Arable Field	SK676503	2012	DCW

Bupleurum rotundifolium L.

Therow-wax

National Status: Critically Endangered, Nationally Rare
Nottinghamshire Status: Extinct

The plants recorded in 1839 in a cornfield at Creswell Crags were probably the last of any 'native' populations in the county. During 1917 J.W. Carr recorded the species for the last time in the VC at Welbeck, but the population was not considered to be native. A herbarium specimen from the 1917 population was submitted to Nottingham Museum (NOT).

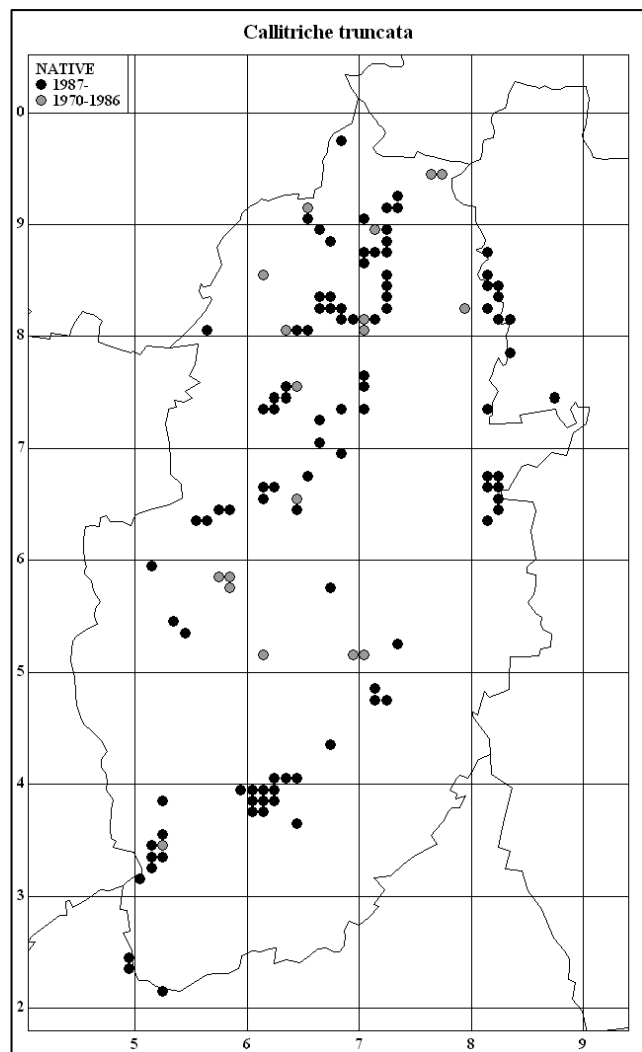
Location	GR	Date	Recorder
Creswell Crags	SK57	1839	GH
Welbeck	SK57	1917	JWC

Callitriche truncata W.D.J. Koch

Intermediate Water-starwort

National Status: Nationally Scarce
Nottinghamshire Status: Locally Frequent
Monads: 118

This annual or occasionally perennial herb is nationally scarce, but in the VC the species is locally frequent in base-rich mesotrophic or eutrophic waters, but rarely occurs on wet mud. Historically, Howitt & Howitt (1963) considered that the species was local and chiefly found in the north of the VC in slow streams, canals and large drains. In modern times the species has been found to be locally frequent in the River Trent valley and its tributaries.

*Campanula glomerata* L.

Clustered Bellflower

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 12 (3 as a native)

As a native, this calcicolous, perennial herb is found at four sites in the VC, three of which are located on the Magnesian Limestone. The fourth site at Balderton, near Newark is associated with base-rich drift geology. Before 1970 the species was also located in the south of the VC in the grasslands of the Lias clays and on base-rich clays in the Trent Valley, but the destruction of grasslands or agricultural improvement has reduced the number of localities in modern times. In addition, plants at Warsop have been dug up from time to time. Apart from the native sites, which are listed in the table below, the species has also been recorded as a neophyte at a further nine locations in the VC, which are not listed below.

Location	GR	Date	Recorder
Balderton Grassland	SK805511	1998	RAJ
Holbeck	SK57	1998	PA
Teversal Cemetery	SK484619	1999	DCW
Warsop Hills and Holes	SK556678	2003	DCW, RAJ, JH
Warsop Hills and Holes	SK557686	1972	JH

Campanula patula L.

Spreading Bellflower

National Status: Endangered, Nationally Scarce
Nottinghamshire Status: Extinct (as a native)

Spreading bellflower *Campanula patula* was first recorded in 1826 amongst underwood in Wellow Park by T. Jowett and was last recorded as a native in 1916 in the same locality by Mrs Collinson

of Laxton. At that time, specimens were sent to Nottingham Natural History Museum.

Location	GR	Date	Recorder
Wellow Park	SK685670	1916	Mrs Collinson

Campanula rapunculus L.

Rampion

National Status: Endangered, Nationally Rare
Nottinghamshire Status: Extinct

This archaeophyte was "once frequently grown in gardens in our area for ornament and its edible roots. It was recorded from the wild as early as 1597, but fell out of favour as a vegetable around 1700 and consequently has seriously declined. It is now rarely encountered, either in cultivation or in the wild¹." Howitt & Howitt (1963) provided only two records for the VC, the first recorded by C. Deering in 1738 originating from Radford Hollows. The later record is provided below.

Location	GR	Date	Recorder
Plantation at Coddington	SK85	1805	TO

Campanula trachelium L.

Nettle-leaved Bellflower

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 17 (7 as a native)

As a native, nettle-leaved bellflower *Campanula trachelium* has been recorded at nine locations (nine monads) in the northwest of the VC, all in woodland and on the Magnesian Limestone. There are five additional records for the species, which are introductions or garden escapes and marked with an asterisk in the table below. The species has always been rare in the VC, but most of the populations recorded in the 1960s are still extant.

Location	GR	Date	Recorder
Boon Hills Wood	SK538697	1997	DCW
Boon Hills Wood	SK533695	2012	DCW
Boon Hills Wood	SK531694	2012	DCW
Cuckney Hay Wood	SK545698	2011	DCW, MW
Cuckney Hay Wood	SK544694	1996	DCW
Cuckney Hay Wood	SK546698	1996	DCW
Lady's Grove	SK535693	1998	DCW
Northfield Plantation	SK530652	1993	DCW
Pleasley Vale Dismantled Railway Line	SK521649	2009	DCW
Warsop Dismantled Railway Line	SK533690	2002	DCW
Warsop Dismantled Railway Line	SK535691	2002	DCW
Warsop Dismantled Railway Line	SK537693	2002	DCW
Warsop Dismantled Railway Line	SK551694	2002	DCW
Warsop Dismantled Railway Line	SK543693	2002	DCW
Warsop Dismantled Railway Line	SK542693	2009	RAJ
Nether Langwith Woodland	SK540703	2012	KB
Lord Stubbin's Wood	SK536688	2012	DCW
Hatfield Plantation	SK528651	2009	MW
Calverton Landfill*	SK589501	2012	MW
Old Canal Basin, Wollaton*	SK527404	2011	PS
Bluebell Wood, Bramcote*	SK506373	2011	DCW
Harrison's Plantation, Wollaton*	SK530404	1999	PA
Broxtowe (East)*	SK5342	2010	WM

*Introduced

¹ <http://www.brc.ac.uk/plantatlas/index.php?q=node/3609>

Cardamine impatiens L.

Narrow-leaved Bitter-cress

National Status: Near Threatened, Nationally Scarce
Nottinghamshire Status: Extinct

The species was last recorded in the VC in the 19th Century on the banks of the Cromford Canal near Brinsley on the border with Derbyshire (VC57)

Location	GR	Date	Recorder
Cromford Canal	SK4450	1839	GH

Carduus tenuiflorus Curtis

Slender Thistle

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 9

Slender thistle *Carduus tenuiflorus* is an annual or biennial that is often considered to be an introduced species away from the coast. In the VC it is found on sandy soils and most of the records are located in close proximity to the River Trent. Before 1970, most of the records were associated with sites near Nottingham or on the banks of the River Trent, upstream of Newark-on-Trent. Since 1970 the species has been restricted to sites downstream of Newark-on-Trent (often where the river is tidal) and elsewhere in the north and east of the VC. The loss of the species around the Nottingham area could be due to habitat loss, but the reasons for the colonisation of sites to the north and east of Newark-on-Trent is not clear.

Location	GR	Date	Recorder
River Trent, Coates	SK826815	2001	DCW
Harby	SK884725	2004	DCW, RAJ
Misson	SK689971	2002	DCW
Misson	SK689971	2010	DCW
River Trent, Rampton	SK825788	2003	DCW
Rolleston	SK749527	2003	RAJ
South Clifton	SK818697	2009	DCW
South Clifton	SK819683	2000	DCW
South Clifton	SK819683	2000	DCW
South Clifton	SK818692	2000	DCW
River Trent, Sutton-on-Trent	SK811642	2001	DCW

Carduus x stangii H. Buek ex Nyman*C. crispus x nutans*

National Status: Data deficient
Nottinghamshire Status: Scarce
Monads: 10

This hybrid is found with the parents scattered in Britain, north to Yorkshire. It is partially fertile and intermediate in characters. In the VC it is largely confined to the Trent valley, with one locality in a quarry on the Magnesian Limestone in the west of the county. There is no information in Howitt & Howitt (1963), so the historic distribution of the species in the VC is not known, but it possibly under recorded, because the parents are often found in close proximity to each other.

Location	GR	Date	Recorder
Attenborough Gravel Pits	SK524334	2008	MS, CS
Lady Lee Quarry	SK564795	1997	DCW
River Trent, Fiskerton	SK737497	2001	DCW
Holme Pierrepont Gravel Pits	SK625387	2001	DCW
Holme Pierrepont Gravel Pits	SK609383	2001	DCW
Holme Pierrepont Gravel Pits	SK613383	2001	DCW
Colwick Country Park	SK6039	2010	WM
Beeston Weir, Clifton	SK536351	2002	DCW

Carduus x stangii (Continued)

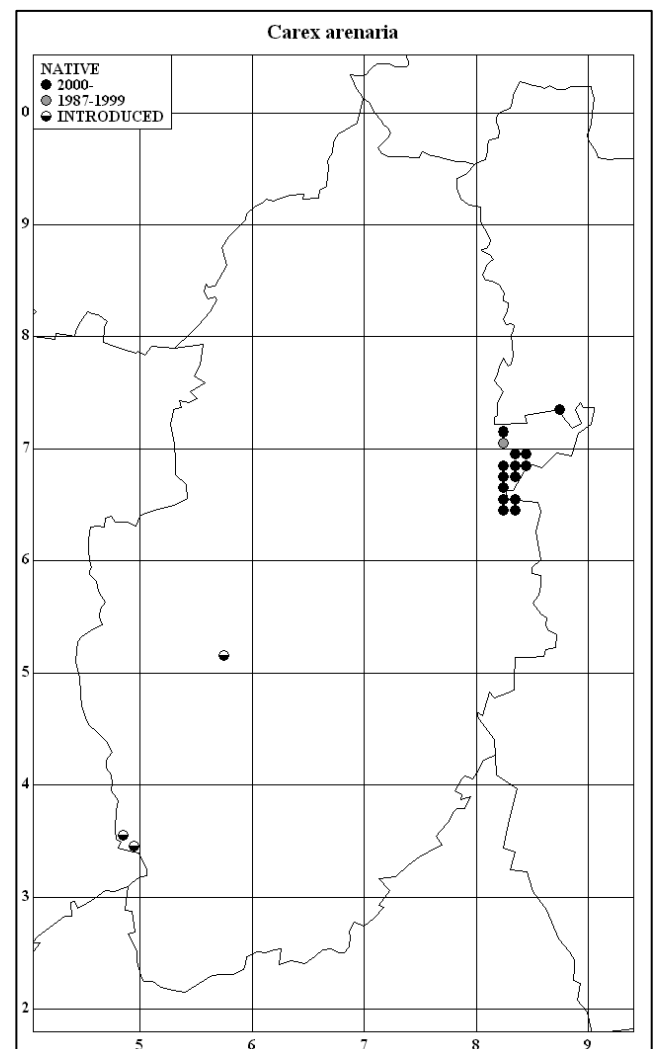
Location	GR	Date	Recorder
River Trent, Holme-on-Trent	SK807577	2003	DCW
Netherfield Dismantled Railway Sidings	SK634403	2011	PA
River Trent, Wilford	SK560366	2012	MM
Grove Farm Playing Fields	SK5536	2010	WM

Carex arenaria L.

Sand Sedge

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 10

As a native species, sand sedge *Carex arenaria* is confined to a relatively small area of the county to the east of the River Trent on blown sands. The distribution of the species has changed little since the 1960s but the number of sites has decreased, because of factors such as habitat loss and change of land use. However, the species is still locally abundant in relict grasslands, roadside verges, hedgebanks and fixed inland sand dunes. Two populations further to the west of the county at Papplewick and Toton are likely to be introductions, given their distance from the native populations and locations.



Location	GR	Date	Recorder
Spalford Warren	SK833680	2007	DCW
Spalford Warren	SK8267	2007	DCW
Spalford Warren	SK8268	2007	DCW
Spalford Warren	SK8367	2007	DCW
Spalford Warren	SK8368	2007	DCW

Carex arenaria (Continued)

Location	GR	Date	Recorder
Spalford	SK839685	2007	DCW
Spalford	SK838687	2007	DCW
Spalford	SK839685	2007	DCW
Spalford	SK831691	1991	DCW, RAJ
Spalford	SK830687	1991	DCW, RAJ
Spalford	SK833692	1991	DCW, RAJ
Spalford	SK847685	2003	RAJ
South Clifton	SK821708	1998	DCW, RAJ
South Clifton	SK821710	1998	DCW, RAJ
South Clifton	SK822703	1998	DCW, RAJ
North Clifton	SK828716	2000	DCW
Girton	SK828667	2005	DCW
Girton	SK830671	1990	DCW
Girton	SK829673	1989	DCW
Girton	SK823675	2002	DCW
Girton	SK825657	2004	RAJ
Besthorpe	SK829653	2003	DCW, RAJ
Besthorpe	SK829653	2003	DCW, RAJ
Besthorpe	SK832653	2003	DCW, RAJ
Besthorpe	SK830648	2003	DCW, RAJ
Thorney	SK871734	2011	DCW, MW
Toton Sidings	SK489351	2011	DCW
Toton Sidings	SK491347	2002	DCW
Papplewick Dismantled Railway Line	SK578513	2012	DCW

Carex canescens L.

White Sedge

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 3

White sedge *Carex curta* is a perennial species that is found in mesotrophic mires in the lowlands. Before 1970 the species was considered to be very rare in the VC and was recorded at only three sites on the Bunter Sandstone including Lindhurst, Scaftworth and Carlton-in-Lindrick. After 1970 the species was not re-found at Carlton-in-Lindrick, but in 1977 was found for the first time at Torworth Sandpit, approximately 3km to the south of Lings Wood, Scaftworth. In recent years however, the species has only been recorded at Lindhurst and because of drainage and increasing shade at Scaftworth (SK668908) and Torworth (SK667862), it is considered to be no longer extant.

Location	GR	Date	Recorder
Fouleil Brook	SK578583	1991	DCW

Carex diandra Schrank

Lesser Tussock Sedge

National Status: Near Threatened
Nottinghamshire Status: Extinct

G. Howitt recorded lesser tussock sedge *Carex diandra* in the 19th Century in bogs near Mansfield. Howitt & Howitt (1963) however, stated that the species was probably extinct, because suitable habitat to the south of Mansfield was no longer present.

Location	GR	Date	Recorder
Near Bleak Hills, Mansfield	SK55	1839	GH

Carex digitata L.

Fingered Sedge

National Status: Nationally Scarce
Nottinghamshire Status: Extinct

Fingered sedge *Carex digitata* was recorded in 1826 by T. Jowett in Pleasley Wood, Nottinghamshire. Nowadays only a small part of Pleasley Wood is located in Nottinghamshire and the location referred to by T. Jowett could now be in Derbyshire, because of boundary changes during the last 185 years. In 2006, the species was found in the Wood, approximately 200m from the boundary of

the VC and it is perhaps reasonable to assume that this location is in the vicinity of T. Jowett's record. Suitable habitat (shaded, limestone outcrops) is present on the Nottinghamshire side of the woodland and there is optimism that the species will be re-found in the VC.

Location	GR	Date	Recorder
Pleasley Wood	SK56	1826	TJ

Carex dioica L.

Dioecious Sedge

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 1

Nationally dioecious sedge *Carex dioica* has declined because of drainage, Preston *et al* (2002). The species is often found in calcareous springs and flushes and in the VC it was last recorded during 1987 in a peaty flush overlying Magnesian Limestone at Sookholme Moor. Historically the species was more frequently associated with bogs on the Sherwood Bunter Sandstone, but virtually the entire resource was lost or destroyed during the 20th Century, because of drainage and habitat loss caused by coal mining activity. Droughts in the 1990s have also taken their toll and given the lack of recent sightings the species may be no longer extant in the VC.

Location	GR	Date	Recorder
Sookholme Moor	SK554678	1986	DCW

Carex distans L.

Distant Sedge

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 10

Howitt & Howitt (1963) considered the species to be very rare in the VC, being recorded at only three localities and all on the Magnesian Limestone. Nationally the species appears to have declined at inland localities due to drainage, but this does not appear to be the case in the VC. The apparent increase in the number of records could be due to a genuine expansion in the species range or because of increased survey effort. However, it is worth noting that many of the populations are very small and at two sites consists of a single plant. The population at Staunton is probably no longer extant, because of shading.

Location	GR	Date	Recorder
Annesley Woodhouse Quarry	SK489533	2012	DCW
Car Colston Marsh	SK708418	2007	DCW
Sheepwash Brook, East Leake	SK559254	2000	DCW
Maplebeck Grassland	SK713617	1999	DCW, Woll
Ruddington Moor	SK561315	2009	DCW
Shireoaks Colliery Tip	SK564806	2012	DCW
Shireoaks Park Cascade	SK548804	1997	DCW
Sookholme Moor	SK554678	2012	DCW
Warsop Hills and Holes	SK553682	2011	DCW
Southwell Grassland	SK704535	2012	RAJ
Staunton-in-the-Vale Pond	SK818437	1988	DCW

Carex divulsa Stokes

Grey Sedge

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 1

Before 1970, the species was recorded at scattered localities in the VC including Colwick Park, Averham and a site near Oxtun. Since 1970 the species has not been re-found at the Averham and Oxtun sites, but at Colwick a small population persists in sparse vegetation behind a bus stop next to Rough Hill Wood.

Carex divulsa (Continued)

Location	GR	Date	Recorder
Rough Hill Wood	SK5931939687	2012	PA, DCW

Carex echinata Murray

Star Sedge

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 3

Star sedge *Carex echinata* was once a common species in the VC and was only absent on the Keuper Marl. The decline in the VC is part of a larger national decline throughout the lowlands that has been brought about by land drainage and agricultural improvement. The species is considered to be vulnerable to extinction, because it is now confined to only three sites and each population is small.

Location	GR	Date	Recorder
Selston Common	SK474527	2002	DCW
Clipstone Forest	SK613603	2009	DCW
Rainworth Heath	SK591591	2009	DCW

Carex elata All.

Tufted Sedge

National Status: Nationally Scarce
Nottinghamshire Status: Scarce
Monads: 7

Howitt (1839) described tufted sedge *Carex elata* as being rather frequent. Since the 19th Century the species has steadily declined in the VC and Howitt & Howitt (1963) described the species as being infrequent occurring on lighter soils next to water. In recent times the species has been recorded in only seven rolling monads and at several sites is reduced to small populations. It is therefore, vulnerable to further declines.

Location	GR	Date	Recorder
Old Trent, South Clifton	SK823690	1975	RCLH
Banks Carr Drain	SK599911	1996	DCW
Oxpasture Plantation	SK832634	1998	DCW
Oxpasture Plantation	SK832632	1998	DCW
Snow Sewer, Misson	SK726983	1999	DCW
Snow Sewer, Misson	SK724981	2012	DCW, JC
Darnsyke, Thorney	SK855738	2007	DCW
Darnsyke, Thorney	SK856739	2011	DCW, MW
Wigsley Wood	SK850706	2007	DCW
University of Nottingham Jubilee Campus*	SK544399	2010	DCW

*Probably planted

Carex hostiana DC.

Tawny Sedge

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 2

Tawny sedge *Carex hostiana* species is confined to two sites in the county, both of which are flushes on the Magnesian Limestone. It has been known at the Sookholme Moor site since 1907, but has only been recorded at the Annesley site in recent years. However, at Annesley Woodhouse Quarry SSSI it may have been overlooked, because it occurs with distant sedge and these two species can be difficult to separate. Both sites are being managed to promote biodiversity and as such the populations are not considered to be particularly vulnerable to extinction.

Location	GR	Date	Recorder
Sookholme Bath	SK543668	1972	JH
Annesley Woodhouse Quarry	SK489533	2008	JF, MW, DCW

Carex pulicaris L.

Flea Sedge

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 4

Flea sedge *Carex pulicaris* had become rare by the early 1960s and Howitt & Howitt (1963) only listed the species at two sites, neither of which were extant by the 1970s. However, in recent times the species has been located at five sites, and with the exception of the Friezeland site, are all associated with the Magnesian Limestone areas of the county. It is not known if the increased number of sites represents an extension in the range of the species or whether in the past, the species was overlooked.

Location	GR	Date	Recorder
Teversal Trail	SK491636	1999	DCW
Warsop Hills and Holes	SK557678	2002	DCW
Sookholme Moor	SK554678	2007	DCW, RAJ
Friezeland	SK476505	2005	DCW
Annesley Woodhouse Quarry	SK489533	2008	DCW, MW

Carex vesicaria L.

Bladder Sedge

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 8

Bladder sedge *Carex vesicaria* has never been common in the VC and has generally been associated with base-rich soils where the water table is at or above the soil level for a significant part of the year. In the past, the species was most commonly found close to the Rivers Trent and Erewash, but was also associated with still-water habitats such as Moorgreen Reservoir, Holme Pit and Haughton Duck Decoy. The plant can still be seen in good quantities at many of the extant sites such as Clifton Pond and Moorgreen Reservoir.

Location	GR	Date	Recorder
Broadholme	SK87	1973	MJH
High Marnham Power Station Drain	SK812713	1977	IB
Holme Pit	SK535346	1991	DCW
Holme Pit	SK538347	1991	DCW
Holme Pit	SK53743462	2010	DCW
Haughton Decoy	SK681719	1972	JH
Haughton Decoy	SK6803771885	2011	DCW, MW
Holme Pierrepont Gravel Pits	SK620381	2010	DCW
Lound Gravel Pit	SK713866	2003	DCW
Moorgreen Reservoir	SK481493	2005	DCW
Moorgreen Reservoir	SK483496	2011	MW
Spalford	SK86	1976	MJH
Spalford	SK830688	1990	DCW
Spalford	SK828688	1990	DCW
Spalford	SK829689	1999	DCW

Carum carvi L.

Caraway

National Status: Endangered
Nottinghamshire Status: Rare
Monads: 1

Caraway *Carum carvi* has always been a rare casual in the VC and before 1970 was recorded at various scattered localities throughout the county, except in the far north. Since 1970, the species has only been recorded once; three plants were found in rough grassland on the bank of Rainworth Water by a sewage treatment works

Location	GR	Date	Recorder
Rainworth Water Grassland	SK598592	1994	DCW

Centaurea cyanus L.

Cornflower

National Status: Nationally Rare**Nottinghamshire Status:** Rare (as an archaeophyte)**Monads:** 29 (1 as an archaeophyte)

As an annual weed of arable fields cornflower *Centaurea cyanus* was already rare by the early 1960s. Since 1970 the species has only been recorded twice as an arable weed; on sandy soils near to the River Trent and at Costock in the south of the county. Since 1970, as a garden escape or introduction the species has been recorded at 32 locations scattered across the county.

Location	GR	Date	Recorder
South Clifton Arable Field	SK826703	1999	PA, RAJ
Costock Arable Field	SK574255	1987	Woll.

Centaureum pulchellum (Sw.) Druce

Lesser Centaury

National Status: Least Concern**Nottinghamshire Status:** Rare**Monads:** 3

Lesser centaury *Centaureum pulchellum* is usually found in dry, open grasslands and heaths but can also be found on open disturbed ground. The species appears to be a recent arrival, because there are no historical records for the VC and at both sites artificial habitats have been colonised following closure of the coalmines. At Langold the plants are located on winter wet barish soils that cover parts of the colliery yards. At Shireoaks the plants are found in a similar habitat, but thousands of plants also occur on the shale seepages of the colliery spoil tips.

Lesser centaury *Centaureum pulchellum* at Langold Colliery Yards

Source: S. Hammonds

Centaureum pulchellum (Continued)

Location	GR	Date	Recorder
Langold Colliery Yards	SK582858	2012	DCW, MW, SH, GC
Shireoaks Colliery Tip	SK563805	2012	CS, RS
Shireoaks Colliery Tip	SK564806	2012	DCW, CS, RS
Shireoaks Colliery Tip	SK559807	2012	DCW, CS, RS
Shireoaks Colliery Tip	SK564806	2010	DCW
Shireoaks Colliery Tip	SK561807	2012	CS, RS
Shireoaks Colliery Tip	SK559806	2010	DCW
Shireoaks Colliery Tip	SK558809	2012	GC
Shireoaks Colliery Tip	SK557810	2012	CS, RS, DCW
Shireoaks Colliery Tip	SK557809	2011	DCW, MW

Cephalanthera damasonium (Mill.) Druce

White Helleborine

National Status: Vulnerable**Nottinghamshire Status:** Extinct

G Howitt last recorded white helleborine *Cephalanthera damasonium* in 1839 in "woods between Newstead and Linby". It has not been recorded since and is considered to be extinct.

Location	GR	Date	Recorder
Between Newstead and Linby	SK55	1839	GH

Cephalanthera longifolia (L.) Fritsch

Narrow-leaved Helleborine

National Status: Vulnerable, Nationally Scarce**Nottinghamshire Status:** Extinct

J Thompson last recorded narrow-leaved helleborine *Cephalanthera longifolia* before 1839 in woods near Welbeck. It has not been recorded since and is considered to be extinct.

Location	GR	Date	Recorder
Welbeck	SK56	1839	JT

Chamaemelum nobile (L.) All.

Chamomile

National Status: Vulnerable, Nationally Scarce**Nottinghamshire Status:** Extinct

Howitt & Howitt (1963) described chamomile *Chamaemelum nobile* "as a rare plant of sandy fields". It is now probably extinct in the VC, because the Bramcote Landfill site, where it was last recorded as an introduction, has recently been landscaped and capped with introduced topsoil.

Location	GR	Date	Recorder
Bramcote Landfill	SK503387	2008	DCW
Bilborough	SK54	1939	JWC

Chenopodium bonus-henricus L.

Good King Henry

National Status: Vulnerable**Nottinghamshire Status:** Declining**Monads:** 14

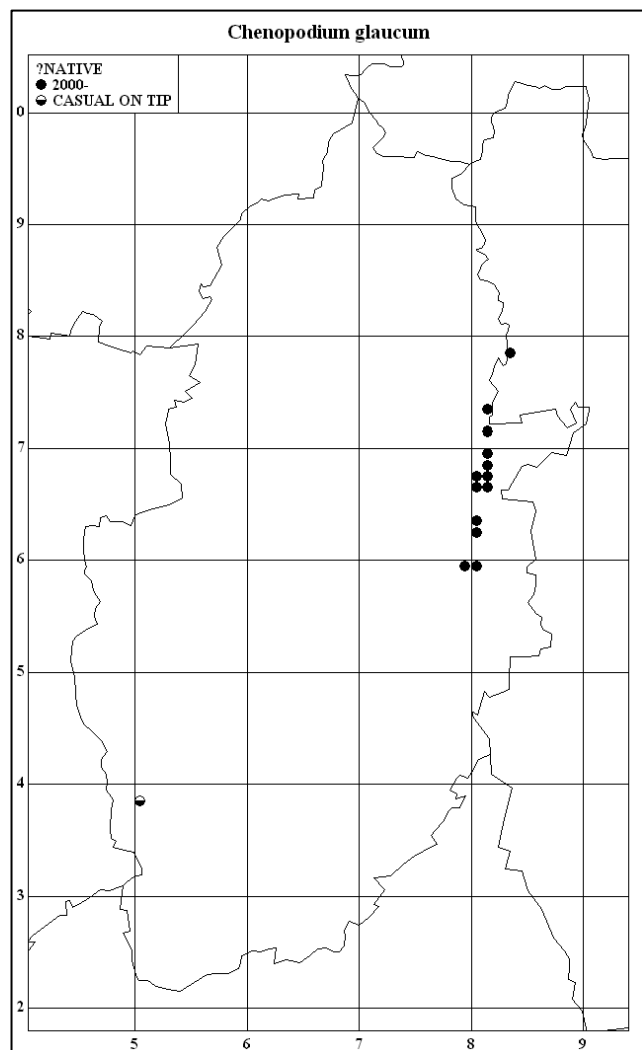
Though never common, the species was once widespread and well established. Since 1970 the species has undergone serious declines and several of the records are for single plants or small populations. A population on a Brinsley roadside verge (SK458503) is no longer extant and some of the populations listed below are likely to be lost or vulnerable. This is because it is no longer cultivated as a culinary herb and unmanaged areas on farms that could support relict populations have been tidied up.

Chenopodium bonus-henricus (Continued)

Location	GR	Date	Recorder
Saundby Railway Crossing	SK7988	1970	RCLH
Osberton (near Chequers Bridge)	SK648815	1970s	JH
Rainworth	SK595578	1972	JH
Martins Pond	SK5240	1987	JCo
Red Hill	SK4930	1987	DCW
River Trent, Hoveringham	SK703463	1993	DCW
River Leen, Basford	SK549434	1995	DCW
Sneinton Quarry	SK592406	1995	DCW
Colston Bassett	SK705335	1996	DCW
Pleasley Vale	SK524648	1996	DCW
River Trent, East Stoke	SK737508	1996	MW
River Idle, Mattersey	SK691894	1999	KB
Mansfield	SK546615	2001	DCW
Kelham	SK778556	2003	DCW
Kirkby-in-Ashfield	SK506576	2003	RAJ
Beauvale, Greasley	SK486487	2008	PO, DCW
Oldcotes Grassland	SK587884	2009	DCW
Mother Drain, Sturton-Le-Steeple	SK815856	2010	DCW
Farnsfield Roadside Verge	SK654566	2012	DCW

Chenopodium glaucum L.

Oak-leaved Goosefoot

National Status: Vulnerable**Nottinghamshire Status:** Uncommon**Monads:** 13

Before 1970, the species had been recorded only once in the VC, in a green lane between Misson and Idle Stop where manure was tipped. Although unlikely, it is possible that the species was overlooked, because modern records are almost exclusively associated with semi-natural habitat on the banks of the tidal River Trent between Holme and Rampton. During the last two years, the species has not been recorded at the locations below, probably because of late-summer flooding, which has stopped the species from germinating at its normal time.

Location	GR	Date	Recorder
Bramcote Landfill	SK505388	2009	DCW
River Trent, Collingham	SK807625	2006	DCW, RW
River Trent, Collingham	SK803631	2006	DCW, RW
River Trent, Collingham	SK803632	2006	DCW, RW
River Trent, Collingham	SK803633	2006	DCW, RW
River Trent, Gorton	SK818683	2009	DCW
River Trent, Gorton	SK816683	2009	DCW
Grassthorne Holme	SK809675	2009	DCW
River Trent, Grassthorne	SK815669	2006	DCW, RAJ
River Trent, Grassthorne	SK815669	2009	DCW, SH
River Trent, Holme	SK802597	2006	DCW, RAJ
River Trent, Holme	SK801595	2006	DCW, RAJ
River Trent, Holme	SK801596	2006	DCW, RAJ
River Trent, Holme	SK799593	2006	DCW, RAJ
River Trent, Normanton Holme	SK817675	2008	DCW
River Trent, North Clifton	SK817719	2006	DCW, MW
River Trent, Ragnall	SK8167873060	2007	RAJ
River Trent, Rampton	SK833782	2010	DCW, SH
River Trent, South Clifton	SK817695	2006	DCW, MW
River Trent, Sutton-on-Trent	SK815669	2006	DCW, RAJ
River Trent, Sutton-on-Trent	SK816666	2006	DCW, RAJ
River Trent, Sutton-on-Trent	SK814665	2006	DCW, RAJ
River Trent, Sutton-on-Trent	SK810666	2006	DCW, RAJ
River Trent, Sutton-on-Trent	SK809665	2006	DCW, RAJ
River Trent, Sutton-on-Trent	SK808663	2006	DCW, RAJ
River Trent, Sutton-on-Trent	SK809661	2006	DCW, RAJ

Chenopodium hybridum L.

Sowbane

National Status: Least Concern**Nottinghamshire Status:** Rare**Monads:** 3

The species has always been rare in the VC and before 1970 was only recorded in the Newark-on-Trent area. Since 1970 the species has only been recorded at five locations and in the last three years has disappeared from the two landfill sites at Bramcote (SK503387) and Bunny (SK581286), which have been landscaped and capped.

Location	GR	Date	Recorder
Lady Lee Quarry (near)	SK566797	2011	DCW
North Muskham	SK792586	2006	DCW
Hawton	SK802502	2010	DCW
Hawton	SK800502	2012	DCW, MW

Chenopodium murale L.

Nettle-leaved Goosefoot

National Status: Vulnerable
Nottinghamshire Status: Rare
Monads: 2

Although the species has always been historically scarce, it was widely distributed throughout the VC. In recent times however, the species has declined and has only been recorded at three sites. Although Bramcote Landfill has been landscaped and capped with topsoil a few plants were still present in 2010. At the Wilford site only one plant was recorded in 2005 and there have been no recent sightings of the population at Worksop and Martins Pond, so the species is considered to be very vulnerable to extinction in the VC.

Location	GR	Date	Recorder
Worksop	SK592788	1972	JH
Martins Pond	SK5240	187	JCo
Wilford	SK564367	2005	DCW
Bramcote Landfill	SK503389	2010	DCW

Chenopodium urbicum L.

Upright Goosefoot

National Status: Critically Endangered
Nottinghamshire Status: Extinct

Before 1970, upright goosefoot *Chenopodium urbicum* was considered to be a rare casual and was recorded near to the Plaster Works at Kingston-on-Soar. Since 1970 the species has been recorded in a garden at Collingham, at Bramcote landfill (now landscaped) and on the margin of a game crop at Kinoulton, as a casual. As the species has not been seen at these sites since, it is very likely that the species is extinct in the VC.

Location	GR	Date	Recorder
Kingston-on-Soar	SK5228	1907	JWC
South Collingham	SK827613	1989	EMP
Bramcote landfill	SK503387	2005	DCW
Kinoulton	SK668312	2005	DCW

Chenopodium vulvaria L.

Stinking Goosefoot

National Status: Endangered, Nationally Rare
Nottinghamshire Status: Extinct

Stinking goosefoot *Chenopodium vulvaria* has always been rare in the VC and in the 19th Century was restricted to sites at Nottingham and Halam near Southwell. It was last recorded in the early 20th Century by A. R. Horwood in the south of the VC at Kingston-upon-soar.

Location	GR	Date	Recorder
Kingston-on-Soar	SK52	1916	ARH

Cicuta virosa L.

Cowbane

National Status: Endangered, Nationally Scarce
Nottinghamshire Status: Extinct

Cowbane *Cicuta virosa* was extinct before the publication of G. Howitt's flora in 1839 and was only ever recorded at two locations in the VC, both in the city of Nottingham.

Location	GR	Date	Recorder
Ditches next to Nottingham Castle Rock	SK5937	1809	JB

Circaea x intermedia Ehrh.*C. alpina x lutetiana*

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 1

In 2012 a single large patch and nearby, two smaller patches were recorded growing at Clifton Grove, which is mature broadleaved woodland habitat, rising above the south bank of the River Trent, in the City of Nottingham. This is the first VC record and because the woodland has been frequently surveyed in the last few decades, it is likely to be a recent arrival, possibly following flood events.

Location	GR	Date	Recorder
Clifton Grove	SK54613542	2012	DCW

Cirsium acaule L.

Dwarf Thistle

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 8

Before 1970, dwarf thistle *Cirsium acaule* was considered to be uncommon in the county, but was widespread and used to occur on the Magnesian Limestone in the northwest of the VC as well as on the base-rich clays of the River Trent Valley and the south of the VC. However, in recent times the species has not been found on the Magnesian Limestone at Skegby (SK4960 / 4961), Teversal (SK481625) and Broxtowe (SK521429) or in the Trent Valley at Thurgarton (SK6848) and in the south has not been seen at the East Leake sites (SK5528 and SK551274). The probable reason for the losses is a lack of grazing and natural succession to tall grassland and scrub.

Location	GR	Date	Recorder
Barnstone Quarry	SK733346	1998	DCW
Normanton-on-Soar Great Central Railway Line	SK538246	2011	DCW, MW
Langar Airfield	SK749334	2009	DCW
Gotham Hills	SK531307	2009	DCW
Gotham Hills	SK529307	2009	DCW
Orston Plaster pits	SK762403	2010	DCW
Hickling Standard Grassland	SK683281	2010	DCW
Barnstone Dismantled Railway Line	SK739358	2010	DCW
Barnstone Dismantled Railway Line	SK744353	1997	MW

Cirsium dissectum (L.) Hill

Meadow Thistle

National Status: Least Concern
Nottinghamshire Status: Probably Extinct

Meadow thistle *Cirsium dissectum* has always been rare in the county and by 1970 was only found at one site. Howitt & Howitt (1963) stated that the species was still common in fields near to Misson and Everton until 1950, but declined thereafter because of re-seeding. The reason for the disappearance from Misson Line Bank in 1973 is unknown, but could have been caused by a lack of management and natural succession to scrub and woodland, in addition to a general drying out of the area.

Location	GR	Date	Recorder
Everton Meadows	SK69	1963	RCLH
Misson Line Bank	SK708958	1973	RCLH

Cirsium x grandiflorum Kittel*C. eriophorum x vulgare***National Status:** Data Deficient**Nottinghamshire Status:** Rare**Monads:** 1

Stace (1991), states that the hybrid is rare in England to Southeast Yorkshire. It is partially fertile and intermediate in stem wingedness and capitulum characters. It has been recorded at only one location in the south of the VC and has persisted since 1992.

Location	GR	Date	Recorder
Cropwell Bishop Disused Gypsum Works	SK672355	2010	DCW

Cladium mariscus (L.) Pohl

Saw Sedge

National Status: Least Concern**Nottinghamshire Status:** Rare**Monads:** 1

Saw sedge *Cladium mariscus* has only ever been recorded at a single site in the county. Howitt & Howitt recorded a small population in a ballast pit at Misterton Soss in June 1952; the population was still present at the same location in 2009.

Location	GR	Date	Recorder
Misterton Ballast Pits	SK775951	2009	DCW

Clinopodium acinos (L.) Kuntze

Basil Thyme

National Status: Vulnerable, UKBAP**Nottinghamshire Status:** Rare**Monads:** 3

Basil thyme *Clinopodium acinos* is a UKBAP species that has always been rather rare in Nottinghamshire: For the most part it has been found on dry banks on the Magnesian Limestone, but has also been found on sandy soils in the Sherwood area and in the south of the VC on base-rich clay and alluvial soil. In recent times the species has dramatically declined, and the only site on the Magnesian Limestone is Warsop Hills and Holes. Elsewhere the species has persisted at Barrow Hills in the north and a large population has developed in a steep railway cutting at Stanford-on-Soar (SK538224 to SK537229) in the south of the VC.

Location	GR	Date	Recorder
Warsop Hills and Holes	SK558678	2012	DCW, RAJ, JC
Warsop Hills and Holes	SK554677	2012	DCW, RAJ, JC
Barrow Hills	SK683917	2003	DCW
Stanford-on-Soar Great Central Railway Line	SK5322	2011	DCW, MW

Clinopodium ascendens (Jord.) Somp.

Common Calamint

National Status: Least Concern**Nottinghamshire Status:** Scarce (as a neophyte)**Monads:** 5

As a presumed native, common calamint *Clinopodium ascendens* was last recorded near Averham Church, but it is no longer extant at that site. It has disappeared from all of the other historic locations, but still occurs as a neophyte at five sites. The population at Bunny Landfill is no longer extant, because the site was recently capped and landscaped.

Location	GR	Date	Recorder
Footpath nr Averham Church	SK7654	1952	RCLH
Bunny Landfill	SK576284	2005	DCW
The Park, Nottingham	SK567394	2009	PS(B)
Headon Hedgerow	SK750769	2010	DCW

Clinopodium ascendens (Continued)

Location	GR	Date	Recorder
Holme Pierrepont Gravel Pits	SK621387	2012	DCW
Plumtree Railway Test Track	SK604336	2011	DCW
East of Nether Langwith	SK546703	2012	KB

Clinopodium calamintha (L.) Stace

Lesser Calamint

National Status: Vulnerable, Nationally Scarce**Nottinghamshire Status:** Extinct

The only record for lesser calamint *Clinopodium calamintha* in the VC originates from 1807 in fields about Coddington, near Newark.

Location	GR	Date	Recorder
Fields about Coddington	SK85	1807	TO

Colchicum autumnale L.

Meadow Safron

National Status: Near Threatened**Nottinghamshire Status:** Rare (as a neophyte)**Monads:** 2

As a native, meadow safron *Colchicum autumnale* is no longer extant in the VC. It was already uncommon and decreasing before 1970 and was last recorded as a native at Walesby Common. In the last decade the species has been recorded at Wilford (SK5637) and Colwick Country Park (SK6039), but it is considered to be a garden escape at both sites.

Location	GR	Date	Recorder
Walesby Common	SK6670	1997	KB

Meadow safron *Colchicum autumnale* at Walesby

Source K. Balkow

Comarum palustre L.

Marsh Cinquefoil

National Status: Least Concern**Nottinghamshire Status:** Scarce**Monads:** 5

Before 1970 marsh cinquefoil *Potentilla palustris* was considered to be uncommon and decreasing because of the loss and/or degradation of acid bogs. Since 1970 the species has only persisted at Rainworth and Misson and has only been recorded at nine sites. Of those nine sites, populations at Idle Stop, Misson (SK718964), Bestwood Duckponds (SK5549) and Weecar Lane, Gorton (SK836678) have been lost, because of factors such as habitat destruction, drainage and eutrophication. A population in fen habitat at Martins Pond (SK526402) was described in the first management plan for the site. The plan was written soon after the site was designated as a Local Nature Reserve in the late 1970s, but searches in more recent years have not located the species.

Comarum palustre (Continued)

Location	GR	Date	Recorder
Misson Line Bank	SK708958	1973	RCLH
Clifton Drain, Spalford	SK8269 / SK8268	1975	RCLH
Fouleil Brook	SK578583	1978	JH, Woll.
Gringley Carr Drain	SK707939	1980	NCC
Fouleil Brook	SK576584	2007	DCW

Convallaria majalis L.

Lily-of-the-Valley

National Status: Least Concern**Nottinghamshire Status:** Scarce (as a native?)**Monads:** 6 (as a native?)

Native lily-of-the valley *Convallaria majalis* is located on sandy soils in seven woodlands in the VC. Three of the woodlands including Jack O'Sherwood, Harlow Wood and Big Wood are located on the Bunter Sandstones of the Sherwood area. Road Wood, Gibbett Wood and Wigsley Wood are located in the east of the VC on blown sands and the Pleasley population is located in scrub next to a stream on the Magnesian Limestone. In addition to the native locations there are a further 28 populations scattered across the VC, which are considered to be introductions or garden escapes and are not included in the table below.

Location	GR	Date	Recorder
Big Wood*	SK563473	2010	DCW, JC
Harlow Wood*	SK547573	1993	DCW
Jack O'Sherwood	SK544524	1978	Woll.
Pleasley Vale*	SK524652	1988	DCW
Road Wood	SK852737	2004	RAJ
Gibbett Wood	SK8773	1975	RCLH
Wigsley Wood	SK854706	2011	DCW, MW
Wigsley Wood	SK849704	2011	DCW, MW

*Possibly introduced

Crassula tillaea L.

Mossy Stonecrop

National Status: Nationally Scarce**Nottinghamshire Status:** Rare**Monads:** 1

Historically the species has only ever been recorded on gravelly rides at Stapleford Wood and Langford Moor. Both sites are located in the east of the VC in very close proximity to the Lincolnshire border. The species has not been seen at Langford in recent times and in 2012 the population that has been recorded as scattered along a single ride at Stapleford Wood (from SK849559 to SK851556) was reduced to a single plant at SK84965590.

Location	GR	Date	Recorder
Stapleford Wood	SK850557	2012	DCW, RAJ

Crepis paludosa (L.) Moench.

Marsh Hawk's-beard

National Status: Least Concern**Nottinghamshire Status:** Rare**Monads:** 2

Marsh hawk's-beard *Crepis paludosa* has only ever been recorded at two sites; near Newboundmill and near Annesley Woodhouse. In recent times, the spread of Himalayan balsam *Impatiens glandulifera* is likely to be the cause of the decline at Cuttail Brook. However, the remaining population at Newboundmill is considered to be stable and is comprised of two large colonies associated with wet seepages in semi-natural woodland, just on the Nottinghamshire side of the VC56 / VC57 border.

Location	GR	Date	Recorder
Cuttail Brook	SK489530	2011	DCW
Newboundmill Wood	SK492635	2012	DCW, JC

Crocus nudiflorus Sm.

Autumn Crocus

National Status: Least Concern**Nottinghamshire Status:** Scarce, Nottinghamshire LBAP Species**Monads:** 6

Stace (2010) describes this species as the most naturalised of the crocus species in the British Isles. Howitt & Howitt (1963) described the species as being "formerly naturalised over large areas of Nottingham, Dunkirk and Wilford meadows. Howitt (2004) describes the species as naturalised, being introduced into the county well before 1500 AD. The habitats have been lost to development, mining subsidence, pit dumps, Wilford Power Station, flood prevention schemes and Nottingham City dump. Occasional plants still occur." In modern times the species has been recorded at eight sites in and around the City of Nottingham and one site at Hoveringham. Two populations at Wilford (SK565366 and SK563365) are no longer extant and the remaining populations are relatively small. Another eleven records, which are not included in the table below (including a population at Walesby), are considered to be deliberate introductions or recent garden escapes.

Autumn crocus *Crocus nudiflorus* at Walesby

(Source: Ken Balkow)

Location	GR	Date	Recorder
Colwick Racecourse	SK604396	2006	DCW, RAJ
Hoveringham	SK709468	2012	RAJ
Skylarks Nature Reserve	SK617390	2008	DCW
Holme Pierrepont	SK605384	2007	SH
Nottingham General Cemetery	SK565403	2007	PA
Elm Tree Avenue, Nottingham	SK571410	2006	PA, DCW
Elm Tree Avenue, Nottingham	SK572410	2006	PA, DCW
The Forest Recreation Ground	SK563412	2002	PA
Wilford Churchyard	SK566378	2002	DCW

Crocus vernus (L.) Hill

Spring Crocus

National Status: Least Concern**Nottinghamshire Status:** Scarce, Nottinghamshire LBAP**Monads:** 30 (10 as an archaeophyte)

Spring crocus *Crocus vernus* is naturalised in Nottinghamshire, having been recorded before 1500 AD, Howatt (2004). This native of the Balkan region of former Yugoslavia was formerly abundant on the Bunter Sandstones and Keuper Marls and was often found in the same places as autumn crocus. As a consequence of habitat destruction, by the early 1960s, the species suffered a similar fate to that of autumn crocus, but has fared slightly better in more modern times. Since 1970 spring crocus has been recorded at slightly more sites than autumn crocus and several of the remaining populations are relatively large. A census of two sites at the Nottingham University Highfields Campus by the 'Friends of the University of Nottingham' group revealed a total of 11,500 flowering spikes.

Crocus vernus (Continued)

The species has also been recorded as a garden escape or introduction at 22 sites including Walesby (see photograph); but details of those records are not included in this register.

Location	GR	Date	Recorder
Moorgreen Chapel	SK485476	2001	RC
Beeston Fields	SK521376	2002	RC, DCW
Beeston Fields	SK522384	2002	DCW
Awsworth Churchyard	SK483441	2002	DCW
Radford Churchyard	SK555407	2002	RC
General Cemetery	SK565404	2012	WM
Greasley Churchyard	SK489472	2002	DCW
Lenton Churchyard	SK555393	2002	RC, DCW
University of Nottingham Highfields Campus	SK5338	2012	MW, DCW
Babworth Churchyard	SK686808	2006	DCW
Beeston Fields	SK518374	2010	DCW

Cuscuta epithymum (L.) L.

Common Dodder

National Status: Vulnerable
Nottinghamshire Status: Rare
Monads: 1

Howitt & Howitt (1963) considered common dodder *Cuscuta epithymum* to be very rare or extinct, because it was not recorded in the VC after 1910. Since 1970, the species has been recorded at a single location to the east of the City of Nottingham, as a parasite on European Gorse *Ulex europaeus*. Unfortunately the location is no longer accessible.

Location	GR	Date	Recorder
Netherfield Dismantled Railway Sidings	SK631404	1994	DCW

Cuscuta europaea L.

Large Dodder

National Status: Nationally Scarce
Nottinghamshire Status: Extinct

In the VC, large dodder *Cuscuta europaea* has only ever been recorded once in 1875, somewhere near to Mansfield. The presence of the species in the VC is somewhat surprising and it may have been an introduction. Nationally there are a few pre-1970 records for this species that are located to the north of the VC, but these records are mapped as alien and all modern records are located to the south of Northamptonshire, Preston *et al.* (2003).

Location	GR	Date	Recorder
Near Mansfield	SK56/66	1875	JCr

Cynoglossum officinale L.

Hound's-tongue

National Status: Near Threatened
Nottinghamshire Status: Declining
Monads: 16

Hound's-tongue *Cynoglossum officinale* has never been common, but before 1970 was widespread in the VC on dry grasslands or disturbed ground. In recent times the species has declined in the VC and throughout the British Isles, probably because of habitat loss and herbicide spraying.

Location	GR	Date	Recorder
Bilhaugh	SK639689	2009	DCW
Budby South Forest	SK622694	1972	JH
Cropwell Bishop Disused Gypsum Works	SK680348	2000	DCW
Old Hill, East Bridgford	SK696448	2010	DCW
Old Hill, East Bridgford	SK696449	2008	DCW

Cynoglossum officinale (Continued)

Location	GR	Date	Recorder
East Leake Great Central Railway Line	SK544259	2009	DCW
East Leake Great Central Railway Line	SK549267	2009	DCW
East Leake Great Central Railway Line	SK551275	2009	DCW
Normanton-on-Soar Great Central Railway Line	SK537229	2011	DCW, MW
Normanton-on-Soar Great Central Railway Line	SK536235	2011	DCW, MW
Normanton-on-Soar Great Central Railway Line	SK537244	2011	DCW, MW
Normanton-on-Soar Great Central Railway Line	SK540251	2009	DCW
Orston Plaster Pits	SK763402	2010	DCW
Red Hill	SK493306	1996	DCW
Red Hill Lock	SK492303	1996	DCW
Scaftworth	SK668919	2011	DCW, MW
Scaftworth	SK671917	2012	DCW, MW
Scaftworth	SK673917	2004	DCW
Stanford-on-Soar Great Central Railway	SK537231	2009	DCW
Stanford-on-Soar Great Central Railway	SK536236	2009	DCW
Stanford-on-Soar Great Central Railway	SK539223	1996	DCW
Stanford-on-Soar Great Central Railway	SK542218	1996	DCW
Stanford-on-Soar Great Central Railway	SK541219	1996	DCW
Thoresby Park	SK636705	2009	DCW
Thoresby Park	SK637706	2009	DCW
Thoresby Park	SK641708	2009	DCW
Thoresby Park	SK646714	1972	JH
Willoughby-on-the-Wolds	SK621265	1987	Woll.

Cystopteris fragilis L.

Brittle Bladder-fern

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 6

For the most part, brittle bladder-fern *Cystopteris fragilis* has been recorded on walls rather than rocks and is now confined to a single population on a Magnesian Limestone outcrop at Pleasley. Elsewhere, populations at Newboundmill and Pleasley, which were recorded in 1963 (Howitt & Howitt, 1963), have subsequently declined and other populations at Linby (SK5351), Sneinton (SK592410) and Eastwood (SK461458) are no longer extant. However, new populations have appeared on walls at South Muskham and Egmont, which were not recorded before 1970.

Location	GR	Date	Recorder
Pleasley Vale Dismantled Railway Line	SK518649	1997	DCW
Farm Access Bridge, Teversal Trail	SK486615	2000	DCW
River Meden Road Bridge, Newboundmill	SK496633	2001	DCW
Egmont Garden Wall	SK734687	2012	DCW, MW, RAJ
Trent Viaduct Wall, South Muskham	SK798563	2010	DCW
Lock Wall, Beeston Canal	SK536354	2010	DCW

Dactylorhiza incarnata subsp. *incarnata* Early Marsh-orchid
(L.) Soó

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 5

Howitt & Howitt (1963) considered that the only reliable VC record for early marsh orchid *Dactylorhiza incarnata* originated from Warsop Hills and Holes and on the advice of V.S. Summerhayes, the records of J.W. Carr were probably better assigned to southern marsh orchid *Dactylorhiza praetermissa*. Since 1970, early marsh orchid has been recorded at four sites in addition to the Warsop Hills and Holes record (now referred to as Sookholme Moor). Howitt's Greasely record was not originally allocated to a subspecies, but for the sake of convenience is included below, because this is the most common of the subspecies in the VC.

Location	GR	Date	Recorder
Fish Stew, Greasely	SK492469	1973	RCLH
Sookholme Moor	SK554678	2000	DCW
Kirkby-in-Ashfield	SK493549	2001	RAJ, DCW
Maplebeck Grassland	SK713617	2002	DCW
Hunt's Meadow	SK714618	2011	DCW, JF, NC, MW
Bevercotes Country Park	SK710737	2012	DP

Dactylorhiza incarnata subsp. *pulchella* Early Marsh-orchid
(Druce) Soó

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 1

The record for this subspecies has yet to be confirmed. It occurs in the west of the VC on Permian Marls in a sedge-rich marsh community.

Location	GR	Date	Recorder
Friezealand	SK476507	2004	DCW

Dactylorhiza maculata subsp. *pulchella* (E.F. Linton) Hut. & Summerhay. Heath Spotted-orchid

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 2

Before 1970 the species was only recorded once in the south of the VC in a marshy meadow at Stanton-on-Wolds. V.S. Summerhayes verified the record in 1951. Since 1970, the species has not been recorded at Stanton-on-Wolds, but it has been recorded at two other sites in the VC. Although the two sites are a considerable distance from each other, they are both flushed grasslands on clay soils. The Askham population however, occurs in pasture grassland, whilst the Gotham population occurs on a golf course.

Location	GR	Date	Recorder
Rushcliffe Golf Course	SK546279	2007	DCW, MW
Askham Grassland	SK744751	2010	DCW

Dactylorhiza purpurella T. & T.A. Northern Marsh-orchid
Stephenson

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 2

There are no specific pre-1970 records for northern marsh-orchid *Dactylorhiza purpurella*, although it may have been recorded under the epithet marsh orchid *Orchis latifolia* sens. lat. In 2010 the species was recorded at a site to the east of the City of Nottingham where it exists as two discrete populations on the

banks of a lagoon. The second site is a Country Park created on an area around a former colliery shale tip associated with the former Bevercotes Colliery. The population is located on wet ground surrounding a large pond and is found in association with other marsh orchids.

Location	GR	Date	Recorder
Netherfield Lagoons	SK635400	2010	DCW
Netherfield Lagoons	SK636399	2010	DCW
Bevercotes Country Park	SK710737	2012	DP

Dactylorhiza viridis (L.) R.M. Bateman, Pridgeon & M.W. Chase Frog Orchid

National Status: Vulnerable
Nottinghamshire Status: Scarce
Monads: 4

Frog orchid *Dactylorhiza viridis* is found in unimproved grasslands on Permian Marls and Keuper Marls and was described by Howitt & Howitt (1963) as very rare. In recent times it has been recorded in five monads, with only one site located on the Keuper Marls. Populations vary from year to year, but there has been a general decline in the numbers of spikes at most sites.

Location	GR	Date	Recorder
Teversal Grassland	SK479620	1972	JH
Kirkby-in-Ashfield Hills and Holes	SK498553	1973	NCC
Newhall Reservoir	SK662546	1992	DCW
Bentnck Banks	SK494554	1993	DCW
Annesley Woodhouse Quarry	SK489534	1999	DCW, MW
Bogs Farm Quarry	SK482533	2009	DCW
Teversal Trail	SK48026248	2012	NC, KB, DCW, RAJ

Daphne mezereum L.

Mezereon

National Status: Vulnerable, Nationally Scarce
Nottinghamshire Status: Rare
Monads: 2

Since 1970 mezereon *Daphne mezereum* has been recorded at three sites where there is no evidence to suggest deliberate introduction. Although the species is native in the south of England it was not recorded in the VC before 1970 and is therefore, considered to be naturalised in the VC. At Skylarks Nature Reserve (SK619391), where it is no longer extant, and at Worksop the species is obviously naturalised, because it occurs on formerly disturbed land. However, the origin of the Broxtowe Wood bush is curious, because the woodland is ancient. However, given the close proximity of a housing estate the plant is considered to be a garden escape rather than native.

Location	GR	Date	Recorder
Broxtowe Wood	SK531429	2005	DCW, PA
Worksop	SK581800	2009	DCW

Dianthus armeria L.

Deptford Pink

National Status: Endangered, Schedule 8: Wildlife & Countryside Act 1981, Nationally Scarce,
Nottinghamshire Status: Rare, Nottinghamshire LBAP Species
Monads: 1

Howitt & Howitt (1963) stated that Deptford pink *Dianthus armeria* was a denizen or casual that was frequent near gardens and rubbish dumps. Between 1970 and 1992 the species was recorded as a casual at Bramcote Land-fill (SK504387), where it is no longer extant. Since 1992, native populations were recorded on a dismantled railway line and a railway cutting near Widmerpool in the south of the VC.

Dianthus armeria (Continued)

These populations are monitored on a regular basis and the last counts consisted of a smaller population of 68 plants at SK644297 and 420 plants at SK649289.

Location	GR	Date	Recorder
Widmerpool Dismantled Railway Line	SK643299	2003	DCW
Widmerpool Dismantled Railway Line	SK644297	2010	DCW
Widmerpool Dismantled Railway Line	SK649289	2012	NC, RAJ

Dianthus deltoides L.

Maiden Pink

National Status: Near Threatened, Nationally Scarce

Nottinghamshire Status: Extinct (as a native)

Monads: 5 (as a neophyte)

Howitt & Howitt (1963) considered that maiden pink *Dianthus deltoides* was extinct by 1820, but as a native had previously occurred in the VC on Sandstone rocks in the City of Nottingham area. During 2003 the species was recorded at Oak Tree Heath near Mansfield and up until 2007, plants were present at Carburton Plantation on a woodland ride; at both sites, the species could have been native. However, the status was never verified and despite searches at both sites the species has not been re-found in recent years. Another five records are all considered to be introductions or garden escapes, which are marked with an asterisk in the table below.

Location	GR	Date	Recorder
Oak Tree Heath	SK5660	2003	NRL
Carburton Plantation	SK6198572163	2007	CS, RS
Holme Pierrepont Gravel Pits*	SK621387	1992	DCW
Warsop Vale Colliery Yards*	SK552683	2002	DCW
Winthorpe Garden Site*	SK815558	2004	DCW
Hawton Landfill*	SK803502	2010	DCW
University of Nottingham Jubilee Campus*	SK547397	2010	DCW

Dipsacus pilosus L.

Small Teasel

National Status: Least Concern

Nottinghamshire Status: Scarce

Monads: 6

Small teasel *Dipsacus pilosus* has always been scarce in the VC and has been lost from Pleasley Forge, Beauvale Abbey, Kneeton Wood, and woods near Thurgarton and Elston. However, it is still extant in old woodlands, associated with Keuper Marl, at Epperstone, Gonalston and Flintham. In recent times the species has also been recorded in plantation woodland at Syerston, in a roadside ditch at Linby that was created less than twenty years ago and on a spoil heap at Bevercotes Colliery. The Linby population is considered to be an introduction from discarded seeds. Primrose Plantation is close to Flintham Wood so the record is not altogether surprising. The record at Bevercote is however, very odd, because it is nowhere near to any old woodland stands and is many miles from the nearest populations. In addition, there are no historical records for the Bevercotes area.

Location	GR	Date	Recorder
Spital Wood	SK683484	1993	DCW
Flintham Wood	SK721479	2007	DCW
Flintham Wood	SK723483	2010	DCW
Flintham Wood	SK727487	2010	DCW
Epperstone Park	SK6349	1974	RCLH
Epperstone Park	SK634503	2010	DCW, SH
Primrose Plantation	SK734488	2010	DCW

Dipsacus pilosus (Continued)

Location	GR	Date	Recorder
B6011 Roadside Ditch, Linby	SK533508	2011	MW
Bevercotes Colliery Spoil Mound	SK694737	2011	DCW

Small teasel *Dipsacus pilosus* at Epperstone Park



Source S. Hammonds

Draba muralis L.

Wall Whitlow-grass

National Status: Nationally Scarce

Nottinghamshire Status: Extinct

There is no mention of wall whitlow-grass *Draba muralis* in Howitt & Howitt (1963), but a herbarium sheet originating from Kingston Hall in the south of the VC is held by Aberystwyth University. It is not known why the Howitts were unaware of the record. Aside from its native habitat, wall whitlow-grass is also "a colonist on old walls, forest tracks and railways, and has been recorded as a garden weed where the conditions of its summer-dry, winter-moist, native habitat are mimicked²." It is therefore, possible that wall whitlow-grass could appear again, somewhere in the VC.

Location	GR	Date	Recorder
Kingston Hall	SK506279	1948	DAJL

² <http://www.brc.ac.uk/plantatlas/index.php?q=node/2492>

Drosera rotundifolia L. Round-leaved Sundew

National Status: Least Concern
Nottinghamshire Status: Extinct

Before the 20th Century round-leaved sundew *Drosera rotundifolia* was found at several sites in the VC, wherever peat deposits were present. By the start of the 20th Century virtually all the suitable habitat was destroyed or drained and subsequently the species became extinct.

Location	GR	Date	Recorder
Oxton Bogs	SK65	c.1900	JWC

Dryopteris cristata L. Crested Buckler Fern

National Status: Critically Endangered, Nationally Rare
Nottinghamshire Status: Extinct

Crested buckler fern *Dryopteris cristata* was last recorded in the VC at Oxton Bogs, but had become extinct before the turn of the 20th Century. Nottingham Natural History Museum holds a herbarium specimen from 1894, which was submitted by J.W. Carr.

Dryopteris cristata (Continued)

Location	GR	Date	Recorder
Oxton Bogs	SK65	1894	JWC

Dryopteris x complexa Rothm. *D. filix-mas x affinis*

National Status: Data Deficient
Nottinghamshire Status: Rare
Monads: 2

The hybrid was not recorded in the VC before 1970 and has only been recorded twice since that time. Page (1997) discusses the difficulty in separating the hybrid, because of the variability of both parents, the possible involvement of any of the scaly male fern *Dryopteris affinis* subspecies and the possibility of backcross hybrids to *Dryopteris filix-mas*. However, Page (1997) states that hybrids are likely to occur wherever the parents meet. As there are numerous sites throughout the VC where both species occur, the hybrid is likely to be more common than the number of records suggest. In the VC the hybrid has been recorded, to date, on damp soils in the Sherwood district.

Location	GR	Date	Recorder
Carburton Plantations	SK611728	1972	JH
Cuckney Hay Wood	SK559696	2008	DCW

Dryopteris x deweveri Jansen (Jansen & Wachter) *D. carthusiana x dilatata*

National Status: Data Deficient
Nottinghamshire Status: Scarce
Monads: 3

This hybrid is not uncommon in a wide range of slightly damp, fairly acidic plantation and semi-natural woodland habitats throughout the UK, Page (1997). In the VC the hybrid has been located in secondary fen woodland on peat deposits, in willow scrub on damp, sandy soils, secondary oak-birch woodland and in ancient woodland on clay soils. Detailed searches in the VC are likely to reveal more populations of the hybrid, because there are numerous sites where both parents occur together.

Location	GR	Date	Recorder
Misson Carr	SK7197	2001	DCW
Daneshill Gravel Pits	SK6686	2006	DCW
Treswell Wood	SK765791	2006	DCW
Eelhole Wood	SK515478	1972	AJW
Oxton Bogs	SK6151	2011	DCW

Dryopteris x uliginosa (Newm.) Kuntze ex Druce *D. carthusiana x cristata*

National Status: Data Deficient
Nottinghamshire Status: Extinct

Page (1997) states that the hybrid is a rare and local hybrid that is probably now confined to Norfolk. In the VC the hybrid has been recorded once only in 1866 at Oxton Bogs.

Location	GR	Date	Recorder
Oxton Bogs	SK65	1866	EJL

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

National Status: Nationally Scarce
Nottinghamshire Status: Rare
Monads: 3

Nationally needle spike-rush *Eleocharis acicularis* is scattered, occurring in and next to the margins of still-water bodies and drains. In the VC, Howitt & Howitt (1963) stated that the species was rare, but occurred on the muddy margins of still waters throughout the VC. Since 1970 the species has declined and is now confined to two drains in the far north of the VC and a flooded sand pit at Scrooby, where it was only recently found. The losses at Moorgreen Reservoir and the Grantham Canal are probably caused by changes to the water quality and quantity.

Location	GR	Date	Recorder
Snow Sewer, Misson	SK724982	1972	JH
Gringley Carr Drain	SK721939	1978	Woll.
Gringley and Misterton Boundary Drain	SK723940	1978	Woll.
Snow Sewer, Misson	SK726983	1997	DCW
Snow Sewer, Misson	SK723980	1983	JOM
Scrooby Sand Pit	SK654904	2012	DCW, JC, MW

Eleocharis multicaulis (Sm.) Sm. Multi-stemmed Spike-rush

National Status: Least Concern
Nottinghamshire Status: Extinct

Howitt & Howitt (1963) described multi-stemmed spike-rush *Eleocharis multicaulis* as very rare, but it was probably extinct long before they published their flora, because there are no records after 1927. It was presumably lost because of drainage as many of the pools and wet areas associated with Birklands have dried out or have become seasonally rather than permanently wet.

Location	GR	Date	Recorder
Birklands Pool, Edwinstowe	SK66	1927	JWH

Eleocharis palustris subsp. *palustris* Sell & Murrell Common Spike-rush

National Status: Data deficient
Nottinghamshire Status: Extinct

Sell & Murrell (1996) describe subspecies *palustris* as much more rare than subspecies *vulgaris*, but includes Nottinghamshire in the list of counties where it has been found. Presumably they are referring to R. C. L. Howitt's single record from Thoresby Park, dated 1958, which was confirmed by S.M. Walters. Unfortunately in more recent times the subspecies has not been refound and it is, therefore, probably extinct in the VC.

Location	GR	Date	Recorder
Thoresby Park	SK67	1966	RCLH

Eleocharis quinqueflora (Hartmann) Schwarz Few-flowered Spike-rush

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 1

Few-flowered spike rush *Eleocharis quinqueflora* at Warsop Hills and Holes



Source S. Hammonds

Few-flowered spike-rush *Eleocharis quinqueflora* was not recorded in the VC until 1953 and has always been rare, being recorded at only two sites. Although the species has not been recorded at Rempstone Old Church Yard in recent years, several patches are still extant at Warsop Hills and Holes (now referred to as Sookholme Moor) in a peaty flush.

Location	GR	Date	Recorder
Sookholme Moor	SK554678	2009	DCW

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

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 9

Floating club-rush *Eleogiton fluitans* has only ever been recorded in drains and pools on the Carrs in the north of the VC. Howitt & Howitt (1963) considered the species to be rare, but more recent survey work has confirmed that the species is still localised, but is now scarce, having been recorded in nine rolling monads.

Eleogiton fluitans (Continued)

Location	GR	Date	Recorder
Everton Carr Drain	SK694944	1978	Woll., JH
Delve Drain, Everton Carr	SK690942	1978	Woll., JH
Gringley and Misterton Boundary Drain	SK723940	1980	NCC
Gringley Carr Drain	SK721939	1978	Woll.
Mother Drain, Gringley Carr	SK717954	2011	DCW, MW
Mother Drain, Gringley Carr	SK717955	2012	DCW
Mother Drain, Gringley Carr	SK715953	2011	DCW, MW
Mother Drain, Gringley Carr	SK705943	1978	Woll.
Misson Carr Drain	SK717974	1994	DCW, RAJ, PA
Misson Carr Drain	SK714975	1994	DCW, RAJ, PA
Misson Carr Drain	SK718976	1994	DCW, RAJ, PA
Misson Carr Drain	SK713975	2010	DCW, MW
Misson Carr Drain	SK713978	2010	DCW, MW
Misson Drain	SK724982	1978	RCLH, JH
Mother Drain, Misterton	SK723964	2002	DCW

Empetrum nigrum L. Crowberry

National Status: Least Concern
Nottinghamshire Status: Extinct

In the 19th and early 20th Centuries crowberry *Empetrum nigrum* was found at several sites in the Sherwood area. It was last recorded in 1920 at Oxtan Bogs before it was destroyed by gravel workings. In 1894 J.W. Carr submitted a herbarium specimen from Oxtan Bogs to the Nottingham Natural History Museum.

Location	GR	Date	Recorder
Oxtan Bogs	SK65	1920	JWC

Epilobium lanceolatum L. Spear-leaved Willowherb

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 5

Spear-leaved willowherb *Epilobium lanceolatum* must have been unfamiliar to earlier recorders in the VC and therefore overlooked, because there are no pre-1970 records. Although it is predominantly a species of dry habitats in the southwest of Britain it has been frequently found elsewhere as a garden weed, which readily spreads to new habitats. In recent times, the species has been found in a variety of habitats in the south and east of the VC. A search for Collingham Churchyard population in 2012 failed to locate any plants and it may no longer be extant.

Location	GR	Date	Recorder
A1133 Layby, Spalford	SK832692	1988	EMP
Collingham Churchyard	SK827613	1999	EMP
East Leake Great Central Railway Line	SK556291	2009	DCW
Derby Road Church, Nottingham	SK556397	2010	DCW
Stanton-on-the-Wolds Dismantled Railway Line	SK643298	2000	DCW
Gedling Churchyard	SK6142	2012	JSh

Epilobium x brevipilum Hausskn.*E. hirsutum x tetragonum*

National Status: Data Deficient
Nottinghamshire Status: Rare
Monads: 3

This sterile hybrid is scattered in England, mostly in central and southern localities on waste and arable land, quarries and sand works, Sell & Murrell (2009). There are no pre-1970 records for the VC and in recent times, single plants have been recorded at three locations including arable fields and a disused gravel pit.

Location	GR	Date	Recorder
Holme Pierrepont Gravel Pits	SK617387	1997	DCW
Holme Pierrepont Gravel Pits	SK622384	1997	DCW
Upton Field	SK739535	2006	DCW
Clifton Field	SK566345	2007	DCW
Langold Colliery Yards	SK584861	2012	DCW, GC, MW, SH, AB

Epilobium x erroneum Hausskn.*E. hirsutum x montanum*

National Status: Data Deficient
Nottinghamshire Status: Rare
Monads: 2

This partially sterile hybrid is scattered in England, Wales and southern Scotland, Sell & Murrell (2009). There are no pre-1970 records for the hybrid and since 1970 single plants have been recorded at only four sites. Two sites are the verges of dismantled railway lines and the third site is a colliery tip. The fourth site is Bunny Landfill (SK578287), which has been recently modified by landscaping and capping with imported topsoil and consequently, the hybrid is unlikely to be extant.

Location	GR	Date	Recorder
Cotgrave Colliery Yards	SK647365	1999	DCW
Ravensdale Dismantled Railway Line	SK560614	2001	DCW
Newstead Colliery Tip	SK519535	2011	DCW

Epilobium x floridulum Smejkal*E. ciliatum x parviflorum*

National Status: Data Deficient
Nottinghamshire Status: Scarce
Monads: 10

This partially sterile hybrid between an introduced species and a native species is found in disturbed places scattered throughout the British Isles, Sell & Murrell (2009). In the VC it has been found at ten locations in varying quantities, but there are no records before 1970. The locations include fly-ash lagoons, quarries, dismantled railway lines, arable land, woodland ride and gravel works.

Location	GR	Date	Recorder
River Trent, Staythorpe	SK765533	1995	DCW
Lady Lee Quarry	SK565795	1997	DCW
Meering Fly-ash Lagoon	SK819658	2005	DCW
Rampton Fly-ash Lagoon	SK822782	2006	DCW
Skylarks Nature Reserve	SK617388	2006	DCW
Skylarks Nature Reserve	SK620391	2006	DCW
Stanford-on-Soar Great Central Railway Line	SK538223	2009	DCW
Attenborough Gravel Pits	SK525354	2012	DCW, MW
Holme Pierrepont Gravel Pits	SK616386	2012	DCW
Epperstone Park	SK642497	2012	DCW
Markham Moor	SK716739	2011	DCW

Epilobium x haussknechtianum Borbás*E. montanum x tetragonum*

National Status: Data Deficient
Nottinghamshire Status: Rare
Monads: 1

This partially sterile hybrid has been recorded in central and southern England in quarries, gardens and shrubberies, Sell & Murrell (2009). In the VC, a single plant has been recorded on a dismantled railway siding at Cotgrave Colliery.

Epilobium x haussknechtianum (Continued)

Location	GR	Date	Recorder
Cotgrave Colliery Yards	SK647365	1999	DCW

Epilobium x mentiense Smejkal*E. ciliatum x tetragonum*

National Status: Data Deficient
Nottinghamshire Status: Scarce
Monads: 6

This partially sterile hybrid is scattered throughout England and Wales. There are six post 1970 records for the VC that include a nature reserve, barish soil in a University Campus, a landfill site, abandoned arable land, a gravel pit, a sand pit and a colliery tip. Bramcote landfill (SK504387) has recently been capped and landscaped, so it is probable that the single plant is no longer extant.

Location	GR	Date	Recorder
Bramcote Landfill	SK504387	2007	DCW
Nottingham Trent University Clifton Campus	SK551354	1996	DCW
Wilwell Cutting	SK567350	1994	DCW
Misson Parish	SE713003	2012	DCW, MW
Rufford Colliery Tip	SK601608	2012	DCW
Holme Pierrepont Gravel Pits	SK617389	2012	DCW
Top Road, Misson	SK701955	2012	DCW

Epilobium x novae-civitatensis Smejkal*E. ciliatum x hirsutum*

National Status: Data Deficient
Nottinghamshire Status: Rare
Monads: 1

This hybrid is scattered in Britain and is generally found on disturbed ground. It has only been recorded once in the VC. A single plant was recorded in a disused gravel pit close to the River Trent.

Location	GR	Date	Recorder
Holme Pierrepont Gravel Pits	SK616386	1997	DCW

Epilobium x palatinum F.W. Schultze*E. parviflorum x tetragonum*

National Status: Data Deficient
Nottinghamshire Status: Scarce
Monads: 8

This native hybrid is scattered in southern and central England on disturbed ground. The records for the VC are all post 1970 and habitats include flushed soils on a colliery tip, barish spoil in a quarry, arable set-aside fields with clay soils and damper soils in a disused gravel pit, and a sand pit.

Location	GR	Date	Recorder
Bentinck Void	SK483543	2006	DCW
Newstead Colliery Tip	SK524542	2011	DCW

Epilobium x palatinum (Continued)

Location	GR	Date	Recorder
Brinsley Field	SK454494	2009	DCW
Lound Gravel Pits	SK6986	2003	DCW, MW
Lound Gravel Pits	SK6985	2003	MW, DCW
Tollerton Field	SK607364	2007	DCW
Nether Langwith Quarry	SK542694	2012	DCW
Top Road, Misson	SK701955	2012	DCW

Epilobium x subhirsutum Gennari*E. hirsutum x parviflorum*

National Status: Data Deficient
Nottinghamshire Status: Scarce
Monads: 5

This native partially fertile hybrid is scattered throughout Britain on riverbanks, marshes, waste or disturbed ground, gravel pits and quarries. There are no pre-1970 records for the VC and all post 1970 records consist of single plants. The plants are found in arable fields, a car park, a colliery spoil tip and disturbed soils.

Location	GR	Date	Recorder
Dukes Wood	SK679602	1997	DCW
West Leake Hills	SK533283	2001	DCW
High Marnham Field	SK813702	2003	DCW
Huthwaite Disused Workings	SK464578	2003	DCW
Gedling Colliery Tip	SK611438	2010	DCW

Epilobium x vicinum Smejkal*E. ciliatum x obscurum*

National Status: Data Deficient
Nottinghamshire Status: Rare
Monads: 3

This hybrid of an introduced species and a native species is partially fertile and is widespread in Britain. However, it was not recorded before 1970 and since that time has only been recorded four times in scattered locations in the VC.

Location	GR	Date	Recorder
Nottingham Trent University Clifton Campus	SK549354	1996	DCW
Kidney Clump	SK609772	1998	DCW
Colwick Country Park	SK613397	2006	DCW
Beauvale Brook Marsh	SK473476	2011	DCW

Epipactis phyllanthos G.E. Sm.

Green-flowered Helleborine

National Status: Nationally Scarce
Nottinghamshire Status: Rare
Monads: 1

This species has only ever been recorded once during 1995 at a single location in the VC. The population of approximately 50 plants was located in open scrub on fly-ash substrate. It is not known whether the population was specifically being managed for biodiversity and its current status is unknown, because no checks have been carried out since 1995.

Location	GR	Date	Recorder
West Burton Power Station	SK804869	1995	SA

Epipactis palustris (L.) Crantz

Marsh Helleborine

National Status: Least Concern
Nottinghamshire Status: Extinct

Before 1970, Howitt & Howitt (1963) described marsh helleborine *Epipactis palustris* as being very rare or extinct. It was last recorded during 1908 in a marshy area near Newboundmill. Although the species has not been re-found at Newboundmill in recent times, it was recorded in 1980 some distance to the north in

the Idle Valley at a former sandpit area. Unfortunately the sandpit was destroyed soon after 1980 and the species has not been since, so it is assumed to be extinct.

Location	GR	Date	Recorder
Newboundmill Stream	SK46	1908	JWC
Wetlands Waterfowl Reserve, Sutton-cum-Lound	SK695855	1980	NRL, PP

Equisetum hyemale L.

Dutch Rush

National Status: Least Concern
Nottinghamshire Status: Extinct

Dutch rush *Equisetum hyemale* is much more common on heavy damp to wet soils in the north and west of Britain, with a few outliers in East Anglia and the Midlands. In the VC it was last recorded in the 19th Century and was probably lost from the 'moors' between Edingley and Kirklington, because of drainage and agricultural intensification.

Location	GR	Date	Recorder
Moors between Edingley and Kirklington	SK65	1839	GH

Equisetum x litorale Rupr.

Shore Horsetail

National Status: Data Deficient
Nottinghamshire Status: Scarce
Monads: 2

Shore horsetail *Equisetum x litorale* is the most frequent of the horsetail hybrids and it is found in a wide range of habitats, sometimes in the absence of one or more of the parents. The hybrid was not recorded in the VC before 1970 and since then has only been found at two locations. At Dob Park a very large population is located in a tall-herb fen next to a stream. In the east of the VC, the plant is located in a ditch in mature conifer plantation woodland on peaty soils. D.C. Wood has submitted herbarium specimens to Nottingham Natural History Museum.

Location	GR	Date	Recorder
Stapleford Wood	SK849558	2012	RAJ
Dob Park	SK523503	2012	DCW, MW

Equisetum variegatum F. Weber & D. Mohr

Variegated Rush

National Status: Nationally Scarce
Nottinghamshire Status: Extinct

Before 1970 variegated rush *Equisetum variegatum* had not been recorded in the VC, but in 1989 a population covering an area of 3.6m x 2.4m was found by D. C. Wood in the marly soils at the base of a disused gravel pit at Holme Pierrepont. Unfortunately the site was only kept dry whilst active gravel extraction took place and upon completion of the work, the pumps were due to be turned off, to allow the land to flood. In order to try and save the population, plants were translocated to Wilwell Cutting SSSI at Ruddington. The translocated population survived for nine years, but has not been seen at Wilwell Cutting since 1998 and it is now considered to be extinct in the VC.

Location	GR	Date	Recorder
Holme Pierrepont Gravel Pits	SK611382	1989	DCW
Wilwell Cutting	SK567352	1998	DCW

Erica tetralix L.

Cross-leaved Heath

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 9

Howitt & Howitt (1963) stated that cross-leaved heath *Erica tetralix* was always the least common of the heather species in the VC and by the 1960s it was declining in the Sherwood area, because of a falling water table. Since 1970 the species has completely disappeared from sites on the clays at Bothamsall and Gamston. More recently, the species has not been seen at Stapleford Wood (SK853552, SK853560 and SK853559), Thieves Wood (SK545569) and Manton, A57 Road Cutting at SK603778. It is no longer abundant at any of the six remaining sites in the Sherwood area, even those sites that are managed for biodiversity such as Rainworth Heath and Budby South Forest and further declines are likely to occur.

Location	Grid Reference	Date	Recorder
Rainworth Marsh	SK583579	1972	JH
Walesby Forest	SK666706	1992	DCW
Rainworth Heath	SK591592	2012	DCW, MW, RAJ
Clipstone Heath	SK594625	2008	DCW
Clipstone Forest	SK613603	2009	DCW
Budby South Forest	SK607694	2012	DCW, RAJ

Eriophorum angustifolium Honck.

Common Cotton-grass

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 9

By 1963 the species was becoming rare because of habitat destruction and drainage, but was still widely distributed on peat bogs in the VC. The species is now scattered and at many sites the populations are small, often restricted by the area of remaining habitat that is suitable. In recent times, populations at High Marnham Power Station (SK811711), Holme Pierrepont Gravel Pits (SK612380, SK611380 and SK612381), Wilwell Cutting (SK567351) and Scrooby Sand Pit (SK655903) are no longer extant, because of habitat loss or deterioration.

Location	GR	Date	Recorder
Mattersey	SK670883	1990	DCW
Mattersey	SK672884	1990	DCW
Torworth Gravel Pit	SK670865	1997	DCW
Misson Line Bank	SK716962	2001	DCW
Well Hill, Bircotes	SK624916	2003	DCW
Mattersey	SK672874	2005	DCW
Bestwood Country Park	SK556469	2006	DCW
Sandhill Lake	SK579796	2007	DCW
Bentinck Void	SK477540	2008	DCW
Forest Farm Plantation	SK6102677587	2011	RAJ, DCW, MW
Rainworth Heath	SK591592	2012	DCW, RAJ

Eriophorum latifolium Hoppe.

Broadleaved Cotton-grass

National Status: Least Concern
Nottinghamshire Status: Extinct

Broadleaved cotton-grass *Eriophorum latifolium* was last recorded in the VC at Newboundmill in peaty meadows, but had become extinct before the middle of the 20th Century. Agricultural improvement and/or habitat conversion are the likely factors that were responsible for the extinction at Newboundmill. Elsewhere, the species was only ever recorded at two other sites in the VC including Stapleford Moor and a site between Newstead and Linby. Both of the records originate from the 19th Century.

Location	GR	Date	Recorder
Newboundmill Meadows	SK46	1939	JWC

Eriophorum vaginatum L.

Hare's-tail Cotton-grass

National Status: Least Concern
Nottinghamshire Status: Rare, possibly extinct
Monads: 4

The species has always been very rare in the VC, being restricted to base-rich peat bogs. Following the demise of the Annesley population (SK495524) due to habitat destruction, the species has steadily declined at the other three sites and is probably now extinct in the county.

Location	GR	Date	Recorder
Fountain Dale	SK573573	1986	DCW, JH
Fouleil Brook	SK578583	1991	DCW
Davis's Bottom	SK495524	1994	DCW
Rainworth Heath	SK591592	2001	DCW

Erodium maritimum Sm.

Sea Stork's-bill

National Status: Nationally Scarce
Nottinghamshire Status: Rare
Monads: 1

Away from the coast, there are only a handful of inland records, which are mapped by Preston *et al.* (2002) as an introduction. The population at Rainworth is located on a dismantled railway line that in past times was linked to ports and towns on the east coast and this may go some way to explaining its presence approximately 70 miles inland. In recent years the population has declined, but the reasons are unknown, because the overall botanical community in which the species occurs, has undergone little noticeable change.

Location	GR	Date	Recorder
Rainworth Dismantled Railway Line	SK591595	2005	DCW

Erophila glabrescens Jordan.

Glabrous Whitlowgrass

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 6

This annual species was first described in Clapham Tutin & Warburg (1987). It can be difficult to segregate the species from Common whitlowgrass *Erophila verna* and it could be under-recorded. In the last twenty years the species has been recorded at five locations in the VC in what are considered to be typical habitats for the species. Further survey work and better familiarity with the species is likely to further increase the number of records in the future.

Location	GR	Date	Recorder
Clumber Park	SK67	1997	SFW
Harlow Wood	SK555578	1998	DCW
Attenborough Gravel Pits	SK521343	2010	DCW
Clifton Bridge	SK561367	2001	DCW
Holme Pierrepont Gravel Pits	SK616389	1991	DCW
Holme Pierrepont Gravel Pits	SK614385	2001	DCW

Erysimum chieri (L.) Crantz

Wallflower

National Status: Least Concern
Nottinghamshire Status: Scarce (as an archaeophyte)
Monads: 7 (as an archaeophyte)

Wallflower *Erysimum chieri* falls into two categories in the VC. It has been recorded as a naturalised introduction at eight locations (seven monads) in the VC and has persisted at several of those locations such as Castle Rock, the walls of Nottingham Castle, Newark-on-Trent Castle and Newark-on-Trent Friary for hundreds of years. There are also twenty-one records for the species as a casual, which are not listed in the table below.

Erysimum chieri (Continued)

Location	GR	Date	Recorder
Staunton-in-the-Vale Wall	SK805433	1987	DCW
Workshop Priory	SK590789	1987	NRL, DCW
Cresswell Craggs	SK534741	1997	DCW
Hungerhill Grdns, Nottingham	SK583414	2001	DCW
Newark-on-Trent Friary	SK802541	2012	RAJ
Nottingham Castle Rock	SK569394	2010	DCW, WM
The Park, Nottingham	SK567394	2009	PS(b)
Newcastle Terrace, Nottingham	SK569400	2010	WM
Newark-on-Trent Castle	SK796540	2012	DCW, RAJ

Euphorbia amygdaloides L. subsp. *amygdaloides*

Wood Spurge

National Status: Least Concern
Nottinghamshire Status: Extinct

Wood spurge *Euphorbia amygdaloides* subsp. *amygdaloides* is extinct in the VC and has only been recorded once at Colwick Wood (in the City of Nottingham) in the 18th Century. The national distribution map, Preston, et al. (2002), indicates that Nottinghamshire is beyond the northern edge of its natural range.

Location	GR	Date	Recorder
Colwick Wood	SK5939	1738	CD

Euphorbia exigua L.

Dwarf Spurge

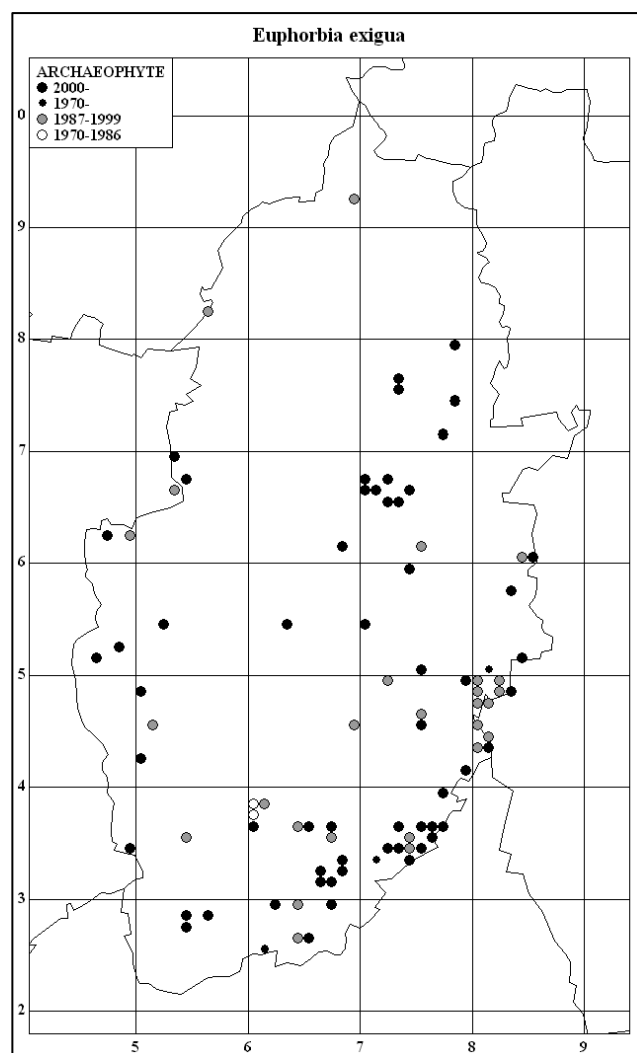
National Status: Near Threatened
Nottinghamshire Status: Locally Frequent
Monads: 83

In the 1960s this archaeophyte species was locally frequent and recorded throughout the VC on basic and clay soils. Since 1970, the species has declined, because of agricultural intensification and repeated herbicide applications. In the VC, the species does not appear to have declined to the same extent as elsewhere in the south and east of Britain and it is still frequent on the Lias clays in the southeast of the VC. The reasons for this resistance to decline are not clearly understood, but the species is capable of colonising artificial substrates (as shown in the photograph above) and to some extent, this has off-set losses from arable habitats.

Dwarf Spurge *Euphorbia exigua* at Toton Sidings



Source S. Hammonds



Euphorbia platyphyllos L.

Broadleaved Spurge

National Status: Nationally Scarce
Nottinghamshire Status: Extinct

This archaeophyte species was recorded once during the early 20th Century in cornfields in the south of the VC.

Location	GR	Date	Recorder
West Leake Cornfields	SK52	1905	JWC

Euphrasia arctica Lange ex Rostrup
ssp. borealis (F.Towns) Yeo

Arctic Eyebright

National Status: Endangered
Nottinghamshire Status: Extinct

The only record for the VC originates from 1904. J.W. Carr described Arctic Eyebright *Euphrasia arctica* subsp. *borealis* (recorded as *E. brevipila*) as being "common about Annesley", but it is not known whether the population was associated with Permian Marls or Coal Measures or Bunter Sandstones. There are no other records for the species and it is considered to be extinct in the VC.

Location	GR	Date	Recorder
Annesley	SK45	1904	JWC

Euphrasia officinalis subsp. *anglica*
(Pugsley) Silverside

Glandular Eyebright

National Status: Endangered, UK Biodiversity Action Plan

Nottinghamshire Status: Scarce

Monads: 7

This endemic species is largely confined to the south of England on damp acidic substrates. The very few records to the north of Nottinghamshire and Derbyshire are located on the west side of the country. Before 1970, Howitt & Howitt (1963) stated that the species had only been recorded twice in the VC. During 1907 J.W. Carr recorded the species at Rufford Park and Thorseby Park. The modern populations are fairly robust at each site, being locally frequent or locally abundant, but the species is still restricted to a small number of sites in the VC, mostly on the Bunter Sandstone.

Location	GR	Date	Recorder
Carburton Plantations	SK611724	2001	DCW
Clumber Park	SK607758	1998	DCW
Apleyhead Verges, Clumber Park	SK644773	2011	DCW
Clumber Park	SK618735	2004	DCW
Clumber Park	SK619744	2004	DCW
Clumber Lane Verges, Clumber Park	SK609757	2011	RAJ
Clumber Park	SK616749	2011	RAJ
Clumber Lane Verges, Clumber Park	SK611756	2011	RAJ
Swinecotte Dale	SK548544	1996	DCW
Worksop	SK577753	2001	DCW
Rufford Colliery Tip	SK592601	2012	MW
Carburton Plantations	SK613721	2012	DCW, MW

Euphrasia pseudokernerii Pugsley

Chalk Eyebright

National Status: Endangered, Nationally Scarce

Nottinghamshire Status: Rare

Monads: 1

Chalk eyebright *Euphrasia pseudokernerii* is a species associated with the southeast of England on base-rich soils. The species has always been rare in the VC and before 1970 was recorded once during 1905 on the West Leake Hills by J.W. Carr. In modern times, the species was recorded nearly 90 years later, also on the West Leake Hills in a disused Gypsum Mine, where it was found to be frequent. This record could be the most northern extant record in the British Isles.

Location	GR	Date	Recorder
West Leake Hills	SK524286	1994	DCW

Festuca longifolia Thuill.

Blue Fescue

National Status: Nationally Rare, UK Biodiversity Action Plan

Nottinghamshire Status: Rare

Monads: 1

This species is associated with very dry acid heaths and in the VC is located on the blown sands along the Nottinghamshire / Lincolnshire border. Pre-1970, Howitt & Howitt (1963) recorded the species as *Festuca ovina* ssp. *eu-ovina* var. *glauca* Hack. and described its occurrence in gravelly meadows at South Collingham and Spalford Warren. In addition, Howitt & Howitt considered that the 16th and 19th Century records from Nottingham of a blue fescue recorded as *F. glauca* var. *caesia* Sm. could have also been *F. ovina* ssp. *eu-ovina* var. *glauca*. However, blue fescue has not been recorded in the Nottingham area since the 19th century. Recent searches suggest that blue fescue is no longer present at Spalford Road (SK8469/8468), Mill Farm (SK8468), A1133 Trunk Road Verge at Spalford (SK831691) and Sand Lane, Spalford (SK832692). However, the relatively small population at Spalford Warren SSSI is still extant. Although the species is located in a nature reserve, the population is heavily grazed by rabbits and is

restricted to a small area on the boundary of the site, including the roadside verge.

Location	GR	Date	Recorder
Spalford Warren	SK830678	2012	DCW, MW, RAJ

Filago vulgaris L.

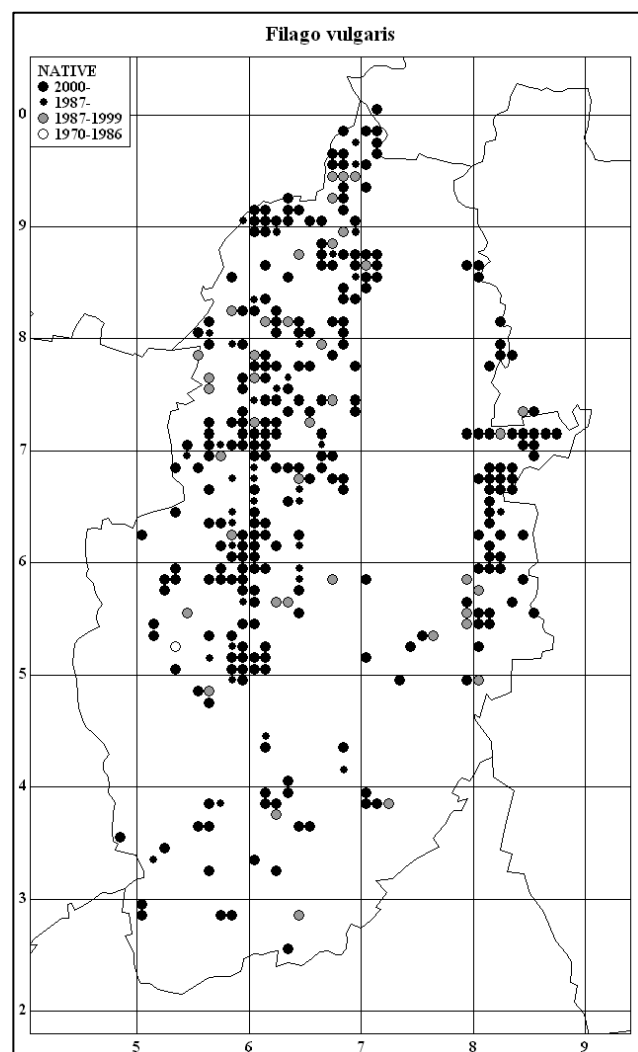
Common Cudweed

National Status: Near Threatened

Nottinghamshire Status: Locally Common

Monads: 211

Despite national declines brought about by agricultural intensification and habitat loss, the distribution of common cudweed *Filago vulgaris* in the VC has remained fairly stable since 1970. Wherever suitable soils are present the species is locally common and it has been recorded in 211 monads in the VC. It is most abundant on the Bunter Sandstone, blown sands and river valley gravels and alluvial soils, but it is also found on artificial substrates such as colliery spoil tips and post-industrial land.



Fumaria muralis Sonder ex Koch

Common Ramping-Fumitory

National Status: Near Threatened

Nottinghamshire Status: Uncommon

Monads: 17

Before 1970, there was only one single unconfirmed record for common ramping-fumitory *Fumaria muralis*. The single 1906 record was located somewhere on the Coal Measures or Permian Marls in the west of the VC.

Fumaria muralis (Continued)

Since 1970 the species has been recorded in a variety of rural and urban habitats throughout the VC. The distribution and abundance of some of the populations suggests that the species may have been overlooked before 1970. The Gringley plants were determined to be the subspecies 'boraei'.

Location	GR	Date	Recorder
Nottingham	SK571395	1982	PA
Nottingham	SK569395	1982	PA
Holme Pierrepont Gravel Pits	SK612383	1990	DCW
Netherfield Disused Railway Sidings	SK628404	1994	DCW
Bestwood Hedgerow	SK555479	1996	DCW
Girton Field Hedgerow	SK828667	2000	DCW
Nottingham Trent University Clifton Campus	SK547352	2002	DCW
Nottingham Trent University Clifton Campus	SK546349	2002	DCW
Eakring Field	SK687630	2002	RAJ, DCW
Styrrup Field	SK626904	2004	DCW
Clumber Park Field	SK642758	2004	DCW
Bramcote Landfill	SK503387	2011	PS(B), DCW
Mansfield	SK569591	2006	DCW
Blidworth Hedgerow	SK612553	2007	DCW
Blidworth	SK607563	2007	DCW
Cross Lane, Gringley	SK705938	2011	MW, DCW
Calverton Field	SK593505	2012	DCW
Gibbetdale Field	SK554525	2012	MW, DCW
Gibbetdale Field	SK553526	2012	MW, DCW
Newark-on-Trent	SK797543	2012	RAJ
Southwell Allotments	SK708533	2012	RAJ

Common ramping-fumitory *Fumaria muralis* at Clifton Bridge

Source S. HammondBalkow

Gagea lutea (L.) Ker Gawl.

Yellow Star-of-Bethlehem

National Status: Nationally Scarce**Nottinghamshire Status:** Scarce**Monads:** 6

Historically the species was located in a range of habitats including ancient woodland and parkland on the Magnesian Limestone, on the banks of the River Erewash and in ancient woodland at Flintham. Post 1970, the largest population is still located in Flintham Woods and it is still present at Pleasley in Northfield Plantation. In addition, the species has also been recorded on Magnesian Limestone at two other sites; in ancient woodland at Bulwell and also on the verge of an ancient lane, to the north of Mansfield.

Location	GR	Date	Recorder
Flintham Wood	SK730489	1986	DCW

Gagea lutea (Continued)

Location	GR	Date	Recorder
Blue Barn Lane, Nether Langwith	SK540714	2012	KB, DCW
Flintham Wood	SK726485	2007	DCW
Northfield Plantation	SK529652	2007	Woll., DCW, JH
Northfield Plantation	SK530652	2007	Woll., DCW, JH
Flintham Wood	SK722479	2010	DCW
Sellers Wood	SK525456	2012	VH, DCW, MW

Yellow star-of-bethlehem *Gagea lutea* at Nether Langwith

Source K. Balkow

Galeopsis angustifolia Ehrh.

Red Hemp-nettle

National Status: Critically Endangered, Nationally Scarce**Nottinghamshire Status:** Rare (probably extinct)**Monads:** 0

Before 1963 the species was recorded at scattered locations in arable fields on clay and peat, but was in decline and becoming rare. The decline in the VC reflected national declines that were brought about by the shift from spring-sown to winter-sown crops and cleaner crop husbandry. Since 1970 the species has declined to a single site at Teversal (on limestone 'scree' on a steep dismantled railway embankment) and it is probably extinct, because the last sighting of a single plant was more than a decade ago.

Location	GR	Date	Recorder
Teversal Trail	SK490635	1997	Woll., DCW

Galeopsis segetum Neck.

Downy Hemp-nettle

National Status: Extinct**Nottinghamshire Status:** Extinct

Mrs Sandwith was the last to record the species (as *G. dubia*) in a sandy cornfield in the north of the VC in 1918. A herbarium specimen was submitted to Nottingham Natural History Museum.

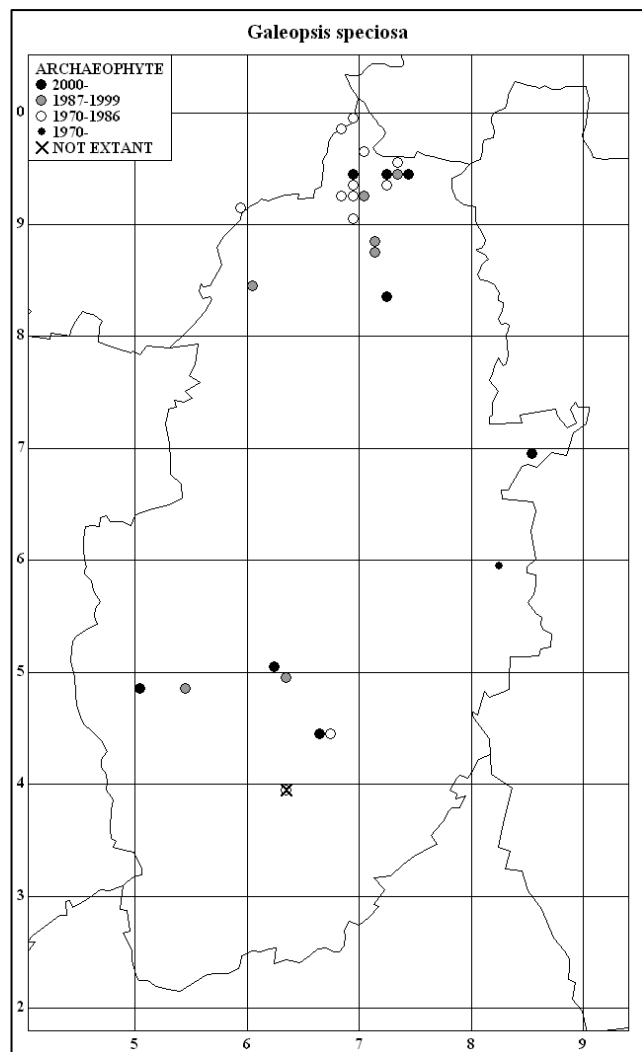
Location	GR	Date	Recorder
Everton Carr Arable field	SK69	1918	Sa

Galeopsis speciosa Mill.

Large Hemp-nettle

National Status: Vulnerable**Nottinghamshire Status:** Locally Frequent**Monads:** 28

Large hemp-nettle *Galeopsis speciosa* was formerly widespread, but had started to decline in the VC and nationally before the 1960s, because of modern farming practises and control of weeds. By 1963 the species was restricted to arable fields on the peatlands in the north of VC and most of the post-1970 records are also located in the north of the VC, for the most part, associated with root crops.



Galium constrictum Chaub. Slender Marsh-bedstraw

National Status: Nationally Rare
Nottinghamshire Status: Extinct

The record of slender marsh-bedstraw *Galium constrictum* from Attenborough Gravel Pits NNR is considered to be an introduction, because it is so far outside of its native range. How it arrived and established on the margin of a pond is an unresolved mystery. However, the species has not been seen since the 1990s and it is no longer extant. This is because the habitat has become overgrown and less suitable for the species. However, the species has not been seen since the 1990s and may no longer be extant. This is because the habitat has become overgrown and less suitable for the species.

Location	GR	Date	Recorder
Attenborough Gravel Pits	SK520338	1995	SAi

Galium parisiense L. Wall Bedstraw

National Status: Vulnerable, Nationally Scarce
Nottinghamshire Status: Rare, possibly extinct
Monads: 2

Wall bedstraw *Galium parisiense* has only appeared as a casual in the VC. At Nottingham Trent University, two plants were recorded in a shrubbery and at Holme Pierrepont a single plant was recorded growing in new sown grassland. Further checks are likely to confirm that the taxon is probably no longer extant at either site.

Galium parisiense (Continued)

Location	GR	Date	Recorder
Holme Pierrepont Gravel Pits	SK629397	1990	DCW
Nottingham Trent University Clifton Campus	SK549355	1996	DCW

Galium tricornutum. Corn Cleavers

National Status: Critically Endangered, Nationally Rare
Nottinghamshire Status: Extinct

Nationally the species had already undergone substantial declines by the 1930s and outside of the southeast area was always a rare casual. The species was last recorded in Nottinghamshire at the start of the 20th Century in cornfields in the south of the county. Nottinghamshire Natural History Museum was provided with herbarium specimens from the two locations in the table below.

Location	GR	Date	Recorder
Kinoulton - Owthorpe	SK63	1900	JWC
Crow Wood Hill	SK5427	1906	JWC

Galium uliginosum L. Fen Bedstraw

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 10

Fen bedstraw *Galium uliginosum* was in decline before the early 1960s, probably because of habitat loss and drainage, particularly in the coal mining areas in the west of the VC. Since the 1960s the species has persisted at Thorney, Rempstone and Sookholme Moor, but has been lost from other sites such as Maplebeck and Coddington Moor. The recent spread of the species from Annesley Woodhouse Quarry SSSI into the neighbouring Bentinck Void, a post-industrial site, confirms that the species is capable of colonising new sites, if conditions are suitable. Now that coal mining has all but ceased in the VC, in the west of the VC the water table is recovering to pre-mining levels and this may create new opportunities for the species to spread.

Location	GR	Date	Recorder
River Meden, Warsop	SK571687	1972	JH
Warsop Bottoms	SK577691	1972	JH
Rempstone Old Churchyard	SK566251	1982	DCW
Rempstone Old Churchyard	SK568250	1982	DCW
Greasley Marsh	SK503477	1994	DCW
Thoresby Park	SK637706	1996	DCW
Carlton-in-Lindrick Grassland	SK583824	2006	DCW
Darnsyke, Thorney	SK855738	2011	DCW, MW
Sookholme Moor	SK554678	2011	DCW
Sookholme Moor	SK554676	2008	DCW
Annesley Woodhouse Quarry	SK488533	2009	DCW
Bentinck Void	SK488534	2012	DCW, SH
Rempstone Old Churchyard	SK566251	2010	DCW
Rempstone Old Churchyard	SK565251	2010	DCW
Misson Carr	SK7197	Undated	DCW

Genista anglica L.

Petty Whin

National Status: Near Threatened**Nottinghamshire Status:** Scarce**Monads:** 8

Most of the historic records for petty whin *Genista anglica* originate from boggy places in the west of the VC, but it was also found in a few scattered localities on the clays and the Trent Valley. By 1963 the species was in serious decline and since 1970 the species has remained scarce, with a recent loss of the Harlow Wood (SK552564) population. With the exception of the West Drayton site, the species is nowadays only found in the Sherwood area of the VC and most of the populations are very small. At the present time, only the Ollerton sites support populations that consist of more than a few plants, but the introduced population at Hucknall is increasing, because of protection from grazing. Therefore, with targeted conservation management it could be possible to expand the existing populations to more sustainable levels.

Location	GR	Date	Recorder
Clipstone Heath	SK595623	1997	DCW
Clipstone Heath	SK593624	1997	DCW
Clipstone Colliery	SK595630	2001	DCW
Rainworth Dismantled Railway Line	SK596619	2001	DCW
Sherwood Heath	SK648675	2007	DCW
Leen Pastures	SK551488	2011	DCW
West Drayton	SK705741	2009	DCW
Ollerton Assarts	SK628688	2012	DCW, RAJ, JC
Clumber Park	SK634741	2011	DCW

Gentiana pneumonanthe L.

Marsh Gentian

National Status: Nationally Scarce**Nottinghamshire Status:** Extinct

Spring gentian *Gentiana pneumonanthe* became extinct in the VC at some stage in the 19th Century. The species also persisted at Langford and Stapleford Moor until much later in the 19th Century, but the populations were located on the Lincolnshire side of the county boundary.

Location	GR	Date	Recorder
Houghton Park	SK77	c.1820	TJ
Langford Moor	SK85	Before 1900	JWC

Gentianella amarella L.

Autumn Gentian

National Status: Least Concern**Nottinghamshire Status:** Scarce**Monads:** 10

Autumn gentian *Gentianella amarella* is associated with dry calcareous grasslands in the VC. The species was already in decline before the 1960s, but was present on the Magnesian Limestone in the west of the VC, the Lias Clays in the south and Keuper Marls in the central area. More recently, further losses have occurred at Rough Hill Bunny (SK569285), Gotham Grassland (SK533292), Rushcliffe Golf Course (SK5427) and Eaton Wood Road Verges (SK7277) and with the exception of one site on the Lias clays, the species is now restricted to nine other monads in old quarries and disused railway lines on the Magnesian Limestone.

Location	GR	Date	Recorder
Warsop Hills and Holes	SK5567	1971	RCLH
Pleasley Vale Dismantled Railway Line	SK5164	1972	RCLH
Linby Trail	SK5251/ SK5351	1990	Woll.

Gentianella amarella (Continued)

Location	GR	Date	Recorder
Kirkby-in-Ashfield Hills and Holes	SK499553	1992	DCW
Bentinck Banks	SK498555	1992	DCW
Holbeck	SK5373	1997	DCW
Teversal Trail	SK491636	2000	DCW
Kirkby Bentinck	SK498557	2002	MW
Kirkby Bentinck	SK489547	2002	DCW
Kirkby Bentinck	SK495551	2007	DCW
Teversal Trail	SK485631	2007	DCW
Cuckoo Bush	SK534292	2012	DCW
Holbeck	SK5374	2012	DCW

Gentianella campestris (L.) Börner

Field Gentian

National Status: Vulnerable**Nottinghamshire Status:** Extinct

In the VC the species has only been recorded once. J.W. Carr recorded field gentian *Gentianella campestris* (as *G. baltica*) in 1904 at Annesley on a dry limestone bank.

Location	GR	Date	Recorder
Annesley	SK55/45	1904	JWC

Gentianella campestris agg. L.

Field Gentian

National Status: Vulnerable**Nottinghamshire Status:** Extinct

The aggregate of field gentian *Gentianella* (as *Gentiana*) *campestris* was considered by Howitt & Howitt (1963) to be very rare in the VC, being recorded at only three sites. In the Sherwood area the species was recorded at a site near Newstead and on the Lime Avenue at Clumber Park. In the early 19th Century it was also recorded on the Keuper Marls between Markham Moor and Great Markham, near Tuxford.

Location	GR	Date	Recorder
Lime Avenue, Clumber Park	SK67	c.1900	JR

Geranium columbinum L.

Long-stalked Crane's-bill

National Status: Least Concern**Nottinghamshire Status:** Scarce**Monads:** 7

Long-stalked Crane's-bill *Geranium columbinum* at Warsop Hills and Holes



Source S. Hammonds

Geranium columbinum (Continued)

Long-stalked crane's-bill *Geranium columbinum* is scattered in the VC and is found on a variety of base-rich soils in seven monads. It has always been scarce in the VC and is now largely confined to disused railway lines and abandoned quarries. In recent times, former stations such as green lanes have become overgrown and fields have been ploughed or agriculturally improved.

Location	GR	Date	Recorder
Widmerpool Dismantled Railway Line	SK645296	2000	DCW, RAJ
Steetley Dismantled Railway Line	SK558793	2006	DCW
Warsop Vale Dismantled Railway Line	SK540680	2007	RAJ, DCW
Widmerpool Dismantled Railway Line	SK648291	2007	DCW, RAJ
Warsop Vale Dismantled Railway Line	SK549677	2008	DCW
Bingham Linear Park	SK706390	2010	DCW
Bingham Linear Park	SK705391	2012	DCW
Cotgrave Forest	SK647329	2010	DCW
Warsop Hills and Holes	SK549677	2011	DCW
Warsop Hills and Holes	SK547678	2011	DCW
Warsop Hills and Holes	SK540680	2011	RAJ, DCW
Warsop Hills and Holes	SK558681	2012	RAJ, JC

Geranium purpureum L.

Little Robin

National Status: Nationally Rare

Nottinghamshire Status: Rare

Monads: 1

John Hodgson recorded little robin *Geranium purpureum* on the 9th June 2004 at Worksop Station in the north of the VC and reported the find in BSBI News No 99, p22. The record, which was verified by P. F. Yeo, is remarkable, because the site is 150 miles away from other known English localities and 50 miles inland from the nearest piece of coastline. Whilst other maritime species have been introduced into the VC along roads and railway lines that are connected to the east coast, this route of introduction seems less likely because Worksop is located on an east-west branch line and is not linked to southern populations by way of direct railway routes.

Location	GR	Date	Recorder
Worksop Railway Station	SK8469	2004	JH

Geranium rotundifolium L.

Round-leaved Crane's-bill

National Status: Least Concern

Nottinghamshire Status: Scarce

Monads: 10

Although round-leaved crane's-bill *Geranium rotundifolium* is native in the south of England, in the VC it is introduced and is generally associated with disturbed and artificial habitats such as landfills and colliery tips. In recent years the species has been lost from three landfill sites at Bramcote (SK504388), Bunny (SK578287) and Bassingfield (SK626378 and SK625376), because of capping with topsoil and restoration work, but given the spate of recent records, the species may be increasing. A further record in a car park at Zouch in the south of VC has yet to be confirmed.

Location	GR	Date	Recorder
Old Coach Road, Carlton-in-Lindrick	SK6182	1975	CS,RS
Boughton Dismantled Railway Line	SK679674	2008	DCW
Toton Sidings	SK487346	2006	DCW
Toton Sidings	SK488353	2006	DCW
Cotgrave Colliery Yards	SK651364	2003	DCW

Geranium rotundifolium (Continued)

Location	GR	Date	Recorder
Bessell Lane, Stapleford	SK484363	2011	DCW
Langold Colliery Yards	SK582859	2012	DCW, GC, MW
Holbeck Village	SK543734	2012	KB
Epperstone Roadside Verge	SK632499	2012	DCW
Carlton Forest Sand Quarry	SK602822	2012	DCW, MW
Black Hills Farm Roadside Verge	SK635670	2012	DCW

Geranium sanguineum L.

Bloody Crane's-bill

National Status: Least Concern

Nottinghamshire Status: Extinct (as a native)

Monads: 55 (as a neophyte)

Bloody crane's-bill *Geranium sanguineum* is a popular garden plant, which can persist as a garden throw-out on base-rich soils and all of the existing records for the VC are considered to be introductions. As a native, the species has only been recorded once in the VC and has not been seen in the 20th Century. In the 19th Century, G. Howitt was informed by B. Eddison of its occurrence on Magnesian Limestone rocks at Creswell Craggs on the Nottinghamshire – Derbyshire border.

Location	GR	Date	Recorder
Cresswell Craggs	SK5374	1839	GH

Geum x intermedium L.

Hybrid Avenas

National Status: Data Deficient

Nottinghamshire Status: Scarce

Monads: 10

Stace describes *Geum x intermedium* as common wherever the parents are growing together. It is persistent, highly fertile, intermediate, and forms a complete spectrum between the parents. Before 1960, the species was considered by Howitt & Howitt (1963) to be rare in the VC and confined to ancient woodland. Recent records confirm that the species is still largely associated with ancient woodland on base-rich soils and to a lesser extent is also located in woodland alongside small rivers and streams. A population at Sookholme (SK539671) was lost because of the tipping of mining waste.

Location	GR	Date	Recorder
Nether Langwith Woodland	SK543703	1972	JH
Millwood Brook, Welbeck	SK553755	1972	JH
River Leen Valley, Linby	SK541518	1992	GL
Wellow Park	SK689673	1993	DCW
Wellow Park	SK691675	1993	DCW
Wellow Park	SK688672	1993	DCW
Wellow Park	SK6766	1993	DCW
Wellow Park	SK6866	1993	DCW
Lord Stubbins Wood	SK537688	1997	MW
Kirkby Grives	SK497552	2001	DCW, Woll.
Gamston Wood	SK729767	2003	DCW

Glebionis segetum (L.) Fourr.

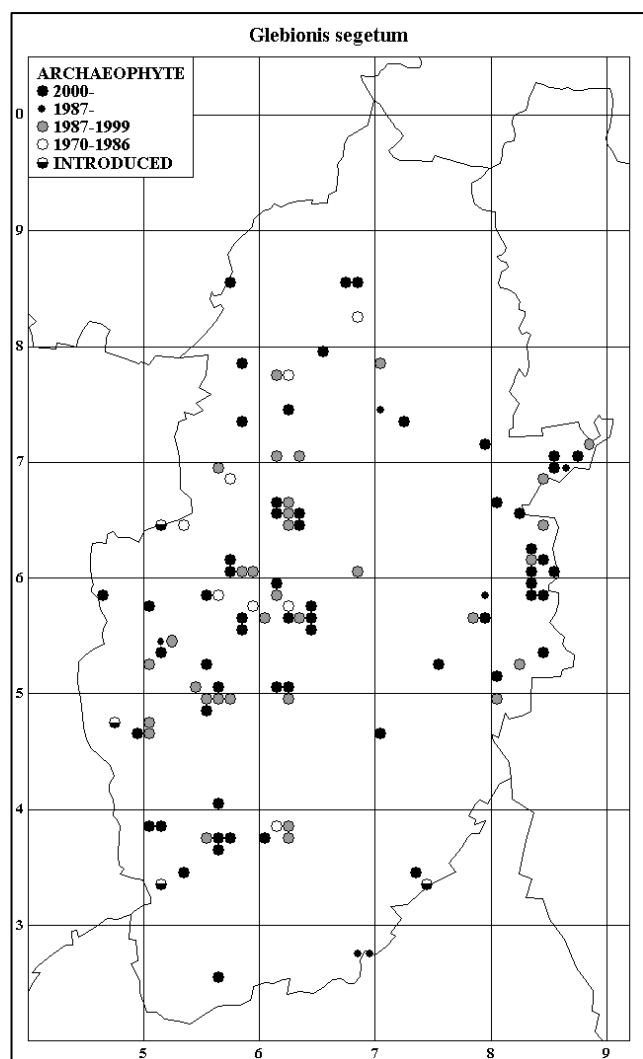
Corn Marigold

National Status: Vulnerable

Nottinghamshire Status: Locally Frequent

Monads: 102

Although corn marigold *Glebionis segetum* has undergone national declines, because of herbicide applications and seed cleaning, the species is still fairly widespread on lighter soils in the VC. It is frequent in the Sherwood area and on blown sands in the east. It is also present on the sands and gravels of the river valleys. It is occasionally planted for conservation purposes.



Glyceria x pedicillata F. Towns.

Hybrid Sweet-grass

National Status: Data Deficient
Nottinghamshire Status: Scarce
Monads: 9

The hybrid was recorded once before 1970 somewhere in Wollaton, close to Nottingham. The specimen was determined by C. E. Hubbard and was probably recorded in the 1950s or 1960s, but Howitt & Howitt (1963) does not provide any further information. Since 1970 the hybrid has been recorded at nine scattered locations in the VC, but does not seem to be associated with any particular soil type.

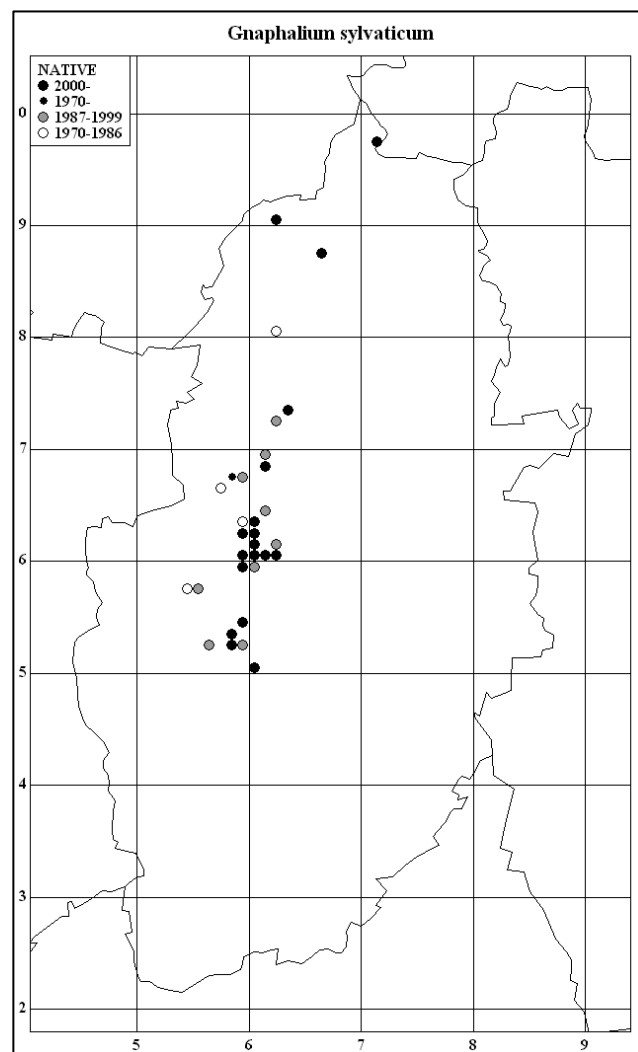
Location	GR	Date	Recorder
Welbeck Colliery Village	SK583697	1972	JH
The Fleet, South Collingham	SK8261	1975	EMP
Greasley Marsh	SK503478	1990	Woll.
South Holme Dyke, Sutton-on-Trent	SK806664	1994	DCW
Toton Marsh	SK484351	1995	DCW
Huthwaite Grassland	SK456598	1995	DCW
Oldcotes Grassland	SK587885	2009	DCW
South Holme Dyke, Sutton-on-Trent	SK805655	1994	DCW
Greasley	SK4946	2012	JSh
Newstead Colliery Tip	SK5253	2004	MW

Gnaphalium sylvaticum L.

Heath Cudweed

National Status: Endangered, Nationally Scarce
Nottinghamshire Status: Local
Monads: 31

Since the 1960s this nationally endangered perennial species has declined in the VC, because of habitat destruction and afforestation. Before 1970 the species was common on heaths and woods of the Bunter Sandstone. Elsewhere in the VC, it was also found at scattered localities on light sandy and gravelly soils. Since 1970 the species has been recorded in 31 rolling monads and continues to be most common on the heaths and woods of the Bunter Sandstone, but has also been recorded on post-industrial sites such as disused colliery yards.



Gnaphalium luteoalbum L.

Jersey Cudweed

National Status: Critically Endangered
Nottinghamshire Status: Rare (Casual)
Monads: 1

As a native Jersey cudweed *Gnaphalium luteoalbum* is restricted to the Channel Islands, Norfolk and Kent; elsewhere, it occurs in a few scattered localities as a casual. In Nottinghamshire there are no known historical records, but a single plant was recorded in Worksop at the base of the external face of a garden wall. The species was cut prematurely at the worksop site, so its appearance in 2013 is not expected.

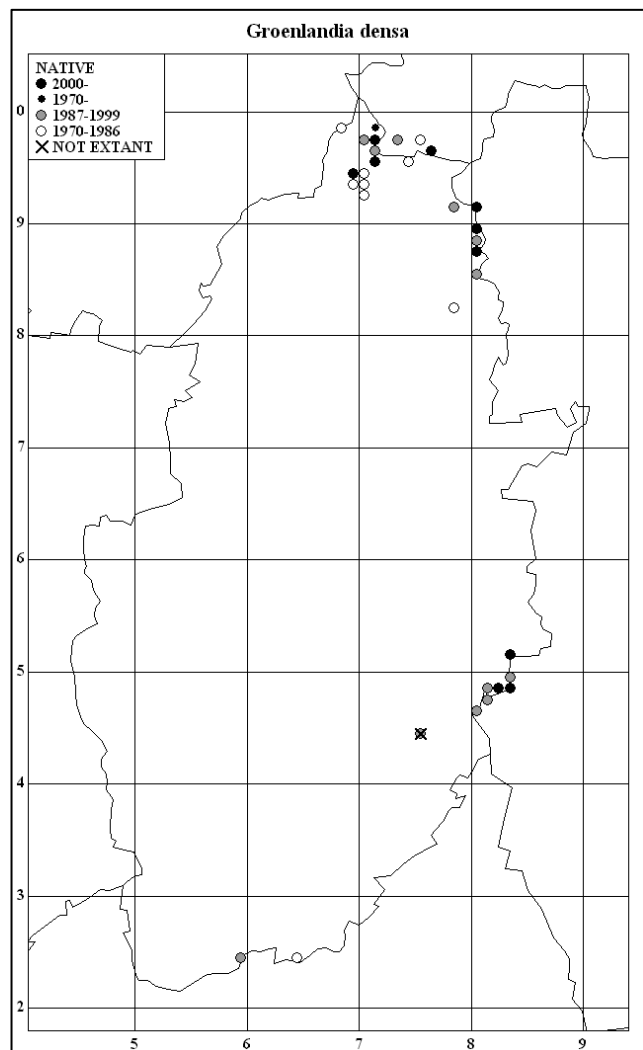
Location	GR	Date	Recorder
Hartland Road, Worksop	SK582784	2012	GC

Groenlandia densa (L.) Fourr.

Opposite-leaved Pondweed

National Status: Vulnerable**Nottinghamshire Status:** Local**Monads:** 33

Before 1970 opposite-leaved pondweed *Groenlandia densa* was recorded throughout the VC in drains, streams and ponds, mostly on peaty substrates. Since 1970, the records for the species originate for the most part from peaty drains in the north of the VC and a few drains on the east side of the VC. Losses are attributed, to drainage and eutrophication.

*Gymnadenia conopsea* sensu lato (L.)
R. Br.

Fragrant Orchid

National Status: Least Concern**Nottinghamshire Status:** Scarce**Monads:** 6

Howitt & Howitt (1963) considered that fragrant orchid *Gymnadenia conopsea* was very rare and confined to calcareous meadows on the Magnesian Limestone and Keuper Marls. Howitt & Howitt (1963) did not separate the species to subspecies level and there are four site records since 1970 that do not record the species to sub-species level. Although these populations are likely to be the Marsh fragrant-orchid *Gymnadenia conopsea* subsp. *densiflora* without verification they are best recorded as *Gymnadenia conopsea* sensu lato. Recently, each of the subspecies has been elevated to the rank of separate species and the Nottinghamshire plants are all likely to be Marsh fragrant-orchid *Gymnadenia densiflora*. With the exception of the Wilford Clay Pit populations all other pre-1970 records for sites on the Keuper Marls are no longer extant. Other losses have occurred

since 1970 including Holme Pierrepont (SK611383), Sookholme Moor (SK554677) and Rushcliffe Golf Course (SK5427). A new population has been recently recorded in a base-rich flush on colliery spoil at Bentinck Void, Annesley Woodhouse.

Fragrant marsh orchid *Gymnadenia densiflora* at Wilford Claypit

Source S. Hammonds

Location	GR	Date	Recorder
Quarry Banks	SK534521	1991	GL
Teversal Trail	SK494635	2011	DCW
Warsop Hills and Holes*	SK557678	2011	DCW, SH
Warsop Hills and Holes*	SK558678	2009	SC
Warsop Hills and Holes*	SK557679	2012	DCW, RAJ, JC
Teversal Trail*	SK4886963422	2009	DCW
Teversal Trail*	SK4905563617	2009	DCW
Kirkby Bentinck*	SK495551	2009	DCW
Wilford Claypit*	SK569356	2010	DCW
Wilford Claypit*	SK570356	2010	DCW
Bentinck Void*	SK48725376	2011	SH, DCW

*Recorded as *Gymnadenia conopsea* subsp. *densiflora* now *Gymnadenia densiflora*

Gymnocarpium robertianum (Hoffm.)
Newman

Limestone Fern

National Status: Nationally Scarce**Nottinghamshire Status:** Rare**Monads:** 2

There are no historic records for this species in the VC, but since 1970 it has been recorded at two very different locations. The City of Nottingham population consists of two small clumps growing out of the mortar on a brick wall surrounding a Methodist Church. The Linby population is much larger and is located in quite tall vegetation at the base of an outcrop of Magnesian Limestone on a disused railway line.

Gymnocarpium robertianum (Continued)

Location	GR	Date	Recorder
Linby Trail	SK529516	2011	DCW, MW
Lenton Methodist Church	SK556397	2010	PA, RAJ, DCW

Helianthemum nummularium (L.) Mill. Common Rock-rose

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 8

Most historic and modern records of common rock-rose *Helianthemum nummularium* are associated with sites on the Magnesian Limestone, but in the 18th Century Deering recorded the species on the Bunter Sandstones of Nottingham Castle Rock and in the 19th Century Ordoyno and Miller recorded the species on the Keuper Marls at Oxtun and Hayton respectively. Eaton (Howitt & Howitt, 1963) and Gamston (Carr, 1939) were the only other sites on the Keuper Marl where the species was recorded and to this day it is still extant on the Eaton Wood Road Verge SSSI. Although the number of stations on the Magnesian Limestone declined before the 1960s, it is still locally abundant at four of the five sites where it still occurs.

Location	GR	Date	Recorder
Annesley Woodhouse Scarp Grassland	SK491507	2011	DCW
Annesley Woodhouse Quarry	SK489533	2011	DCW
Annesley Woodhouse Quarry	SK490533	2011	DCW
Bulwell Hall Park	SK536469	2010	PS, DCW
Eaton Wood Roadside Verge	SK726772	2002	DCW
Eaton Wood Roadside Verge	SK726773	2003	MW
Warsop Hills and Holes	SK553682	2012	DCW, RAJ, JC
Warsop Hills and Holes	SK554677	2012	DCW, RAJ, JC
Warsop Hills and Holes	SK556678	2012	DCW, RAJ, JC
Warsop Hills and Holes	SK555681	2012	DCW, RAJ, JC
Warsop Hills and Holes	SK557681	2012	DCW, RAJ, JC
Warsop Hills and Holes	SK557676	2012	DCW, RAJ, JC
Kirkby-in-Ashfield Hills and Holes	SK499554	2009	DCW

Helleborus viridis L. Green Hellebore

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 1

The Rev. H. Friend first recorded green hellebore *Helleborus viridis* in ancient woodland at Wallingwells during 1887. In the 20th Century Howitt & Howitt (1963) recorded the same population and recently (2009 and 2011) D. C. Wood recorded three distinct patches. The species was also recorded in the 19th Century as a native in woodland at Kirkby-in-Ashfield and in the mid-20th Century as a relic of cultivation in the north of the county at Misterton and naturalised on an ancient earthwork (1193AD) at Kingshaugh, Darlton. The species is no longer extant at Misterton, but two clumps were found recently at Darlton.

Location	GR	Date	Recorder
Castle Garden	SK5704584538	2011	DCW, MW
Kingshaugh, Darlton	SK765735	2012	JC

Heracleum mantegazzianum Sommier & Hybrid Hogweed
Levier x Heracleum sphondylium L.

National Status: Data Deficient
Nottinghamshire Status: Rare
Monads: 3

There are no pre-1970 records for giant hogweed *Heracleum mantegazzianum* and consequently there are no records for the hybrid. This is surprising given the length of time that giant hogweed has been known in this country and the number of post-1970 records. To some extent the rarity of the hybrid nowadays is likely to be caused by the efficient control of giant hogweed by organisations such as the Environment Agency.

Location	GR	Date	Recorder
Toton	SK494357	2001	DCW
Ruddington	SK577341	2002	DCW
Dunham Bridge	SK817746	2010	DCW

Herniaria glabra L. Smooth Rupturewort

National Status: Nationally Rare
Nottinghamshire Status: Extinct (as a native)
Monads: 2 (as an introduction)

As a native, T. Ordoyno last recorded smooth rupturewort *Herniaria glabra* in the VC during the early 19th Century. It was recorded on damp, gravelly ground at sites in or close to Newark-on-Trent. In modern times the species has been recorded as a neophyte at three locations. It is no longer extant at the Bramote Landfill site (SK503387), because of landscaping and capping with topsoil and is unlikely to be extant at the other two locations.

Location	GR	Date	Recorder
Quonce Close, Newark-on-Trent	SK75	1807	TO
Kilton Road, Worksop	SK590793	1996	LC
Woodthorpe Grange	SK583343	2011	WM

Hippocrepis comosa L. Horseshoe Vetch

National Status: Least Concern
Nottinghamshire Status: Extinct

C. Deering was the only person to record horseshoe vetch *Hippocrepis comosa* in the VC at Nottingham Park. Howitt & Howitt (1963) stated that 19th Century botanists could not find the plant, but the record was considered to be trustworthy, because other calcicole species such as Nottingham catchfly *Silene nutans* and common rockrose *Helianthemum nummularium* grew in the park, despite the underlying Bunter Sandstone geology.

Location	GR	Date	Recorder
Nottingham Park	SK53	1738	CD

Hordelymus europaeus (Jess.) Jess. Ex Harz Wood Barley

National Status: Nationally Scarce
Nottinghamshire Status: Scarce
Monads: 9

Wood barley *Hordelymus europaeus* has always been scarce in the VC and before 1970 was recorded at only two locations on Magnesian Limestone at Pleasley Park and in woods near Felley Mill. In modern times the species has been recorded at six ancient woodland sites. The three populations that are located in woods on Magnesian Limestone are small and in the past could easily have been overlooked by botanists. The Epperstone Dumble, Bevercotes Park, Castle Hill Wood and Swindell Wood populations are located on Keuper Marl and the populations in Beauvale Wood and Lord Stubbin's Wood are located on Permian Marls, but Magnesian Limestone formations also occur in both sites.

Hordelymus europaeus (Continued)

The Epperstone population is relatively large and the Swindell Wood Population is widespread, so it is a puzzle as to why it was not previously recorded at either site. The record from Welbeck Colliery is curious and the type of habitat in which the plants were found is not known.

Location	GR	Date	Recorder
Bevercotes Park	SK701708	1977	CGC
Welbeck Colliery	SK584706	1977	JH
Swindell Spring Wood	SK734803	1980	CGC
Swindell Spring Wood	SK735806	1980	CGC
Castle Hill Wood	SK740804	1980	CGC
Swindell Spring Wood	SK733805	2012	DCW
Beauvale Wood	SK499489	1998	DCW
Dovedale Wood	SK467631	1999	DCW
Dovedale Wood	SK466629	1978	Woll.
Dovedale Wood	SK467629	1978	Woll.
Dovedale Wood	SK465633	2012	DCW
Dovedale Wood	SK466630	2012	DCW
Boon Hills Wood	SK533695	2012	DCW
Epperstone Dumble	SK655512	2012	DCW
Lord Stubbin's Wood	SK537685	2012	DCW
Lord Stubbin's Wood	SK536689	2012	DCW

Huperzia selago (L.) Bernh. ex Schrank & Mart. Fir Clubmoss

National Status: Least Concern
Nottinghamshire Status: Extinct

G. Howitt was the only person to record the species in the VC, c.1839. The plant was recorded on heathland to the south of Mansfield in Mansfield Forest, near to a gate that led to Blidworth.

Location	GR	Date	Recorder
Mansfield Forest	SK55	1839	GH

Hydrocharis morsus-ranae L. Frogbit

National Status: Vulnerable, Nationally Scarce
Nottinghamshire Status: Rare
Monads: 2

Before 1970, frogbit *Hydrocharis morsus-ranae* was uncommon in the VC, but widespread in pools and ditches on the Bunter Sandstone and Keuper Marl. Between 1970 and 2001 the species became extinct as a native and was reduced to a single introduced population. After the major floods of 2001, the species was recorded for the first time at Skylarks Nature Reserve and Holme Pit SSSI. Both of these sites occur on the Trent Valley and were completely inundated during the flood. Whilst the provenance of the new arrivals is not known, the species appears to have arrived and become established without assistance and is therefore, classified as native at both sites.

Location	GR	Date	Recorder
Skylarks Nature Reserve	SK619391	2005	DCW
Holme Pit, Clifton	SK537345	2010	DCW

Hyoscyamus niger L. Henbane

National Status: Vulnerable, Nationally Scarce
Nottinghamshire Status: Scarce
Monads: 9

Henbane *Hyoscyamus niger* was formerly common throughout the VC on waste ground and rough clay slopes, but declined in the 20th century to such an extent that it was considered to be rare by the 1960s, Howitt & Howitt (1963). Since 1970 the species has been recorded in 11 rolling monads, mostly on disturbed soils. Populations at West Bridgford (SK583380), The Meadows (SK576385 and SK575383) and Holme Pierrepont Landfill (SK6339) are, however, no longer extant and elsewhere at Holme

Pierrepont (SK611379) and Besthorpe (SK814643), the species is considered to be a casual. Without further disturbance, all other populations, with the exception of the South Clifton population, are small and vulnerable to extinction. The South Clifton population is locally abundant and is the largest in the VC, being first recorded by Howitt & Howitt, 1963.

Location	GR	Date	Recorder
East Bridgford	SK693438	2008	DCW
Fiskerton	SK739515	2008	DCW
Gotham Hills	SK532309	2010	DCW
Gotham Hills	SK532309	2011	DCW
Osberton Park	SK628806	1996	KB
South Clifton	SK821696	2012	DCW
King's Clipstone	SK6064	2011	TG, DCW
Cotgrave Wolds	SK650334	1982	DCW

Henbane *Hyoscyamus niger* at Scofton



Source K. Balkov

Hypericum androsaemum L. Tutsan

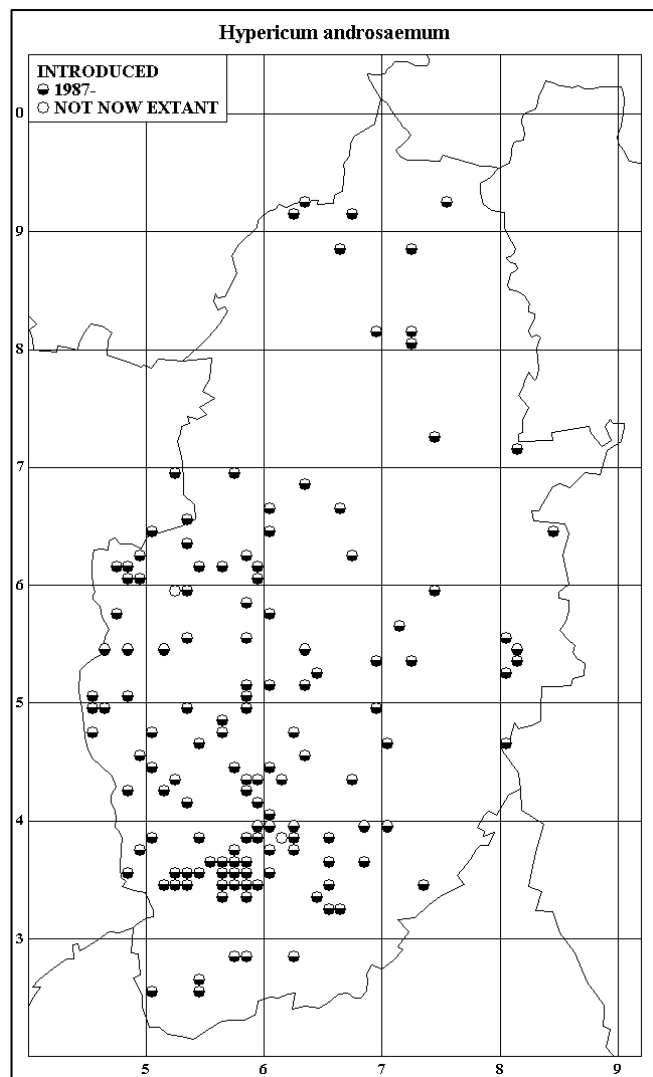
National Status: Least Concern
Nottinghamshire Status: Extinct (as a native)
Monads: 124

G Howitt last recorded the species as a native at Nottingham Castle in 1835. Nowadays, tutsan *Hypericum androsaemum* is a popular garden plant and all of the modern records are considered to originate from gardens. The fruits are readily dispersed by birds and this is likely to be one of the reasons for the large number of records and widespread distribution.

Tutsan *Hypericum androsaemum* at Wilford Clay Pits



Source S. Hammonds

*Hypericum montanum* Crantz

Pale St.John's-wort

National Status: Near Threatened, Nationally Scarce**Nottinghamshire Status:** Rare**Monads:** 1

The only population of pale St.John's-wort *Hypericum montanum* in the VC is locally frequent, being distributed along a 200m length of a steep east-facing slope on a dismantled railway line, which cuts through Magnesian Limestone. Historically, the species has always been rare in the VC and confined to sites overlying Magnesian Limestone. J. W. Carr recorded the species in 1927 in a wood near Skegby, which is the nearest site to the modern population. In modern times, J. Hodgson recorded the species on the Teversal Trail (SK487631) during 1977.

Location	GR	Date	Recorder
Teversal Trail	SK487633	2009	DCW

Hypericum x desentangii Lamotte

Des Etang's St.John's-wort

National Status: Data Deficient**Nottinghamshire Status:** Scarce**Monads:** 10

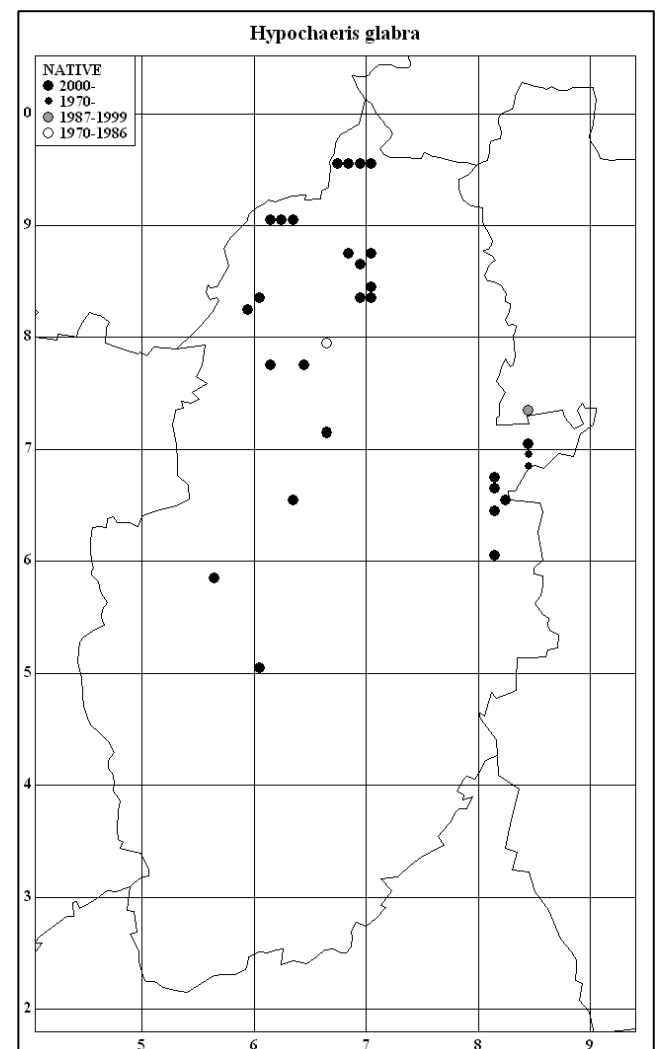
In the VC there are no historic records for the hybrid and Preston *et al.* (2002) state that the hybrid was not mapped for the 1962 Atlas. Cheffings and Farrell (2005) define the status of the hybrid as Data Deficient, but Preston *et al.* (2002) state that it is almost certainly under-recorded. There are eleven post-1970 records, which are scattered across the VC in a variety of grassland types

including semi-natural and artificial grassland. At most of the sites one or more of the parents are absent.

Location	GR	Date	Recorder
East Bridgford Grassland	SK699456	2002	DCW
Coxmoor Golf Course	SK523577	1996	DCW
Bentinck Banks	SK506574	1998	DCW
Misson Carr	SK710977	2001	DCW
Newstead Cemetery Grassland	SK517522	1999	DCW
Normanton-on-Soar Great Western Railway Line	SK536241	2011	DCW, MW
City of Whiteborough Dismantled Railway Line	SK462602	2001	MW
Woodthorpe Park	SK583435	2004	DCW
Brierly Park, Huthwaite	SK478598	2000	DCW
Silverhill Colliery Tip	SK477619	2003	DCW
Teversal Trail	SK479618	2000	DCW

Hypochaeris glabra L.

Smooth Cat's-ear

National Status: Vulnerable, Nationally Scarce**Nottinghamshire Status:** Uncommon**Monads:** 30

Smooth cat's-ear *Hypochaeris glabra* is and always has been uncommon in the VC, but has been recorded across a wide geographic area, wherever light, sandy soils are present. In the east of the VC, the species is located alongside the River Trent and on the blown sands. Elsewhere the species is associated with the Bunter Sandstones in the Sherwood area and in gravel pits alongside the River Idle in the north of the VC.

Hypochaeris glabra (Continued)

Howitt & Howitt (1963) stated that the species occurred in grassland and arable habitats, but there are no recent records associated with arable sites, probably because of modern farming techniques. To some extent the loss of the species from arable habitat is likely to have been offset by the availability of artificial habitats such as sand and gravel pits, which the species has readily colonised.

Illecebrum verticillatum L.

Coral Necklace

National Status: Vulnerable, Nationally Scarce

Nottinghamshire Status: Extinct

In the VC, coral necklace *Illecebrum verticillatum* has only been recorded once on a dismantled railway line at Eastwood. R.C.L. Howitt considered it to be an introduction. There are no further records for the species and the habitat is no longer extant.

Location	GR	Date	Recorder
Eastwood Dismantled Railway Line	SK455476	1972	RCLH

Jasione montana L.

Sheep's-bit

National Status: Least Concern

Nottinghamshire Status: Scarce

Monads: 9

Sheep's-bit *Jasione montana* has a distribution that is restricted to sandy, often disturbed soils on the Bunter Sandstones of the Sherwood area and the Blown Sands in the east of the VC. Modern records are mostly associated with woodland rides, railway lines and roadside verges, with only one site being located in sandy grassland. Preston *et al.* (2003) state that the species has declined in Central and South England because of eutrophication and loss of rabbit grazing. In the VC the losses from heathlands and acid grasslands are to some extent offset by the creation of new habitats on sandy soils, which are often disturbed and kept open by human activities such as forestry work and recreation.

Location	GR	Date	Recorder
Blackcliffe Hill	SK6671	1970's	RCLH
Babworth Railway Line	SK658792	1972	JH
Babworth Railway Line	SK656792	1972	JH
Bilthorpe Dismantled Railway Line	SK643612	1972	JH
Bilthorpe Dismantled Railway Line	SK646612	1972	JH
Babworth Track (by the railway line)	SK653791	1999	DCW
Rufford Dismantled Railway Line	SK639612	2012	DCW
Haywood Oaks Plantation	SK596548	2001	DCW, MW
Manton Wood	SK627785	1972	JH
Gibbet Hill	SK647916	1985	Woll.
Everton to Mattersey Roadside Verge	SK690899	1994	DCW
Girton Roadside Verge	SK827676	2001	DCW
Girton Grassland	SK828673	2003	DCW, RAJ
A1133 Roadside Verge	SK8266	2012	DCW, MW

Juncus compressus Jacq.

Round-fruited Rush

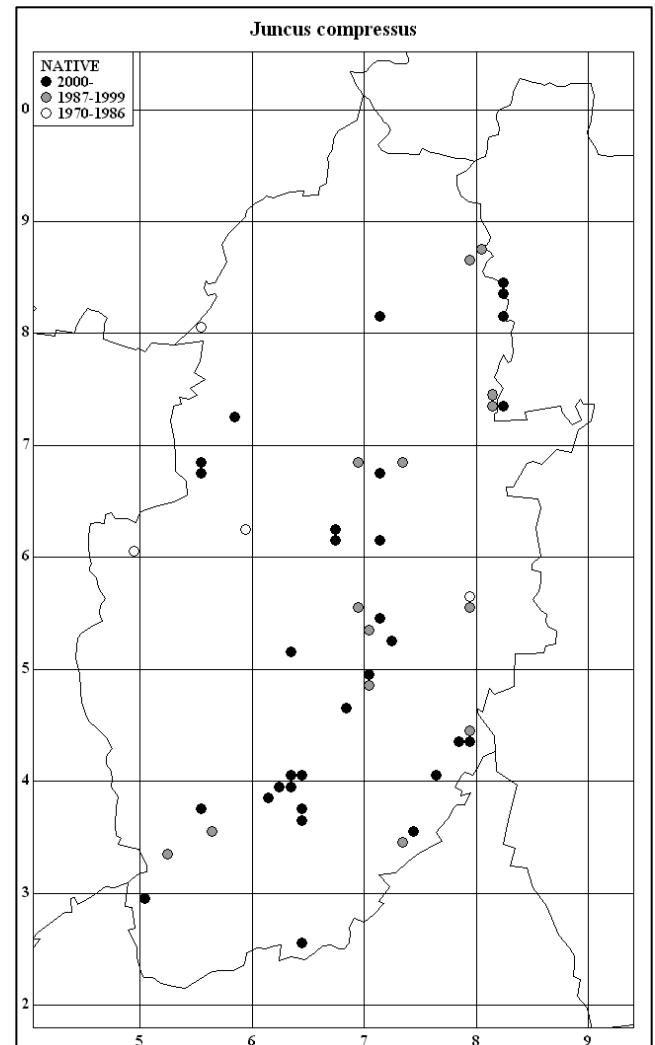
National Status: Near Threatened

Nottinghamshire Status: Uncommon

Monads: 42

This native species is scattered throughout the county in a variety of semi-natural and artificial wetland habitats. The distribution map does however confirm that the species is more widespread in the River Trent valley. Howitt & Howitt (1963) recorded the species in a variety of habitats throughout the county and thought that it was

probably increasing. In more recent times the species is thought to be decreasing across the country, because of drainage and the loss of permanent pasture, Preston *et al.* (2002), but as in other counties, the species has readily colonised new habitats, which may to some extent, compensate for losses elsewhere.



Juncus x diffusus Hoppe

J. effusus x inflexus

National Status: Data Deficient

Nottinghamshire Status: Rare

Monads: 2

Sell & Murrell (1996), describe the hybrid as densely tufted with an inflorescence that resembles hard rush *Juncus inflexus*, but with intermediate floral characters and continuous pith. They describe the distribution of the hybrid as widespread and although nowhere common, it has been recorded from most areas where the parents occur. In the VC there are no historic records and there are only two modern records, which suggest that the hybrid is either rare or overlooked. At Eakring, the population is locally abundant and occurs with both parents. At Lound, a single plant was found in association with both parents.

Location	GR	Date	Recorder
Eakring Flash	SK675629	2002	DCW
Lound Gravel Pits	SK705865	2003	DCW

Juniperus communis L.

Juniper

National Status: Least Concern
Nottinghamshire Status: Extinct

In the early 19th Century T. Ordoyno recorded Juniper *Juniperus communis* on heaths and commons, but noted that it was not frequent. The only attributed record is for “many pretty large trees in Mr Muster’s Wilderness by Colwick Hall”, Deering (1738). There is also the intriguing occurrence of three bushes in scrub at a former sand quarry at Ranskill (SK662883), these being still extant, but of unknown origin.

Location	GR	Date	Recorder
Near Colwick Hall	SK53	1807	TO

Lathyrus aphaca L.

Yellow Vetchling

National Status: Vulnerable, Nationally Scarce
Nottinghamshire Status: Rare, probably extinct
Monads: 1

The only historic records of yellow vetchling *Lathyrus aphaca* originate from the early 20th Century. J.W.Carr recorded the species at Newark Malt Kilns and somewhere in the Welbeck area, but no further information is provided. In recent times the species has been recorded only once in a rough grassland on the Magnesian Limestone at Annesley Woodhouse. Given the location of previous records in the VC and the national distribution of native populations it is considered that the Annesley Woodhouse population is probably an introduction. The species is probably extinct as recent searches have failed to relocate the species.

Location	GR	Date	Recorder
Annesley Woodhouse Grassland	SK502534	2004	DCW

Lathyrus palustris L.

Marsh Pea

National Status: Near Threatened, Nationally Scarce
Nottinghamshire Status: Extinct

Howitt & Howitt (1963) described marsh pea *Lathyrus palustris* as being very rare “among rough grass, hedges and drain sides on fen peat” in several places in Misson parish both towards Newington and Idle Stop. During the 1960s Howitt & Howitt personally recorded the species near Misson in a ‘fenny’ field and also on the edge of a drain at Misson. Despite a search of the drain and other suitable sites, the species was not refound during 1973 and has not been recorded since that time. The whole area is now arable land, enabled by a pump drainage scheme, which was initiated in the 1970’s.

Location	GR	Date	Recorder
Misson Drain	SK705951	1960s	RCLH

Lathyrus sylvestris L.

Narrow-leaved Everlasting Pea

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 5

Narrow-leaved everlasting pea *Lathyrus sylvestris* has always been very rare in the VC and has been lost from all of the historical locations listed by Howitt & Howitt (1963). Since 1970, the species has been recorded at five sites in different grassland types. The Huthwaite population is extensive and is located in scrubby grassland, extending into VC57; the Kirkby population is less extensive and occurs in rough grassland; the West Bridgford population consists of one plant in grassland on the north verge of a major trunk road; the Bramcote population is also present on a roadside verge, and the Newstead Colliery Tip population is one patch on barish colliery shales that is possibly introduced given the unusual location. None of the extant populations are close to the

pre-1970 locations, so the reason(s) for the species scarcity and distribution in the VC is not known.

Location	GR	Date	Recorder
A52 Roadside Verge, West Bridgford	SK578347	2007	PA, DCW
Huthwaite Dismantled Railway Line	SK464577	2012	DCW
Huthwaite Dismantled Railway Line	SK462581	2012	DCW, MW
Huthwaite Dismantled Railway Line	SK463579	2012	DCW, MW
Bramcote Roadside Verge	SK51153760	2012	JSh
Newstead Colliery Tip	SK522538	2012	MW
Kirkby-in-Ashfield Grassland	SK501552	2009	DCW
Kirkby-in-Ashfield Grassland	SK500553	2009	DCW

Legousia hybrida (L.) Delarbre

Venus’s-looking-glass

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 2

The species has always been rare in the VC and there are only five historical records, which are all associated with cornfields on calcareous soils. In recent times however, the species has been located at Holme Pierrepont Gravel Pits in the River Trent valley and also on Sherwood Sandstone at Carlton-in-Lindrick in the north of the VC.

Location	GR	Date	Recorder
Holme Pierrepont Gravel Pits	SK620387	2004	DCW
Holme Pierrepont Gravel Pits	SK621386	2004	DCW
Holme Pierrepont Gravel Pits	SK619387	2004	DCW
Osberton Estate	SK620819	2007	KB

Lepidium latifolium L.

Dittander

National Status: Nationally Scarce
Nottinghamshire Status: Uncommon
Monads: 17

Although dittander *Lepidium latifolium* is native on the coasts of the British Isles, inland it is introduced and in the VC it is probably a relatively recent introduction. Although it is increasing inland, the species is still relatively scarce in the VC. Many of the extant records are on disused railway lines and the species is likely to have first colonised the county when those railway lines that connected the east coast with the VC were still in use. Observational evidence suggests that once established the species is capable of persisting and slowly spreading.

Location	GR	Date	Recorder
Teversal Trail	SK493629	2010	MW
Silverhill Colliery Tip	SK476621	2011	DCW, MW
Gamston Waste Disposal Site	SK607371	2012	DCW
Netherfield Track Verge	SK633402	2012	PS, DCW
Newstead Colliery Tip	SK519535	2011	DCW, MW
Underneath Dunkirk Flyover	SK551384	2012	RP
Tipping Wood	SK594568	2012	MW
Blidworth Colliery Tip	SK599566	2011	MW
Blidworth Colliery Tip	SK599567	2012	RAJ, MW
Blidworth Colliery Tip	SK602573	2012	RAJ, MW
Blidworth Colliery Tip	SK598571	2012	RAJ, MW
Blidworth Colliery Tip	SK597569	2012	RAJ, MW
Blidworth Colliery Tip	SK597568	2012	RAJ, MW
Barnstone Landfill	SK740348	1999	DCW

Lepidium latifolium (Continued)

Location	GR	Date	Recorder
Bestwood Landfill	SK566478	2009	DCW
A60 Trunk Road Verge, Worksop	SK573785	1998	DCW
Plumtree Road Verge	SK611335	2012	DCW
Sookholme Colliery Tip	SK543669	2011	DCW
Teversal Trail	SK493632	2000	DCW
A52 Trunk Road Verge, Holme Pierrepont	SK618378	1996	DCW
Warsop Dismantled Railway	SK530685	1994	DCW

Dittander *Lepidium latifolium* at Netherfield Sidings



Source S. Hammonds

Limosella aquatica L.

Mudwort

National Status: Nationally Scarce
Nottinghamshire Status: Scarce
Monads: 7

Before 1970, T Ordoyno recorded mudwort *Limosella aquatica* at gravel pits near Kirklington Mill during 1807. Howitt & Howitt (1963) located no other historical records and consequently they considered the species to be extinct in the VC. Since 1970 the species has been recorded at several sites in the River Trent valley and it is likely that the records represent recent colonisations. This is because most of the records are associated with disturbed and open habitats such as gravel pits and seasonal pools, which are of fairly recent origin.

Location	GR	Date	Recorder
Besthorpe Gravel Pits	SK8163	>1970	NRL
Dunham-on-Trent Lagoon	SK818740	1992	DCW

Limosella aquatica (Continued)

Location	GR	Date	Recorder
Meering	SK820649	1994	DCW
Mons Pool	SK813639	2001	JF
Girton Gravel Pits	SK819675	2003	DCW
Girton Gravel Pits	SK818669	2006	DCW, RAJ
Meering	SK815651	2009	DCW
North Lagoon, Cottam Power Station	SK82807964	2009	NC
Shelford Carr	SK6673343346	2010	DCW

Linaria x sepium G.J. Sepium

L. vulgaris x *repens*

National Status: Data Deficient
Nottinghamshire Status: Scarce
Monads: 6

In the VC there are no pre-1970 records of this hybrid and all of the locations where the species has been recorded were active industrial sites before 1970. The location of the hybrid on dismantled railway lines and ex-colliery yards is not surprising as these are the most likely sites in the VC where the parents are likely to be found growing in close proximity to each other.

Location	GR	Date	Recorder
Warsop Vale Colliery Yards	SK538682	1972	JH
Cotgrave Colliery Yards	SK648364	1995	DCW
Huthwaite Dismantled Railway Line	SK464577	2001	DCW
Warsop Vale Colliery Yards	SK543681	2004	DCW
Beeston Sidings	SK547377	2005	DCW
Toton Sidings	SK491348	2010	DCW
Toton Sidings	SK489349	2010	DCW
Toton Sidings	SK490350	2010	DCW
Toton Sidings	SK492346	2011	DCW

Linum bienne Mill.

Pale Flax

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 3

Nottinghamshire is considered to be at the northern edge of the native range of pale flax *Linum bienne*, Stace (2010). Before 1970 the species had not been recorded in the VC, so it is probably a recent colonist. The species is considered to be a casual at the Nottingham site where it consists of one plant on a wall and also at the Holme Pierrepont site, which consists of two plants on a tip. At Sutton-cum-Lound the population occupies an extensive area of rough sandy grassland and is slowly increasing.

Location	GR	Date	Recorder
Sutton-cum-Lound	SK692842	2012	DCW
Sutton-cum-Lound	SK6884	2012	DCW
Sutton-cum-Lound	SK6883	2012	DCW
Sutton-cum-Lound	SK6985	2012	DCW
Sandfield Road, Nottingham	SK556396	2009	PSm
Holme Pierrepont Gravel Pits	SK621388	1992	DCW

Lithospermum arvense L.

Field Gromwell

National Status: Endangered
Nottinghamshire Status: Scarce
Monads: 5

In Nottinghamshire this archaeophyte used to be locally frequent in "arable fields, especially in beans, on clay or basic soils", Howitt & Howitt (1963). In recent times however, the species has substantially declined because of agricultural intensification. Recent checks at Colston Basset (SK685329), Cotham (SK796467), East Stoke (SK765488) and Flawborough (SK781418) indicate that populations are no longer extant.

Lithospermum arvense (Continued)

Further checks are required to fully determine the exact status of the species; two of the Staunton-in-the-vale sites were checked in 2012 and the species was not found and the remaining sites have not been checked for more than 20 years.

Location	GR	Date	Recorder
South Scaffold Lane, Collingham	SK8460	1984	EMP
Balderton Field	SK816486	1988	DCW
Cotham Field	SK796467	1998	DCW
Staunton-in-the-vale Field	SK808437	1988	DCW
Staunton-in-the-vale Field	SK819438	1988	DCW
Staunton-in-the-vale Field	SK817439	1988	DCW
Cropwell Bishop	SK680356	1987	RGS

Lithospermum officinale L.

Common Gromwell

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 5

The species has always been rare, but widespread in the VC on neutral to base-rich soils and has been recorded on the edge of woodlands and hedgerows. In modern times, of all of the populations described by Howitt & Howitt (1963) only the Scratta Wood population survived, but a 2012 search failed to find the species. All of the extant populations are found on sites where the species was not previously recorded before 1970. The species is however still found on a variety of substrates in the VC including Magnesian Limestone (Linby), Keuper Marl (Kirtton), Bunter Sandstone (Clipstone) and the Lias Clays (Cotgrave).

Location	GR	Date	Recorder
Clipstone Forest	SK612619	2008	DCW, JC
Clipstone Forest	SK594605	2000	MW
Blackberry Hill, Cotgrave Forest	SK639331	2010	DCW
Blackberry Hill, Cotgrave Forest	SK641330	2010	DCW
Kirtton Wood	SK707682	2009	DCW
Scratta Wood	SK544802	1981	CS, RS
Crossley Hills Lane, Carlton-in-Lindrick	SK6083	1984	CS, RS
Joe's Wood	SK523514	1996	Woll.
Quarry Banks	SK535521	1991	GL

Littorella uniflora (L.) Aschers.

Shoreweed

National Status: Least Concern
Nottinghamshire Status: Extinct

Shoreweed *Littorella uniflora* has only ever been recorded at two sites in the VC including Oxtun Bogs and Moorgreen Reservoir. Howitt & Howitt (1963) indicated that the species was no longer extant at Oxtun Bogs, but was still present at Moorgreen Reservoir. Shoreweed disappeared before 1973 following the modification of the reservoir dam, which increased water depth and made conditions less suitable for the species.

Location	GR	Date	Recorder
Moorgreen Reservoir	SK481491	<1973	RCLH

Luzula sylvatica (Huds.) Gaud.

Great Wood-rush

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 7

Most of the records of this species are associated with ancient woodland or mature woodland stands. The species has disappeared from Felley Mill, Roselle Wood at Oxtun, woods between Annesley and Greaseley and possibly Treswell Wood, but

has persisted at High Park Wood. At other sites including Hagley's Plantation, Harlow Wood and Elkesley Woodland the populations consist of small numbers of plants, which could be new colonists or relicts of once larger populations that were not found during earlier site surveys.

Location	GR	Date	Recorder
Park Farm Dumble	SK6450 - SK6451	1974	RCLH
Bulwell Wood	SK518464	1989	DCW
Treswell Wood	SK761793	1993	DCW
High Park Wood	SK484494	2011	DCW, MW
Elkesley Woodland	SK649744	2010	DCW
Hagley's Plantation	SK693691	2011	DCW
Harlow Wood	SK549573	2011	MW
Middle Arches	SK652714	2010	DCW, MW

Lycopodiella inundata L.

Marsh Club-moss

National Status: Nationally Scarce
Nottinghamshire Status: Extinct

Marsh club-moss *Lycopodium inundatum* was last recorded during the 19th Century on acid bogs near Rainworth Water. After 1839 the acid bogs surrounding Rainworth Water were lost because of drainage or habitat modification.

Location	GR	Date	Recorder
Rainworth Water	SK55	1839	GH

Lycopodium clavatum L.

Stag's-horn Club-moss

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 5

In the 19th Century Stag's-horn club-moss *Lycopodium clavatum* was frequent on the heaths of the Sherwood Bunter Sandstone. By the 1960s habitat destruction had contributed to the decline of the species and Howitt & Howitt (1963) described the species as being very rare. Since 1970 the species has been recorded at only five sites, all of which are on the Bunter Sandstone. In modern times, the species is found in habitats other than heaths including a sand quarry and conifer plantations established on former heathland.

Location	GR	Date	Recorder
Clipstone Heath	SK593624	1995	DCW
Clipstone Heath	SK594625	1991	DCW
Ellis Plantation	SK685881	2004	DCW, RAJ
Sherwood Forest Golf Course	SK587617	1987	NCC
Sherwood Heath	SK650675	2005	DCW
Sherwood Heath	SK648675	2003	DCW
Clipstone Forest	SK607635	1989	DCW

Lythrum hyssopifolia L.

Grass Poly

National Status: Endangered, Schedule 8: Wildlife & Countryside Act 1981, Nationally Rare
Nottinghamshire Status: Rare
Monads: 1

Before 1970 there was only one record for the county, originating from Deering's Catalogus stirpium, 1738, which states that grass poly *Lythrum hyssopifolium* "grows in places where sometimes water stagnates, a little below Wilford Boat." The species was not seen in the 19th or for most of the 20th Century and was considered by Howitt & Howitt (1963) to be extinct. In 2007 however, D.C. Wood counted approximately 30 plants in two temporary pools, surrounded by short, fairly species-poor, goose-grazed, ruderal grassland at Colwick Park, which were still present in 2011.

Grass-poly *Lythrum hyssopifolia* at Colwick Country Park

Source S. Hammonds

scarce in recent times. Howitt & Howitt (1963) considered the species to be very rare in the VC, being recorded at only two sites: Barrow Hills and on land near Blyth. In modern times the species has been recorded at four sites, two of which are located next to the River Trent and the other sites being at the edge of arable fields at Collingham and Barnby Moor.

Location	GR	Date	Recorder
Beeston Weir	SK5352735136	2009	DCW
Beeston Weir	SK536351	2012	DCW
River Trent, Newark-on-Trent	SK799544	2005	DCW
Barnby Moor	SK630828	2002	DCW
Collingham	SK8261	Undated	EMP(?)

Medicago sativa nothosubsp. *varia*
(Martyn) Arcang.

Sand Lucerne

National Status: Nationally Scarce

Nottinghamshire Status: Rare

Monads: 1

Stace (2010) described this subspecies as a scattered native in Britain, being established or casual in sandy or rough ground, arising *in situ* or introduced as hybrid seed: a somewhat indeterminate statement that indicates the uncertainty about the origin of the parents and the present distribution. Howitt & Howitt (1963) provided three records from Newark Wharfs (1953), Toton sidings and Nottingham Dump (1961), which were all considered to be casual. The latter site is no longer extant and Newark Wharfs has been heavily modified in modern times, but suitable habitat is still present at Toton. The only modern record consists of a single large plant growing in rough grassland on colliery pit tip with both parents nearby

Location	GR	Date	Recorder
Phoenix Park	SK5312043831	2011	PS(b)

Medicago sativa subsp. *falcata* (L.) Arcang.

Sickle Medick

National Status: Nationally Scarce

Nottinghamshire Status: Scarce

Monads: 6

Away from the coast sickle medick *Medicago sativa* subsp. *falcata* is considered to be an introduced species, which has always been rare in the VC. Of the six modern records, three populations have persisted in grasslands next to the Rivers Trent and Leen. A single plant is present at Phoenix Park growing in rough grassland with *M. sativa* nothosubsp. *varia*. Another small population has persisted on a roadside at Dunkirk, Nottingham and a single plant, believed to be causal has been found on a landfill site at Bestwood on the north edge of Nottingham.

Location	GR	Date	Recorder
Bestwood Landfill	SK564478	1999	DCW
River Leen, Basford	SK553424	2012	JSh, DCW
Phoenix Park	SK5312043831	2011	PS(b)
Dunkirk Roadside Verge	SK557384	2007	DCW, PA
West Bridgford Grassland	SK570379	2008	DCW
Birdcage Walk, River Leen	SK560385	2012	WM

Marrubium vulgare L.

White Horehound

National Status: Nationally Scarce

Nottinghamshire Status: Extinct

Howitt & Howitt (1963) described white horehound *Marrubium vulgare* as a possible native that was found near houses and on roadsides. They considered it to be very rare and possibly extinct with the last confirmed record originating from a site near Farnsfield in 1839. In 1987 British Waterways Board recorded the species on an island in the River Trent and sent the details to S. Alton at Nottinghamshire Wildlife Trust, but the record is best considered as unconfirmed. Despite more recent searches the species has not been refound at the Nabbs and it is now considered to be extinct in the VC.

Location	GR	Date	Recorder
Farnsfield	SK65	1839	GH
The Nabbs, Bleasby	SK730493	1987	BWB

Medicago polymorpha L.

Toothed Medick

National Status: Nationally Scarce

Nottinghamshire Status: Scarce

Monads: 4

Preston *et al.* (2002) describe inland populations of toothed medick *Medicago polymorpha* as casual, which have become increasingly

Melampyrum cristatum L.

Crested Cow-wheat

National Status: Vulnerable, Nationally Scarce
Nottinghamshire Status: Extinct

The species was only ever recorded in 1905 on the edge of Eaton Wood, which is located on Keuper Marl. Howitt & Howitt (1963) stated that the site had been destroyed by roadworks, but considered that further searches could be worthwhile. Nowadays the road verges alongside Eaton Wood are classified as an SSSI, but despite protection and suitable management, surveys have failed to re-find the species.

Location	GR	Date	Recorder
Eaton Wood Roadside Verge	SK7277	1906	JWC

Melampyrum pratense L.

Common Cow-wheat

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 1

By the early 1960s common cow-wheat *Melampyrum pratense* was already rare and declining and in recent years it has only been recorded at a single site in the east of the VC. The population at Thorney consists of two large patches on light, sandy soils in open, oak-birch woodland. The population is probably the same one that was recorded by J.W. Carr in the early 20th Century. Some of the sites that historically supported the species have been destroyed, but suitable habitat is still present at sites that historically supported the species such as Wigsley Wood, Wellow Park, Harlow Wood and Combes Wood. Detailed surveys of extant sites may yet reveal small populations of the species.

Location	GR	Date	Recorder
The Ring, Thorney	SK871733	2011	DCW, MW

Melica nutans L.

Mountain Melick

National Status: Least Concern
Nottinghamshire Status: Extinct

Reverend Stonehouse was the first to record mountain melick *Melica nutans* in the VC between Pleasley and Mansfield, some time around 1650. G. Howitt also recorded the species at Pleasley Wood in the 19th Century. J. Brown was the last person to record the species in the VC, some time between 1942 and 1946. The parts of Scratta Wood, Shireoaks where the species was last seen are no longer extant and searches of Limestone Woodland in the Pleasley area have failed to find the species, although there is much suitable habitat.

Location	GR	Date	Recorder
Scratta Wood	SK58	1942-1946	JBn

Mentha pulegium L.

Pennyroyal

National Status: Endangered, Schedule 8: Wildlife & Countryside Act 1981, Nationally Rare
Nottinghamshire Status: Rare
Monads: 2 (as a possible native)

Howitt & Howitt (1963) considered that pennyroyal *Mentha pulegium* was probably extinct in the VC, being last recorded in 1888 by H. Friend somewhere in the Sherwood Forest area. In modern times, the prostrate form of pennyroyal has been recorded at Rushcliffe Country Park and Lound Gravel Pits where it is possibly native. The species has also been recorded at nine other sites in the VC, where it is upright and considered to be non-native, either introduced or a garden escape. It is no longer extant at Bunny Landfill (SK5728), because the site has been capped and landscaped.

Mentha pulegium (Continued)

Location	GR	Date	Recorder
Lound Gravel Pits	SK701868	2005	DCW
Lound Gravel Pits	SK707866	2008	DCW
Rushcliffe Country Park*	SK576321	2010	MT
Bevercotes Colliery Yards*	SK695742	2011	DCW, MW
Hoveringham Gravel Pits*	SK717475	2011	RAJ, MW
North Muskham*	SK799595	2011	RAJ
Linghurst Lakes *	SK698867	2011	JC

Mentha pulegium (Continued)

Location	GR	Date	Recorder
Harcotes Colliery Tip*	SK616902	2011	DCW, MW
Nottingham Road Cemetery*	SK542589	2004	RAJ
Broomhill (Former dumpng materials)	SK542475	2005	DCW
Sherwood Rise, New Basford	SK565421	2006	DCW

*Non-native populations

Menyanthes trifoliata L.

Bogbean

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 5(1 as a native)

Drainage and eutrophication have contributed to the rapid decline of native populations of bogbean *Menyanthes trifoliata* in the VC. Historically the species was a common component of bogs and pools and was widespread across the VC. As a native the species is now reduced to one site in the VC. The Nuthall population has been known for many years, being recorded by Howitt & Howitt (1963) and is still relatively abundant. The Gunthorpe population was first recorded in 1992 and consists of several marginal populations that are located in angling pools.

Location	GR	Date	Recorder
Temple Lake	SK514441	1996	DCW, RCLH
Temple Lake	SK513440	1996	DCW, RCLH
Gunthorpe Gravel Pits*	SK680439	2010	DCW
Gunthorpe Gravel Pits*	SK679438	2010	DCW
Vicar Water*	SK592628	2010	MW
Martins Pond*	SK526401	2011	DCW
Burntstump Country Park*	SK579506	2008	DCW

*Non-native populations

Mercurialis annua L.

Annual Mercury

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 8

Before 1970 annual mercury *Mercurialis annua* was very rare and Howitt & Howitt (1963) suggested that the species could have been extinct in the VC. Since 1970, the species has been recorded 11 times, with most populations being located in the east of the VC near to Newark and the River Trent. With the exception of one garden record, all of the remaining populations have been recorded on disturbed or tipped soils and most populations are relatively small, consisting of less than 10 plants. The populations at Newark Landfill (SK85) and Bramcote Landfill (SK505388) are no longer extant and given the small size of many of the other populations it is likely that some have disappeared or are increasingly vulnerable to extinction, particularly those that were recorded during the 1970s.

Location	GR	Date	Recorder
North Clifton	SK821715	2010	DCW
Bunny Brickworks	SK582287	2011	DCW
Bramcote Landfill	SK505388	2009	DCW

Mercurialis annua (Continued)

Location	GR	Date	Recorder
Worksop	SK583796	1972	JH
Worksop	SK585795	1972	JH
Worksop	SK596790	1972	JH
Holme Pierrepont	SK617389	2008	DCW
Staunton-in-the-Vale Works	SK800441	1997	DCW
Balderton	SK815501	2002	DCW
North Clifton	SK817723	2006	DCW, MW
Broxtowe	SK5242	2010	WM
Hungerhill Allotment Gardens	SK582418	2006	WM
Newark-on-Trent Landfill	SK85	1969	EMP
Magnus Street, Newark-on-Trent	SK7953	1999	EMP

Minuartia hybrida (Vill.) Schischk.

Fine-leaved Sandwort

National Status: Endangered, Nationally Scarce, UK Biodiversity Action Plan

Nottinghamshire Status: Rare

Monads: 1

Upon completion of a new cycleway, which disturbed parts of a dismantled railway line, several small colonies of fine-leaved sandwort *Minuartia hybrida* were recorded on the track verge in 1987. This was the first VC record for the species and it was still present when visited in 2004. In 2012 the species was not found, but this could be due to a lack of disturbance of the trackside verge habitat.

Location	GR	Date	Recorder
Hawton Dismantled Railway Line	SK804503	2004	DCW

Misopates orionum (L.) Raf.

Weasel's-snout

National Status: Vulnerable

Nottinghamshire Status: Rare

Monads: 1

In the VC, this rare archaeophyte has only been recorded once during 2007. Four plants, which were probably casual, were recorded on dumped spoil / rubble. The plants have not been re-found in subsequent years and the species is probably extinct in the VC. Further targeted surveys are planned.

Location	GR	Date	Recorder
Kirkby Bentinck	SK484551	2007	DCW

Moenchia erecta (L.) P. Gaertn., B. Mey. & Scherb.

Upright Chickweed

National Status: Nationally Scarce

Nottinghamshire Status: Extinct

Howitt & Howitt (1963) stated that they were unable to find the species (as *Cerastium quaternellum*) despite the availability of suitable habitat within the VC. All of the many historical records originate from the 19th Century.

Location	GR	Date	Recorder
Nottingham area	SK54	1839	GH

Monotropa hypopitys L.

Yellow Bird's-nest

National Status: Endangered, UK Biodiversity Action Plan

Nottinghamshire Status: Rare

Monads: 2

Historically, Howitt & Howitt (1963) listed four woodlands on sandy soils in the north of the VC where the species was found. The

historical sites included a wood near Everton, two locations in Thoresby Park, several sites in Clumber Park and a site in Birklands. With regards to the two modern records, a small population has been recorded in mixed plantation woodland in the north of the VC at Osberton, whilst the other similarly small population has been recorded in woodland that surrounds disused gravel pits in the River Trent valley. A search during 2012 failed to locate the population at Osberton, but in 2011 monitoring by a local conservation group reported the presence of 2 plants at the Bleasby site.

Location	GR	Date	Recorder
Great Whin Covert	SK643780	2000	DCW
Bleasby Jubilee Ponds	SK714492	2003	DCW, RAJ

Myosotis secunda Murr.

Creeping Forget-me-not

National Status: Least Concern

Nottinghamshire Status: Rare

Monads: 1

The only confirmed historical records originate from the 19th Century in turf bogs at Pleasley, Rainworth and Oxtun. The species is no longer extant at any of those sites and nowadays, it is confined to two locations within a wet, acidic valley mire community at Felley Mill Plantation.

Location	GR	Date	Recorder
Felley Mill Plantation	SK480510	2008	DCW

Myosotis x suzae Domin*M. laxa x scorpioides*

National Status: Data Deficient

Nottinghamshire Status: Rare

Monads: 1

The hybrid is represented by two large populations, which are confined to a single drain in Stapleford Wood close to the Lincolnshire border. The mature conifer plantation is located on peaty soils, which in places is overlaid by blown sands.

Location	GR	Date	Recorder
Stapleford Wood	SK851556	2012	RAJ, DCW

Myosurus minimus L.

Mousetail

National Status: Vulnerable, Nationally Scarce

Nottinghamshire Status: Rare

Monads: 1

Mousetail *Myosurus minimus* has always been very rare in the VC, historically located in meadows and arable fields on gravel soils. Before the most recent find at Sutton-on-Trent, it was last seen in 1950 at a meadow at Rolleston. The Sutton-on-Trent population is located in barish cattle pens at the edge of Trent Valley floodplain grasslands and in 2007 consisted of thousands of plants.

Location	GR	Date	Recorder
Sutton-on-Trent Cattle Pens	SK802656	2007	CL, DCW, RAJ, MW

Myrica gale L.

Bog Myrtle

National Status: Least Concern

Nottinghamshire Status: Rare

Monads: 2

Howitt & Howitt (1963) described bog myrtle *Myrica gale* as being very rare and confined to two boggy woods including Sutton Wood near Retford and Wigsley Wood near the Lincolnshire border, where it was undoubtedly native.

Myrica gale (Continued)

The species is no longer extant at Sutton Wood and was last recorded at Wigsley Wood in 1986. At Monksbarn, Newstead and Boughton Brake the species has recently been recorded, it is an introduction or garden escape.

Location	GR	Date	Recorder
Wigsley Wood	SK8570	1986	DCW
Monksbarn*	SK533543	1989	DCW
Boughton Brake*	SK671701	2003	DCW, RAJ

*Probably introduced

Myriophyllum alternifolium DC.

Alternate Water-milfoil

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 7

Howitt & Howitt (1963) doubted the validity of the only record for the county, because of the Newark locality. Since 1970 however, the species has been recorded in peaty drains at Gringley and Everton and also in ballast pits at Misson Line Bank. In 1978, a herbarium specimen from Everton Carr was submitted to the Nottingham Natural History Museum and D.C. Wood also submitted a specimen from Misson Line Bank during 1997.

Location	GR	Date	Recorder
Magnus Drain, Everton Carr	SK705938	1978	Woll.
Black Bank Drain, Everton Carr	SK697937	1978	Woll.
Black Bank Drain, Everton Carr	SK702929	1978	Woll.
Gringley Carr Drain, Carr Road East Drain	SK718943	1978	KLJ
Gringley Carr Drain, Carr Road East Drain	SK715943	1978	KLJ
Gringley Carr Drain	SK718942	1978	Woll.
Gringley Carr Drain	SK717941	1978	KLJ
Gringley Carr Drain	SK723943	1978	KLJ
Gringley Carr Drain	SK702941	2011	DCW, MW
Misson Line Bank	SK712959	1997	DCW
Misson Line Bank	SK712960	1978	NRL, KLJ
Misson Line Bank	SK716960	1978	NRL, KLJ
Misson Line Bank	SK714961	1978	NRL, KLJ

Myriophyllum verticillatum L.

Whorled Water-milfoil

National Status: Vulnerable, Nationally Scarce
Nottinghamshire Status: Scarce
Monads: 7

The species is confined to base-rich waters and has always been rare in the VC. It has persisted since the early 1960s at Misterton and Shireoaks and was probably also present at Gringley. At Misterton and Gringley the populations are located in peaty drains, whilst the Shireoaks population is located in a drain on the Magnesian Limestone. Historically the species was also recorded at the Meadows near Nottingham, in the River Trent at Colwick and in a pool at Attenborough, but all of these populations have disappeared because of habitat destruction.

Location	GR	Date	Recorder
Fox Covert Drain, Gringley Carr	SK722952	2002	DCW
Shireoaks Park	SK552806	1972	JH
Mother Drain, Gringley Carr	SK713950	1983	JOM
Gringley Carr	SK728930	1984	JNCC
Misterton Carr Drain	SK734954	2009	DCW
Gringley Carr Drain	SK713949	2012	DCW
Gringley Carr Drain	SK714946	2009	DCW
Gringley Carr Drain	SK716943	2009	DCW
Gringley Carr, Boundary Drain	SK723953	1978	CGC
Misterton Carr, Mother Drain	SK726964	2012	DCW

Narthecium ossifragum (L.) Huds.

Bog Asphodel

National Status: Least Concern
Nottinghamshire Status: Extinct

The only record for bog asphodel *Narthecium ossifragum* originates from the early 19th Century when "two plants were found on Coddington Moor, by Mr Jacob Ordoyno", Howitt & Howitt (1963).

Location	GR	Date	Recorder
Coddington Moor	SK85	1807	JO

Nasturtium x sterile Airy Shaw

Hybrid Watercress

National Status: Data Deficient
Nottinghamshire Status: Scarce
Monads: 10

There are no historical records for this hybrid, because it was not recognised when Howitt & Howitt's flora was published in 1963. Rich (1991) described hybrid watercress *Nasturtium x sterile* as the most common of the crucifer hybrids in Britain and it is possibly under-recorded in the VC. Since 1970 the hybrid has been recorded at ten sites, scattered across the VC, often, but not always with the parents.

Location	GR	Date	Recorder
Torworth Drain	SK666863	1972	JH
Warsop Vale Stream	SK554678	1972	JH
Welbeck Colliery Village	SK583697	1972	JH
Sutton Railway Drain	SK669852	1972	JH
Sutton Railway Drain	SK692833	1972	JH
Shireoaks Park Cascade	SK549805	1997	DCW, JH
Shireoaks Park Cascade	SK550805	1997	DCW, JH
Shireoaks Park Cascade	SK552806	1997	DCW, JH
Grantham Canal, Hickling	SK711293	1999	DCW
Grantham Canal, Kinoulton	SK681305	2000	DCW
Grantham Canal, Kinoulton	SK685296	2000	DCW
Ruddington Drain	SK565329	2003	DCW
Holme Pierrepont Stream	SK6038	Undated	DCW
Kennel Wood	SK498512	2007	DCW

Neottia nidus-avis (L.) L.C. Rich.

Bird's-nest Orchid

National Status: Near Threatened
Nottinghamshire Status: Rare
Monads: 2

Formerly bird's-nest orchid *Neottia nidus-avis* was recorded in seven woodlands located on either base-rich clays or Magnesian Limestone. Since 1970 the species has not been found at any of those woodlands and is probably now confined to two ancient woodlands on the Keuper Marls. At Eaton Wood during 1995, the population consisted of one plant next to a ride in mixed woodland. At Gamston Wood during spring 2011 there were four spikes located in mixed woodland along a new ride under mature hazel *Corylus avellana* shrubs.

Location	GR	Date	Recorder
Eaton Wood	SK727775	1995	DCW
Gamston Wood	SK729769	2011	RAJ

Neottia ustulata (L.) R.M. Bateman, Pridgeon & M.W. Chase

Burnt Tip Orchid

National Status: Endangered, Nationally Scarce
Nottinghamshire Status: Extinct

In the VC, G. Howitt last recorded burnt tip orchid *Neottia ustulata* some time before 1839. In the 18th and 19th Centuries the species was recorded at several sites on Magnesian Limestone and base-rich Trent valley grasslands.

Neottia ustulata (Continued)

Location	GR	Date	Recorder
Kirkby Hardwick	SK55	1839	GLH

Nepeta cataria L.

Catmint

National Status: Vulnerable
Nottinghamshire Status: Scarce
Monads: 7

The species has always been rare in the VC and between 1738 and 1963 was only recorded at fifteen, scattered localities, mostly on hedge banks. Since 1970, it has been recorded a further five times, but never in any great quantity. The largest population, which was recorded at Trowell on a canal towpath (SK495392), is no longer extant and a viaduct in Nottingham (SK576394) that supported a population has also been destroyed to facilitate a tramline. Of the remaining populations, only the Rainworth and Lound populations consist of more than a few plants.

Location	GR	Date	Recorder
Nelson Street, Sneinton	SK579399	2011	PS(b)
Ranskill	SK663880	2006	DCW
Danes Hill	SK674866	2004	DCW
Sturton-le Steeple	SK785853	1999	DCW
Black Hills Farm Roadside Verge	SK635670	2012	DCW
Rainworth Water	SK604596	2012	RAJ
Muspit Lane	SK761853	2012	DCW

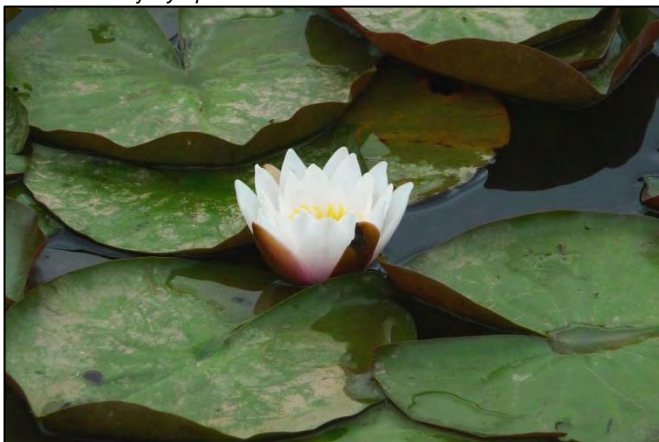
Nymphaea alba L.

White Water-lily

National Status: Least Concern
Nottinghamshire Status: Rare (as a native)
Monads: 2 (72 as an introduction)

As a native, the species has always been rare in the VC and mostly confined to sites in the Trent valley. Other sites where it was possibly native, such as the River Erewash at Eastwood and Langford Fleet, have been heavily modified in recent times, or in the case of sites in Nottingham are no longer extant. Howitt & Howitt (1963) recorded white water lily *Nymphaea alba* as a native at Collingham and Besthorpe and both of the populations were still extant, when last visited. As an introduced species, it has been recorded in 72 monads in the VC.

Location	GR	Date	Recorder
Horse Pool	SK814618	1974	EMP
Black Pool (Besthorpe)	SK820643	1997	Woll.

White water-lily *Nymphaea alba* at Bulwell Hall Park

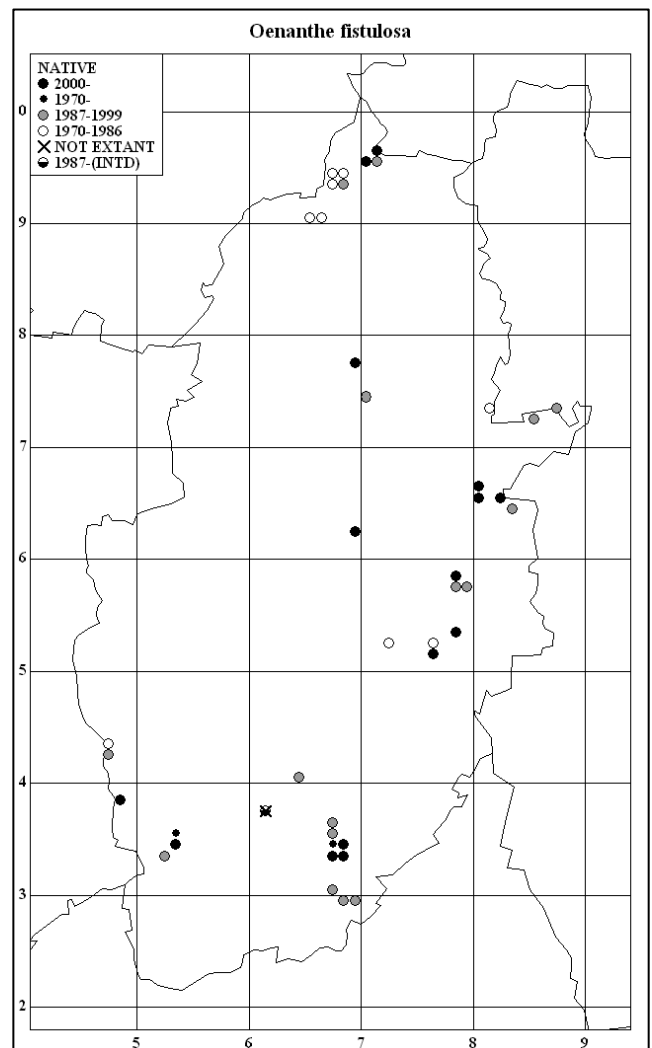
Source: S. Hammonds

Oenanthe fistulosa L.

Tubular Water-dropwort

National Status: Vulnerable, UK Biodiversity Action Plan
Nottinghamshire Status: Uncommon
Monads: 42

Before the 1960s, tubular water-dropwort *Oenanthe fistulosa* was common in the valleys of the River Trent and its tributaries and it was also frequent in the north of the county on peatlands. The decline of the species in the VC reflects the national decline of the species, which has been of sufficient magnitude to classify the species as 'Vulnerable'. The decline in the VC can probably be attributed to drainage and habitat loss rather than agricultural intensification, because the species prefers eutrophic substrates. Although the species has declined in the county, it is still present in 42 rolling monads and its distribution has not significantly changed since the early 1960s.

*Oenanthe fluviatilis* (Bab.) Coleman

River Water-dropwort

National Status: Least Concern
Nottinghamshire Status: Extinct

This is another D.A.J. Little record in the Aberyswyth University Herbarium that was not mentioned in Howitt & Howitt's (1963) Nottinghamshire Flora. The herbarium sheet describes the location as being near Kegworth, so the actual habitat is not known, but it is probably the River Soar. Given the grid reference, it is not known if the specimen originated from the Nottinghamshire or Leicestershire side. As the species has not been seen for many years it is assumed to be extinct and given the lack of clarity, it is reasonable for either county to lay claim to the record.

Oenanthe fluviatilis (Continued)

Location	GR	Date	Recorder
Kegworth (near)	SK4924	1948	DAJL

Oenanthe lachenalii C.C. Gemel.

Parsley Water-dropwort

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 5

Parsley water-dropwort *Oenanthe lachenalii* has a mainly coastal distribution and becomes rather less common inland. In the VC the species has never been common and traditionally it was associated with damp meadows on basic soils. Although the species is still extant on a few damp grasslands such as Warsop Hills and Holes and Kinoulton Marsh, nowadays it has also been found on the margins of drains in the east of the VC. Whilst these populations may have recently colonised the drains, it is possible that the species has been long established, but was overlooked, because it is not generally associated with such habitat. The Car Colston population has not been confirmed

Location	GR	Date	Recorder
Balderton - Hawton Drain	SK809503	2009	DCW, RAJ
Balderton - Hawton Drain	SK811503	2009	DCW, RAJ
Balderton - Hawton Drain	SK810504	2009	DCW, RAJ
Balderton - Hawton Drain	SK812503	2009	DCW, RAJ
Balderton - Hawton Drain	SK804505	2009	DCW, RAJ
Balderton - Hawton Drain	SK804502	2009	DCW, RAJ
Shire Dyke, Balderton - Cotham	SK812476	1998	DCW, RAJ
Shire Dyke, Balderton - Cotham	SK813483	1998	DCW, RAJ
Kinoulton Marsh	SK679305	1991	DCW
Warsop Hills and Holes	SK554677	2002	DCW
Sookholme Moor	SK554678	2008	DCW
Car Colston Marsh	SK707418	1987	Woll.

Oenanthe silaifolia Bieb.

Narrow-leaved Water-dropwort

National Status: Near Threatened, Nationally Scarce
Nottinghamshire Status: Extinct

R.C.L. Howitt recorded narrow-leaved water-dropwort *Oenanthe silaifolia* at two locations in the VC, both in the east of the VC in close proximity to the River Trent. Before 1963, he recorded the species at Spalford and in 1976 he recorded six plants at Fledborough Holme. Neither of the two populations has been seen in recent years, but the habitat is still suitable at the latter site.

Location	GR	Date	Recorder
Fledborough Holme	SK813718	1976	RCLH

Orobancha rapum-genistae Thuill.

Great Broomrape

National Status: Near Threatened, Nationally Scarce
Nottinghamshire Status: Extinct

Great broomrape *Orobancha rapum-genistae* has always been rare, being confined to sandy heaths in the north of the VC at Everton and Harworth and in the Sherwood area at Mansfield, Thoresby, Ollerton, Eakring and Farnsfield. It was last recorded in the mid-1960s at Barrow Hills, Everton by R. C. L. Howitt. Subsequent searches in the early 1970s failed to re-locate the species.

Location	GR	Date	Recorder
Barrow Hills	SK674918	1964	RCLH

Ophrys insectifera L.

Fly Orchid

National Status: Vulnerable
Nottinghamshire Status: Scarce
Monads: 3

Fly orchid *Ophrys insectifera* has always been very rare in the VC, mostly in woods or scrub on Magnesian Limestone. Since 1970 it has been recorded at three sites, including Quarry Banks and Dyscarr Wood on Magnesian Limestone and at Eaton Wood on Keuper Marl. At Eaton Wood the species has also been recently recorded in close proximity to its original location, but on limestone chippings in a rarely used car park, rather than the woodland soils.

Ophrys insectifera (Continued)

Location	GR	Date	Recorder
Eaton Wood	SK7277	1991	NRL
Eaton Wood	SK728773	2011	GL, CL
Quarry Banks	SK536523	1998	DCW, SC
Dyscarr Wood	SK578876	2007	NRL, JF, DCW, NC

Oreopteris limbosperma (All.) Holub

Lemon-scented Fern

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 10

Before 1970 lemon-scented fern *Oreopteris limbosperma* was considered to be a rare species of moist woods on sandy or clay soils. In recent times, the species has been recorded at 11 sites, but is no longer extant at Coxmoor Plantation in Kirby-in-Ashfield (SK520567) and Forest Side, Sutton-in-Ashfield (SK520595). Since the early 1960s the species has persisted at Coxmoor, Misson and Spalford. Further searches at locations where it was originally recorded including Oxtan, Farnsfield, Rufford and Wigsley may prove to be worthwhile as suitable habitat is still present at these sites.

Location	GR	Date	Recorder
Spalford Woodland	SK833686	1968	BH
Balderton Ballast Pits	SK8251	1975	RCLH
Budby South Forest	SK608693	2009	DCW
Budby South Forest	SK607693	2012	DCW, RAJ, JC
Huthwaite Stream	SK456598	2000	DCW
Misson Carr	SK714971	2006	DCW
Misson Carr	SK717976	2006	DCW
Stapleford Wood	SK855557	2008	DCW, RAJ
Stapleford Wood	SK853562	2011	DCW, RAJ, MW
Stapleford Wood	SK853553	2011	DCW, RAJ, MW
Stapleford Wood	SK851552	2008	DCW, RAJ
Coxmoor Golf Course	SK525579	2009	DCW
Felley Mill Plantation	SK480510	2011	MW
Oakfield Lane Sand Quarry	SK565666	2012	DCW

Ornithogalum pyrenaicum L.

Spiked Star-of-Bethlehem

National Status: Nationally Scarce
Nottinghamshire Status: Rare
Monads: 1

Spiked Star-of-Bethlehem *Ornithogalum pyrenaicum* is a nationally scarce neophyte that was first recorded in ancient woodland habitat in the VC during 1993. Although it appears to be naturalised the single plant is located in close proximity to housing and could be a garden escape or a relic of cultivation.

Ornithogalum pyrenaicum (Continued)

Location	GR	Date	Recorder
Wallingwells Wood	SK573843	1993	DCW

Osmunda regalis L.

Royal Fern

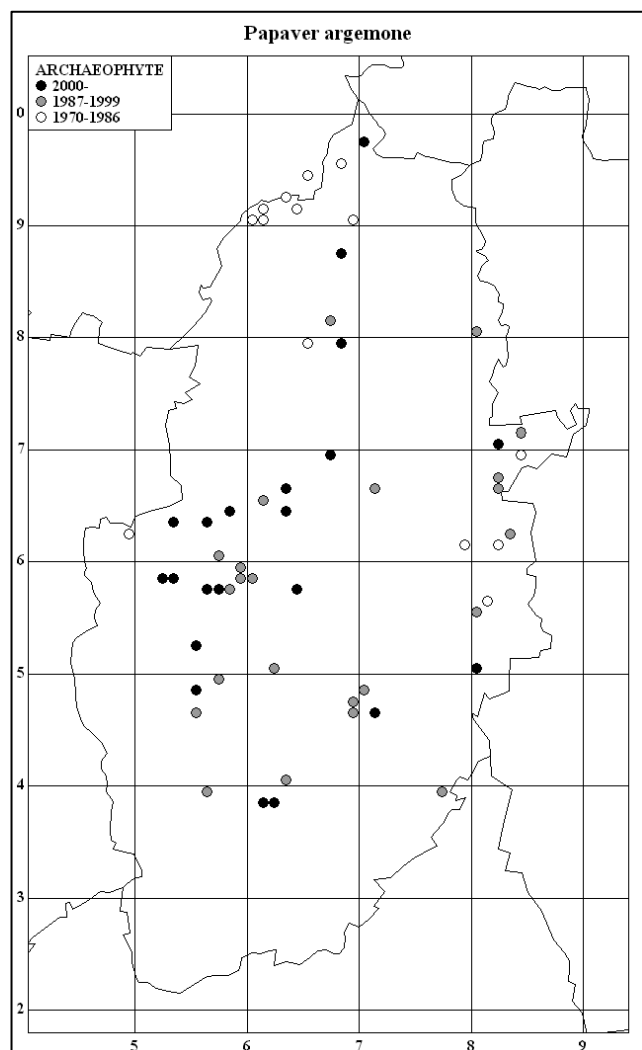
National Status: Least Concern**Nottinghamshire Status:** Extinct (as a native)**Monads:** 1

As a native, royal fern *Osmunda regalis* is probably extinct, because the single plant recorded in the 1970s and 1990s at Coxmoor Golf Course (SK524579) is likely to be introduced. A population at Oxtan Bogs was the last of the native records to be seen during the early 1970s. Historically the species was recorded as a native at scattered localities throughout the VC including Wigsley Wood, Mansfield, Bulwell, near Finningley, Stapleford, Collingham and Coddington.

Location	GR	Date	Recorder
Oxtan Bogs	SK6151	1972	AJW

Papaver argemone L.

Prickly Poppy

National Status: Vulnerable, Nationally Scarce**Nottinghamshire Status:** Occasional**Monads:** 54

Before 1970 prickly poppy *Papaver argemone* was locally frequent in arable crops on light soils, particularly in the Sherwood area, but also on gravels and blown sand in and around the Trent Valley. Nationally the species has declined in modern times, because of

its susceptibility to pesticides, Preston *et al.* (2002) and similarly, declines have also occurred in the VC. Since 1970, the species has been recorded in 54 rolling monads in the VC and it continues to be most frequent in the Trent Valley and the Sherwood area.

Papaver lecoqii Lamotte

Yellow-juiced Poppy

National Status: Least Concern**Nottinghamshire Status:** Rare**Monads:** 2

Howitt & Howitt (1963) described the distribution of yellow-juiced poppy *Papaver lecoqii* as being uncertain with only six confirmed records on arable land. On the Lower Lias clays in the east and south of the VC, the species was recorded at Owthorpe, Kinoulton and Thorpe-in-the-Glebe. On lighter soils the species was recorded at Bramcote, Farndon and Lowdham. Since 1970 the species has been recorded at only three sites and is no longer extant at Barnstone (SK742353) on the Lower Lias. The species is now only found on the trackbeds of two disused railway lines, including Bingham in the south of the VC and Teversal in the northwest of the VC.

Location	GR	Date	Recorder
Teversal Trail	SK493629	1972	JH
Bingham Linear Park	SK707390	2004	RP
Bingham Linear Park	SK701393	2004	RP

Parnassia palustris Thuill.

Grass-of-parnassus

National Status: Least Concern**Nottinghamshire Status:** Extinct

Grass-of-parnassus *Parnassia palustris* was very rare and decreasing by the early 1960s, because of habitat loss and drainage. It was last recorded at two sites in the Sookholme area and although Sookholme Moor is still extant, the site at Sookholme Bath Lane has been heavily disturbed and damaged by mining activity. Despite repeated searches, since 1971 the species has not been recorded at any of its traditional sites and is considered to be extinct in the VC. There is a specimen in Wollaton Hall Natural History Museum (NOT) allegedly collected in Wollaton Park, Nottingham in 1965, but the collector although still alive is not in a position to confirm this. Suitable habitat still exists, but recent searches have been unsuccessful.

Location	GR	Date	Recorder
Sookholme Bath Lane	SK540665	1971	RCLH
Sookholme Moor	SK554678	1971	RCLH

Pedicularis palustris L.

Red Rattle

National Status: Least Concern**Nottinghamshire Status:** Extinct

During the 19th Century, red rattle *Pedicularis palustris* was frequent and widespread in the VC, but declined through the early part of the 20th Century. The species was extinct by 1954, being last recorded by R.C.L. Howitt below the River Idle Barrier Bank at Scaftworth.

Location	GR	Date	Recorder
Scaftworth	SK69	1954	RCLH

Pedicularis sylvatica L.

Lousewort

National Status: Least Concern**Nottinghamshire Status:** Extinct

Lousewort *Pedicularis sylvatica* was formerly frequent in all areas of the VC on old pastures and woodland rides, but has not been recorded since 1974.

Pedicularis sylvatica (Continued)

It is possible that the impacts of coal mining, which often lowered the water table in the surrounding area, could have contributed to declines in some of the mining areas such as Sookholme and Calverton. Several of the historical sites have been returned to sympathetic management in recent times, for example Mansey Common (formerly known as Manzer Gorse) and Sookholme Moor and this species could still reappear.

Location	GR	Date	Recorder
Sookholme Moor	SK554678	1972	JH
Laxton Castle Meadows	SK7167 / SK7267	1972	RCLH
Calverton Mire	SK606486	1974	RCLH

Persicaria minor (Huds.) Opiz

Small Water-pepper

National Status: Vulnerable, Nationally Scarce

Nottinghamshire Status: Scarce

Monads: 10

Small water-pepper *Persicaria minor* has never been common in the VC and before 1963 was only recorded at three sites including the River Idle at Misson, a field in Sneinton and a ditch between Nottingham and Lenton. The latter two sites are no longer extant, having succumbed to urban development in the 19th or 20th Centuries. The species could however, have been overlooked because there are many more modern records. It has been recorded, since 1970, in 10 rolling monads along the River Trent and the River Idle. The species has been recorded in a variety of habitats including the banks of drains, inundation grassland, willow scrub, grazing marsh and seasonal pools. The white form of the species has been recorded at Attenborough, but elsewhere the plants are the red flowered form.

Location	GR	Date	Recorder
Misson Drain	SK687938	1972	JH
Misson Drain	SK684943	1972	JH
Misson Drain	SK713950	1972	JH
West Bridgford	SK569362	1989	Woll.
Shelford Carr	SK668434	1992	DCW
Attenborough Gravel Pits	SK519337	2002	DCW
Attenborough Gravel Pits	SK520338	2002	DCW
Idle Washes, Misterton	SK721963	2002	DCW, RAJ
Rolleston	SK763516	2006	DCW
Clifton (near Holme Pit)	SK53423477	2010	DCW
Clifton (near Holme Pit)	SK537347	2010	DCW
Clifton (near Holme Pit)	SK53453463	2010	DCW
Clifton (near Holme Pit)	SK53653466	2010	DCW
Adbolton Grassland	SK6027438548	2010	DCW

Persicaria mitis (Schränk.) Assenov

Tasteless Water-pepper

National Status: Vulnerable, Nationally Scarce

Nottinghamshire Status: Locally Frequent

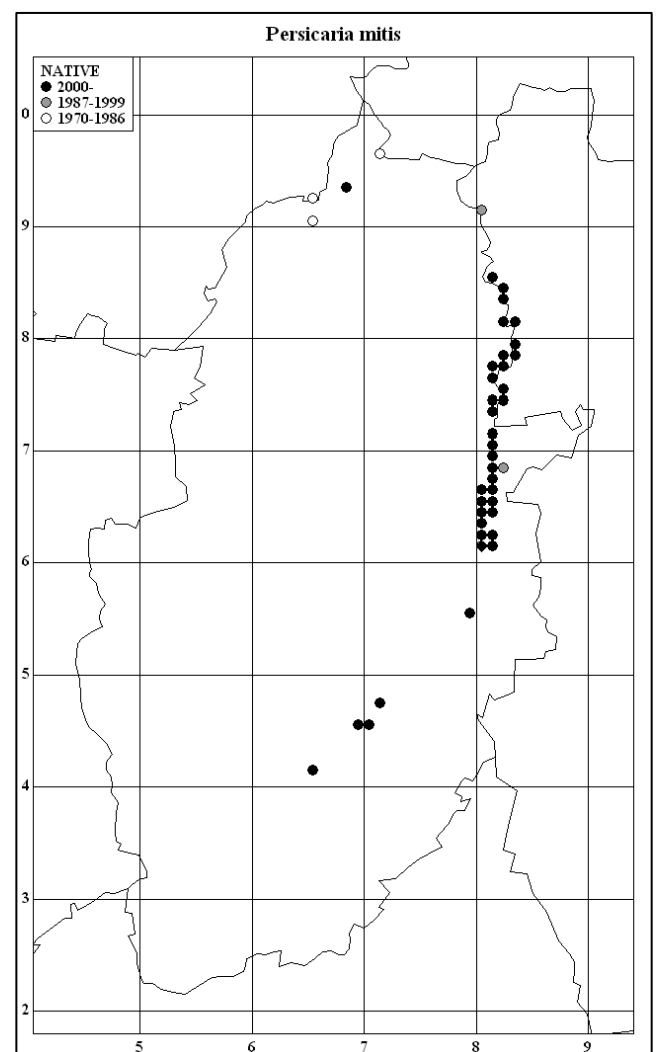
Monads: 39

Howitt & Howitt (1963) considered tasteless water pepper *Persicaria mitis* to be rare and they provided only five records for the VC. Since 1970 however, the species has been recorded in 39 rolling monads, mostly in the lower reaches of the tidal Trent valley, wherever suitable habitat is present. Preston *et al.* (2002) states that the species has been confused with water pepper *P. hydropiper* and small water pepper *P. minor*. It is therefore, considered likely that the species has always been locally frequent in the Trent valley and was probably overlooked before 1970.

Tasteless water-pepper *Persicaria mitis* on the banks of the River Trent at Cottam



Source S. Hammonds



Petroselinum segetum (L.) W.D.J.Koch

Corn Parsley

National Status: Least Concern

Nottinghamshire Status: Rare

Monads: 3

Corn parsley *Petroselinum segetum* has always been rare in the VC and traditionally was associated with arable fields on basic soils.

Petroselinum segetum (Continued)

Howitt & Howitt (1963) listed three sites in the VC including Kilvington, Stanford-on-Soar and Barnby-in-the Willows, but none of those populations are extant. In recent times large populations have been recorded on unimproved grassland banks and the bank of a lagoon, well away from the historic locations.

Location	GR	Date	Recorder
A1 Roadside Verge	SK823495	2004	DCW
Clifton Hill	SK826696	2012	DCW, MW, WM, AB
Clifton Hill	SK822697	2012	DCW, MW, WM, AB
Hoveringham Gravel Pits	SK716475	2008	DCW

Pinguicula vulgaris L.

Common Butterwort

National Status: Least Concern**Nottinghamshire Status:** Extinct

Common butterwort *Pinguicula vulgaris* was formerly common in the VC in marshes and bogs, but by the early 1960s Howitt & Howitt (1963) considered that the species was probably extinct. J.W. Carr last recorded the species at Sookholme Moor in the early part of the 20th Century and approximately 80 years later it was recorded again in peaty flushes at the same site. Unfortunately the species has not persisted at this site, due to a cessation of grazing and a series of dry summers, and was last seen in 1991.

Location	GR	Date	Recorder
Sookholme Moor	SK554678	1991	DCW

Platanthera bifolia (L.) L.C. Rich

Lesser Butterfly Orchid

National Status: Vulnerable**Nottinghamshire Status:** Extinct

T. Ordoyne in the 1807 Flora Nottinghamiensis stated that lesser butterfly orchid *Platanthera bifolia* was recorded in "meadows and pastures; not common. Southwell; and in the meadows leading to Oxtun Wood; also closes between Winkburn and Kirklington." There are no later records for the species.

Location	GR	Date	Recorder
Southwell, near Oxtun Wood, between Winkburn and Kirklington	SK65	1807	TO

Platanthera chlorantha (Cust.) Rchb.

Greater Butterfly Orchid

National Status: Near Threatened**Nottinghamshire Status:** Scarce**Monads:** 4

In the VC, the species has a strong affinity with woodland and was common in clay woodlands in the 19th Century. In the 20th Century, before 1963, greater butterfly orchid *Platanthera chlorantha* was recorded in Hockerton Moor Wood, Lady Wood at Caunton, Eaton Wood, Gamston Wood, Broadwaters Wood at Ossington and Beverley Springs at Headon. Since 1970 the species has persisted at Gamston Wood, Eaton Wood and Headon (at Darlton Wood, which is next to Beverley Springs). It has not been found at Moor Wood, Lady Wood and Broadwaters Wood in recent times. The species has also been recorded at Treswell Wood, which is close to the woods at Headon, and Kirton Wood (SK7068), where it is probably no longer extant. Small population could have always been present in Treswell and Kirton Woods, but it is difficult to understand how it would have been overlooked in past times.

Platanthera chlorantha (Continued)

Location	GR	Date	Recorder
Darlton Holt	SK7378	1972	RCLH
Eaton Wood Roadside Verge	SK726772	2004	DCW
Gamston Wood	SK728769	2006	DCW
Gamston Wood	SK727769	2006	DCW
Gamston Wood	SK726764	2006	DCW
Gamston Wood	SK730768	2006	DCW
Gamston Wood	SK727767	2006	DCW
Gamston Wood	SK727765	2006	DCW
Gamston Wood	SK727772	1984	CS, RS
Gamston Wood	SK729768	2012	NC
Treswell Wood	SK762793	2006	DCW, Woll.
Eaton Wood	SK727776	2009	DCW, JF

Polygala vulgaris subsp. *collina* (Rchb.)

Common Milkwort

Borbás

National Status: Data Deficient**Nottinghamshire Status:** Extinct

Stace (2010) describes the subspecies as being scattered throughout Britain, but the distribution is very uncertain. Sell & Murrell (2009), state that all of the plants in Britain are referable to subsp. *vulgaris*. If the existence of subspecies *collina* is accepted, then it was last seen at unspecified times in the early part of the 20th Century at two sites in the VC including Moorgreen Reservoir, Greasley and South Wheatley.

Location	GR	Date	Recorder
Moorgreen Reservoir	SK4849	1909 -1939	JWC

Polygonatum multiflorum (L.) All.

Solomon's Seal

National Status: Least Concern**Nottinghamshire Status:** Scarce**Monads:** 9

The species has never been common in the VC and is almost entirely confined to woods on the Magnesian Limestone. Although losses have undoubtedly occurred within the VC, populations at Bagthorpe, Banks Carr Wood, Broxtowe, Wallingwells and Pleasley have persisted for hundreds of years. At the Millington Springs, Burntstump, Robin's Wood and Maun valley sites, the populations all appear to be native and have probably been present for many years, being overlooked for some reason.

Location	GR	Date	Recorder
Bagthorpe Woodland	SK475516	1998	DCW
Bagthorpe Woodland	SK475514	1998	DCW
Bagthorpe Woodland	SK477514	1998	DCW
Millington Springs	SK480521	2008	DCW
Banks Carr Wood	SK599916	2003	DCW
Broxtowe Wood	SK531429	2010	WM
Broxtowe Wood	SK529430	1995	DCW, SW, PA
Burntstump Country Park	SK579507	2008	DCW
Burntstump Country Park	SK574508	2008	DCW
Burntstump Country Park	SK576508	2008	DCW
Maun Valley Woodland	SK5369660270	2010	PS(b)
Robin's Wood	SK537414	1999	PA, RAJ, DCW
Pleasley Vale	SK519649	2009	DCW
Pleasley Vale	SK520650	2009	DCW
Pleasley Vale	SK515647	2012	KB
Pleasley Vale	SK516648	2012	RAJ
Pleasley Vale	SK518648	2011	DCW
Wallingwells Wood	SK574842	2011	DCW, MW

Polygonatum odoratum (Mill.) Druce Angular Solomon's Seal

National Status: Nationally Scarce
Nottinghamshire Status: Extinct

In the VC, angular solomon's seal *Polygonatum odoratum* has been recorded only once. J. Roffey recorded the species at Menagerie Wood, Worksop Manor some time during the early 20th Century.

Location	GR	Date	Recorder
Menagerie Wood	SK5778	c.1900	JR

Polygonum rurivagum Jordan ex. Cornfield Knotgrass
 Boreau

National Status: Nationally Scarce
Nottinghamshire Status: Rare
Monads: 1

Cornfield knotgrass *Polygonum rurivagum* was recorded for the first time in the VC by R.C.L. Howitt in the Pusto Hill area of Everton. Ackeroyd cited in Stewart, Pearman, & Preston (1994), states that the species is superficially very similar to *P. aviculare*, of which it is probably a segetal ecotype, whilst Stace (2010) suggests that the species is probably best amalgamated with *P. aviculare*. The similarity between the two species may go some way to explaining why there have been no other records in the VC

Location	GR	Date	Recorder
Pusto Hill	SK6960	1972	RCLH

Polypogon monspeliensis (L.) Desf. Annual Beard-grass

National Status: Nationally Scarce
Nottinghamshire Status: Scarce
Monads: 8

In the VC, there are no historical records for this species and all inland records are considered by Preston *et al.* (2002) to be casual. In the VC, however, the species has persisted on colliery sites for several years and does not appear to be casual. The species is presumably persisting because of the salinity of the substrates and the standing water in ditches and pools. Elsewhere the species is still present at Fiskerton on the edge of the lagoon, but the Bunny Landfill site (SK578287 and SK577284) has been destroyed and the populations are no longer extant.

Location	GR	Date	Recorder
Bilthorpe Colliery Yards	SK653613	2008	DCW, RAJ
Bilthorpe Colliery Yards	SK651616	2008	DCW, RAJ
Cotgrave Colliery Yards	SK641370	2009	DCW
Cotgrave Colliery Yards	SK651363	2009	DCW
Cotgrave Colliery Yards	SK649366	2009	DCW
Cotgrave Colliery Yards	SK653364	2009	DCW
Cotgrave Colliery Yards	SK641372	2009	DCW
Cotgrave Colliery Yards	SK654361	2009	DCW
Cotgrave Colliery Yards	SK653359	2009	DCW
Cotgrave Colliery Yards	SK648361	2009	DCW
Gotham	SK534294	2007	DCW
Fiskerton Landfill	SK727524	2012	DCW, MW
Calverton Colliery Tip	SK609516	2012	DCW, SH, MW
Calverton Colliery Tip	SK607516	2012	DCW, SH, MW
Calverton Colliery Tip	SK606508	2012	MW
Calverton Colliery Tip	SK605509	2012	MW

Polystichum x bicknellii (H. Christ) *P. setiferum* x *aculeatum* Hahne

National Status: Data Deficient
Nottinghamshire Status: Rare
Monads: 2

In the British Isles, this hybrid is scattered throughout the range of soft shield-fern *Polystichum setiferum*. It shows intermediate characters and is probably overlooked, Stace (2010). There are no historical records in the VC and single plants have been recorded at only two locations since 1970. At both sites the hybrid is present where both parents are found in close proximity to each other.

Location	GR	Date	Recorder
Kelham Hills Wood	SK757561	2005	DCW
Crock Dumble	SK631443	2005	DCW

Populus nigra subsp. *betulifolia* (Pursh) Dippel Black Poplar

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 10

Black poplar *Populus nigra* subsp. *betulifolia* at Holme Pierrepont Gravel Pits



Source S. Hammonds

Before 1963, Howitt & Howitt (1963) considered the distribution of native black poplar *Populus nigra* subsp. *betulifolia* to be uncertain, presumably because of confusion with black poplar clones such as the Manchester poplar, which was widely planted in parks and gardens. As a native species, most of the remaining trees are males and five of the populations are single trees. There have been recent efforts by the Forestry Commission and conservation organisations to plant young trees of both sexes in various locations within the VC.

Populus nigra subsp. *betulifolia* (Continued)

The young trees being propagated from mature trees found elsewhere within the VC. The records below are those populations, which are confirmed as being native. A further 22 records are not included here because they are considered to be unconfirmed, or are recognised as man-made clones such as the Manchester poplar.

Location	GR	Date	Recorder
Brinsley Grassland	SK459492	2003	DCW
Fairham Brook, Widmerpool	SK627278	2010	DCW, MW
Fairham Brook, Widmerpool	SK623278	2010	DCW, MW
Fairham Brook, Widmerpool	SK624277	2010	DCW, MW
Fairham Brook, Widmerpool	SK627277	2010	DCW, MW
Fairham Brook, Widmerpool	SK625278	2010	DCW, MW
Holme Hedgerow	SK809591	2003	DCW
Nettleworth Pasture	SK552658	2001	DCW
Warsop	SK547660	2001	MW
Road Wood	SK849732	1996	DCW
County Boundary Hedgerow Sookholme	SK538657	2008	DCW
Stanton-on-the-Wolds Hedgerow	SK633299	2010	DCW
Lamb Close	SK477482	2010	DCW, PO

Potamogeton coloratus Hornem.

Fen Pondweed

National Status: Nationally Scarce

Nottinghamshire Status: Scarce

Monads: 5

Howitt & Howitt (1963) described fen pondweed *Potamogeton coloratus* as being uncommon in the VC. Historically the species was recorded on the Magnesian Limestone at Shireoaks, Worksop and Styrrup; on fen peat at Misson and Gringley Carr, and in ballast pits at Misterton. Since 1970 the species has been recorded at five sites including the Shireoaks site where the species was recorded before 1963. The other sites include a flooded clay pit at Staunton and shallow drains elsewhere.

Location	GR	Date	Recorder
Shireoaks Park	SK544803	1972	JH
Darnsye, Thorney	SK8573	1975	RCLH
Shire Dyke, Cotham	SK810470	1988	DCW
Staunton Quarry	SK804457	2012	DCW, MW, WM, AB
Ruddington Moor	SK561315	2007	DCW

Potamogeton compressus L.*

Grass-wrack Pondweed

National Status: Endangered, Nationally Scarce

Nottinghamshire Status: Rare

Monads: 2

Howitt & Howitt (1963) listed many records for grass-wrack pondweed *Potamogeton compressus* before 1963. Sites included Nottingham Canal, Erewash Canal, Beeston Canal and Grantham Canal and the Rivers Trent and Soar. In modern times the species has been recorded three times in the VC, including an unconfirmed 1990 record from the Erewash Canal near Eastwood. It still exists abundantly in the Erewash Canal at Eastwood, this stretch now forming the county boundary between VC's 56/57 (Derbyshire).

Location	GR	Date	Recorder
Many Records	Many Records	<1963	RCLH
Erewash Canal, Eastwood	SK4546-SK4645	2012	NL, DCW, MW

Potamogeton friesii Rupr.

Flat-stalked Pondweed

National Status: Near Threatened, Nationally Scarce

Nottinghamshire Status: Rare

Monads: 1

Flat-stalked pondweed *Potamogeton friesii* was rather frequent and widespread in canals and ponds before the 1960s. Since 1960s the eutrophication and demise of the canals has resulted in dramatic losses in the VC and the species has not been found during recent searches of the Chesterfield and Grantham Canals. As a consequence, it is likely that the only extant location is the Ox Pasture Drain at Thorney.

Location	GR	Date	Recorder
Grantham Canal, Kinoulton	SK63	1978	RCLH
Grantham Canal, Cotgrave	SK6336	1975	PAC
Grantham Canal, Cotgrave - Bassingfield	SK63I	1975	PAC
Ox-pasture Drain, Thorney	SK881733	2004	DK
Chesterfield Canal, Misterton	SK7794	1978	RCLH

Potamogeton gramineus L.

Various-leaved Pondweed

National Status: Least Concern

Nottinghamshire Status: Scarce

Monads: 4

Various-leaved pondweed *Potamogeton gramineus* has always been rare and by the 1960s was confined to peatland drains in the north of the VC. The species was frequent in the Sherwood Forest area, but was lost from the area during the late 19th and early 20th Centuries when many of the peat bogs were drained or destroyed. All of the thirteen records below need to be checked, because they are all more than ten years old. Eutrophication and the long-term impact of drainage schemes in the River Idle floodplain are likely to have caused further declines. Indeed, most of the cited records are unlikely to be extant.

Location	GR	Date	Recorder
Hundreds Lane Drain, Gringley Carr	SK7294	1973	RCLH
Hundreds Lane Drain, Gringley Carr	SK714948	1973	RCLH
Carr Road East Drain, Gringley Carr	SK7194	1973	RCLH
Misson Line Bank	SK79	1973	RCLH
Delve Drain, Everton Carr	SK699945	1980	NCC
Misson Line Bank	SK7196	1982	JNCC, EC
Misson Line Bank	SK712959	1983	JOM
Gringley Carr	SK79	1984	EC
Gringley Carr	SK728930	1984	JNCC, EC
Magnus Drain	SK702941	1994	RCLH
Gringley Carr	SK712941	1994	RCLH
River Idle (near)	SK714960	1996	RVL
Misson Ballast Pits	SK712959	1997	DCW, Woll.

Potamogeton lucens L.

Shining Pondweed

National Status: Least Concern

Nottinghamshire Status: Rare

Monads: 2

Howitt & Howitt (1963) stated that by the 1960s shining pondweed *Potamogeton lucens* was rare and decreasing, because of increasing pollution in the ponds, canals and rivers, where it occurred. In the Nottingham Canal it was out-competed by the more vigorous hybrid willow-leaved pondweed *Potamogeton x salicifolius*. In modern times, the species has been recorded three times in the VC, but is no longer extant in ponds next to the River Trent at Radcliffe-on-Trent (SK650405). The two remaining populations are located in deep pools in rivers with relatively good water quality.

Potamogeton lucens (Continued)

Location	GR	Date	Recorder
River Smite, Colston Bassett	SK702341	1999	DCW
River Soar, Ratcliffe-on-Soar	SK492285	2010	DCW

Potamogeton obtusifolius Mert & W.D.J. Koch Blunt-leaved Pondweed

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 3

There are no historical records for blunt-leaved pondweed *Potamogeton obtusifolius* and rather than being a recent colonist of the county, it may have been overlooked. Preston *et al.* (2002) suggest that the species has been much better recorded since the publication of the 1962 Atlas. Since the publication of the Atlas, the species has been recorded at seven sites, but it is possibly no longer at extant at Hockerton Pond (SK688589), Besthorpe Borrow Pit (SK818645), Oxtan Lake (SK6351) and Oxtan Bogs (SK6151) having not been seen in recent years.

Location	GR	Date	Recorder
Rainworth Lake	SK586582	1984	MAP, KLJ
Foulevil Brook	SK578583	1978	CGC
Foulevil Brook	SK582584	1991	DCW

Potamogeton polygonifolius Pourr. Bog Pondweed

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 6

Bog pondweed *Potamogeton polygonifolius* has always been rare in the VC and is a characteristic species of drains and bogs on acid soils. Since 1970 the species has been recorded in the north of the VC in peaty drains and on the sandy soils of the Sherwood area. It has also been recorded on sandy acid soils in the east of the VC at Newark, Stapleford and Wigsley. A population at Vicar Water (SK592628), recorded by R.C.L. Howitt in the 1970s, has not been seen in recent years and is probably no longer extant, because of disturbance and eutrophication.

Location	GR	Date	Recorder
Fiftyrights Road Drain, Misson	SK687986	1972	JH
Newark Golf Course	SK8553 / SK8554	1975	RCLH
Carr Road East Drain, Gringley Carr	SK7193 / SK7194	1978	Woll.
Great Whin Covert Pond	SK645784	2012	DCW
Stapleford Wood	SK852554	2008	DCW
Stapleford Wood	SK849559	2012	RAJ
Stapleford Wood	SK852553	2012	RAJ
Wigsley Wood	SK852706	2011	DCW

Potamogeton praelongus Wulfen Long-stalked Pondweed

National Status: Near Threatened, Nationally Scarce
Nottinghamshire Status: Extinct

Long-stalked pondweed *Potamogeton praelongus* was last seen in 1965 in the VC and before that time it was always rare, but widespread. There are historic records from canals and rivers throughout the VC and between 1959 and 1965, eight records from drains in the north of the VC, mostly in the Gringley area. The most recent of those records are provided below. The losses from rivers and canals are probably linked with habitat degradation and pollution, and losses from the north of the VC are likely to be linked with drainage and eutrophication.

Potamogeton praelongus (Continued)

Location	GR	Date	Recorder
Gringley Carr	SK79	1965	NDS
Gringley Carr Pumping Station	SK7194	1964	RCLH

Potamogeton trichoides Cham & Schltdl. Hairlike Pondweed

National Status: Nationally Scarce
Nottinghamshire Status: Extinct

Howitt & Howitt (1963) described the species as rare or overlooked with the only confirmed record being found in the Trent valley at Colwick Gravel Pit some time before 1963. A further unconfirmed record was also located in a gravel pit at North Muskham, approximately 20 miles downstream of the Colwick record. Research has located two other records; a pre-1970 record originating from Nottingham Canal, was obviously not known to the Howitts. A further record, the last confirmed for the VC originates from the Mother Drain, but the exact location is not known. A specimen from the Mother Drain was confirmed by C.D. Preston and is held in the University of Technology Herbarium (UTLH). The Mother Drain has been extensively surveyed in modern times and the species has not been refound there, but it is still likely to be overlooked.

Location	GR	Date	Recorder
Colwick Gravel Pit	SK63	1954	RCLH, det.GT
North Muskham Pond	SK793594	1977	Woll.
Nottingham Canal	SK53	1947	GT
Mother Drain	SK79	1982	PMW, RDB, det.CDP

Potamogeton x cooperi (Fryer) Fryer *P. perfoliatus x crispus*

National Status: Data Deficient
Nottinghamshire Status: Extinct

Howitt & Howitt (1963) described this hybrid as being locally frequent wherever the parents occurred together and was located near Nottingham, West Bridgford, Retford and in the far north of the VC at West Stockwith. Since 1959, the hybrid has been recorded three times, but searches in recent years have failed to re-locate the hybrid at any of its former stations. The hybrid was presumably lost from its former stations because of habitat destruction and deteriorating water quality.

Location	GR	Date	Recorder
Gringley Carr	SK79	1959	RCLH
Mother Drain, Misterton	SK79	1965	NDS
Mother Drain, Gringley	SK713950	1983	JOM

Potamogeton x sparganifolius Laest. ex Fr. *P. natans x gramineus*

National Status: Data Deficient
Nottinghamshire Status: Extinct

This hybrid has only been recorded once in the VC, in a drain by Cross Lane at Gringley Carr. An unknown recorder collected the hybrid and G. Taylor and J.E. Dandy determined its identity.

Location	GR	Date	Recorder
Cross Lane Drain, Gringley Carr	SK79	1955	RCLH, det. GT and JED

Potamogeton x nitens Weber*P. gramineus x perfoliatus***National Status:** Data Deficient**Nottinghamshire** Rare, probably extinct**Monads:** 2

Howitt & Howitt (1963) lists historical records of this hybrid from peatland drains at Gringley, Misterton, Misson and Finningley. After 1970 R.C.L. Howitt recorded the hybrid at a single drain at Gringley and at an unspecified location on the Misson Line Bank site. The reasons for the loss of populations are not known, but eutrophication of the peatland drains and drainage schemes may have been contributory factors. Targeted surveys are required to confirm the status of the species, but it is likely to be extinct.

Location	GR	Date	Recorder
Hundreds Lane Drain, Gringley Carr	SK716949	1973	RCLH
Hundreds Lane Drain, Gringley Carr	SK719950	1983	JOM
Misson Bank	SK79	1978	RCLH

Potamogeton x salicifolius Wulf.*P. lucens x perfoliatus***National Status:** Data Deficient**Nottinghamshire** Rare**Monads:** 1

The hybrid was formerly abundant in the Nottingham Canal and because of hybrid vigour was probably responsible for the demise of a population of shining pondweed *Potamogeton lucens*. Since the 1960s, the destruction of parts of the Nottingham Canal and eutrophication of the remaining sections are probable reasons for the disappearance of the hybrid. Since 1970 a drain the north of the VC is the only place where the hybrid has been recorded. The current status of the hybrid needs to be confirmed as it may be extinct in the VC.

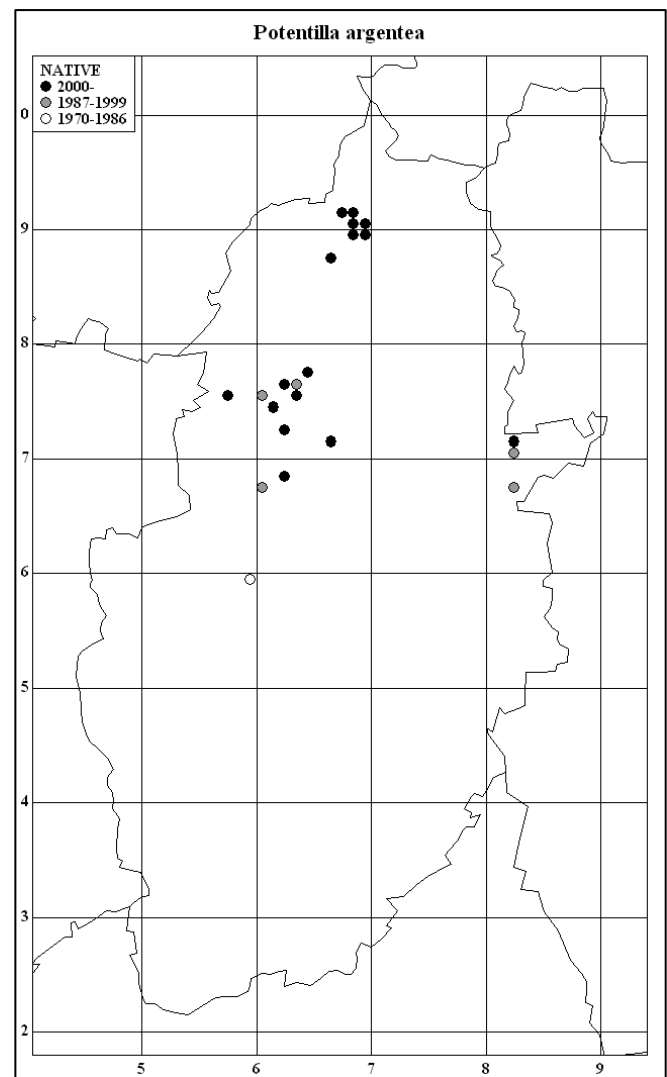
Location	GR	Date	Recorder
Fox Covert Drain, Gringley Carr	SK723953	1978	Woll.

Potentilla argentea L.

Hoary Cinquefoil

National Status: Near Threatened, Nationally Scarce**Nottinghamshire** Uncommon**Monads:** 20

The decline of hoary cinquefoil *Potentilla argentea* in the VC appears to follow the national trend. Howitt & Howitt (1963) described the species as being local in the VC, but also fairly frequent on the heaths and tracks of the Bunter Sandstone. Elsewhere the species was found on river gravels at Newark, Gorton, North Clifton and Gringley. The post 1970 records follow a similar distribution to those before 1970; mostly on the Bunter Sandstone, but the populations are smaller and more scattered.

*Pyrola minor* L.

Common Wintergreen

National Status: Least Concern**Nottinghamshire Status:** Extinct

Common wintergreen *Pyrola minor* has only been recorded once in the VC. J. Thompson found the species in a wood near the Welbeck Toll Bar sometime before 1839.

Location	GR	Date	Recorder
Welbeck	SK57	1839	GH

Pyrola rotundifolia L. subsp. *rotundifolia*

Round-leaved Wintergreen

National Status: Near Threatened, Nationally Scarce**Nottinghamshire** Rare**Monads:** 1

During 2011, John Szczur notified the Reserve Manager of the Nottinghamshire Wildlife Trust's Idle Valley Nature Reserve that he had found a population of round-leaved wintergreen *Pyrola rotundifolia* subsp. *rotundifolia*, outside of the nature reserve in exhausted gravel works. The population consisted of 21 rosettes growing in sparse field layer vegetation below a canopy of willow. This was the first record for the VC and it is somewhat isolated from populations in neighbouring counties such as Derbyshire (SK 38 and SK27) and South Yorkshire (SK38). Searches during 2012 by D.C. Wood and M. Woods confirmed the identity and presence of the population and a further population of similar size was located within 50m.

Pyrola rotundifolia subsp. *rotundifolia* (Continued)

The second population was found in damp soils below a dense canopy of immature birch – willow woodland within a species-rich field layer. Both populations are located in immature carr woodland that has developed following the cessation of gravel extraction, so it is likely that the species is a recent colonist, rather than being overlooked. The vegetation in which the populations are located is difficult to search, so it is possible that further populations are present awaiting discovery.

Location	GR	Date	Recorder
Lound Gravel Pits	SK7009586209	2011	JSz
Lound Gravel Pits	SK7008786241	2012	DCW, MW

Radiola liniodes L.

All-seed

National Status: Near Threatened
Nottinghamshire Status: Extinct

All-seed *Radiola liniodes* has not been seen since 1839, but in the early part of the 19th Century it was recorded on the Bunter Sandstone about Farnsfield and Ollerton, and somewhere between Stapleford Moors and Sleaford Turnpike in the east of the VC.

Location	GR	Date	Recorder
About Farnsfield and Ollerton	SK65/66	1839	GH

Ranunculus arvensis L.

Corn Buttercup

National Status: Critically Endangered, Nationally Scarce
Nottinghamshire Status: Rare
Monads: 1

Corn buttercup *Ranunculus arvensis* was formerly locally frequent in the VC and fairly common on clay soils. It has declined rapidly since the early 1960s, because of agricultural intensification, which has included improved seed screening and herbicide treatments. Since 1970, the species has only been recorded three times and populations recorded at Holme Pierrepont (SK619384) in 1989 and in a Collingham garden (SK8261) in 1987 are no longer extant. The population at Thorpe-in-the-Glebe needs checking, but it is unlikely to be extant. At Headon in 2010 approximately 15 plants were found in the corner of an arable field (rape crop). Flowers and ripe fruits were present so it is anticipated that regeneration will occur and the population will persist.

Location	GR	Date	Recorder
Headon Field	SK759770	2010	DCW
Thorpe-in-the-Glebe	SK612257	1987	Woll.

Ranunculus baudotii L.

Brackish Crowfoot

National Status: Nationally Scarce
Nottinghamshire Status: Scarce
Monads: 5

Brackish crowfoot *Ranunculus baudotii* was not recorded in the VC until 1951. Before 1963 it was recorded at Welbeck, Colwick Gravel Pits and in the Chesterfield Canal. Since 1978 the species has been confined to the Chesterfield Canal, being recorded at Babworth (SK68), Misterton (SK775946), Retford to Lady Bridge (SK68), Gringley-on-the-Hill (SK729916, SK724915, SK729917 and SK725915), Hayton (SK728853), and Wiseton to Drakeholes (SK709904, SK719897 and SK7190). However, since the start of the 21st Century the species had not been seen at any of the above locations, possibly because of turbidity caused by boat traffic, until R. A. Johnson found populations at Scofton, Babworth, Wiseton and Clayworth during 2011. Further survey work may re-locate the species at other sites on the canal.

Ranunculus baudotii (Continued)

Location	GR	Date	Recorder
Chesterfield Canal, Scofton	SK623791	2011	RAJ
Chesterfield Canal, Babworth	SK665829	2011	RAJ
Chesterfield Canal, Babworth	SK674827	2011	RAJ
Chesterfield Canal, Babworth	SK678824	2011	RAJ
Chesterfield Canal, Babworth	SK679824	2011	RAJ
Chesterfield Canal, Babworth	SK686819	2011	RAJ
Chesterfield Canal, Babworth	SK685821	2011	RAJ
Chesterfield Canal, Wiseton	SK719897	2011	RAJ
Chesterfield Canal, Clayworth	SK726880	2011	RAJ

Ranunculus hederaceus L.

Ivy-leaved Crowfoot

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 7

Historically ivy-leaved crowfoot *Ranunculus hederaceus* was formerly rare outside of the Sherwood area, where it was frequent. Elsewhere it was confined to damp sandy places and was recorded at Hucknall, Edingley Moor, Houghton, Besthorpe Fleet and Langford Fleet. Since 1970, the species has been recorded in the north of the VC in drains and the margins of a stream and has also been recorded on a drain margin at Wollaton, Nottingham. In the Sherwood area, the declines have been dramatic and recently the species has only been recorded in the Rainworth area.

Location	GR	Date	Recorder
Everton Carr Drain	SK693923	1972	JH
Everton Carr Drain	SK696925	1972	JH
Watnall Grassland	SK5147	1973	RCLH
Everton Carr Drains	SK6992	1977	DC, MB
Mattersey Main Drain	SK669892	1983	JOM
Foulevil Brook	SK581583	2000	DCW
Foulevil Brook	SK579583	2000	DCW
Torworth	SK667866	2000	DCW
Torworth	SK667869	2001	DCW
Wollaton Park	SK531386	2001	DCW
Rainworth Water	SK593588	2002	DCW

Ranunculus lingua L.

Greater Spearwort

National Status: Least Concern
Nottinghamshire Status: Extinct (as a native)
Monads: 32 (as a neophyte)

Mrs Sandwith last recorded good quantities of greater spearwort *Ranunculus lingua* as a native in 1918, somewhere in marshlands between Bawtry and Misson. J.W. Carr deposited a herbarium specimen from the above population in the Nottinghamshire Natural History Museum. The species is an attractive plant that is often used for landscaping schemes on the margins of new ponds and since 1970 the species has been recorded in 32 rolling monads as an introduction or garden escape. The possibility of some of the populations being relicts of a native population cannot be ruled out.

Location	GR	Date	Recorder
Between Misson and Bawtry	SK69	1918	Mrs Sandwith

Ranunculus omiophyllus Ten.

Round-leaved Crowfoot

National Status: Least Concern
Nottinghamshire Status: Rare
Monads: 2

This species has always been very rare and scattered in the VC. Before 1960 it was recorded at Warsop Hills and Holes, Rufford Abbey, Beeston and Eaton, but has not persisted at any of these sites beyond 1970. Since 1970 the species has been recorded at two sites in the Rainworth area and at two sites in Clumber Park.

Ranunculus omiophyllus (Continued)

The populations at Clumber Park (SK644738 and SK633732) have been lost because of improvements to footpaths. At the Foulevil Brook site, a few plants were recorded in wet mud and at Harlow Wood the population consists of two large adjacent patches in pools formed by tyre ruts.

Location	GR	Date	Recorder
Foulevil Brook	SK579583	1991	DCW
Harlow Wood	SK559565	2010	DCW

Ranunculus parviflorus L.

Small-flowered Buttercup

National Status: Nationally Scarce**Nottinghamshire Status:** Scarce**Monads:** 10

Small-flowered buttercup *Ranunculus parviflorus* has always been very rare in the VC. There were only five pre-1970 records, which were located in dry meadows at Clifton Lane, Colwick Lodge, Clifton Wood, near Lea Pool, and at Gotham Hills. Only the Gotham Hills population has persisted into modern times with all other post 1970 records being new locations in close proximity to the River Trent or River Soar. The species is now found in eight rolling monads. Recently, it has been lost from Lound Gravel Pits (SK711873), because of habitat destruction and the single plant at Holme Pierrepont (SK629396) was casual.

Location	GR	Date	Recorder
Holme Pierrepont	SK629396	1990	DCW
Fiskerton	SK733495	1997	DCW
Kneeton	SK708459	1998	DCW
Toot Hill	SK701455	2000	DCW
Ratcliffe-on-Soar	SK509299	2000	DCW
Ratcliffe-on-Soar	SK509301	2000	DCW
Red Hill and Wood Hill	SK493305	2003	DCW
Red Hill and Wood Hill	SK496307	2003	DCW
Red Hill and Wood Hill	SK500307	2003	DCW
Wright's Hill	SK502307	2003	DCW
Wright's Hill	SK506307	2003	DCW
Wright's Hill	SK509304	2003	DCW
Lound Gravel Pits	SK711873	2005	DCW
Gotham Hills	SK533311	2009	DCW
Gotham Hills	SK529309	2009	DCW
Gotham Hills	SK531308	2009	DCW
Gotham Hills	SK539313	2009	DCW
Old Hill	SK696448	2010	DCW
Old Hill	SK697452	2010	DCW
Old Hill	SK698453	2010	DCW
Old Hill	SK695448	2010	DCW
Ratcliffe-on-Soar	SK509300	2010	DCW

Ranunculus sardous CR.

Hairy Buttercup

National Status: Least Concern**Nottinghamshire:** Scarce**Monads:** 10

In the 19th Century, G. Howitt stated that hairy buttercup *Ranunculus sardous* flowered everywhere in meadows and pastures, but Howitt & Howitt (1963) stated that there was no modern records. The decline of the species in the middle of the 20th Century reflects the national losses of inland populations that largely occurred before 1930, probably because many were casual, Preston *et al.* (2002). However, many of the populations recorded in the VC after 1970 are persistent and those populations occurring in arable land could be native. In addition to the established populations, the species has also been recorded as a casual at seven other sites in the VC.

Ranunculus sardous (Continued)

Location	GR	Date	Recorder
East Drayton Field	SK789749	1987	Woll.
Wallingwells Track	SK571843	1998	DCW
Epperstone Field	SK653507	2001	DCW
Out Ings Grassland	SK824846	2002	DCW, RAJ
Ompton Grassland	SK693661	2003	DCW
Cauntton Field	SK756586	2004	DCW
Bingham Linear Park*	SK710388	2004	PA
Thurgarton Field	SK678507	2007	DCW
Thurgarton Field	SK672509	2007	DCW
Thurgarton Field	SK668507	2007	DCW
Thurgarton Field	SK655513	2007	DCW
Thurgarton Field	SK655514	2007	DCW
Darlton Field	SK773719	2010	DCW, Woll.
Headon Field	SK758768	2010	DCW
Oxton Field	SK633545	2003	DCW
Colston Bassett Field	SK710317	2005	DCW

*Casual, probably no longer extant

Rhinanthus angustifolius C.C. Gmel.

Greater Yellow-rattle

National Status: Nationally Rare, Schedule 8: Wildlife & Countryside Act 1981**Nottinghamshire Status:** Extinct

Greater yellow-rattle *Rhinanthus angustifolius* has been recorded only once in the VC (as *R. major*) somewhere on a lane leading to Stapleford Moor. G Howitt recorded the species some time before 1839.

Location	GR	Date	Recorder
Lane leading to Stapleford Moor	SK85	1839	GH

Rhinanthus minor subsp. *stenophyllus* O. Scharwz

Yellow-rattle

National Status: Data Deficient**Nottinghamshire:** Rare**Monads:** 2

This subspecies is more common in the north of Britain and is associated with damp grassland and fens. The subspecies may have always been present in the VC wherever suitable habitats occur, but there are no historical records. Since 1970 it has been recorded at two localities including a wet, peaty grassland field near the middle of the VC at Southwell and the rides of wet woodland on fen peat in the north of the VC at Misson, where it is abundant.

Location	GR	Date	Recorder
Southwell Grassland	SK704534	2004	RAJ
Misson Carr	SK710976	2007	DCW
Misson Carr	SK710977	2012	DCW
Misson Carr	SK709977	2012	DCW

Ribes alpinum L.

Mountain Currant

National Status: Nationally Scarce**Nottinghamshire:** Scarce**Monads:** 8

Howitt & Howitt (1963) described mountain currant *Ribes alpinum* as being very rare in the VC. Historically it was recorded at Felley Mill, Shireoaks, Pleasley Vale, Skegby, Dovedale Wood, and Wallingwells Wood. The species has persisted into modern times at Pleasley Vale, Skegby, Dovedale Wood and Wallingwells. It has also been recorded on the Magnesian Limestone at Carlton Wood (near Wallingwells Wood) and in a gorge of the River Maun at Mansfield. Away from the Magnesian Limestone, the species has also been recorded on Keuper Marl in Eakring Braille Wood. In addition to the presumed native populations, there are six other VC records, which are not listed below, where the species is considered to be an introduction.

Ribes alpinum (Continued)

Location	GR	Date	Recorder
Pleasley Vale	SK520649	2012	RAJ
Hollins Mill	SK521649	1972	RCLH
Dovedale Wood	SK465632	2012	DCW
Dovedale Wood	SK465630	2012	DCW
Dovedale Wood	SK466633	2010	DCW
Eakring Brail Wood	SK663609	2009	DCW
Eakring Brail Wood	SK662610	2009	DCW
Eakring Brail Wood	SK663606	2011	MW
Pleasley Vale	SK515648	2009	DCW
Pleasley Vale	SK518649	2009	DCW
Skegby Mill (Stream-bank)	SK494607	2007	DCW
River Maun, Sutton-in-Ashfield	SK508590	2010	DCW
Wallingwells Wood	SK573843	2011	DCW, MW
Carlton Wood	SK583844	2011	DCW, MW
West Bridgford Dismantled Railway*	SK589359	2012	DCW
Rufford Park*	SK646651	1997	DCW
Rufford Park*	SK649646	1976	JH
Gringley-on-the-Hill Village*	SK736909	2001	DCW
Bestwood Country Park*	SK570464	2004	DCW
Warsop Vale Former Allotments*	SK545679	2004	DCW
Bob's Rock, Stapleford*	SK494374	2007	DCW

*Introductions

Rosa micrantha Borrer ex Sm. Small-flowered Sweet-briar

National Status: Least Concern
Nottinghamshire Status: Extinct

This species was always very rare in the VC and was only recorded in a quarry at Bulwell in the 19th Century and in a meadow at Osberton in the 20th Century. It has not been seen in the VC since 1961 and is considered to be no longer extant.

Location	GR	Date	Recorder
Between Chequer Bridge and Bilby, Osberton	SK68	1961	RCLH, det.RM

Rosa mollis Sm. Soft Downy-rose

National Status: Least Concern
Nottinghamshire Status: Extinct

Nottinghamshire is located some way to the south of the current distribution of soft downy-rose *Rosa mollis*. It has only been recorded three times in the VC in hedgerows at Bramcote Moor, Aspley and Wollaton. It has not been seen in the 20th and 21st Centuries.

Location	GR	Date	Recorder
Near Wollaton	SK53 or 54	1839	GH

Rosa stylosa L. Short-styled Field Rose

National Status: Least Concern
Nottinghamshire Status: Scarce
Monads: 6

There is no historical data for the species and since 1970 it has only been recorded at six sites. In the VC, there is no detectable pattern to the distribution or ecological preferences of the species, because it occurs in a range of habitat types. At West Bridgford the species occurs on the edge of the dismantled railway trackbed; at Cossall it occurs in rough grassland on a former colliery tip, At Wilford it has been recorded in scrub in an ex-clay quarry; and on clay soils elsewhere, it is in woodland at Redgate Wood and hedgerows at Kneeton and Epperstone.

Rosa stylosa (Continued)

Location	GR	Date	Recorder
West Bridgford Dismantled Railway Line	SK585368	1994	DCW
Cossall Colliery Tip	SK476425	2009	DCW
Kneeton Hedgerow	SK712457	2010	DCW
Wilford Claypit	SK571355	2012	DCW
Epperstone Hedgerow	SK649506	2012	MW, DCW
Redgate Wood	SK678598	1999	DCW, MW

Short-styled field rose *Rosa stylosa* at Wilford Claypit

Source: S. Hammonds

Rosa x irregularis Déségl. & Guillon *R. arvensis x canina*

National Status: Data Deficient
Nottinghamshire Rare
Monads: 2

Although this hybrid has been recorded throughout the British Isles, there are no historical records for this hybrid in the VC and since 1970 it has been recorded only twice. It is however, probably overlooked. At both sites the populations consist of a single bush, so it is particularly vulnerable to extinction.

Location	GR	Date	Recorder
Upper Broughton Scrub	SK678253	1999	DCW
Broxtowe Hedgerow	SK513431	2005	DCW

Rubus x pseudoidaeus (Weihe.) Lej. *R. idaeus x caesius*

National Status: Data Deficient
Nottinghamshire Rare
Monads: 2

This sterile hybrid is scattered throughout Britain, Sell & Murrell (2009), but there are no historical records for the VC. In recent times the hybrid has been recorded twice in scrubby habitats in close proximity to the parents. At Toton the hybrid is located in scrub on a riverbank and at Netherfield it is located in 'scrubby' tall-herb habitat.

Location	GR	Date	Recorder
River Erewash, Toton	SK489345	2010	DCW
Netherfield	SK629403	2010	DCW

Rumex pulcher L. Fiddle Dock

National Status: Least Concern
Nottinghamshire Extinct

In the VC fiddle dock *Rumex pulcher* was last recorded in the early part of the 19th Century at two locations near to the City of Nottingham.

Rumex pulcher (Continued)

Location	GR	Date	Recorder
Near Radford Church	SK54	1839	GH

Rumex x knafii Čelak.*R. conglomeratus x maritimus*

National Status: Data Deficient
Nottinghamshire Rare
Monads: 1

The hybrid is scattered throughout Britain and it is usually found with both parents, Stace (2010). In the VC there are no historical records for this hybrid and there are only two recent records, one of which is an undated and unconfirmed record from Holme Pierrepont (SK623392). A single plant in marshy grassland is the only confirmed record.

Location	GR	Date	Recorder
West Bridgford	SK574374	2001	DCW

Rumex x schulzei Hausskn.*R. conglomeratus x crispus*

National Status: Data Deficient
Nottinghamshire Rare
Monads: 1

In central and south Britain this hybrid is fairly common whenever the parents occur together, Stace (2010). In Nottinghamshire, this hybrid has been recorded only once in a disused gravel pit at Holme Pierrepont. Targeted searches in the VC may be worthwhile because the hybrid could be under-recorded.

Location	GR	Date	Recorder
Holme Pierrepont Gravel Pits	SK6138	1990	DCW

Rumex x steinii Becker*R. obtusifolius x palustris*

National Status: Data Deficient
Nottinghamshire Rare
Monads: 1

This hybrid has been recorded with one of its parents (marsh dock *Rumex palustris*) in southeast England and North Somerset, Stace (2010). In the VC, two plants have been recorded in former sewage tanks in association with abundant populations of both parents.

Location	GR	Date	Recorder
Bulcote Gravel Pits	SK673443	1999	DCW

Rumex x wirtgenii Beck.*R. conglomeratus x palustris*

National Status: Data Deficient
Nottinghamshire Rare
Monads: 1

This hybrid occurs with both parents in southeast and central England, Stace (2010). The species has been recorded only once in the VC at Girton Gravel Pits next to the River Trent, where both parents have been recorded. Both parents commonly occur together along this stretch of the River Trent and targeted searches may reveal further populations of the hybrid.

Location	GR	Date	Recorder
Girton Gravel Pits	SK816671	2003	RAJ

Sagina maritima Don

Sea Pearlwort

National Status: Least Concern
Nottinghamshire Rare
Monads: 1

The single record for this species originates from a roadside verge at Apleyhead near to the entrance to Clumber Park, presumably on the verge of the A614 Trunk Road. Inland, sea pearlwort *Sagina maritima* is less common than other halophytes that are commonly associated with salt-treated roads. There have been no recent searches for the species, so the current status is unknown.

Location	GR	Date	Recorder
Apleyhead Verges, Clumber Park	SK646773	1972	JH

Sagina nodosa (L.) Fenzl.

Knotted Pearlwort

National Status: Least Concern
Nottinghamshire Scarce
Monads: 4

This species of drain-sides and damp places declined in the early part of the 20th Century and by 1963 was confined in the VC to the Magnesian Limestone in the west and the base-rich peatlands in the north, Howitt & Howitt (1963). Since 1963 the species has survived at Misson, Warsop and Sookholme. The species has also been recorded at Friezeland, Underwood, where it occurs in short fen vegetation and at Ranskill, which is located in a peatland area, but actually occurs in old gravel workings.

Location	GR	Date	Recorder
Snow Sewer, Misson	SK723982	1972	JH
Ranskill	SK667890	1977	Woll.
Sookholme Moor	SK554677	1989	DCW
Warsop Hills and Holes	SK556680	1991	CL
Friezeland	SK476506	2002	DCW
Warsop Hills and Holes	SK558681	2007	DCW

Salix aurita L.

Eared Willow

National Status: Least Concern
Nottinghamshire Scarce
Monads: 4

This species of damp acid soils had almost disappeared in the VC by the early 1960s because of the progressive drying out of the VC, Howitt & Howitt (1963). It is now reduced to a handful of scattered sites across the VC and populations are usually small being no more than a few bushes. It is possible that some populations that occurred with grey willow *Salix cinerea* have been lost, because of introgression to the hybrid *Salix x multinervis*, which has also become scarce in the VC. The species has been planted on two colliery tips.

Location	GR	Date	Recorder
Langford Moor Plantation	SK8555	1975	RCLH
Delve Drain, Everton Carr	SK699946	1980	NCC
Everton Carr Drain	SK703934	1980	NCC
Everton Carr Drain	SK705931	1980	NCC
Everton Carr Drain	SK706929	1980	NCC
Ash Holt Lane, Askham	SK744752	2010	DCW
Cinderhill Colliery Tip	SK536442	2010	DCW
Bevercotes Colliery Tip*	SK696734	2010	MW
Stapleford Wood	SK852554	2011	DCW, MW
Freckland Wood*	SK529523	2012	MW
Freckland Wood*	SK526524	2012	MW

*Planted

Salix myrsinifolia Salisb.

Dark-leaved Willow

National Status: Nationally Scarce
Nottinghamshire Extinct

R.C.L. Howitt found two bushes of dark-leaved willow *Salix myrsinifolia* in woodland by Ragged Rock, Newstead. A herbarium specimen was submitted to Nottinghamshire Natural History Museum. Despite searches the bushes have not been re-located and the species is likely to be extinct.

Location	GR	Date	Recorder
Newstead, by Lower Lake	SK544532	1974	RCLH

Salix pentandra L.

Bay Willow

National Status: Least Concern
Nottinghamshire Scarce (as a native)
Monads: 8 (as a native)

Bay willow *Salix pentandra* is a native in the west of the VC in alder-carr and next to streams, Howitt & Howitt (1963). Elsewhere it is planted for ornamental purposes and nine recent records are believed to be deliberate introductions. Trees recorded in the 1960s at Norwood, Warsop and Haughton have persisted and have also been recorded since 1970.

Bay willow *Salix pentandra* at

Source: S. Hammonds

Location	GR	Date	Recorder
Grassland near Hormans Holt	SK77	1972	RCLH
Spitfire Bottoms	SK665751	1977	Woll.
Norwood	SK4763 / SK4863	1978	RCLH
Everton Carr Drain	SK693936	1980	NCC, PA
Misson Drain	SK717980	1980	NCC
Holme Pierrepont Gravel Pits+	SK611382	1989	DCW
Holme Pierrepont Gravel Pits+	SK612380	1989	DCW
Budby Carr	SK618702	1996	DCW
Everton Carr Drain	SK6993	1998	PA
Everton Carr Drain	SK704935	1998	PA
Everton Carr Drain	SK705931	1998	PA
Warsop Hills and Holes	SK555676	2012	DCW, RAJ, JC
Norwood	SK477639	2008	DCW
Conjure Alders	SK662724	2011	DCW, MW
Attenborough Gravel Pits*	SK528356	2000	JBr, EP
Hockerton Housing Project*	SK717562	2004	MW
Sutton Gravel Pits*	SK687838	2003	MW, DCW
The Park, Nottingham*	SK5639	2011	WM

Salix pentandra (Continued)

Location	GR	Date	Recorder
Huthwaite Plantations*	SK467583	2012	DCW
Holme Pierrepont Gravel Pits*	SK619392	1989	DCW
Daneshill Gravel Pits, Torworth*	SK666864	2012	DCW

*Introductions / +Probably no longer extant

Salix repens L.

Creeping Willow

National Status: Least Concern
Nottinghamshire Rare
Monads: 1

Creeping willow *Salix repens* was once widespread in the VC on moist heaths, but has declined because of habitat destruction and drainage. By the 1960s the species was already rare, but according to Howitt & Howitt (1963) it still occurred in good quantity to the east of Newark. The species is now only confirmed at Stapleford Wood having been lost from its only other remaining location at Spalford Warren (SK8368), at some time before the 1990s. A further record from a clay pigeon shooting ground at Thoresby (SK6468) is unconfirmed, because of the poor condition of the specimens that were viewed.

Location	GR	Date	Recorder
Stapleford Wood	SK853553	2011	DCW
Stapleford Wood	SK852554	2008	DCW
Stapleford Wood	SK853552	2008	DCW
Stapleford Wood	SK849559	2011	DCW
Stapleford Wood	SK851561	2008	DCW
Stapleford Wood	SK852557	2008	DCW

Salix x calodendron Wimm.

Holme Willow

National Status: Data Deficient
Nottinghamshire Rare
Monads: 4

This triple hybrid (*Salix viminalis* x *cinerea* x *caprea*) is native, but its distribution within the VC and the British Isles is not clear because of planting (most recently for biomass). Howitt & Howitt (1963) doubted the native status of the hybrid and stated that a few plants were found in every willow holt and by many streams in the Trent valley. Outside of willow holts in the VC, the plant is rare. In modern times, the hybrid has been found as a definite introduction at two sites and was planted on the Brackenhurst Estate by M. Woods. Of the four remaining records, the identity of the specimens at Holme Pit and Fairham Brook are as yet, unconfirmed, but likely to be correct.

Location	GR	Date	Recorder
Farndon Willow Holt*	SK767521	2004	MW
Brackenhurst Estate*	SK704514	2003	MW
Holme Pit	SK536344	1997	PA
Fairham Brook, Clifton	SK563340	2001	PA
Misson Line Bank	SK709959	2010	DCW, MW
Wilwell Cutting	SK567352	2011	DCW, PS
Mill Lakes*	SK549477	2003	MW

*Planted

Salix x forbyana Sm.

Fine Osier

National Status: Data Deficient
Nottinghamshire Scarce
Monads: 8

The female of this triple hybrid (*Salix purpurea* x *viminalis* x *cinerea*) is frequent throughout the south of Britain, being a relict of cultivation in many counties. The male was not known until 1954 when it was discovered at Attenborough by R.C.L. Howitt and later determined by R.D. Meikle.

Salix x forbyana (Continued)

The male was planted by R.C.L. Howitt at Farndon Willow Holt and it subsequently, the male was also found in Holts at Lound and by Rufford Lake. Single female specimens are still present at Attenborough and several other scattered sites throughout the VC, but the male has not been seen in recent years. Male and female specimens are however, cultivated in collections at Farndon Willow Holt and Brackenhurst Estate.

Location	GR	Date	Recorder
Attenborough Gravel Pits	SK529349	2004	DCW
River Leen, Basford	SK544438	1995	DCW
Kinoulton Marsh	SK6730	1978	RCLH
River Trent, Nottingham	SK565373	2006	DCW
River Trent, Radcliffe-on-Trent	SK647401	2005	DCW
River Trent, Radcliffe-on-Trent	SK635396	2011	DCW, PS(B)
South Muskham Gravel Pits	SK797561	2005	DCW
Brackenhurst Estate*	SK704514	2004	MW
Farndon Willow Holt*	SK767521	2003	MW
River Trent, Stoke Bardolph	SK637398	2010	DCW
River Erewash, Toton	SK501344	2010	DCW

*Planted

Salix x fruticosa Döll.

Eared Osier

National Status: Data Deficient
Nottinghamshire Rare
Monads: 2

This hybrid between osier *Salix viminalis* and eared willow *Salix aurita* has always been rare in the VC and before 1970 was recorded only once in an old brickyard at Besthorpe, Howitt & Howitt (1963). In modern times, the species has been recorded at two locations as a native, both in hedgerows and some distance apart. In addition, R.C.L. Howitt planted eared osier *Salix x fruticosa* at Farndon Willow Holt. Cuttings from the sole surviving specimen were re-planted at the Holt and also at Brackenhurst Estate, where they have successfully established.

Location	GR	Date	Recorder
B6386 Roadside Verge	SK630507	2003	MW
Farndon Willow Holt*	SK767521	2004	MW
Sheepwalks Pond, Brackenhurst Estate*	SK705515	1999	MW
B600 Roadside Hedgerow	SK472494	2012	DCW

*Planted

Salix x leiophylla auct. non E.G. & A. *S. triandra x purpurea* Camus

National Status: Data Deficient
Nottinghamshire Extinct

Stace (2010) states that the hybrid was recorded from four sites in Britain, but all records are now considered erroneous. Howitt & Howitt (1963) attributes two of the records to willow holts at Lound and Beckingham in Nottinghamshire. Specimens from both sites were determined by R.D. Meikle and the Howitts cultivated the specimens along with a specimen from Long Ashton Research Centre, which they claimed was identical. The Long Ashton specimen was referred to as *S. purpurea x triandra* Kerkisii, Stott (1971), which was described by Stott as an ornamental willow. Searches of Farndon Willow Holt, which held the Howitts collection, have failed to detect any cuttings that fit the description provided by the Howitts. Even if the hybrid is *bona fide*, the Lound and Beckingham Willow Holts have long been derelict and basket willow varieties have disappeared from both sites, so any specimens are unlikely to have survived dereliction and it is considered that the hybrid is best considered to be extinct in the VC.

Salix x leiophylla (Continued)

Location	GR	Date	Recorder
Lound Willow Holt	SK7187	<1963	RCLH
Beckingham Willow Holt	SK7990	<1963	RCLH

Salix x meyeriana Döll.

Shiny-leaved Willow

National Status: Data Deficient
Nottinghamshire Scarce
Monads: 2

There are two historical records, originating before 1963; a male plant in old quarry next to the River maun at Mansfield and two male trees next to a railway bridge at North Muskham. Neither of these specimens has been found in recent times. In modern times the species has been found in two relic osier beds at Annesley and Bestwood and cuttings from Howitt's willow collection at Farndon Willow Holt have been re-planted at Farndon and also at the Brackenhurst Estate.

Location	GR	Date	Recorder
Kodak Willow Holt	SK501527	2011	MW
Farndon Willow Holt*	SK767521	1999	MW
Sheepwalks Pond, Brackenhurst Estate*	SK705515	1999	MW
Mill Lakes	SK549478	2003	MW

*Planted

Salix x multinervis Döll.

S. aurita x cinerea

National Status: Data Deficient
Nottinghamshire Scarce
Monads: 7

Howitt & Howitt (1963) described this hybrid as being common on moist heaths and hedgerows, gravel pits and woods throughout the VC. Presumably the modern declines are the consequence of drainage and habitat destruction, and in the VC the hybrid is now as scarce as one of its parents; the eared willow *Salix aurita*. Howitt & Howitt (1963) described the eared willow as being in decline (see above), partly because of introgression to *Salix x multinervis*, but in recent times the hybrid appears to have suffered the same fate as eared willow. Apart from the Brackenhurst Estate, there are three other sites where the species has obviously been planted species

Location	GR	Date	Recorder
Beauvale Woods	SK44	1973	RCLH
King's Mill Reservoir	SK513594	1998	DCW
Stapleford Wood	SK852554	1997	DCW
Rushcliffe Golf Course	SK546279	2009	DCW
Oxton Hedgerow	SK617516	2010	MW
Annesley Grassland	SK493525	2011	DCW
Attenborough Gravel Pits	SK522344	2012	DCW
Brackenhurst Estate*	SK704514	2003	MW
Bevercotes Colliery Tip*	SK6973	2005	DCW
Shireoaks Colliery Tip*	SK556811	2006	DCW

*Planted

Salix x rubra Huds.

Green-leaved Osier

National Status: Data Deficient
Nottinghamshire Scarce
Monads: 8

Howitt & Howitt (1963) described the hybrid (*Salix viminalis x purpurea*) as being planted on the tidal River Trent and elsewhere as an uncommon component of willow Holts. In recent times most of the records have been single bushes on riverbanks and a single bush has also been recorded at Lound Holt.

Salix x rubra (Continued)

Only two of the records are comprised of more than a single bush; at Ratcliffe-on-Soar the population is locally abundant, but is probably planted; whereas the Holme Pit population, which consists of several shrubs is located in fen vegetation and appears to be native. The hybrid has been planted at Farndon Willow Holt and Brackenhurst Estate as part of the restoration of Howitt's willow collection at Farndon.

Location	GR	Date	Recorder
Clifton Grove	SK547355	2010	DCW
Holme Pit	SK535346	2007	DCW
Lound Holt	SK715878	2006	DCW
River Trent, Holme Pierrepont	SK607386	2002	DCW
River Trent, Holme Pierrepont	SK592387	2002	DCW
River Soar, Ratcliffe-on-Soar	SK492282	2000	DCW
River Soar, Stanford-on-Soar	SK541219	2005	DCW
Farndon Willow Holt	SK704514	2003	MW
Sheepwalks Pond, Brackenhurst Estate	SK7652	1999	MW

Salix x subsericea Döll.*S. cinerea x repens***National Status:** Data Deficient**Nottinghamshire** Rare, probably extinct**Monads:** 1

This rare hybrid has only been recorded once in modern times, in woodland to the east of Newark-on-Trent. The woodland has been surveyed in recent years, but specific searches for the hybrid have not been undertaken. Although grey willow *Salix cinerea* is still present, the nearest known population of creeping willow *Salix repens* is 1km to the north in Stapleford Woods.

Location	GR	Date	Recorder
Brown's Wood	SK8453	1975	RCLH

Salvia verbenaca L.

Wild Clary

National Status: Least Concern**Nottinghamshire** Rare**Monads:** 6

This species of dry soils on roadsides and waste ground declined in Nottinghamshire and was very rare by the beginning of the 1960s, probably because of habitat loss and modification. In modern times the species persisted at Nottingham Castle and until 1986 was present at Barrow Hills Sand Pit at Everton (SK682917). The three other populations consisted of two robust, extant populations, one at Netherfield on a spoil mound and the other at Collingham on a roadside verge. The third population at Bunny (SK589292) consisted of a single plant and is no longer extant.

Location	GR	Date	Recorder
Nottingham	SK582396	2009	PS(b)
Netherfield Spoil mound	SK634397	2010	DCW
Nottingham Castle Rock	SK570394	2000	PA, RAJ
Sneinton Hermitage	SK584394	2012	PA
Westfield Lane, Collingham	SK821616	2012	RAJ
Westfield Lane, Collingham	SK820616	2012	RAJ
Rainworth Water Piece	SK592587	2012	RAJ

Sambucus ebulus L.

Danewort

National Status: Least Concern**Nottinghamshire** Rare**Monads:** 1

Historically danewort *Sambucus ebulus* was scattered throughout the VC on roadsides and building ruins. There were records from Bldworth and Ollerton on the Bunter Sandstones, Gamston, Bunny, Normanton, Bleasby, Beeston and Wakeringham on the Keuper Marls, Great Leake on the Lias Clays and Greasley on the

Permian Marls. The species has disappeared at all of the above sites except Beauvale Priory at Greasley and despite the destruction of the Priory is still present. It is hoped that a large population located 4.5m outside of VC56 at Hose Lane, Kinoulton (SK722305), will eventually spread from Leicestershire into Nottinghamshire and double the number of modern records.

Location	GR	Date	Recorder
Beauvale Priory	SK493490	1996	RCLH, Woll.

Scandix pecten-veneris L.

Shepherd's-needle

National Status: Critically Endangered, Nationally Scarce, UK Biodiversity Action Plan**Nottinghamshire** Scarce**Monads:** 6

This archaeophyte has dramatically declined across south and east England since 1950, because of herbicide treatments, Preston *et al.* (2002). In the VC the species was once frequent in cornfields on Keuper Marl and Lias Clay and was also recorded at several sites on calcareous loams and at a single site on sandy soils at Everton. The species has been recorded at six locations since 1970, but has not been seen recently at the North Clifton (SK832715) and Cotham (SK803477) sites.

Location	GR	Date	Recorder
Laxton Mill Field	SK709664	1996	DCW
Laxton Mill Field	SK717664	1996	DCW
Laxton Mill Field	SK715666	1996	DCW
Laxton Mill Field	SK716664	2007	DCW, MW
Hayton Field	SK737852	1997	DCW
Kneesall	SK726639	1998	RAJ
Kneesall	SK727640	1998	RAJ
Ossington Airfield	SK749644	1998	RAJ
Broadwaters Farm, Ossington	SK756636	1998	RAJ

Schoenus nigricans L.

Black Bog-rush

National Status: Least Concern**Nottinghamshire** Rare, probably extinct**Monads:** 1

Black bog-rush *Schoenus nigricans* is a species of base-rich peat bogs that has steadily declined and is now reduced to a single site in a peaty flush, where, despite no discernible change in habitat quality or management, it is probably no longer extant. In the 18th and 19th Centuries the species was found at Edingley, Bulwell, Papplewick, Lindhurst, Basford, Pleasley, Newboundmill, Teversal and Sookholme Moor. Drainage and to a lesser extent habitat destruction has contributed to the 20th Century decline.

Schoenus nigricans (Continued)

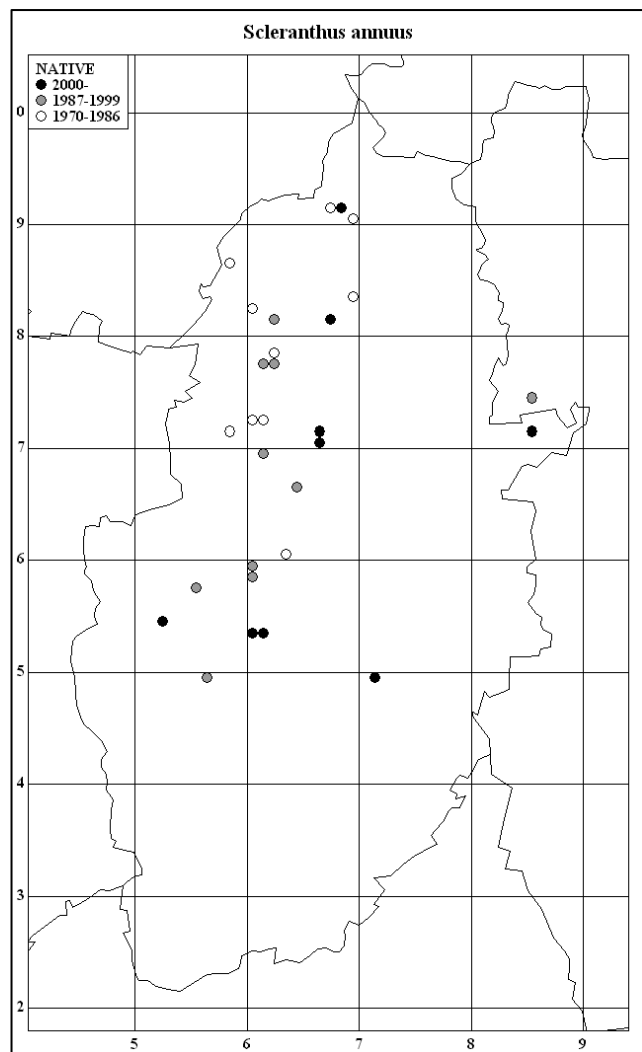
Location	GR	Date	Recorder
Sookholme Moor	SK554678	2007	DCW

Scleranthus annuus L.

Annual Knawel

National Status: Endangered**Nottinghamshire** Uncommon**Monads:** 29

Howitt & Howitt (1963) described annual knawel *Scleranthus annuus* as being locally common in sandy fields. It was once particularly common in the Sherwood area and to a lesser extent on the blown sands and light soils in the east of the VC. In the latter part of the 20th Century, the decline of the species in the VC appears to have reflected the national decline, presumably because of factors such as habitat loss and agricultural intensification. However, in the VC it has not yet declined to the level where it has become scarce and since 1970 it has been recorded in 29 monads, mostly in the Sherwood area.

*Sedum telephium* L.

Orpine

National Status: Least Concern
Nottinghamshire: Rare
Monads: 2

As a native this species of woods and hedges has always been rare and scattered. Before 1960, the species was recorded in hedgerows at Worksop on Magnesian Limestone and Bunter Sandstone, in sandy woodland at Barrow Hills Everton and at Gamston Wood on Keuper Marl. Since 1970 the species has not been recorded at any of its historic sites, but the population at Stone Hill Lane, Everton is less than 1km to the south of Barrow Hills and the Osberton location is near to Worksop. There are a number of other modern VC records for orpine *Sedum telephium*, which are considered to be introductions such as Pleasley Vale (SK516650) and Whitwell Church (SK526768).

Location	GR	Date	Recorder
Osberton Railway Embankment	SK634786	1972	JH
Stone Hill Lane, Everton	SK682909	1999	DCW

Selinum carvifolium L.

Cambridge Milk Parsley

National Status: Vulnerable, Nationally Rare
Nottinghamshire: Extinct

In 1909 J. W. Carr recorded Cambridge milk parsley *Selinum carvifolium* in a boggy meadow beside the River Meden at Newboundmill near Teversal. In 1952 when R. C. L. & B. M. Howitt visited the site the farmer informed them that the plant had

disappeared when the field was drained a few years before their visit.

Location	GR	Date	Recorder
Newboundmill Meadow	SK46	<1952	JWC

Senecio x subnebrodensis Simonk.*S. squalidus x viscosus*

National Status: Scattered Localities
Nottinghamshire: Scarce
Monads: 8

Sell & Murrell (2006) considers that this hybrid could be introduced, but there is no mention of the origins in Stace (2010). Without further evidence, the hybrid is included in this register, because it is scarce, one of the parents is native and the highly sterile hybrid only occurs wherever the parents are found together. R.C.L. & B.M. Howitt recorded the hybrid only once before 1970 at Nottingham Dump. Since 1970 the hybrid has been recorded with its parents in a range of disturbed semi-natural and artificial habitats.

Location	GR	Date	Recorder
Holme Pierrepont Gravel Pits	SK618384	1987	DCW
Holme Pierrepont Gravel Pits	SK621388	1993	DCW
Cotgrave Colliery Yards	SK656363	1995	DCW
Cotgrave Colliery Yards	SK653364	1995	DCW
Staythorpe, River Trent	SK765533	1995	DCW
Bestwood Sand Quarry	SK567480	1995	DCW
Boughton Dismantled Railway Sidings	SK676673	1996	DCW
Bramcote Landfill	SK503388	2005	DCW
Bunny, Brickyard	SK581286	2006	DCW
Nottingham, Makro Factory	SK553376	2012	RP

Silene gallica Jacq.

Small-flowered Catchfly

National Status: Endangered, Nationally Scarce
Nottinghamshire: Rare
Monads: 1

Before 1839 G. Howitt recorded small-flowered catchfly *Silene gallica* growing in sandy arable fields at several locations in the VC. L. Allen then recorded the species in 1877 and H. Fisher recorded the species between 1878 and 1894. The species was not seen at all during the 20th Century, but during the 2003 Local Change survey work, a few plants were located in a 'weedy' raised flowerbed in a Municipal Park. Unfortunately the raised flowerbed was destroyed before seed-set, because of on-going refurbishment work at the park. Despite searches since 2003, no plants have been seen again. In 2012, a small population of 17 plants was found growing in open, species-rich vegetation on a disturbed, sandy slope at the edge of the former colliery yards at Calverton. The population is located in an area that is unlikely to be under any threat, at least in the short-term.

Location	GR	Date	Recorder
Titchfield Park	SK536485	2003	MW
Calverton Colliery Yards	SK601504	2012	MW

Silene noctiflora L.

Night-flowering Catchfly

National Status: Vulnerable, Nationally Scarce
Nottinghamshire: Rare
Monads: 3

This archaeophyte has always been uncommon in the VC and has been recorded on basic peat soils or soils overlying Magnesian Limestone.

Silene noctiflora (Continued)

Howitt & Howitt (1963) described 11 historical records, but only one population survived beyond 1970; at Balderton three plants were found in the margin of an arable field. Since 1970 small numbers of plants have also been recorded at Bramcote, South Clifton and Barnstone, but the Bramcote population is no longer extant, because the Landfill (SK503388) has been capped and landscaped.

Location	GR	Date	Recorder
Balderton Field by Shire Dyke	SK830487	1987	DCW
Barnstone Field	SK734351	2004	DCW
South Clifton	SK822700	2008	RAJ

Silene nutans L.

Nottingham Catchfly

National Status: Near Threatened, Nationally Scarce
Nottinghamshire Extinct

Mr Willisel first recorded Nottingham catchfly *Silene nutans* on Nottingham Castle Rock some time before 1670. J. Ray subsequently published the record. Howitt & Howitt (1963) described the decline of the species during the 19th Century stating that restoration works to the castle and grounds c.1890 all but exterminated the species. V. Leather was the last person to see the species in 1934 when one flower was recorded in a new rockery. Unfortunately the flower was destroyed before it could set seed.

Location	GR	Date	Recorder
Nottingham Castle Rock	SK569394	1934	VL

Sium latifolium L.

Greater Water-parsnip

National Status: Endangered, Nationally Scarce
Nottinghamshire Extinct

Howitt & Howitt (1963) described greater water-parsnip *Sium latifolium* as rare and decreasing on the sides of drains and fen pools. R.C.L. Howitt subsequently recorded the species at Misson and Misterton in the early 1970s, but neither of these populations has been recorded since 1973. The Gate Inn pond is still a likely habitat but the water table is now much lower. As a consequence, it is considered that the species is likely to be extinct in the VC.

Location	GR	Date	Recorder
Gate Inn Pond, Misterton	SK765964	1971	RCLH
Dales Lane Drain, Misson	SK7095/7195	1973	RCLH

Solidago virgurea L.

Goldenrod

National Status: Least Concern
Nottinghamshire: Scarce
Monads: 4

By the early 1960s goldenrod *Solidago virgurea* had become very rare in the VC with the loss of most of the historical populations. The Bramcote Hills population was the only one to survive into the modern era and it still remains to this day. Of the three other populations that have been recorded since 1970, only the Pleasley Vale population consists of more than a single plant.

Location	GR	Date	Recorder
Bramcote Hills	SK522385	2011	PS(b)
Bramcote Hills	SK519385	2011	PS(b)
Bramcote Hills	SK520386	2008	PA, RAJ, DS
Pleasley Vale Dismantled Railway Line	SK521648	2012	KB
Pleasley Vale Dismantled Railway Line	SK517648	2009	DCW

Solidago virgurea (Continued)

Location	GR	Date	Recorder
Littlewood Lane Quarry	SK533649	2009	DCW
Birdcage Walk, Nottingham*	SK560384	2010	DCW

*Possibly introduced

Sparganium angustifolium Michx.

Floating Bur-reed

National Status: Least Concern
Nottinghamshire Rare

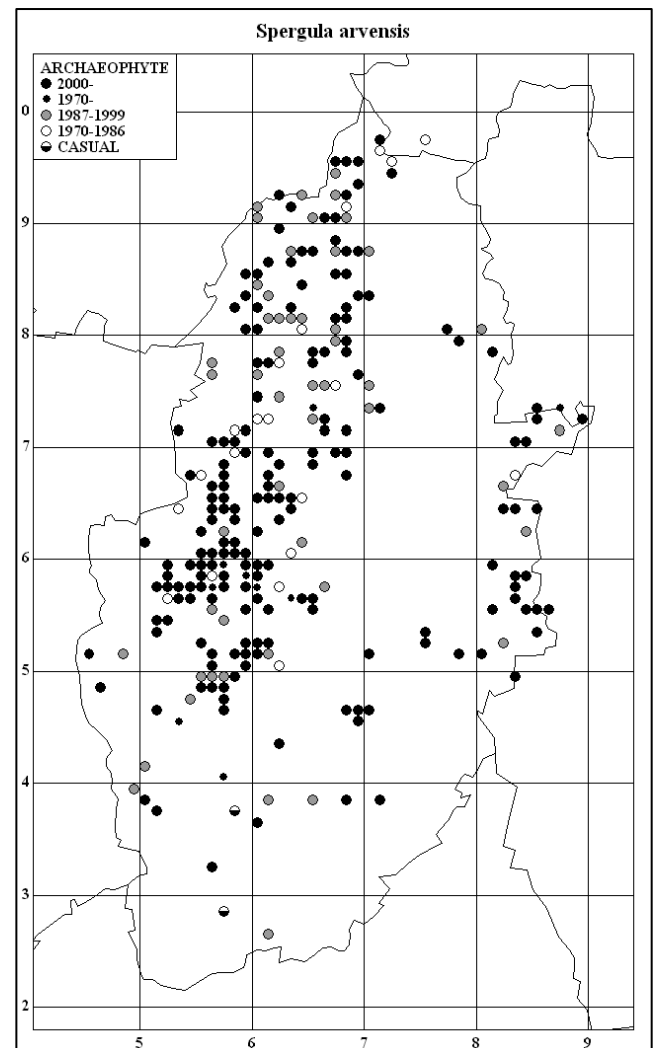
The species has only ever been recorded three times in the VC at Kirkby Hardwick, Scrooby and possibly at Trent Bridge during the 18th Century. The Trent bridge record is likely to be erroneous and was probably *S. emersum*.

Location	GR	Date	Recorder
Kirkby Hardwick Ponds	SK55	1839	Hurt

Spergula arvensis L.

Corn Spurrey

National Status: Vulnerable
Nottinghamshire Occasional to Locally Frequent
Monads: 227



Since the early 1960s, agricultural intensification has been responsible for the national decline of corn spurrey *Spergula arvensis*. In the VC it was once common and widespread on arable fields with light soils.

Spergula arvensis (Continued)

Although, to some extent, it has declined the species has probably fared better in Nottinghamshire than it has in many other VCs, probably because of the abundance of light sandy soils in the VC, agricultural systems (root crops) and the availability of alternative habitats to arable fields such as sand and gravel pits.

Spiranthes spiralis (L.) Chevall.

Ladies' Tresses

National Status: Near Threatened

Nottinghamshire Extinct

This species has been recorded only four times since 1756 at scattered locations across the VC. J. Brown was the last to record the species some time between 1942 and 1946. Ten plants were recorded on a gravel heap by the Idle Stop near Misson.

Location	GR	Date	Recorder
Idle Stop, Misson	SK7296	1942-1946	JBn

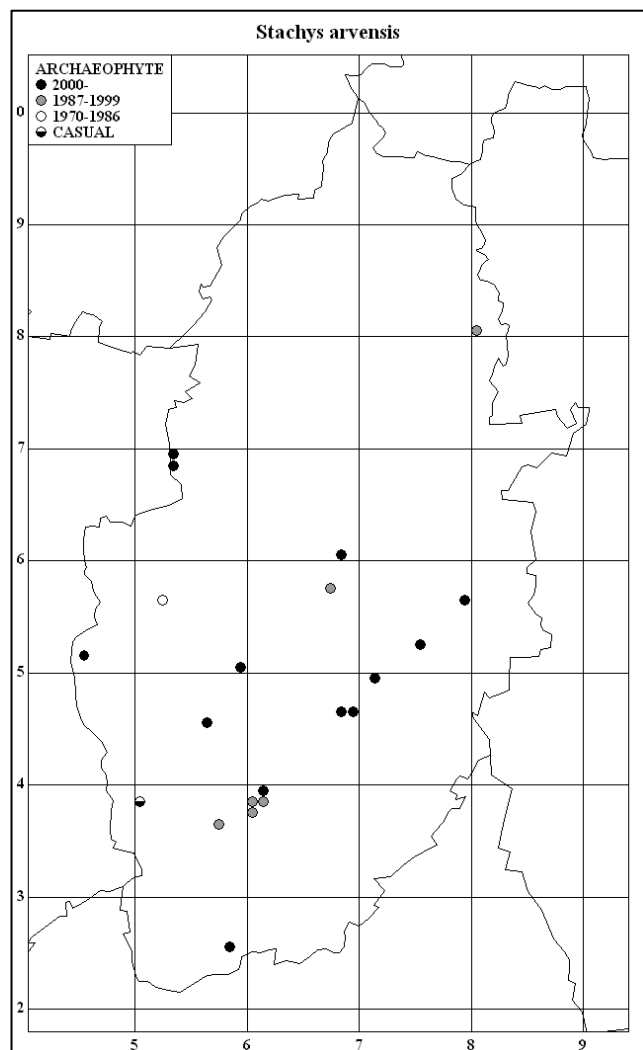
Stachys arvensis (L.) L.

Field Woundwort

National Status: Near Threatened

Nottinghamshire Uncommon

Monads: 20



This arable weed of sandy fields has never been common in the VC, but was most frequent in the west of the VC. Although field woundwort *Stachys arvensis* declined before the 1950s, the rate of decline accelerated in the latter part of the 20th Century. Since 1970 the species has been recorded in 20 rolling monads, scattered throughout the VC on a variety of soils.

Stachys x ambigua Sm.

S. sylvatica x palustris

National Status: Data Deficient

Nottinghamshire Scarce

Monads: 9

For this hybrid there is only one historical record for the VC, recorded by J. W. Carr in the early 20th Century on the bank of the Chesterfield Canal between Drakeholes and Wiseton. In modern times, the hybrid has been recorded nine times at scattered localities in the VC. The hybrid does not appear to have any particular affinity for a particular habitat type. Habitats include drain banks, river banks, a roadside and track verges, and woodland.

Location	GR	Date	Recorder
Everton Carr Drain	SK692929	1972	JH
Bestwood Country Park	SK557474	1997	GL
River Erewash (Brinsley Flash)	SK448502	2002	DCW, PO
Banks Carr Wood	SK599915	2006	DCW
Holme Pierrepont Roadside Verge	SK627382	2007	PA, DCW
Holme Pierrepont Gravel Pits	SK615378	2012	DCW
Nottingham Canal, Cossall	SK479420	2011	MW
River Trent, Holme-on-Trent	SK800594	2011	DCW, MW
Rolleston	SK758516	2012	RAJ

Stellaria nemorum subsp. *nemorum* L.

Wood Stitchwort

National Status: Least Concern

Nottinghamshire Rare

Monads: 1

Wood stitchwort *Stellaria nemorum* subsp. *nemorum* is a species of damp woodland that has always been very rare in the VC. The population in Budby that was recorded by Bradley in the late 19th Century has not been seen in recent times. The population at Clifton Grove in the City of Nottingham is located in woodland overlooking the River Trent from SK547355 to SK544353. It was first recorded in the early 20th Century and persisted despite the need for translocation, because of partial habitat destruction in the mid-1980s. There are now two adjacent patches.

Location	GR	Date	Recorder
Clifton Grove	SK547355	2010	DCW

Stellaria palustris Retz.

Marsh Stitchwort

National Status: Vulnerable

Nottinghamshire Scarce

Monads: 8

Marsh stitchwort *Stellaria palustris* is a species of marshy meadows on light soils, being absent from the heavier marls in the centre and west of the VC. By the 1960s, Howitt & Howitt (1963) described the species as decreasing in the VC, which followed the national declines that started before the 1930s. Losses were caused by drainage and direct habitat destruction and the remaining populations in the VC are located close to Nottingham in the Trent Valley and in the north of the VC at Misson. Recent losses include populations at Girtton in the east of the VC and in the north of the VC at Scrooby. In addition, the Holme Pit population at Clifton has not been seen during recent visits and may no longer be extant.

Location	GR	Date	Recorder
Everton Carr Drain	SK667904	1972	JH
Misson Drain	SK678945	1972	JH
Snow Sewer, Misson	SK723982	1972	JH
Idle Stop	SK716962	1994	DCW
Holme Pit	SK537346	1990's	DCW

Stellaria palustris (Continued)

Location	GR	Date	Recorder
Snow Sewer, Misson	SK720981	1995	DCW
Misson Carr	SK7197	2001	DCW
Idle Stop	SK718964	2010	DCW, MW
Attenborough Gravel Pits	SK528354	2010	DCW, RAJ, PA
Netherfield Gravel Pits	SK639401	2010	DCW
Netherfield Gravel Pits	SK642402	2010	DCW

Stratiotes aloides L.

Water Soldier

National Status: Near Threatened, Nationally Scarce**Nottinghamshire** Extinct (as a native)**Monads:** 9 (as a neophyte)

As a native, the presence of this nationally declining species has only ever been confirmed twice in the VC. G.Howitt last recorded the species some time before 1839 in a moat in Strelley. At some time before 1855 J.K. Miller recorded the species somewhere between Morton in Lincolnshire and Walkeringham in Nottinghamshire. After 1855 there were no further records until the modern era, when water soldier *Stratiotes aloides* become commercially available. All of the 9 modern records are considered to be introductions or garden escapes.

Location	GR	Date	Recorder
Strelley Moat	SK5041	<1839	GH
Brackenhurst Gardens*	SK695523	2012	MW
Brinsley Pond*	SK465490	2012	MS, CS, PO
Shireoaks Colliery Yards*	SK559807	2011	DCW, MW
Thorpe-in-the-Glebe*	SK621261	2004	DCW
Newark-on-Trent*	SK804559	2000	DCW
Nottingham Canal, Cossall*	SK478429	2001	DCW
Nottingham Canal, Trowell*	SK485399	2001	DCW
Nottingham Canal, Trowell*	SK481398	2001	DCW
Martins Pond, Wollaton*	SK527401	1995	DCW
Grantham Canal, Owthorpe*	SK67932	1994	DCW

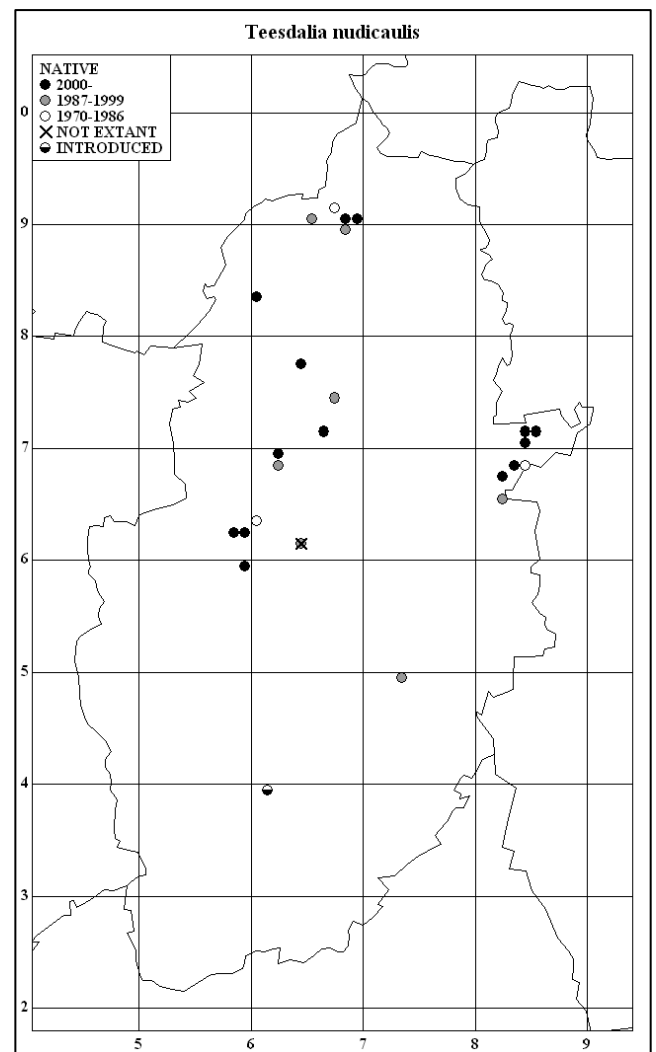
*Introduction or garden escape

Teesdalia nudicaulis (L.) R. Br.

Shepherd's Cress

National Status: Near Threatened, Nationally Scarce**Nottinghamshire** Uncommon**Monads:** 25

On sandy heaths, shepherd's cress *Teesdalia nudicaulis* was once locally common, but scattered on the Bunter Sandstone, blown sands and gravels in the VC. Habitat loss and intensification of agriculture has contributed to county and national declines, but sand and gravel workings and to a lesser extent post-industrial land has created new habitats and opportunities for the species. As a consequence, the species is not considered to be at threat of extinction in the VC.

*Thelyptis palustris* Schott...

Marsh Fern

National Status: Nationally Scarce**Nottinghamshire** Extinct

R.M. Payne last recorded marsh fern *Thelyptis palustris* in 1944 at Oxtan Bogs. Subsequent searches failed to find the species, presumably because the bogs dried out. There is an unconfirmed record for fen that developed at the former Wilford claypit. Unfortunately this cannot now be confirmed, because the area where it probably occurred has been developed.

Location	GR	Date	Recorder
Oxtan Bogs	SK6151	1944	RMP

Thymus pulegioides L.

Large Thyme

National Status: Least Concern**Nottinghamshire** Extinct (as a native)**Monads:** 2

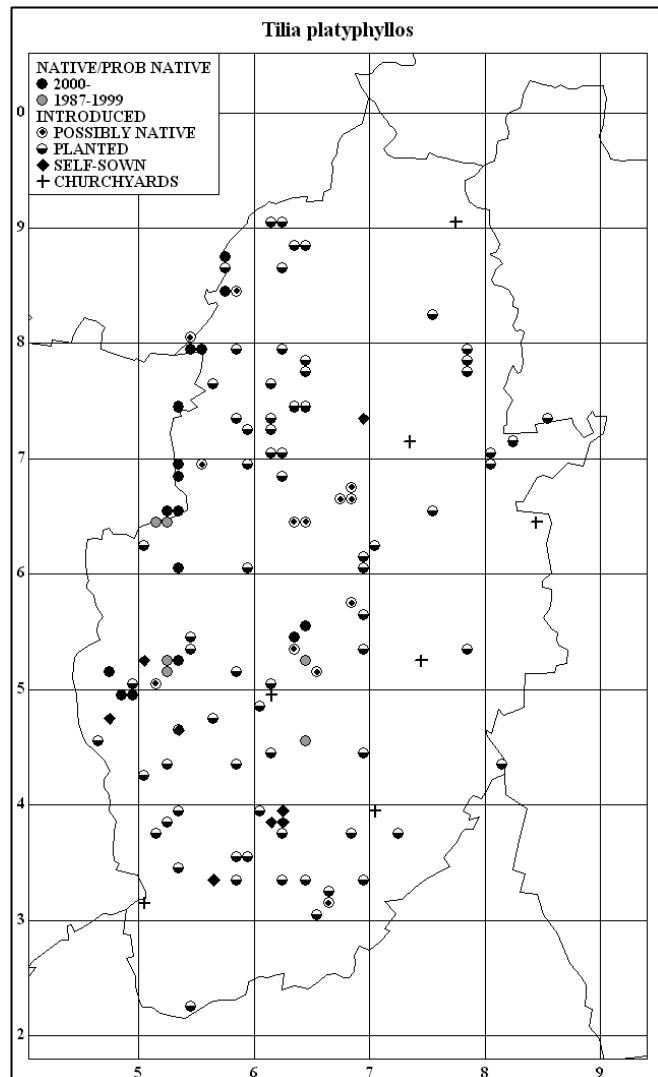
R.C.L. Howitt recorded large thyme *Thymus pulegioides* during 1950 at West Leake Hills. This was the only record before 1970 and R.C.L. Howitt considered that population to be native. Since 1970 the population at West Leake has not been seen and given the habitat types, the two extant populations are considered to be non-native. The population at Bingham (SK713386) consists of scattered plants on the track-bed ballast of a dismantled railway line. The population at Silverhill Colliery Tip (SK471622) consists of several plants growing on bare introduced limestone rubble.

Thymus pulegioides (Continued)

Location	GR	Date	Recorder
West Leake Hills	SK52	1950	RCLH
Bingham Linear Park	SK713386	2010	RP, DCW
Silverhill Colliery Tip	SK471622	2011	DCW, MW

Tilia platyphyllos Scop.

Large-leaved Lime

National Status: Nationally Scarce**Nottinghamshire** Uncommon**Monads:** 96 (23 as a native)

Scratta Wood at Shireoaks was the only site in the VC where large-leaved lime *Tilia platyphyllos* was recorded before 1963 and Howitt & Howitt (1963) considered that the species was a denizen rather than native. The lack of records seems extraordinary considering the number of mature trees that have been recorded since 1970 and 23 of the records are almost certainly native given the location and circumstances. For example there are numerous records of mature limes that are located in ancient woodlands growing out of rocky outcrops on the Magnesian Limestone. In addition to the native records, there are a further 63 records that are definitely planted trees.

Location	GR	Date	Recorder
Bagthorpe	SK476513	1998	DCW
Morning Springs, Annesley	SK489496	2005	DCW
Morning Springs, Annesley	SK492493	2011	DCW
Pleasley Vale	SK519649	1996	DCW

Tilia platyphyllos (Continued)

Location	GR	Date	Recorder
Aldercar Wood, Newstead	SK521519	1993	DCW
Aldercar Wood, Newstead	SK521520	1993	DCW
Pleasley Vale	SK524649	1996	DCW
Northfield Plantation	SK527651	2002	MW
Northfield Plantation	SK532652	2007	DCW
Quarry Banks, Linby	SK535523	2002	DCW
River Maun Rock Outcrop, Mansfield	SK535603	2012	RAJ
Minster Wood	SK536689	2001	MW
Boon Hills Wood	SK531694	2012	DCW
Creswell Crags	SK534741	2012	DCW
Scratta Wood	SK542796	1992	DCW
Holme Carr Wood, Shireoaks	SK557799	2012	DCW, JC
Wallingwells Wood	SK573843	2011	DCW, MW
Dyscarr Wood, Langold	SK578875	2006	DCW
Bulcote Wood	SK648452	1995	DCW
Coomb's Wood, Farnsfield	SK639548	2001	DCW
Oxton Dumble	SK643524	1994	DCW
Riddings Hill, Farnsfield	SK647556	2003	DCW

Torilis arvensis L.

Spreading Hedge Parsley

National Status: Endangered, Nationally Scarce**Nottinghamshire** Rare**Monads:** 1

This archaeophyte has shown dramatic national declines, because of increasing agricultural intensity, vulnerability to herbicides and an inability to compete in dense crop swards, Preston *et al.* (2002). The decline has been less dramatic in the VC, because the species has never been common. Before 1970 the species was recorded on Keuper Marls at Gamston Moor, Clifton near Nottingham, Kingston-on-Soar and Fiskerton, and on the Lias Clays somewhere between Gotham and West Leake. Since 1970, the species has only been recorded at Cotgrave Colliery in a former arable field, which is heavily grazed by rabbits. When the population was first recorded in 1999 it was abundant on a former arable field over an area of approximately 100m². In subsequent years the population has declined and now consists of a few plants, which were seen most recently during the summer of 2012.

Torilis arvensis (Continued)

Location	GR	Date	Recorder
Cotgrave Colliery Yards	SK654365	2012	DCW

Torilis nodosa (L.) Gaertn.

Knotted Hedge Parsley

National Status: Least Concern**Nottinghamshire** Rare**Monads:** 9

Since the early 1960s knotted hedge parsley *Torilis nodosa* has remained stable at its coastal sites, but has declined at many of its inland sites, Preston *et al.* (2002). In the VC this species of dry clay banks has never been common, but historically was widely distributed on Keuper Marls and on the Lias Clays was recorded near Owthorpe, Kilvington and Balderton. Since 1970 the species has been recorded in nine rolling monads, which are for most part located on the Lias Clays in the south and east of the VC. The loss of species on the Keuper Marls is likely to be caused by agricultural intensification and habitat loss.

Location	GR	Date	Recorder
Collingham	SK8261	<1986	EMP
Balderton Disused Airfield	SK808492	1988	DCW
Gotham Hills	SK532309	1990	DCW
River Witham, Barnby-in-the-Willows	SK857522	1998	DCW, Woll.
River Witham, Barnby-in-the-Willows	SK854516	1998	DCW, Woll.

Torilis nodosa (Continued)

Location	GR	Date	Recorder
River Witham, Barnby-in-the-Willows	SK856522	1998	DCW, Woll.
Dunham-on-Trent Floodbank	SK820742	1999	DCW
Wright's Hill	SK506307	2003	DCW
Langar Grassland Pond	SK719319	2004	DCW
Orston Field	SK774399	2005	DCW
Orston Field	SK776399	2005	DCW
South Clifton Hill	SK821697	2007	DCW
South Clifton Hill	SK823697	2007	DCW
South Clifton Hill	SK825696	2007	DCW
Balderton Disused Airfield	SK824490	2007	DCW
Balderton Disused Airfield	SK810490	2007	DCW
Balderton Disused Airfield	SK814494	2007	DCW
Balderton Disused Airfield	SK813489	2007	DCW
Gotham Hills	SK538312	2008	DCW
Gotham Hills	SK531307	2009	DCW
Granby Pasture Bank	SK748359	2009	DCW

Trichophorum germanicum Palla

Deergrass

National Status: Least Concern
Nottinghamshire Extinct

In the 19th Century deergrass *Trichophorum germanicum* was relatively common on wet heaths. The species was not recorded during the 20th Century, presumably because of habitat loss and drainage, so Howitt & Howitt (1963) considered the species to be extinct.

Location	GR	Date	Recorder
On wet heaths	Not Applicable	1839	GH

Trifolium ochroleucon Palla

Sulphur Clover

National Status: Near Threatened, Nationally Scarce
Nottinghamshire Extinct

Sulphur clover *Trifolium ochroleucon* has only been recorded once in the VC, in a meadow near Wilford Osier Holt. It is considered to be extinct having not been recorded after 1839.

Location	GR	Date	Recorder
Wilford Osier Holt	SK53	1839	GH

Triglochin maritima L.

Sea Arrow-grass

National Status: Least Concern
Nottinghamshire Extinct

Inland, sea arrow-grass *Triglochin maritima* is rare and many of the inland brackish pastures it once frequented have been destroyed. A specimen located in the Bolton Museum Herbarium was obviously unknown to the Howitts, because there is no mention in the 1963 Flora of Nottinghamshire. The quarry at Barnstone, from where the specimen was collected by J.T. Harris in 1867, is no longer extant, but it is probably somewhere in the vicinity of the Cement Works, which is located to the south of Barnstone Village.

Location	GR	Date	Recorder
Barnstone Quarry	SK73	1867	JTH

Typha x glauca Godr.*T. latifolia x angustifolia*

National Status: Data Deficient
Nottinghamshire Scarce
Monads: 6

This highly sterile hybrid occurs in scattered places throughout England, usually with both parents and is probably overlooked, Stace (2010). There are no historical records for the species, but it has probably always been present in the VC, wherever the parents occur together. Although the hybrid is only found at four sites, it is locally abundant at three of the sites.

Location	GR	Date	Recorder
Grantham Canal, West Bridgford	SK5838	2009	DCW, RW
Grantham Canal, West Bridgford	SK5938	2009	DCW, RW
Grantham Canal, West Bridgford	SK5937	2009	DCW, RW
Grantham Canal, Cotgrave	SK634365	2009	DCW
Colwick Country Park	SK6038	2010	DCW
Colwick Country Park	SK609393	2010	DCW
Colwick Country Park	SK608390	2010	DCW
Martin's Pond, Wollaton	SK526402	2011	DCW
Gateford Fox Covert	SK563819	2012	GC

Urtica dioica subsp. *galeopsifolia* (Wierzb. ex Opiz) Chrtk. Stingless Nettle

National Status: Data Deficient
Nottinghamshire Rare
Monads: 3

Nationally and also in the VC stingless nettle *Urtica dioica* subsp. *galeopsifolia* is a plant of wet woodlands rather than weedy situations. Howitt & Howitt (1963) does not include any information about the presence of the species in the VC and the Botanical Society of the British Isles (BSBI) species accounts³ indicates that further work is needed to understand the ecology and distribution of the species. The populations at Clifton are widespread and frequent, but are less abundant at Shelford and Haughton.

Location	GR	Date	Recorder
Haughton Lower Ponds	SK689723	1999	DCW
Shelford Carr	SK668433	2010	DCW
Holme Pit, Clifton	SK535346	2011	DCW
Holme Pit, Clifton	SK536345	2011	DCW

Utricularia minor L.

Lesser Bladderwort

National Status: Least Concern
Nottinghamshire Extinct

Lesser bladderwort *Utricularia minor* was only ever recorded twice in the VC. It was recorded in the central part of the VC at Edingley Moor in the early 19th Century and 150 years later it was recorded in the north of the VC in a drain at Misson Bombing Range, Howitt & Howitt (1963). The reason for the loss at Misson is not known, but drainage of the surrounding land is likely to have been a contributory factor.

Location	GR	Date	Recorder
Misson Bombing Range Drain	SK79	1952	RCLH

³ <http://sppaccounts.bsbi.org.uk/content/urtica-dioica-and-u-galeopsifolia>

Utricularia vulgaris sensu lato L.

Greater Bladderwort

National Status: Least Concern
Nottinghamshire Extinct

In the VC greater bladderwort *Utricularia vulgaris* sensu lato was always more common than lesser bladderwort *U. minor*, but by the 1950s it was confined to the north of the VC. Since the early 1960s the species has not been found. In the 19th century the species was found at scattered localities throughout the county such as Mansfield, Kirklington, Thurgarton and Muskham, in addition to Misson, Misterton and Gringley in the north. Factors such as habitat destruction, drainage and eutrophication are likely to have contributed to the loss of the species.

Location	GR	Date	Recorder
Misson; Misterton; Gringley Carr	SK79	<1963	RCLH

Vaccinium myrtillus L.

Bilberry

National Status: Least Concern
Nottinghamshire Scarce
Monads: 7

This formerly frequent species of heaths and sandy woods was rapidly declining by the early 1960s, Howitt & Howitt (1963). Bilberry *Vaccinium myrtillus* was most frequent in the Sherwood area, but was also present on the blown sands in the east of the VC. In modern times, the species disappeared from Wigsley Wood (SK850702) and Spalford Warren (SK833680) in the east of the VC and Coxmoor Plantation (SK518566) in the Sherwood area. It is now confined to five sites; four of the sites are located on sandy soils in the Sherwood area and the population at Lord Stubbins Wood is located close to the Derbyshire border on the Permian Marls.

Location	GR	Date	Recorder
Ratcher Hill, Mansfield	SK576599	1996	DCW
Lord Stubbin's Wood	SK540691	2012	DCW
Lord Stubbin's Wood	SK541691	2012	DCW
Lord Stubbin's Wood	SK541690	2012	DCW
Newlands Plantation	SK58076434	2012	DCW
Robin Hood Hills	SK510545	2009	DCW
Birklands	SK617679	2009	DCW
Thieves Wood	SK546567	2011	DCW
Thieves Wood	SK549565	2011	DCW
Thieves Wood	SK545572	2011	DCW
Thieves Wood	SK547573	2011	DCW

Vaccinium oxycoccus L.

Cranberry

National Status: Least Concern
Nottinghamshire Extinct

Oxton Bogs is the only site in the VC where cranberry *Vaccinium oxycoccus* was recorded and it was last seen during the late 19th Century. There is a specimen in the Wollaton Hall Natural History Museum (NOT). The loss of the species probably coincided with adverse changes to the local water table.

Location	GR	Date	Recorder
Oxton Bogs	SK6151	1886	HFi

Vaccinium vitis-idaea L.

Cowberry

National Status: Least Concern
Nottinghamshire Extinct

This characteristic species of wet acid peat was recorded on bogs alongside Rainworth Water, at Papplewick Forest and bogs near Mansfield, where it was last seen in 1875. The losses probably coincided with drainage and habitat loss.

Vaccinium vitis-idea (Continued)

Location	GR	Date	Recorder
Bogs near Mansfield	SK55	1875	JCr

Valerianella dentata (L.) Pollich.

Narrow-fruited Cornsalad

National Status: Endangered, Nationally Scarce
Nottinghamshire Scarce
Monads: 6

Narrow-fruited cornsalad *Valerianella dentata* was once widespread, but uncommon in the VC, being found on arable fields with basic soils. Since 1970 it has been recorded nine times at seven sites, but a population in a wheat field at Sookholme (SK539667) has been buried under a colliery spoil tip and a population in an arable field at West Leake Hills (SK541283) in the south of the VC has not been seen since 1987. Of the extant populations, the Teversal and Warsop populations are located on Limestone chippings or Magnesian Limestone, the Thurgarton populations are located on Keuper Marl and the Everton Carr population is located on base-rich peat of a drain-bank.

Location	GR	Date	Recorder
Everton Carr Drain	SK693929	1972	JH
Newbound Farm	SK493629	1972	JH
Teversal Trail	SK4962	1978	Woll.
Teversal Trail	SK493630	1997	DCW
Thurgarton Footpath	SK694481	2002	RAJ, DCW
Thurgarton Footpath	SK692479	2002	RAJ, DCW
Warsop Vale Dismantled Railway Line	SK549677	2007	DCW

Verbascum lychnitis L.

White Mullein

National Status: Nationally Scarce
Nottinghamshire Rare
Monads: 2

Before 1970, white mullein *Verbascum lychnitis* was only ever recorded during the early part of the 19th Century at Clifton Hill on the east bank of the River Trent, to the north of Newark-on-Trent. In modern times, the species has only been recorded at Toton Sidings where it has persisted for at least nine years. D.C. Wood has recorded several large populations on dismantled railway ballast and clinker.

Location	GR	Date	Recorder
Toton Sidings	SK489349	2012	DCW
Toton Sidings	SK489350	2012	DCW
Toton Sidings	SK490351	2012	DCW
Toton Sidings	SK490351	2012	DCW
Toton Sidings	SK488354	2012	DCW

Verbascum nigrum L.

Dark Mullein

National Status: Least Concern
Nottinghamshire Scarce
Monads: 11 (7 as a native)

Dark Mullein *Verbascum nigrum* is a species of hedgerows and dry woodlands in the VC. Before 1970 it was mostly found on the sandy soils of the Sherwood area, but was also recorded at Annesley and as a garden escape to the south of the River Trent at Barton-in-Fabis. In modern times the species has continued to be most abundant on the Sherwood sands, but small and presumably non-native populations have also been recorded in the south of the VC at Wiverton Hall, Bingham Linear Park, Burntstump Landfill, Bunny Landfill (SK578285) and Hawton Gypsum Works. The population at Bunny is no longer extant, because of landscaping and only a single plant was recorded at Hawton, so it too may be no longer extant.

Verbascum nigrum (Continued)

Location	GR	Date	Recorder
Wiverton Hall*	SK709361	1987	Woll.
Rufford Abbey	SK646648	1997	DCW
Rainworth Plantations	SK592615	2003	DCW
Hawton Works*	SK801504	2004	DCW
Clipstone Forest	SK602613	2004	DCW, MW
Clipstone Forest	SK614619	2004	DCW, MW
Clipstone Forest	SK622634	2004	DCW, MW
Clipstone Forest	SK6162	2004	DCW, MW
Rufford	SK627639	2006	DCW
Rufford Abbey	SK646649	2010	RAJ
Rufford Track	SK634643	2012	DCW
Rufford Track	SK629642	2012	DCW
Rufford Track	SK627639	2012	DCW
Burntstump Landfill*	SK589499	2012	MW
Burntstump Landfill*	SK586502	2012	DCW
Bingham Linear Park*	SK713385	2012	DCW
Bingham Linear Park*	SK709388	2012	DCW
Bingham Linear Park*	SK716384	2012	DCW

*Garden escapes

Verbascum pulverulentum Vill.

Hoary Mullein

National Status: Nationally Rare
Nottinghamshire Extinct

The species was last recorded in the 18th Century, growing out of walls at Wollaton Hall and in the City of Nottingham.

Location	GR	Date	Recorder
Wollaton, High Pavement, and Sheep Lane, Nottingham:	SK53	1748	CD

Verbascum x *duernsteinense* *V. thapsus* x *speciosum*
Teyber

National Status: Data Deficient
Nottinghamshire Rare
Monads: 1

This native hybrid has only ever been recorded once in Nottinghamshire at Toton Sidings; elsewhere Sell & Murrell (2009) state that the hybrid has been recorded in Norfolk and Cambridgeshire. In 2001 D.C. Wood recorded several plants on railway ballast that were present where the parents were growing together.

Location	GR	Date	Recorder
Toton Sidings	SK488352	2001	DCW

Verbena officinalis L.

Vervain

National Status: Least Concern
Nottinghamshire Scarce
Monads: 9

Vervain *Verbena officinalis* is a species of waysides that has always been very rare, but widespread in the VC, being only absent from the Lias Clays, Howitt & Howitt (1963). The species appears to be somewhat casual in appearance, because none of the populations described by Howitt & Howitt (1963) were re-located after 1970. Since 1970 the species has been recorded in scattered localities throughout the VC including the Lias Clays. Most of the plants appear on track verges or dumped materials and consist of no more than one plant. Four modern populations at Kirkby-in-Ashfield (SK506576), Bramcote Landfill (SK502388), Radford in Nottingham (SK548403) and Rainworth (SK595578) are no longer extant.

Verbena officinalis (Continued)

Location	GR	Date	Recorder
Barnstone Cement Works	SK737352	2004	DCW
Bingham Railway Line	SK696403	2004	DCW
Spalford Warren	SK833681	2012	DCW, RAJ
Cotgrave Gorse	SK658344	2012	DCW
Ranskill Sandpit	SK663881	2011	DCW
Carlton Forest Sand Quarry	SK601823	2012	DCW, MW
Hawton Works	SK80195067	2012	MW, DCW
East of Nether Langwith	SK546703	2012	KB

Veronica scutellata L.

Marsh Speedwell

National Status: Least Concern
Nottinghamshire Scarce
Monads: 8

Marsh speedwell *Veronica scutellata* has never been common, but has been historically recorded throughout the VC in bogs and marshes. Comparison of pre- and post-1970 records indicates that the only populations that have persisted are those at Misson. All other extant populations were not recorded before 1970. Whilst this is not surprising for gravel pit and reservoir populations at Torsworth, Gorton and Greasley respectively, other populations occur in long standing semi-natural habitats at sites such as Selston, Rempstone and Underwood and these may have been overlooked before 1970. One other population recorded at Gamston Brickyards (SK696771) in 1972 has not been seen in recent years and is therefore, considered to be no longer extant.

Location	GR	Date	Recorder
Misson Drain	SK677944	1972	JH
Daneshill Gravel Pits	SK667863	1975	JH
Gorton Gravel Pits	SK86C	1986	LNU
Moorgreen Reservoir	SK481491	1995	DCW
Daneshill Gravel Pits	SK666859	1997	DCW
Daneshill Gravel Pits	SK669862	1997	DCW
Selston Common	SK474527	1998	DCW
Friezeland	SK476505	2004	DCW
Friezeland	SK475506	2004	DCW
Rempstone Old Churchyard	SK568250	2010	DCW
Misson Carr Drain	SK713973	2010	DCW, RAJ
Misson Carr Drain	SK717974	2010	DCW, RAJ
Misson Carr Drain	SK715973	2010	DCW, RAJ
Misson Carr Drain	SK715976	2012	DCW, JC
Misson Carr Drain	SK711973	2012	DCW, JC
Retford Grassland	SK717816	2012	JC, DCW

Veronica triphyllos L.

Fingered Speedwell

National Status: Endangered, Nationally Rare
Nottinghamshire Extinct

Howitt & Howitt (1963) includes an extract from J. W. Carr. Transactions of Nottinghamshire Naturalists, 1904, which states: "There is one specimen of this species in the Herbarium at Nottingham Natural History Museum gathered at Barrow Hills, Everton. No date or collectors name are given, but the specimen is probably fifty or sixty years old." Searches during the 20th and 21st Centuries have not re-located the species and it is therefore, considered to be extinct.

Location	GR	Date	Recorder
Barrow Hills	SK69	1820	Anon. (pers. comm. JWC)

Vicia bythnica (L.) L.

Bythnian Vetch

National Status: Vulnerable, Nationally Scarce
Nottinghamshire Extinct

During 1952 R. C. L. Howitt recorded Bythnian vetch *Vicia bythnica* at Hare Hills among scrub. This was the only record for the VC and it has not been seen since.

Vicia bythnica (Continued)

Location	GR	Date	Recorder
Hare Hills	SK7062	1952	RCLH

Vicia orobus DC.

Wood Bitter-vetch

National Status: Near Threatened, Nationally Scarce
Nottinghamshire Rare
Monads: 2

This species of the north and west of Britain has only been recorded once in the VC at Manton Colliery Tip, where it is probably an introduction. The population, which was first recorded in 1999 by K. Balkow, consisted of two discrete patches within 30m of each other. Further checks during August 2011 by M. Woods and D.C. Wood confirmed that the two patches at SK616776 were still extant and the larger of the two patches had considerably expanded into the neighbouring immature conifer plantation. In addition, a small patch was also found near the site entrance at SK616773. This 2m² patch was located on the edge of a ride in shade and no flowers or fruits were present.

Location	GR	Date	Recorder
Manton Colliery Tip	SK616776	2011	KB, MW, DCW
Manton Colliery Tip	SK616773	2011	KB, MW, DCW

Vicia sylvatica L.

Wood Vetch

National Status: Least Concern
Nottinghamshire Scarce
Monads: 10

With the exception of one population, which is considered to be an introduction, the species is nowadays wholly confined to ancient woodlands in the VC. Since 1970 the species has not been seen at five sites described by Howitt & Howitt (1963) including Grove, Mapperley Hills, Roselle Wood at Oxtun, Manzer Gorse at Eakring and Gringley Wood. However, the losses are to some extent compensated by records of the species at Jackson's Wood Edingley, Redgate Wood at Eakring, Thurgarton Dumble and Souther Wood at Thurgarton. As these are all ancient woodland sites, it is possible that their presence before 1970 may have been overlooked.

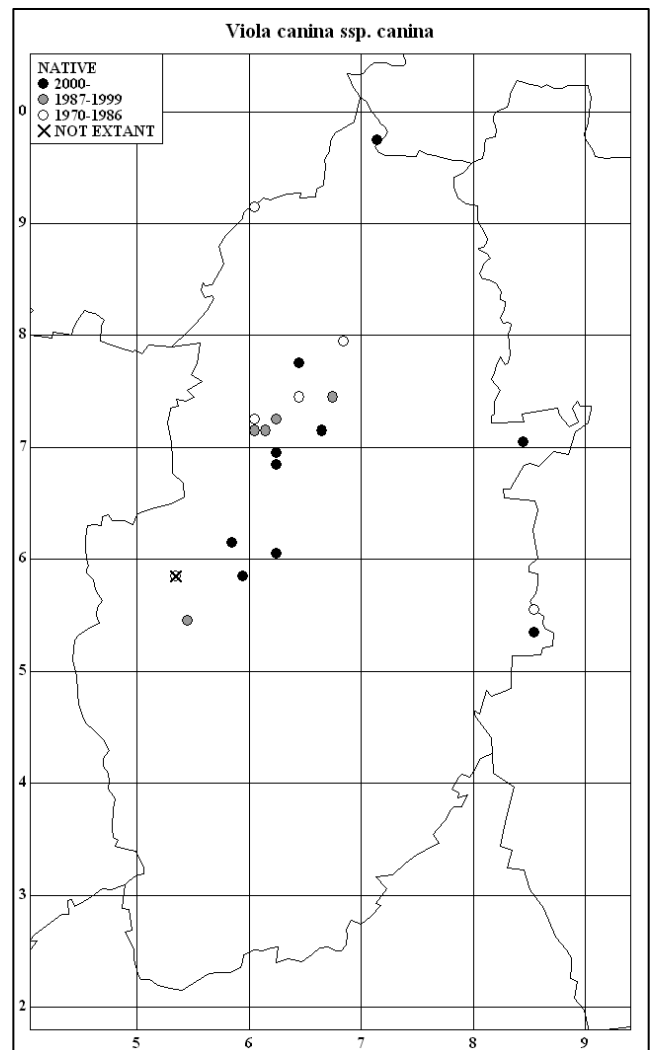
Location	GR	Date	Recorder
Wellow Park	SK685675	1972	JH
Wellow Park	SK681674	1972	JH
Thurgarton Dumble	SK64 / SK65	1974	RCLH
Souther Wood	SK6749	1974	RCLH
Jackson's Wood	SK649543	1977	Woll.
Holme Pierrepont	SK622398	1987	DCW
Redgate Wood	SK676597	1994	DCW, MW
Flintham Wood	SK7248	1997	PA
Bevercotes Park	SK701709	1998	DCW
Epperstone Park	SK643497	2007	DCW
Epperstone Park	SK638508	2007	DCW
Epperstone Park	SK638499	2007	DCW
Epperstone Park	SK646496	2007	DCW
Bevercotes Park	SK701705	2009	DCW
Wellow Park	SK687672	2009	DCW
Wellow Park	SK685669	2009	DCW
Wellow Park	SK685673	2009	DCW
Wellow Park	SK690674	2009	DCW
Wellow Park	SK692673	2009	DCW
Wellow Park	SK685672	2011	DCW
Epperstone Park	SK637501	2012	DCW

Viola canina subsp. *canina* L.

Heath Dog-violet

National Status: Near Threatened
Nottinghamshire Uncommon
Monads: 21

Declines in the VC appear to reflect the national declines, brought about by habitat loss, drainage, agricultural improvement and under-grazing. Howitt & Howitt (1963) described the species as being a locally frequent native of heathlands and sandy woods. It was formally common on Sherwood heaths and sandy soils of the River Idle valley, but was also found on the blown sands to the east of the River Trent and elsewhere, wherever sandy soils were present. Since 1970 the species has become generally uncommon, being recorded in only 21 rolling monads, but it still occupies similar soils and range of habitat types.

*Viola canina* subsp. *montana* (L.) Fries.

Heath Dog-violet

National Status: Endangered
Nottinghamshire Extinct

R.C.L. Howitt last recorded subspecies *montana* before 1963 in peaty meadows at two locations in the VC. Prof. D. H. Valentine determined both records. The species has not been seen since 1970 at either location or anywhere else in the VC, probably because of drainage or the direct destruction of fens.

Location	GR	Date	Recorder
Gonalston	SK64	<1963	RCLH
Clifton	SK53	<1963	RCLH

Viola palustris L.

Marsh Violet

National Status: Least Concern**Nottinghamshire Rare****Monads:** 3

Preston *et al.* (2002) states that marsh violet *Viola palustris* is now absent from large areas of the Midlands. Howitt & Howitt (1963) stated that the species occurred in bogs and boggy woodlands and was "less frequent than formerly." *Viola palustris* (Continued)

Historically the species was recorded throughout the VC, but was only considered to be frequent in the Sherwood area. Since 1970 the species has persisted at only three sites in the Sherwood area. Other populations at Rainworth Lakes (SK583579), Newstead Reedwater Pond (SK539542), Newstead Dumbles (SK532537) Spalford (SK8369) and Ling's Wood Scaftworth (SK668908) are probably no longer extant, because of habitat change and/or loss.

Location	GR	Date	Recorder
Fountain Dale	SK573573	1972	JH
Hollinwell Golf Course	SK526544	1972	Woll.
Fouleil Brook	SK577583	1991	DCW, Woll.
Fouleil Brook	SK580583	1991	DCW, Woll.
Fountain Dale	SK568569	2001	DCW
Hollinwell Golf Course	SK526545	2009	DCW

Viola lutea Huds.

Mountain Pansy

National Status: Least Concern**Nottinghamshire Extinct**

G. Howitt recorded mountain pansy *Viola lutea* in the early part of the 19th Century at Bramcote in what was described as "upland pastures". This was the only record and it has not been seen since 1839.

Location	GR	Date	Recorder
Bramcote Pasture	SK53	1839	GH

Viola persicifolia Schreb.

Fen Violet

National Status: Endangered, Schedule 8: Wildlife & Countryside Act 1981, Nationally Rare**Nottinghamshire Extinct**

Fen violet *Viola persicifolia* (recorded as *V. stagnina*) was located at three locations in the north of the VC in peaty meadows. The species was found in a dyke at Gringley Carr, in meadows between Misson and Misterton and between Misson and Lewington. Howitt & Howitt (1963) stated that the species was flourishing between Misson and Newington in 1952, but by 1956 was no longer extant, because of ploughing and re-seeding.

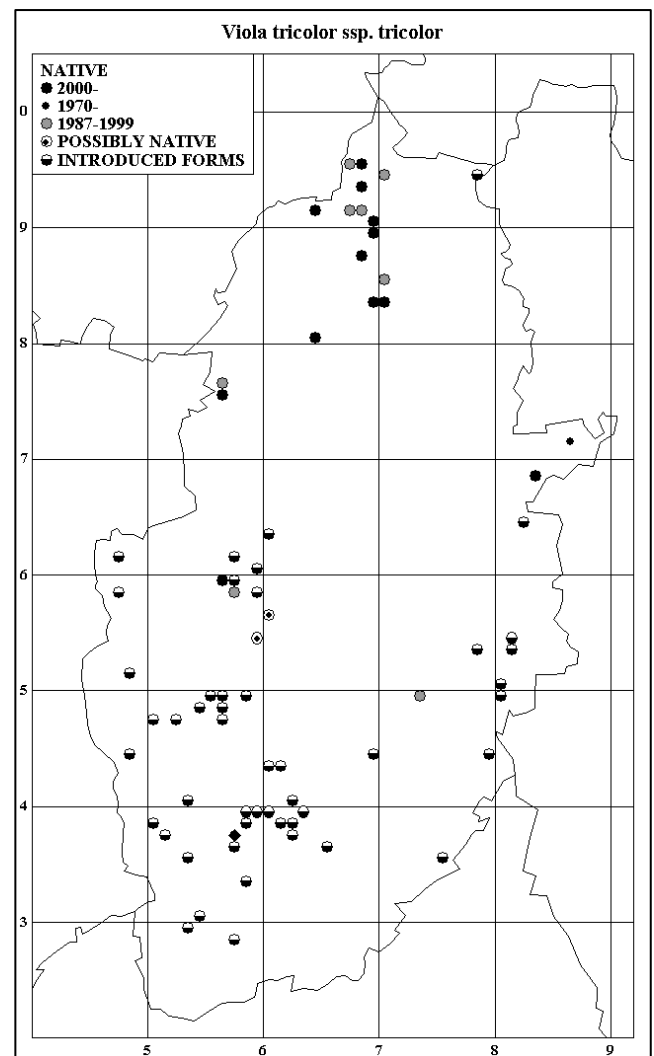
Location	GR	Date	Recorder
Between Misson and Newington	SK69	1952	RCLH

Viola tricolor subsp. *tricolor* L.

Heartsease

National Status: Near Threatened**Nottinghamshire Uncommon****Monads:** 22

Howitt & Howitt (1963) described heartsease *Viola tricolor* subsp. *tricolor* as a common and widespread native in arable fields. The decline in the VC since 1963 reflects the national declines described by Preston *et al.* (2002) and has presumably been caused by habitat loss and agricultural improvement. Many of the modern records are associated with sand pits, conifer forest tracks and sandy verges that to some extent have provided replacement habitat for the huge losses of sandy grasslands and heathlands, which have occurred in the VC. The majority of records are introduced forms, which are found scattered throughout the VC.

*Viola x bavarica* Schrank*V. riviniana x reichenbachiana***National Status:** Scattered**Nottinghamshire Rare****Monads:** 1

Stace (2010) describes this hybrid as "only sparsely scattered throughout the range of early dog violet *Viola reichenbachiana* despite the frequent cohabitation of the parents." This observation goes some way to explaining why the hybrid, despite searches of sites where both parents occur, has not been recorded in the VC until 2012.

Location	GR	Date	Recorder
Wilwell Cutting	SK567349	2012	DCW

Viola x intersita Beck*V. riviniana x canina***National Status:** Data Deficient**Nottinghamshire Rare****Monads:** 1

Howitt & Howitt (1963) listed one record for this sterile hybrid at Lound in the north of the VC, but details of the recorder and the date were not provided. In modern times, the hybrid has been recorded once on the north side of the Apleyhead road verges at Clumber Park from SK644773 to SK642773. The hybrid was first seen in 2004 and when last recorded in 2009 was frequent, with both parents being present.

Viola x intersita (Continued)

Location	GR	Date	Recorder
Apleyhead Verges, Clumber Park	SK643773	2009	DCW

Viola x scabra F. Braun*V. odorata x hirta***National Status:** Data Deficient**Nottinghamshire** Rare**Monads:** 3

Howitt & Howitt (1963) described two records for the partially fertile *Viola x scabra*, which is found throughout England whenever the parents occur together, Stace (2010). J.W. Carr recorded the hybrid some time before 1909 at Widmerpool in the south of the VC and at Clipstone near Mansfield. Since 1970, the hybrid has been recorded at three scattered localities on Keuper Marl at East Markham, on Magnesian Limestone at Rhodesia and on Lias Clays at Owthorpe.

Location	GR	Date	Recorder
Cliff Gate, East Markham	SK724737	1999	DCW
Lady Lee Quarry	SK563794	2007	DCW
Herrywell Lane, Owthorpe	SK665329	2010	DCW

X Conyzigeron huelsenii (Vatke)
Rauschert*Erigeron acris x Conyza*
*canadensis***National Status:** Sporadic**Nottinghamshire** Rare**Monads:** 1

Nationally, this sterile, generic hybrid is of sporadic occurrence wherever the parents occur together, Stace (2010). It is generally associated with disturbed habitats, is intermediate in hairiness and capitulum size and has mauve ligules. At Lound, several plants were recorded growing on barish sandy/gravelly overburden. Although the Lound record is the first for the VC, the parents regularly grow in close proximity to each other and it is probably worthwhile searching for the hybrid in such circumstances.

Location	GR	Date	Recorder
Lound Gravel Pits	SK701871	2004	DCW

X Dactylodenia heinzelliana
(Reichardt) Garay & H.R. Sweet*Gymnadenia conopsea x*
*Dactylorhiza fuchsii***National Status:** Scattered**Nottinghamshire** Rare**Monads:** 1

Nationally this hybrid has been recorded in scattered localities throughout most of Britain. There are no known pre-1970 records. This single record originates from Magnesian Limestone grassland in a Nottinghamshire Wildlife Trust Nature Reserve. The single plant was recorded in close proximity to both parents.

Location	GR	Date	Recorder
Kirkby Bentick	SK49475510	2008	RAJ

Vulnerable Taxa

This section includes those taxa that still occupy more than 10 (but less than 20) rolling monads in the VC, but have been included because of their conservation interest or concerns regarding their vulnerability to declines. Most of the taxa included here have undergone significant historical declines and without targeted action will be vulnerable to further declines.

In addition to the reasons provided above, it is now 50 years since the publication of the last county flora and whilst work is being undertaken to prepare a new county flora, publication is not imminent. The publication of this register provides an opportunity to describe taxa that are still a priority for conservation action, but are of slightly less priority than those taxa in the section above.

Blechnum spicant

Hard Fern

National Status: Least Concern
Nottinghamshire Status: Declining
Monads: 14

Howitt & Howitt (1963) described hard fern *Blechnum spicant* as rare and decreasing in the VC, probably caused by the same factors that have been responsible for national declines including land drainage, loss of suitable woodland habitat and the agricultural improvement of heathlands. It is, however, apparent that many of the records described by Howitt & Howitt (1963) have not been recorded since 1970, but several of the records in the table below were not known before the 1970s. Therefore, it is possible that the species has colonised new sites and to some extent, compensated for the losses elsewhere. Although it is still relatively uncommon, it is possibly no longer declining in the county.

Location	GR	Date	Recorder
Broom Hill Wood	SK627832	1972	JH
Everton Carr Drain	SK695943	1978	Woll., JH
Budby South Forest	SK608693	2006	DCW
Misson Carr	SK717974	2012	DCW
Calverton Dismantled Railway Line	SK588521	2007	DCW
River Maun, Mansfield Woodhouse	SK559636	2007	DCW
River Maun, Mansfield Woodhouse	SK557635	2012	DCW
River Maun, Mansfield Woodhouse	SK558635	2012	DCW
River Maun, Mansfield Woodhouse	SK556634	2012	DCW
Oakfield Lane Sand Quarry	SK565665	2012	DCW
Papplewick Dismantled Railway Line	SK568508	2011	DCW
Papplewick Dismantled Railway Line	SK564506	2011	DCW
Stapleford Wood	SK853560	2008	DCW, RAJ
Stapleford Wood	SK852562	2008	DCW, RAJ
Stapleford Wood	SK854558	2012	RAJ
Stapleford Wood	SK854554	2008	DCW, RAJ
Stapleford Wood	SK857556	2008	DCW, RAJ
Stapleford Wood	SK851552	2008	DCW, RAJ
Felley Mill Plantation	SK481510	2011	DCW
Mansey Common	SK682608	2012	RAJ, DCW
Papplewick Dismantled Railway Line	SK566507	2011	DCW
Wigsley Wood	SK853704	2011	DCW, MW
Papplewick Dismantled Railway Line	SK581516	2012	DCW
Papplewick Dismantled Railway Line	SK578514	2012	DCW
Calverton Dismantled Railway Line	SK589521	2012	MW
Calverton Dismantled Railway Line	SK590521	2012	MW

Bromus racemosus L.

Smooth Brome

National Status: Least Concern
Nottinghamshire Status: Declining
Monads: 13

Smooth brome *Bromus racemosus* is an annual of unimproved grasslands, usually on damp, periodically flooded alluvial soils. Nationally the species has declined since the 1930s through drainage and agricultural improvement and it is likely that the declines in VC are for similar reasons.

Location	GR	Date	Recorder
Shire Dyke, Balderton	SK8349	1987	DCW
River Trent, North Muskham	SK804605	1996	DCW
South Muskham Field	SK759578	1998	DCW
Halam Grassland	SK663543	1999	DCW
The Beck Grassland	SK710618	1999	DCW
Upper Broughton Grassland	SK671255	1999	DCW
Upper Broughton Grassland	SK669256	1999	DCW
Brinsley Grassland	SK449503	2002	DCW
Hickling Grassland	SK659272	2008	DCW
Holme Pierrepont Grassland	SK621381	2009	DCW
Cotgrave Forest	SK648331	2010	DCW
Manor Farm Grassland	SK559255	2010	DCW
Woodside Farm Meadow	SK615258	2010	DCW
Eakring Meadows	SK709619	2011	MW
Brierley Forest Park / Herrod Hill Area	SK467602	2011	MW
Brinsley Grassland	SK450500	2011	DCW

Callitriche brutia subsp. *hamulata* Intermediate Water-starwort
(Kutz., ex W.D.J. Koch) O. Bolòs & Vigo

National Status: Least Concern
Nottinghamshire Status: Uncommon
Monads: 16

Nationally this perennial herb is found in deep still-water or fast-flowing rivers. In the VC, the species is mainly found in disused gravel-pits close to major rivers, but has recently been found in a nearly dry pond in scrub. Before 1970 the species was recorded only once in the VC, in a pond in Martin Wood, by Hesley in 1959. Since 1980 the species has been recorded in eleven monads throughout the county, which suggests that although the species is uncommon, before 1970 the species was probably overlooked.

Location	GR	Date	Recorder
Magnus Drain, Everton Carr	SK7093 to SK7094	1980	NCC
Mother Drain, Haxey Gate	SK765960	1983	JOM
Newington Drove, Misson	SK675936	1983	JOM
Gringley Carr	SK728930	1984	JOM
Gringley Carr	SK79	1984	EC
Bulwell Wood	SK519465	1989	DCW
Black Pool, Besthorpe	SK821645	1990	DCW
Clifton Pond	SK533347	1991	DCW
Rampton Ballast Pit	SK833786	1991	DCW
Misson Line Bank	SK715960	1994	DCW
Misson Line Bank	SK716961	1994	DCW

Callitriche brutia subsp. *hamulata* (Continued)

Location	GR	Date	Recorder
Attenborough Gravel Pits	SK520337	2001	DCW
Fiskerton Pond	SK732502	2001	DCW
Adbolton Pool	SK603385	2001	DCW
Newark-on-Trent Drain	SK793547	2002	DCW
Hollinwell Golf Course	SK524546	2009	DCW
Houghton Decoy	SK683718	2011	DCW, MW
Scrooby Sand Pit	SK654903	2012	DCW, JC

Carex lepidocarpa Tausch.

Long-stalked Yellow Sedge

National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 13

The species is associated with base-rich streams and marshes and has never been common in the county. Before 1970, the species was considered by Howitt & Howitt (1963) to be rare and all but one of the records was located on the Magnesian Limestone. Since 1970, the species has also been recorded on base-rich clays at Gonalston, Wilford and Ruddington. The species is considered to be vulnerable to further declines, because several of the populations are located outside of designated sites or nature reserves.

Location	GR	Date	Recorder
Gonalston Grassland	SK6647 / SK6747	1974	RCLH
Quarry Banks	SK536519	1978	NRL, CGC, KLJ
Rempstone Old Churchyard	SK5625	1982	DCW
Jarvis's Quarry, Linby	SK533522	1988	Woll., GL
Wilwell Cutting	SK5634	1996	MW
Skegby	SK494616	2003	DCW
Skegby	SK495617	2005	RAJ
Bogs Farm Quarry	SK481533	2005	DCW
Dyscarr Wood	SK579875	2006	DCW
Shireoaks Park	SK548804	2007	DCW
Shireoaks Park	SK544802	2007	DCW
Sookholme Moor	SK554678	2007	DCW
Teversal	SK490637	2008	DCW
Wilwell Cutting	SK567351	2012	DCW
Bentnck Void	SK489534	2012	DCW
The Dumbles	SK497509	2011	DCW
Wilford Claypit	SK570355	2012	DCW
Wilford Claypit	SK569356	2012	DCW

Carex pallescens L.

Pale Sedge

National Status: Least Concern**Nottinghamshire Status:** Declining**Monads:** 13

Howitt & Howitt (1963) considered that pale sedge *Carex pallescens*, a species of woodland rides and grassy places, was formerly frequent in the VC, but was declining in the latter part of the 20th Century. They listed records from many parts of the VC with the exception of areas overlying the Bunter Sandstone. Since 1970 the species has been recorded at 13 sites including two sites on the Bunter Sandstone at Thieves Wood and Jack'O' Sherwood.

Location	GR	Date	Recorder
Bentnck Void	SK489534	2009	MW, DCW
Bentnck Void	SK488533	2009	MW, DCW
Bagthorpe Meadows	SK468518	1997	DCW
Bulwell Hall Park	SK534470	2002	PA, DCW, RAJ
Bulwell Hall Park	SK534470	2010	DCW
Gamston Wood	SK7276	1984	DCW
Langold Country Park	SK580867	2006	DCW
Rempstone Old Churchyard	SK565250	1998	DCW

Carex pallescens (Continued)

Location	GR	Date	Recorder
Rushcliffe Golf Course	SK546278	1994	DCW
Rushcliffe Golf Course	SK542284	2009	DCW
Thieves Wood	SK544566	1992	DCW, PA
Jack 'O' Sherwood	SK544524	1978	CGC
Wellow Park	SK690673	2005	DCW
Wellow Park	SK693675	2005	DCW
Leake New Wood	SK540284	1994	DCW
Brinsley Grassland	SK448505	2011	DCW
Park Springs Wood	SK723584	2012	DCW

Catabrosa aquatica (L.) P. Beauv.

Whorl Grass

National Status: Least Concern**Nottinghamshire Status:** Declining**Monads:** 18

Before 1970, the species was widespread in Nottinghamshire on the margins of canals and streams. The modern declines are likely to be caused by the same factors that have caused national declines and include the destruction and/or neglect of ponds and the canalisation of streams. In recent times, the population on the Nottingham Canal at Awsworth (SK476434) has not been seen since 1978 and the fly-ash lagoon at Meering (SK819658) was reclaimed for agriculture some time between 2005 and 2009. All sites in SK69 have been lost as a result of the Idle pump drainage scheme that commenced in the late 1970's.

Location	GR	Date	Recorder
Everton Carr Drain	SK693923	1972	JH
Everton Carr Drain	SK691923	1972	JH
Everton Carr Drain	SK695942	1972	JH
Everton Carr Drain	SK693947	1972	JH
Everton Carr Drain	SK694943	1972	JH
Scrooby Drain	SK654923	1972	JH
Scrooby Drain	SK656917	1972	JH
South Holme Dyke, Sutton-on-Trent	SK807663	1972	JH
Delve Drain, Everton Carr	SK690942	1978	Woll.
Garden Lake, Newstead	SK5453	1978	Woll.
Scrooby Drain	SK653922	1983	JOM
Shelford Field Drain	SK665418	1987	CJ
The Beck Grassland	SK710618	1988	Woll.
River Leen, Papplewick Moor	SK546505	1991	GL, PS
River Meden, Sookholme Moor	SK556680	2001	Woll., GL
River Meden, Sookholme Moor	SK554678	2006	DCW, MW
Spalford Gravel Pits	SK827686	2006	DCW
South Holme Dyke, Sutton-on-Trent	SK805655	2006	DCW
South Holme Dyke, Sutton-on-Trent	SK807663	2006	DCW
River Meden, Meden Vale	SK583697	2008	DCW
Wollaton Park	SK527384	2012	DCW
Wollaton Park Ha-Ha Pond	SK527393	2012	DCW
Wollaton Park Ha-Ha	SK531386	2008	DCW
Shelford Drain	SK667420	2010	DCW
River Trent, Collingham	SK805624	2011	MW, DCW

Chrysosplenium alternifolium L.

Alternate-leaved Golden Saxifrage

National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 13

The species is generally associated with wet alder type woods, often by streams. Before 1970 the species was recorded at nine locations in the VC.

Chrysosplenium alternifolium (Continued)

Since 1970, the number of sites has increased to thirteen sites with new records at Carlton-in-Lindrick, Edingley, Oxtun, Halam, Annesley, Wellow Park and Papplewick, but losses have occurred at Farnsfield, Fountindale and Thurgarton. Given the locations of the new records, for the most part in old woodlands, it is likely that the species was present before 1970 and overlooked.

Location	GR	Date	Recorder
Chequer Bottoms	SK636804	1970s	JH
Middle Ashes	SK657717	1992	DCW
Middle Ashes	SK653717	1992	DCW
Chequer Bottoms	SK646811	1995	DCW
Chequer Bottoms	SK647814	1995	DCW
River Ryton Woodland	SK623797	1995	DCW
River Ryton Woodland	SK618792	1995	DCW
River Ryton Woodland	SK617791	1995	DCW
Clumber Park	SK617734	2004	DCW, JH
Nab's Ashes Wood	SK5824582440	2006	DCW
River Greet Woodland	SK686569	2007	DCW, RW
Oxtun Dumble	SK639521	2007	DCW, RW
Oxtun Dumble	SK640522	2007	DCW, RW
Oxtun Dumble	SK638518	1995	DCW
Oxtun Dumble	SK643524	2007	DCW, RW
Oxtun Dumble	SK642523	2007	DCW, RW
Oxtun Dumble	SK646528	1995	DCW
Oxtun Dumble	SK646529	2007	DCW, RW
Margaret's Spring	SK639539	2012	DCW
Budby Carr	SK617701	2009	DCW
Budby Carr	SK619703	1970s	JH
Wellow Park	SK685671	2009	DCW
The Dumbles	SK488502	2011	DCW, MW
The Dumbles	SK490503	2011	DCW, MW
The Dumbles	SK494503	2011	DCW, MW
The Dumbles	SK491502	2011	DCW
Church Plantation	SK544514	2012	MW
Radley Lane Dumble	SK667535	2012	DCW

Epilobium x interjectum Smejkal*E. ciliatum x montanum***National Status:** Data Deficient**Nottinghamshire Status:** Uncommon**Monads:** 12

This partially fertile hybrid is widespread in Great Britain and is associated with disturbed ground such as roadside verges, quarries, felled woodland, shrubberies and amenity plantings. There are no pre-1970 records for the VC, but in recent times the hybrid has been recorded in twelve monads. This hybrid is perhaps under-recorded given the abundance of the parents and the regularity with which the two species occur together.

Location	GR	Date	Recorder
East Leake Disused Railway	SK553284	1994	DCW
East Leake Disused Railway	SK5425	1994	DCW
Wilwell Cutting	SK567350	1994	DCW
Wilwell Cutting	SK5634	2002	DCW
Holme Pierrepont Gravel Pits	SK619392	1997	DCW
Kilvington Dismantled railway	SK7942	1998	DCW
Boughton Colliery	SK679674	1999	DCW
Stanton-on-the-Wolds	SK62730	2000	DCW
Cotgrave Disused Railway Line	SK641370	2001	DCW
Hucknall Colliery	SK539490	2002	DCW
Wilford	SK565365	2004	DCW
Nottingham Factory Site	SK562386	2011	DCW

Epilobium x limosum Schurl.*E. montanum x parviflorum***National Status:** Data Deficient**Nottinghamshire Status:** Uncommon**Monads:** 11

This native, partially sterile hybrid is capable of producing F₂ progeny. There are no pre-1970 records for the VC, but in recent times the species has been recorded in eleven rolling monads on dismantled railway line verges, a track-side ditch, a car park, arable fields and a landfill site. A population at Bunny Land-fill (SK504387) is no longer extant, because the site has been capped and landscaped. It is probably under-recorded

Location	GR	Date	Recorder
Bramcote Landfill	SK504387	2007	DCW
Carlton-in-Lindrick	SK594851	1997	DCW
Dukes Wood	SK679602	1997	DCW
Cotgrave Dismantled Railway Line	SK642369	2011	DCW
East Leake Great Central Railway Line	SK555287	2009	DCW
Stanford-on-Soar Great Central Railway Line	SK537229	2011	DCW, MW
Holme Pierrepont Gravel Pits	SK619392	2001	DCW
Hucknall Dismantled Railway Line	SK552493	2007	DCW
Wells Farm, Woodcoates	SK783716	2010	DCW
Clipstone Dismantled Railway Line	SK596625	2012	DCW
Epperstone Park	SK637501	2012	DCW

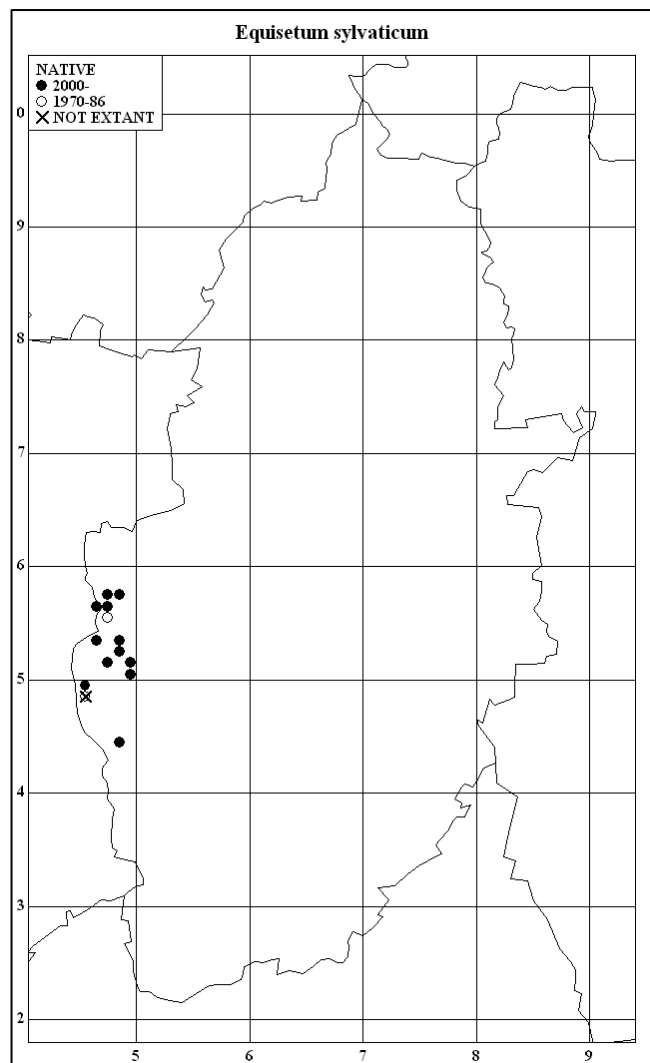
Equisetum sylvaticum L.

Wood Horsetail

National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 13

Before 1970 wood horsetail *Equisetum sylvaticum* was found in woods and shady places on the Coal Measures in the west of the VC and in the 18th and 19th Centuries on the Permian Marls near Nottingham, Newark and Southwell. In modern times the species has not been recorded on the Marls, probably because of habitat losses or change of land use and has been lost from a site at Eastwood (SK4547 / SK4548). However, on the Coal Measures, the species is still found in eleven rolling monads and at some sites such as The Dumbles at Annesley, Kirkby Dumble and Selston it is present in large quantity.

Location	GR	Date	Recorder
Annesley Woodhouse, Bogs Farm Quarry	SK4811753418	2009	DCW
Annesley, The Dumbles	SK498506	2011	DCW, MW
Annesley, The Dumbles	SK498511	2011	DCW, MW
Awsorth Dismantled Railway Cutting	SK489445	/2011	DCW, MW
Bagthorpe Meadows	SK470518	2010	RAJ, DCW
Brinsley, Hobsic	SK457499	2008	DCW, PO
Felley, Millington Springs	SK483522	2008	DCW, MW
Felley, Millington Springs	SK484522	2008	DCW, MW
Fulwood, Kirkby Dumble	SK478567	2008	RAJ
Fulwood, Kirkby Dumble	SK481574	2008	RAJ
Fulwood, Kirkby Dumble	SK480574	2009	RAJ, DCW
Fulwood, Kirkby Dumble	SK478569	2011	RAJ, DCW, JC
Fulwood, Kirkby Dumble	SK478571	2011	RAJ, DCW, JC
Kirkby-in-Ashfield	SK469563	2002	DCW
Kirkby-in-Ashfield, Shire Carr Farm	SK476557	1986	CN, GW
Selston Stream	SK464532	2011	DCW
Underwood Drain	SK471511	1989	CJ



Galium palustre subsp. *elongatum* (C. Presl.) Arcangeli A Marsh-bedstraw

National Status: Data Deficient

Nottinghamshire Status: Uncommon (probably under recorded)

Monads: 11

The marsh bedstraw *Galium palustre* subsp. *elongatum* is a more robust, larger taxon than sub-species *palustre* or sub-species *tetralioides* and is generally associated with more base-rich soils and wetter habitats. Although the sub-species *elongatum* is thought to be less common than the other sub-species, Sell & Murrell (2006) state that it may be under-recorded. Historically the status of the sub-species in the VC is not known, because Howitt & Howitt (1963) only recognised *Galium palustre* var. *witheringii* Sm. (which is now recognised as sub-species *palustre*). Since 1970 the sub-species has been recorded in the south, east and northeast of the VC at eleven locations.

Location	GR	Date	Recorder
Misson Line Bank	SK710961	1983	JOM
Stapleford Flood Pasture	SK486383	1997	DCW
Stanford-on-Soar	SK5422	1998	DCW
Ossington Pond	SK7564	1999	DCW
Bole Ings	SK8087	1999	DCW
Holme Pit	SK536345	2002	DCW
Radcliffe-on-Trent Pond	SK649403	2005	DCW
Attenborough Gravel Pits	SK528355	2006	RAJ, PA
Chesterfield Canal, Clayworth	SK7288	2009	DAB
Meering	SK818663	2012	RAJ
The Fleet, Gorton	SK825652	2012	RAJ

Hottonia palustris Honck.

Water Violet

National Status: Least Concern

Nottinghamshire Status: Declining

Monads: 14

Before 1970 the water violet *Hottonia palustris* was widespread, but local in drains and ponds on light soils and peat. Since the 1960s the species has been in decline and all of the remaining populations are associated with drains and pools on light soils in the east and northeast of the VC. Populations on peat in the north and in close proximity to Nottingham are no longer extant, because of drainage, eutrophication and habitat destruction. Further losses have occurred in more recent times in the Shire Dyke at Balderton (SK812478), drains in Spalford (SK8269) and a drain at Everton Carr (SK666906).

Location	GR	Date	Recorder
Collingham Field Pond	SK836612	1978	NRL, KLJ, CGC
Shire Dyke, Balderton	SK812478 - SK834498	1988	DCW
Ox-pasture Drain, Broadholme	SK8773	1988	IW, RN
Ox-pasture Drain, Thorney	SK868714	1990	DCW
Rampton Borrow Pit	SK833793	1991	DCW
Old Trent Dyke, Newark-on-Trent	SK788541	1996	DCW
Old Trent Dyke, Newark-on-Trent	SK790540	1996	DCW
Borrow Dyke, Newark-on-Trent	SK792540	1996	DCW
High Marnham Power Station Lagoon	SK810711	1998	PA
Ox-pasture Drain, Thorney	SK872716	1998	DCW
Crow Wood Drain, Thorney	SK867727	1998	DCW
South Muskham Drain	SK788584	2003	RAJ
South Muskham Drain	SK789579	2003	DCW, RAJ
South Muskham Drain	SK789582	2003	DCW
Shire Dyke, Balderton	SK826485 - SK833489	2004	DCW, Gwi
Shire Dyke, Balderton	SK833491	2004	DCW
Shire Dyke, Balderton	SK834498	2004	DCW
Balderfield	SK8148	2004	DCW
Darnsyke, Thorney	SK856740	2004	DCW
Darnsyke, Thorney	SK856739	2004	DCW
The Ring Drain, Thorney	SK870729 - SK871737	1998	DCW
The Ring Drain, Thorney	SK870729	2007	DCW
Thorney Field Drain	SK870740	2007	DCW
Wigsley Wood Drain	SK852706	2011	DCW, MW
Borrow Dyke, Newark-on-Trent	SK789539	2011	DCW
The Ring Drain, Thorney	SK871730	2011	DCW, MW
Old Trent Dyke, Newark-on-Trent	SK783544	2012	JC

Hypericum maculatum Crantz

Imperforate St.John's-wort

National Status: Least Concern

Nottinghamshire Status: Uncommon

Monads: 12

Howitt & Howitt (1963) regarded imperforate St John's-wort *Hypericum maculatum* as very rare and only two historical records were provided. In the 19th Century the species was recorded on a roadside bank near West Bridgeford and in the 20th Century the species was recorded by Harlow Wood Hospital, presumably in Harlow Wood on sandy soils. In recent times the species has been recorded at a variety of sites across the VC in both semi-natural and artificial habitats. Given the diversity of habitats and soil types in which the species is found, it is possible that the species may have been overlooked before 1970, similar to the national situation, Preston *et al.* (2002).

Hypericum maculatum (Continued)

In recent times the species has been lost from Beeston Weir (SK535352), probably due to works associated with a hydro-electric scheme, and also at Holme Pierrepont (SK613379), because of habitat loss.

Location	GR	Date	Recorder
Gateford Fox Covert	SK563820	1972	JH
Cotgrave Forest	SK646335	1989	DCW
Cotgrave Forest	SK648336	1989	DCW
Huthwaite Dismantled Railway Line	SK463580	1992	DCW
West Bridgford Dismantled Railway Line	SK589361	1993	DCW
Wellow Park	SK6867	1996	SFW, BES
Huthwaite Dismantled Railway Line	SK465577	1997	DCW
Edwinstowe Dismantled Railway Line	SK644666	1997	DCW
Sookholme Colliery Tip	SK540676	1997	DCW
Clifton Bridge	SK558365	Undated	RAJ, PA
Cotgrave Forest	SK651330	2010	DCW
Willoughby-on-the-Wolds	SK648252	2010	DCW
Silverhill Colliery site	SK477620	2011	DCW, MW

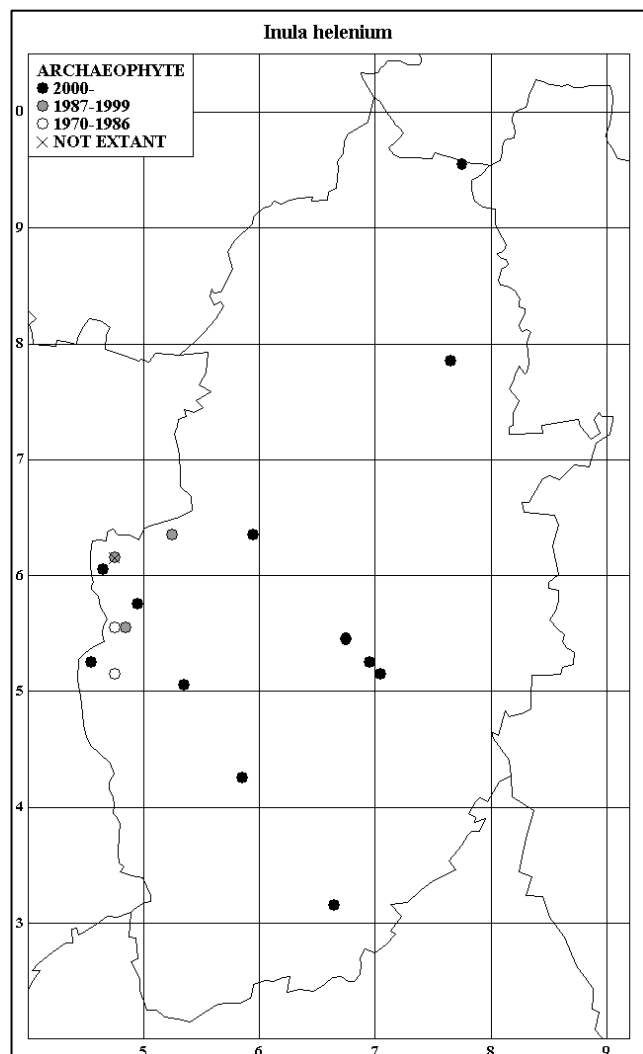
Inula helenium L.

Elecampane

National Status: Least Concern

Nottinghamshire Status: Uncommon

Monads: 16

*Inula helenium* (Continued)

Howitt and Howitt (1963) considered that the species was extinct in the VC and provided only two records; at Walkeringham and Walkerth Ferry. According to Stace (2010), the species is becoming less common nationally, because it is grown less. Since 1970 the species has been recorded in 17 monads, scattered throughout the county in various habitat types including semi-natural and artificial habitats, often some distance from the nearest habitation. In recent years, one significant population at the Tversal Trail (SK479618) has been lost, because of habitat destruction.

Lathyrus nissolia L.

Grass Vetchling

National Status: Least Concern

Nottinghamshire Status: Uncommon

Monads: 11 (excluding 4 introduced populations)

Nottinghamshire is close to the northern edge of the range of grass vetchling *Lathyrus nissolia*, but it appears to be increasing its range and abundance. In the VC it used to be very rare in the 1960s, but there have been an increasing number of records in ruderal grassland, and it is increasingly included as a component in commercial seed mixes. The Langford Lowfields RSPB Reserve population, two West Bridgford populations and possibly the University population (marked with an asterix) are believed to be introductions. Despite the gains, populations have been lost from Kirkby Bentinck (SK492552) for unknown reasons and also from the Royal Ordnance Depot (SK561386), because of habitat loss. Additional to the ability of the species to colonise new sites, it also appears to be very resilient at some sites. The species is still present approximately 204 years after being first recorded at Beacon Hill near Newark-on-Trent by T. Ordoyno, but it appears to have moved from the original location on the edge of cornfields to brick pits and then latterly, into rough grassland.

Location	GR	Date	Recorder
Pudding Poke Wood	SK679602	2012	NRL, DCW
Welbeck Estate Road Verge	SK5674	2012	RAF
Welbeck Estate Road Verge	SK5873	2012	RAF
Gotham Roadside Verge	SK533299	2001	RAJ
Beacon Hill	SK814543	2003	SW, DCW
Newthorpe Common	SK473454	2004	RAJ
Hawton Works	SK802504	2006	DCW
Hawton Works	SK802506	2012	NC
Hawton Works	SK804503	2012	NC
Hawton Works	SK799506	2006	DCW
Ranskill	SK663878	2006	DCW
Boughton Grassland	SK677676	2007	RAJ
Boughton Grassland	SK671674	2007	RAJ
Boughton Grassland	SK670674	2007	RAJ
Boughton Grassland	SK669674	2007	RAJ
Birdcage Walk, River Leen	SK560384	2008	WM
Birdcage Walk, River Leen	SK562384	2012	WM
Annesley Woodhouse Grassland*	SK504534	2009	DCW
University of Nottingham Lenton Lane Campus	SK558383	2010	DCW
'Collington Common', West Bridgford	SK577366	2012	DCW
'The Hook', West Bridgford	SK594387	2012	DCW
Langford Lowfields	SK818607	2012	CC

Linaria repens (L.) Mill.

Pale Toadflax

National Status: Least Concern

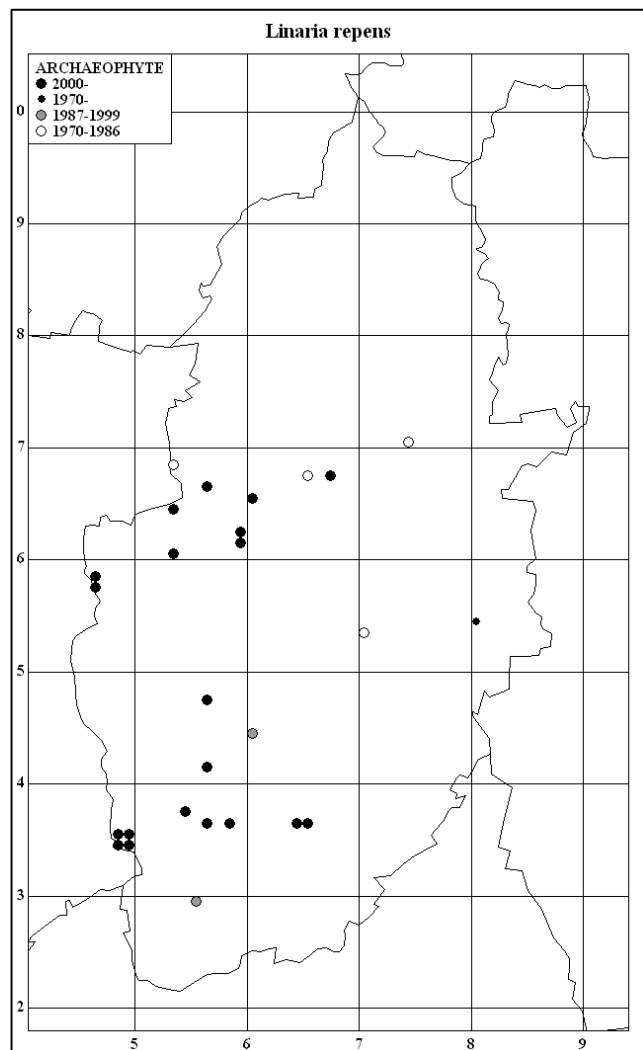
Nottinghamshire Status: Uncommon

Monads: 28

This species is scattered over much of Britain, but is only frequent in the south and west of Britain. In the VC the species is considered to be an archaeophyte and Howitt & Howitt (1963), provided three scattered records including Farndon, Southwell and Gringley.

Linaria repens (Continued)

Since 1970, the species appears to have disappeared from its former stations, but has become more widespread, particularly on railway sites.



Lythrum portula (L.) D.A. Webb

Water Purslane

National Status: Least Concern
Nottinghamshire Status: Declining
Monads: 20

Water purslane *Lythrum portula* at Budby South Forest



Source S. Hammonds

Lythrum portula (Continued)

Water purslane *Lythrum portula* has always been local, but scattered in the VC, chiefly on sand. Interestingly, it has not survived at any of the sites described by Howitt & Howitt (1963), but has been located on nearby sites. For example the record for Attenborough Gravel Pits is less than 2km from the historic record at Clifton Grove; the Stapleford Woods record is less than 2km from Coddington and Langford Moors sites. The loss of historic populations is probably because of habitat destruction or natural succession, which has modified the habitat to the point where it is no longer suitable. With the exception of Budby South Forest, which supports the largest populations in the VC, many other extant populations are associated with new habitats that have been created by human activity or disturbance.

Location	GR	Date	Recorder
Thoresby Park	SK645732	1978	Woll.
Black Pool (Edwinstowe)	SK5967	1996	NRL
Clumber Park	SK632737	2011	DCW
Clumber Park	SK620728	2000	DCW
Boughton Brake	SK671701	2003	DCW
Rainworth Water	SK593587	2003	DCW
Attenborough Gravel Pits	SK520338	2010	DCW
Warsop Disused Sand Quarry	SK565666	2012	DCW
Calverton Plantations	SK584523	2008	DCW
Stapleford Wood	SK585555	2008	DCW
Misson Sand Pit	SK680956	2011	DCW, MW
Misson Sand Pit	SK677959	2011	DCW, MW
Misson Sand Pit	SK676957	2011	DCW, MW
Budby South Forest	SK6168	2011	DCW, MW
Budby South Forest	SK6068	2012	RAJ, DCW, JC
Budby South Forest	SK6069	2012	RAJ, DCW, JC
Budby South Forest	SK6169	2012	RAJ, DCW, JC
Budby South Forest	SK6268	2012	RAJ, DCW, JC
Budby South Forest	SK6269	2012	RAJ, DCW, JC
Misson	SK689973	2010	DCW
Scrooby Sandpit	656903	2012	DCW
Scrooby Sandpit	656905	2012	DCW

Mentha x piperata L.

Peppermint

National Status: Least Concern
Nottinghamshire Status: Declining
Monads: 13

Howitt & Howitt (1963) stated that peppermint *Mentha x piperata* was generally found on streamsides and although widespread, it was already rare and declining before the 1960s. The species is still widespread, but it has only been recorded in 13 rolling monads. Nowadays it has less association with streamsides and more with sites where soil has been dumped. Both hairy and glabrous forms of the species have been recorded within the VC and have not been segregated.

Location	GR	Date	Recorder
Papplewick Meadows	SK546508	1991	GL
Bestwood Sand Quarry	SK565479	2012	MW
Summit Colliery, Kirkby-in-Ashfield	SK504571	2009	MW
Attenborough Gravel Pits	SK520339	2011	DCW
Commonside	SK462586	2012	DCW
Victoria Square, Worksop	SK5879	2011	GLC
Wollaton Park Lake	SK5238	2010	WM
Bagthorpe Brook	SK466515	2005	DCW
Bestwood	SK555485	2004	DCW
Bramcote Landfill	SK504388	2005	DCW
Mill Lakes, Broomhill	SK549479	2006	DCW
Mill Lakes, Broomhill	SK549482	1999	DCW
River Leen, Broomhill	SK547474	2002	DCW
Cauldwell Brook, Sutton-in-Ashfield	SK531583	2009	DCW
Newark Dismantled Railway	SK808535	2007	DCW
Teversal Trail	SK494636	2009	DCW

Montia fontana L.

Blinks

National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 12

Blinks *Montia fontana* is a species of damp hollows that was described by Howitt & Howitt (1963) as being local in the VC, but much more common in the Trent Valley. Modern records however, indicate a more widespread distribution within the county on a range of substrates. Although only two of the modern records have been determined as *M. fontana* subsp. *chondrosperma* (Fenzl) Walters; Howitt & Howitt (1963) considered that this subspecies was probably the most common of the subspecies in the VC.

Location	GR	Date	Recorder
Park Spring Wood	SK722582	1988	Woll.
Fouleil Brook, Rainworth	SK579583	1991	DCW
Holme Pierrepont Gravel Pits*	SK618387	1992	DCW
Bothamsall Disused Oil Well	SK659737	1996	DCW
West Drayton Grassland*	SK701751	1996	DCW
Fountain Dale	SK577575	1999	RAJ, PA
Attenborough Gravel Pits	SK518337	2000	JBr, EP
River Trent, Rolleston	SK764512	2004	DCW
Lound Gravel Pits	SK701872	2005	DCW
Lound Gravel Pits	SK711873	2005	DCW
Chouler's Gorse	SK761573	2010	DCW
Budby	SK6069	2012	KB
Calverton Dismantled Railway Line	SK612508	2012	DCW, MW

Montia fontana* subsp. *chondrospermaNarcissus pseudonarcissus* subsp. *pseudonarcissus* L.

Wild Daffodil

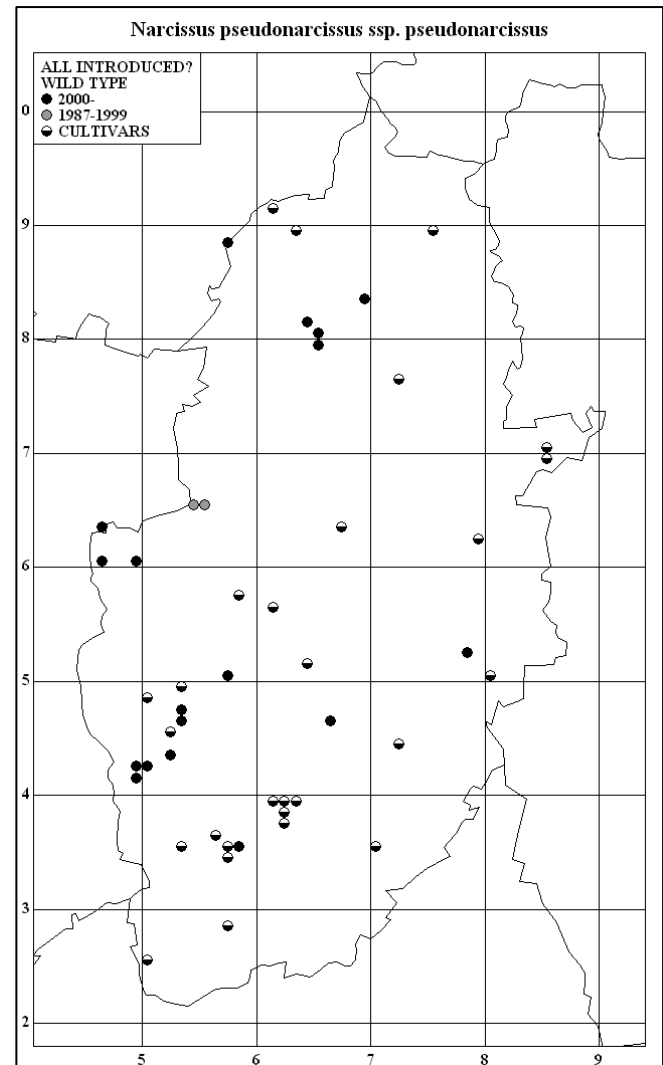
National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 48 (20 as the wild type)

Howitt & Howitt (1963) were very selective about which sites in the VC they considered to support native or 'wild type' daffodils. Only three localities were provided including a 'close' near Oxtol Toll Bar, Askham Closes and Babbington Springs. In modern times, wild type daffodils have been recorded at 16 sites, which are listed in the table below. At these sites the daffodil populations appear to be naturalised. There are a further 37 records for cultivars (shown on the map), but these records are not included because there is evidence of planting or they appear to have been planted / introduced. However, daffodils, which are not the 'wild types' have not been consistently recorded.

Location	GR	Date	Recorder
Nettleworth	SK548656	1994	DCW
Nettleworth	SK550654	1994	DCW
Nettleworth	SK551654	1994	DCW
Chequer Bottoms	SK645810	1995	DCW
Lady Spencer's Wood	SK469633	2002	DCW
Lady Spencer's Wood	SK468633	2002	DCW
Home Wood	SK532469	2004	DCW
Home Wood	SK533471	2004	DCW
Cow Wood	SK578885	2004	DCW
Bellmoor Gravel Pits	SK691839	2005	DCW
Morton Park	SK653799	2006	DCW
Morton Park	SK651800	2006	DCW
Burntstump Country Park	SK579506	2008	DCW
Lowdham Churchyard	SK663468	2008	DCW
Oldmoor Wood	SK498420	2008	PA, DCW
Oldmoor Wood	SK496419	2012	MS, CS
Oldmoor Wood	SK497419	2012	MS, CS
Oldmoor Wood	SK497420	2012	MS, CS
Devon Park, Newark-on-Trent	SK788527	2009	DCW
Herrod's Hill, Huthwaite	SK467603	2010	DCW
Broxtowe Boundary Bank	SK525433	2011	DCW

Narcissus pseudonarcissus subsp. *pseudonarcissus* (Continued)

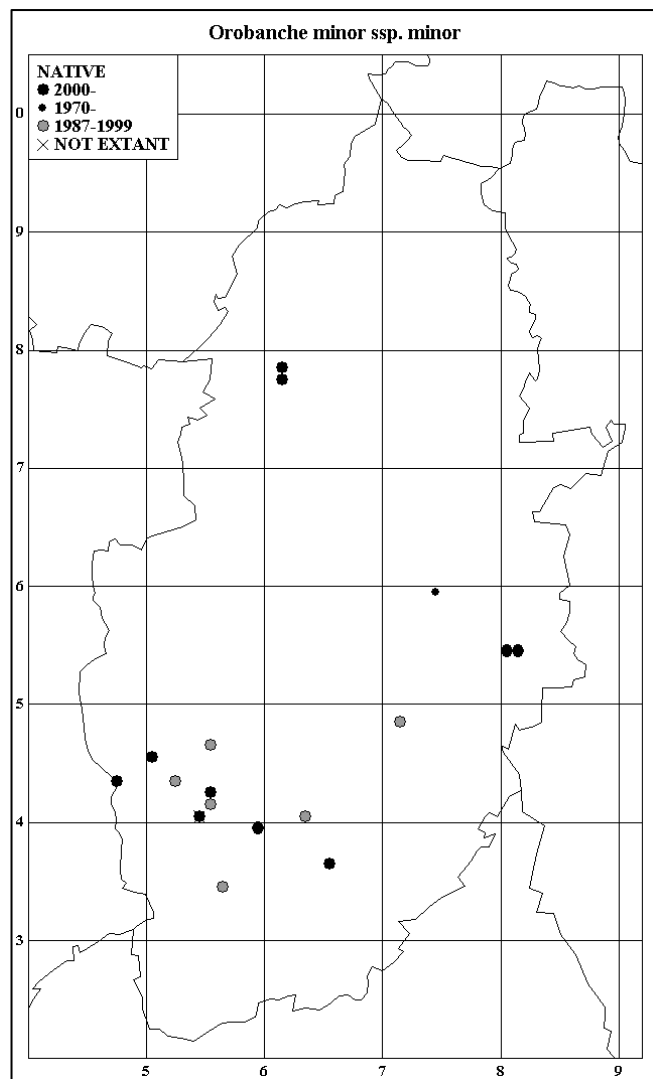
Location	GR	Date	Recorder
Skegby	SK494606	2011	DCW
West Bridgford Dismantled Railway Line	SK589359	2011	DCW
Broad Oak Plantation, Strelley	SK509425	2011	DCW

*Orobancha minor* Sm. subsp. *minor*

Common Broomrape

National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 17

Before 1963, the species had only been recorded at six sites on roadsides, waste places and in newly seeded fields of legumes. Since 1970 the species has been recorded at 17 sites that are scattered throughout the VC. The increased number of records may represent an actual increase in the abundance of the species in the VC or an increase in survey effort, but the species is included in this list because of the limited number of records over a 40-year period.

*Paris quadrifolia* L.

Herb Paris

National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 16

Although herb paris *Paris quadrifolia* is found in more than 10 rolling monads in the VC, it is included in this register because of its strong affinity with ancient woodland and somewhat restricted distribution. Given the protection of ancient woodland nowadays, the species is no longer threatened by habitat loss, but some populations are very small and could be affected by adverse stochastic events. A population at Treswell Wood (SK764791) has apparently been lost in recent times, but the reasons for this are not clear.

Location	GR	Date	Recorder
Redgate Wood	SK677601	1972	JH, Woll.
Bevercotes Park	SK700709	1977	JH
Bevercotes Park	SK699709	1977	CGC
Lady Wood	SK727589	1977	CGC
Dovedale Wood	SK464631	1985	Woll.
Eaton Wood	SK7277	1986	DCW
Watnall Coppice	SK5048	1986	DCW
Mather Wood	SK723593	1991	DCW
Mather Wood	SK725592	1991	DCW
Mather Wood	SK726593	1991	DCW
Halloughton Wood	SK675515	1999	DCW, MW
Wellow Park	SK686668	1999	DCW
Wellow Park	SK687669	1999	DCW
Blackholmes Wood	SK493635	2006	RAJ, DCW

Paris quadrifolia (Continued)

Location	GR	Date	Recorder
Bevercotes Park	SK7018870702	2006	DCW
Gamston Wood	SK728769	2008	DCW
Gamston Wood	SK729768	2012	NC
Gamston Wood	SK727766	2008	DCW
Gamston Wood	SK726770	2008	DCW
Gamston Wood	SK726766	2011	MW
High Park Wood	SK496494	2011	DCW, MW
Callis Hags	SK498491	2011	MW
Crossley Plantation	SK46966301	2011	DCW, MW
Crossley Plantation	SK46996299	2011	DCW, MW
Dovedale Wood	SK464631	2012	DCW

Polygala serpyllifolia Hose.

Heath Milkwort

National Status: Least Concern**Nottinghamshire Status:** Declining**Monads:** 15

This native species of heaths and pastures on acid soils was already in decline in Nottinghamshire by the middle of the 20th Century, because of habitat destruction and agricultural intensification. Since that time heath milkwort *Polygala serpyllifolia* has continued to decline with recent losses at Budby North Forest (SK610709) and Stonehills Plantation, Sutton-in-Ashfield (SK533584) and it is now confined to only 15 rolling monads in the VC.

Location	GR	Date	Recorder
Robbinettes, Cossall	SK4941	1989	DCW
Robbinettes, Cossall	SK4942	1989	DCW
Turmoor, Brough	SK856588	1994	DCW
Clipstone Dismantled Railway Line	SK592623	1995	DCW
Stapleford Wood	SK852554	1999	DCW
Stapleford Wood	SK853552	1999	DCW
Rainworth Heath	SK592596	2000	DCW
Rainworth Heath	SK592591	2000	DCW
Rufford Colliery Tip	SK594601	2000	MW
Ollerton Assarts	SK628687	2001	DCW
Vicar Water	SK594620	2001	DCW, MW
Apleyhead Verges, Clumber Park,	SK644773	2001	DCW
Clumber Lane, Clumber Park	SK612756	2001	DCW
Clumber Lane, Clumber Park	SK616754	2001	DCW
Manton	SK608763	2001	RAJ
Rainworth	SK593599	2002	DCW
Clipstone Forest	SK601626	2002	DCW
Budby South Forest	SK605692	2003	DCW
Rainworth	SK590612	2003	RAJ
Clipstone	SK603639	2004	RAJ
Middle Brook Grassland	SK478519	2008	DCW, MW
Sherwood Heath	SK6467	2010	MW
Misson Sand Pit*	SK679954	2011	DCW, MW
Clipstone Heath	SK593625	2012	DCW

*Unconfirmed

Potamogeton berchtoldii Fieber

Small Pondweed

National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 22

Historically this species was frequent in the Sherwood area in drains, gravel pits and slow streams in acid waters. Elsewhere it was recorded at Besthorpe in the east of the VC and in the River Devon at Staunton in the south of the VC. Since 1970, the species has become rare in the Sherwood area and has been recorded for the most part in the east or far north of the VC, especially on peaty soils, with two records close to the Leicestershire border in the south of the VC.

Potamogeton berchtoldii (Continued)

In addition to the records provided below there are a further 6 records that are not listed, because they remain unconfirmed.

Location	GR	Date	Recorder
Rampton Ballast Pit	SK87	1970	RCLH
Chesterfield Canal	SK68	1978	RCLH
Sledder Wood Pond	SK498469	1978	KLJ
Ring Drain, Thorney	SK8773	1978	NRL, CGC, KLJ
Grantham Canal, Hickling to Kinoulton	SK62	1978	RCLH
Claybank Farm, Everton Carr	SK694922	1983	JOM
Misterton Carr Drain	SK740954	1983	JOM
Cornley, SW of	SK740954	1983	JOM
Shire Dyke, Balderton	SK834496	1987	DCW
Misson Ballast Pits	SK714961	1989	DCW
Misson Ballast Pits	SK718964	1989	DCW
Shire Dyke, Balderton	SK835505	1996	DCW
Rempstone Old Churchyard	SK567250	1997	DCW, PA
Thorney Drain	SK867718	1998	DCW
Darnsyke, Thorney	SK856738	1998	DCW
Daneshill Lakes	SK668867	2001	NFS
Crow Wood Drain, Thorney	SK867727	2005	DCW
Delve Drain, Everton Carr	SK693946	2009	DCW
Misson Ballast Pits	SK713959	2010	DCW, MW
Magnus Drain, Everton Carr	SK704939	2011	DCW, MW
Magnus Drain, Everton Carr	SK705938	2011	DCW, MW
Deepes Drain, Misson	SK686982	2012	DCW
Mother Drain, Misterton	SK726964	2012	DCW
Snow Sewer, Misson	SK714983	2012	DCW
Misson, Levels Farm	SK713981	2012	DCW, JC
Misson, Levels Farm	SK718979	2012	DCW, JC

Potamogeton x lintonii Fryer*P. friesii x crispus*

National Status: Data Deficient

Nottinghamshire Declining

Monads: 11

The hybrid has always been uncommon in the VC, but before 1963 it was found in drains at Misson as well as in the Chesterfield Canal. Since 1970 however, the populations at Misson have not been recorded. It is also, a relatively long time since the hybrid was last recorded in the Chesterfield Canal and its exact status at the present time needs to be determined.

Location	GR	Date	Recorder
Chesterfield Canal	SK635802	1972	JH
Chesterfield Canal	SK588793	1972	JH
Chesterfield Canal	SK606787	1972	JH
Chesterfield Canal	SK68	1978	RCLH
Chesterfield Canal	SK68	1978	RCLH
Chesterfield Canal	SK6682	1986	JA
Chesterfield Canal	SK78H	1986	JA
Chesterfield Canal	SK7283	1986	JA
Chesterfield Canal	SK7284	1986	JA
Chesterfield Canal	SK78A	1986	JA
Chesterfield Canal	SK78A	1986	JA
Chesterfield Canal	SK79A	1986	JA
Chesterfield Canal	SK7190	1986	JA
Chesterfield Canal	SK78G	1986	JA
Chesterfield Canal	SK78G	1986	JA
Chesterfield Canal	SK79F	1986	JA
Chesterfield Canal	SK738919	1986	JA
Chesterfield Canal	SK79F	1986	JA
Chesterfield Canal	SK79M	1986	JA
Chesterfield Canal	SK7694	1986	JA
Chesterfield Canal	SK78J	1986	JA
Chesterfield Canal	SK79A	1986	JA
Chesterfield Canal	SK78E	1986	JA
Chesterfield Canal	SK78I	1986	JA

Potamogeton x lintonii (Continued)

Location	GR	Date	Recorder
Chesterfield Canal	SK78I	1986	JA
Chesterfield Canal	SK724835	1987	CDP
Chesterfield Canal	SK727852	1988	CDP
Chesterfield Canal	SK711811	1988	CDP
Chesterfield Canal	SK707807	1988	CDP
Chesterfield Canal	SK720820	1988	CDP
Chesterfield Canal	SK713903	1991	CDP,IB,JMC
Chesterfield Canal	SK708904	1991	IB
Chesterfield Canal	SK724915	1991	CDP,IB,JMC
Chesterfield Canal	SK79F	1991	IB
Chesterfield Canal	SK7391	1991	IB

Ranunculus peltatus Schrank.

Pond Water-crowfoot

National Status: Least Concern

Nottinghamshire: Uncommon

Monads: 16

Pond water-crowfoot *Ranunculus peltatus* was formerly frequent in ditches and ponds throughout the VC and was particularly common in the Trent valley. Nationally there is no evidence of a general decline, so the reasons for the declines in the VC are not well understood, but drainage and habitat loss are probable causes. Most of the present day records occur on peaty or sandy soils in the north and east of the vice-county, but there is a perplexing taxon that never produces laminar leaves occurring commonly in the abundant gravel pit lagoons of Nottinghamshire that might be this taxon.

Location	GR	Date	Recorder
Fiftyights Road Drain, Misson	SK689987	1972	JH
Langford Moor	SK8555	1975	RCLH
Besthorpe Borrow Pit	SK818645	1978	KLJ
Black Pool (Besthorpe)	SK821645	1990	DCW
Rampton Pool	SK833785	1991	DCW
Papplewick Meadows	SK5450	1991	GL
Scrooby Drain	SK656907	1995	DCW
Misson Drain	SK723979	1995	DCW
The Fleet, South Muskham	SK800577	1996	DCW
The Fleet, South Muskham	SK800579	1996	DCW
Besthorpe Drain	SK835648	1997	DCW
Chapel Baulk Drain, Misson	SK718983	1998	PA
Oxpasture Plantation	SK833632	1998	DCW
Misson Drain	SE709008	2002	DCW
Holme Pierrepont Gravel Pits	SK63	2002	NFS
Drinsey Nook Lane Drains, Thorney	SK871737	2005	DCW
Drinsey Nook Lane Drains, Thorney	SK871734	2005	DCW
Drinsey Nook Lane Drains, Thorney	SK870728	2005	DCW
Wigsley Wood	SK849707	2011	DCW, MW
Wigsley Wood	SK853706	2011	DCW, MW

Rosa caesia Sm.

Northern Dog-rose

National Status: Least Concern

Nottinghamshire Status: Declining (or overlooked)

Monads: 13

Historically, T. Jowett in 1826 and H. Fisher in 1893 described the species as common in the VC on clay soils at sites such as Roe Wood at Winkburn, Leake Hills and Blyth. The species is generally found in hedgerows, scrub and woodland edge and the modern declines are probably associated with habitat loss such as hedgerow removal on farmland, or habitat modification such as the coniferisation of ancient woodlands. The records given here are very scattered and could indicate the species is much overlooked.

Rosa caesia (Continued)

Most of the records are subsp. *vosagiaca*, but one is subsp. *caesia* (asterisked) and two are unattributed. The species has been recently lost from two sites at Netherfield (SK631397) and a dismantled railway line at West Bridgford (SK585368)

Location	GR	Date	Recorder
Newlands, Clipstone	SK574641	2006	DCW
Meering	SK821663	2004	DCW
Colston Bassett	SK697329	2005	DCW
Brierly Forest Park, Sutton-in-Ashfield	SK482599	2006	DCW
New Basford	SK553422	1996	DCW
Ruddington	SK568334	1994	DCW
Bestwood Landfill	SK564479	2006	DCW
Wilford Claypit	SK571355	2011	DCW
Bassingfield	SK621372	2012	DCW
Holme Pierrepont	SK633383	2007	DCW
Hawton landfill*	SK803501	1993	DCW
Greasley	SK4847	2012	JS

Rosa sherardii Davies

Sherard's Downy-rose

National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 11

Historically the species was recorded only once in the VC by T. Jowett at an unspecified location in Bulwell during 1826. Therefore, given the number of modern records the species cannot be considered to be declining. It is, however, included in this register because the only population that consists of more than two bushes is located on the Stanton-on-the-Wolds Dismantled Railway Line. As such, the species is considered to be vulnerable to population loss and could easily become scarce in the VC if any losses occur. Alternatively the species may have been overlooked by recorders unfamiliar with roses.

Location	GR	Date	Recorder
Rushcliffe Halt Great Central Railway Line	SK553283	1994	DCW
Stanton-on-the-Wolds Dismantled Railway Line	SK636313	1994	DCW
Averham Hedgerow	SK749563	1998	DCW
Ingram Lane Hedgerow, Grassthorne	SK803673	1999	DCW
Upper Broughton Field Hedgerow	SK683265	1999	DCW
Owthorpe Field Hedgerow	SK659318	2002	DCW
Bothamsall Hedgerow	SK666744	2003	DCW
Bulwell	SK533451	2005	DCW
Nab's Ashes Wood	SK581825	2005	DCW
Stanton-on-the-Wolds Hedgerow	SK637296	2010	DCW
Stapleford Wood	SK851556	2011	DCW, MW
Stapleford Wood	SK851557	2012	RAJ

Salix cinerea L. subsp. *cinerea* L.

Grey Willow

National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 16

Howitt & Howitt (1963) thought that the subspecies was rare or overlooked and confined to the Sherwood Forest area in damp places. In modern times the subspecies has been recorded in scattered locations across the VC and has been recorded growing with the much more common subsp. *oleifolia* at many of its current locations. The current distribution suggests that the subspecies is overlooked in the VC and may prove to be more widespread. More work will be undertaken to fully determine the distribution of the subspecies, because Nottinghamshire seems to be the crossover point where the distribution of the two subspecies overlaps. To the east subsp. *cinerea* is the more common of the two subspecies and to the west subspecies *oleifolia* is the dominant type. There are

however, sites where the subspecies cannot be determined, because the characters of specimens are intermediate.

Salix cinerea subsp. *cinerea* (Continued)

Location	GR	Date	Recorder
Misson Carr	SK712975	2001	MW
Manor Farm, Broadholme	SK8973	2004	ZH, DK, PK, IW
Wallrudding Farm, Harby	SK8972	2004	PK, ZH, VW, IW
Holme Pierrepont Gravel Pits	SK624389	2005	DCW
Rufford Country Park	SK648646	2005	MW
Rufford Country Park	SK645650	2006	MW
Dyscarr Wood	SK578874	2009	MW
Terversal Pastures (East of Buttery Lane)	SK492617	2009	MW
Stapleford Wood	SK854559	2011	DCW, MW
Stapleford Wood	SK852562	2011	DCW, MW
The Fleet, Gorton	SK825653	2012	RAJ
Stapleford Wood	SK852553	2012	RAJ
Nottingham	SK5639	2012	JSh
Attenborough Gravel Pits	SK5234	2012	DCW, MW
Newark Station	SK807539	2012	DCW, MW
Newark Station	SK806541	2012	DCW, MW
River Maun, Edwinstowe	SK618659	2012	DCW
Misson Parish	SE709008	2012	DCW, MW
Misson Parish	SK688982	2012	DCW, MW
Misson Parish	SE713001	2012	DCW, MW
Misson Parish	SE711002	2012	DCW, MW
Budby South Forest	SK618692	2012	RAJ, JC, DCW

Scirpus sylvaticus L.

Wood Club-rush

National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 16Wood Club-rush *Scirpus sylvaticus* at Netherfield Sidings

Source: S. Hammonds

This species of damp, shady places was formerly frequent in the west of the VC on the Permian Marls, but was rare in the east towards the Trent valley and Lincolnshire border. In the 20th Century the species has declined and is now probably restricted to 11 or 12 rolling monads. Two populations at Langold Lake and Dovedale Wood are as yet unconfirmed and if not confirmed the species could be locally scarce. On the other hand it is possible that the species is more common than was previously thought. The species has recently been found at Conjure Alders and it is possible that small populations are present elsewhere waiting to be found or re-found.

Scirpus sylvaticus (Continued)

Location	GR	Date	Recorder
Clumber Park	SK615734	1970s	RCLH, BMH
Bole Ings	SK8087	1970s	Woll.
Langold Lake	SK5786	1977	Woll.
Quarry Banks	SK540519	1977	Woll.
The Bottoms, Warsop	SK576691	1977	Woll.
Dovedale Wood	SK4662 / SK4663	1978	Woll.
Stanley	SK467627	2011	DCW
Papplewick Dam	SK548506	2004	RAJ
Newstead Park	SK544534	2004	DCW
Newstead Park	SK544532	2004	DCW
Milton	SK7173	1970	Woll.
Clumber Park	SK619738	2008	DCW
Netherfield	SK633402	2012	DCW
The Dumbles, Greasley	SK478484	2010	DCW, PO
Giltbrook	SK495470	2011	DCW, JC
Giltbrook	SK499478	2011	DCW, JC
Giltbrook	SK495469	2011	DCW, JC
Sledder Wood	SK498470	2011	DCW, JC
Wollaton Park	SK531386	2012	DCW
Wollaton Park	SK527386	2012	DCW
Wollaton Park	SK528391	2012	DCW
Wollaton Park	SK537397	2012	DCW
Conjure Alders	SK663724	2011	DCW, MW

Sorbus aria (L.) Crantz

Whitebeam

National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 14 (as a native)

In the VC whitebeam *Sorbus aria* is only native on the Magnesian Limestone; elsewhere it is introduced. It has never been common as a native species and since 1970 it has only been recorded 11 times and never in any great abundance. Cultivars are however frequently planted in landscape schemes and there are 22 records for locations where the tree is an obvious introduction or garden escape; these records are not included in the table below.

Location	GR	Date	Recorder
Styrrup Magnesian Limestone Quarry	SK594901	2000	DCW
Steetly Quarry*	SK551787	1992	DCW
Mansfield Limestone Cliff	SK530599	2004	DCW
Tiversal Dismantled Railway Line	SK489616	2009	DCW
Tiversal Dismantled Railway Line	SK481626	2006	DCW
Skegby Dismantled Railway Line	SK495605	1995	DCW
Skegby Dismantled Railway Line	SK495614	2003	DCW
Skegby Dismantled Railway Line	SK494622	2006	DCW
Skegby Pasture	SK491616	1995	DCW
Nuthall Dismantled Railway Line	SK516450	1997	DCW
Gedling Colliery site	SK613438	2012	DCW
Kirkby-in-Ashfield Disused Limestone Quarry	SK498553	2012	DCW
Basford Dismantled Railway Line	SK542439	2011	DCW
Mansfield Woodhouse Disused Limestone Quarry	SK533649	2006	DCW
Kirkby-in-Ashfield Dismantled Railway	SK497555	2011	DCW

*Site Destroyed

Spirodela polyrhiza (L.) Schleid.

Greater Duckweed

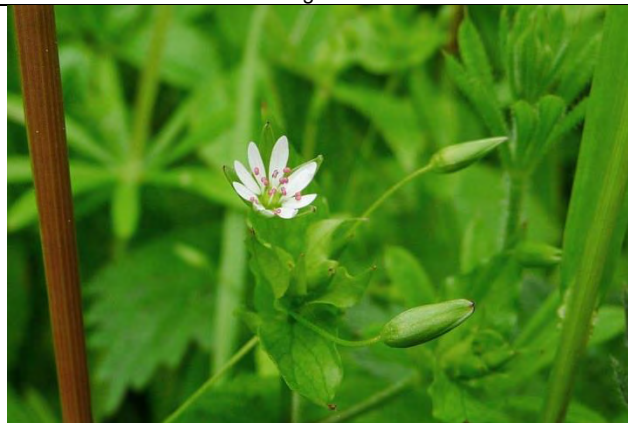
National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 12

By the beginning of the 1960s greater duckweed *Spirodela polyrhiza* was decreasing in the VC and although it remained plentiful in ponds and ditches alongside the River Trent downstream of Newark-on-Trent, elsewhere it became increasingly scarce. The decline has continued into modern times and with the exception of the Bunny record, the species is now confined to the Trent valley, with two sites on the River Soar, both in close proximity to the confluence with the River Trent. Curiously, Howitt & Howitt (1963) described the distribution of greater duckweed as being plentiful in the Trent valley downstream of Newark-on-Trent and rare upstream, but the modern distribution is reversed. There are now more records upstream of Newark-on-Trent than there are downstream.

Location	GR	Date	Recorder
Bunny Park Pond	SK596296	1978	Woll.
Colwick Country Park	SK609399	1995	DCW
River Trent, Newark-on-Trent	SK792536	1998	DCW
Radcliffe-on-Trent Pond	SK649404	1999	DCW
Holme Pit, Clifton	SK535345	2003	DCW
River Trent, Clifton	SK539349	2010	DCW
River Trent, Clifton	SK535352	2010	DCW
River Trent, Beeston Weir	SK533353	2010	DCW
River Trent, Holme-on-Trent	SK801595	2006	DCW
Holme-on-Trent	SK800594	2011	DCW, MW
Hoveringham Pasture Pond	SK709466	2006	DCW, RAJ
Rolleston Pond	SK755506	2007	DCW
Hoveringham Gravel Pits	SK717475	2008	DCW
River Trent, Clifton	SK541351	2010	DCW
River Soar, Sutton Bonington	SK496251	2010	DCW
River Soar, Stanford-on-Soar	SK526219	2010	DCW
Hoveringham Pasture Pond	SK709466	2012	DCW, RAJ
River Trent, Bleasby	SK735495	2010	RAJ

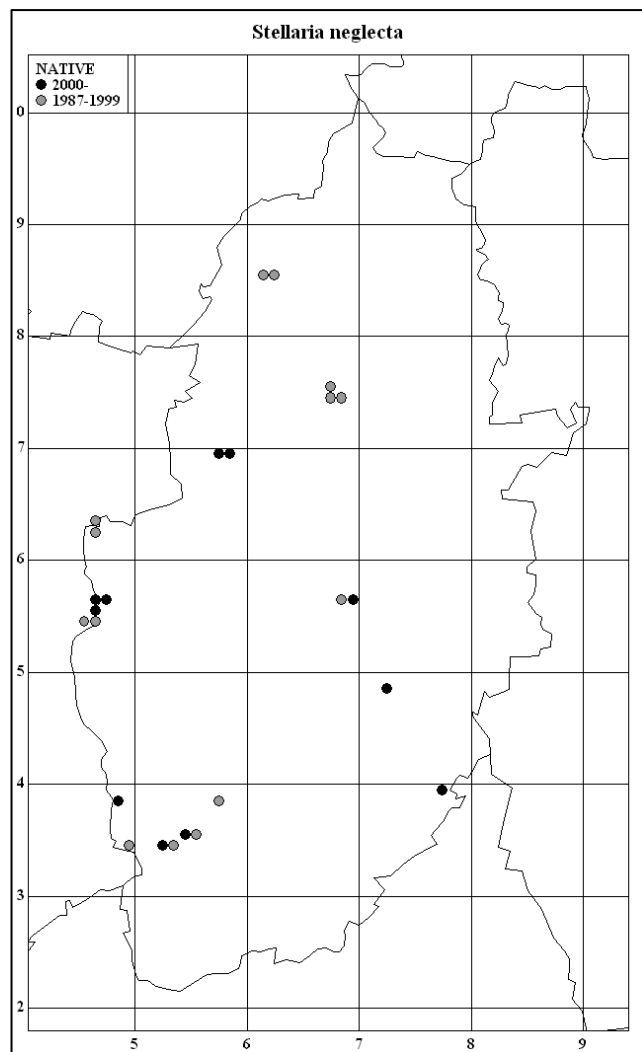
Stellaria neglecta Weihe ex Bluff & Fingerh.

Greater Chickweed

National Status: Least Concern**Nottinghamshire Status:** Uncommon**Monads:** 25Greater Chickweed *Stellaria neglecta* at Clifton Grove

Source: S. Hammonds

Preston *et al.* (2003) describe this species as "an annual to short-lived perennial herb of damp, shaded places such as hedgerows, wood margins, streamsides and the borders of damp copses, on a range of soils". Howitt & Howitt (1963) stated that the species had been recorded throughout the VC, but it was uncommon. The species is still found at some of its historic stations such as Hodsock in the north and at Clifton Grove in the City of Nottingham and still has a widespread distribution on a variety of substrates, but it remains uncommon.



Thymus polytrichus subsp. *britannicus* Wild Thyme
(Ronniger) Kerguelen

National Status: Least Concern
Nottinghamshire Uncommon
Monads: 15

Howitt & Howitt (1963) described the species as being rather rare, but scattered across the VC on dry banks and pastures. Since 1970 the species has persisted in the south of the VC at Gotham Hills and in the west of the VC at Warsop, Annesley, Kirkby-in-Ashfield, Pleasley and Budby. Several new populations have been recorded at, or near to Clumber Park on sandy soils, whilst most recent losses have occurred on the base-rich clays in the centre of the county, because of habitat destruction.

Location	GR	Date	Recorder
Lady Lee Quarry	SK562794	1978	Woll.
Claypole (W of)	SK84J	1987	DCW
Swinecotte Dale	SK548544	1996	DCW
Pleasley Vale	SK508646	1998	DCW
Pleasley Vale	SK510646	1998	DCW
Ollerton Assarts	SK628689	2012	DCW
Apleyhead Verges, Clumber Park	SK644774	2009	DCW
Hanger Hill Drive, Warsop	SK599690	2001	RAJ
Budby South Forest	SK624691	2002	DCW
Gotham Hills	SK529307	2009	DCW
Carburton Plantations	SK611715	2006	DCW
Annesley Woodhouse Quarry	SK491533	2012	DCW
Warsop Hills and Holes	SK553683	2012	DCW

Thymus polytrichus subsp. *britannicus* (Continued)

Location	GR	Date	Recorder
Warsop Hills and Holes	SK558682	2012	DCW
Warsop Hills and Holes	SK556678	2012	DCW
Warsop Hills and Holes	SK554678	2012	DCW
Kirkby-in-Ashfield Hills and Holes	SK499553	2012	DCW
Clumber Park	SK619744	2007	DCW
Clumber Park	SK618751	2007	DCW
Clumber Park	SK612756	2007	DCW
Clumber Park	SK617750	2007	DCW
Warsop Hills and Holes	SK558681	2012	DCW, RAJ, JC
Warsop Hills and Holes	SK558679	2012	RAJ, JC
Rhein O'Thorns Hills and Holes	SK553683	2012	RAJ, JC
Ollerton Assarts	SK628687	2012	DCW, RAJ, JC
Long Plantation Bridleway	SK610716	2012	DCW, RAJ
Long Plantation Bridleway	SK606715	2012	DCW, RAJ
Long Plantation Bridleway	SK605715	2012	DCW, RAJ
Bingham dismantled railway trackbed*	SK710388	2012	DCW

*Probably introduced

Triglochin palustris L.

Marsh Arrow-grass

National Status: Least Concern
Nottinghamshire Declining
Monads: 28

Before 1970 marsh arrow-grass *Triglochin palustris* was frequent in all areas of the VC, except for the south and southeast on the Lias clays, where the species was present at only one site. Habitat destruction, drainage and eutrophication are factors that are likely to be responsible for the losses from 13 monads since 1970. Losses have occurred from Attenborough (SK53), Rempstone (SK5264/5625), Annesley (SK4853), Sutton-in-Ashfield (SK4858), Kirkby Bentinck (SK4954/4955), Chilwell (SK5235), Wollaton (SK5240), Lowdham (SK6647), Scrooby (SK6590 and 6689) Everton (SK6993), Sutton by Retford (SK6983) and Fiskerton (SK7350). The species is still present in 15 rolling monads and is capable of colonising new sites where suitable conditions occur. For example, two new populations have been found during 2012, one in a flush on the Magnesian Limestone, the other on wet soils in former colliery yards.

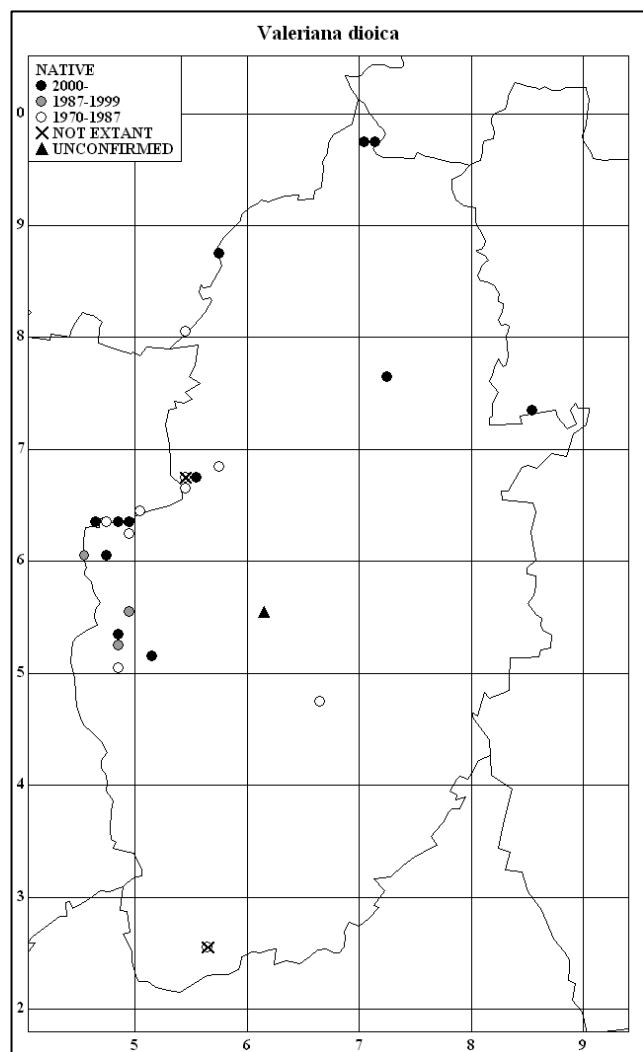
Location	GR	Date	Recorder
Teversal Pastures	SK493620	1972	JH
Leen Pastures	SK550493	1978	Woll.
Everton Carr	SK699932	1978	KLJ
Teversal, Norwood	SK483636	1990	DCW
Leen Pastures	SK550486	1991	GL
Kinoulton Grassland	SK678305	1991	DCW
Mill Lakes, Bestwood	SK549482	1991	GL
Greasley	SK502478	1994	DCW
Erewash Pasture, Brinsley	SK451484	1995	DCW
Skegby Stream	SK489605	1995	DCW
Skegby Stream	SK491606	1995	DCW
Kirkby Bentinck	SK473548	1996	Woll.
Huthwaite Marsh	SK456598	1997	PA
Toton Pond	SK484357	2001	DCW
Kirkby Bentinck	SK472548	2002	DCW
Leen Pastures	SK552490	2007	DCW
Skegby Stream	SK492605	2008	DCW
Teversal Grassland	SK490637	2008	DCW
Poulter Fen, Nether Langwith,	SK548704	2011	DCW, AB
Sookholme Moor	SK554677	2012	RAJ, JC, DCW
Stanton Hill Grassland	SK486612	2012	DCW
Clipstone Colliery Yards	SK596630	2012	DCW

Valeriana dioica L.

Marsh Valerian

National Status: Least Concern**Nottinghamshire** Uncommon**Monads:** 23 (and 1 unconfirmed)

Marsh valerian has been declining in the VC over the last century, because of drainage, habitat loss and eutrophication. It was however, considered by Howitt & Howitt (1963) to be still frequent near limestone streams, and it was also occasional on calcareous clays and in fenland. Since 1970, the species does not appear to have undergone further declines and is still locally frequent near Limestone streams and in ancient woodland. Many of the sites in which it is still found are protected and it is probably not under any immediate threat.



Selected References

- Cheffings, C. & Farrell, L. (2005). **The Vascular Plant Red Data List for Great Britain**. JNCC.
- Clapham, A.R., Tutin, T.G. & Warburg, E.F. (1981). **Excursion Flora of the British Isles (3rd Ed.)**. Cambridge University Press, Cambridge.
- Preston, C.D., Pearman, D.A. & Dines, T.D. (2002). **New Atlas of the British and Irish Flora**. Oxford University Press, Oxford.
- Howatt, C.F. (2004). Nottingham Autumn Crocus *Crocus nudiflorus* and Nottingham Spring Crocus *Crocus vernus* Species Action Plan, in Taylor, J (1998). **Nottinghamshire Local Biodiversity Action Plan**. Nottinghamshire Biodiversity Action Group.
- Howitt, R.C.L. & Howitt, B.M. (1963). **A Flora of Nottinghamshire**. Derry & Sons, Nottingham.
- Page, C.N. (1997). **The Ferns of Britain and Ireland**. Cambridge University Press, Cambridge.
- Rich, T.G.C. (1991). **Crucifers of Britain and Ireland: BSBI Handbook No. 6**. Botanical Society of the British Isles, London.
- Shepherd, P. (1998). **The Plants of Nottingham: A City Flora**. Wildtrack Publishing, Sheffield.
- Stace, C.A. (2010) **New Flora of the British Isles (3rd Ed.)**. Cambridge University Press, Cambridge.
- Sell, P. & Murrell, G. (1996). **Flora of Great Britain and Ireland Volume 5 *Butomaceae* – *Orchidaceae***. Cambridge University Press, Cambridge.
- Sell, P. & Murrell, G. (2006). **Flora of Great Britain and Ireland Volume 4 *Campanulaceae* – *Asteraceae***. Cambridge University Press, Cambridge.
- Sell, P. & Murrell, G. (2009). **Flora of Great Britain and Ireland Volume 3 *Mimosaceae* – *Lentibulariaceae***. Cambridge University Press, Cambridge.
- Stewart A, Pearman DA, Preston CD. (1994). **Scarce plants in Britain**. Cambridge University Press, Cambridge.
- Stott, K.G. (1971). Check List of the Long Ashton Collection of Willows, with notes on their suitability for various purposes, in Report of Long Ashton Research Station, University of Bristol, 1971.

Appendix I: Status of Taxa Checklist

The status of the taxa in this register is summarised in the table below. Table Ia below provides the conservation codes that are used in taxa checklist (Table Ib).

Table Ia Conservation Codes used in Checklist

Status Code	Explanation
1	Nationally Extinct
2	County Extinct
2a	County Extinct (as a native)
3	County Extinct (unconfirmed)
4	IUCN Critically Endangered
5	IUCN Endangered
6	IUCN Vulnerable
7	IUCN Near Threatened
8	Nationally Rare (<15km squares)
9	Nationally Scarce (16 - 100km squares)
10	County Rare (1 - 3 monads)
11	County Scarce (4 - 10 monads)
12	UKBAP Species
13	Nottinghamshire LBAP Species
14	Declining in the County (10 - 30 monads)
15	Restricted in the County (10 - 30 monads)
16	Schedule 8 Wildlife & Countryside Act, 1981

Table Ib Checklist of Conservation Status of Taxa

Scientific (Kent/Stage)	Common	Codes				
<i>Adiantum capillus-veneris</i>	Maidenhair Fern	9	10			
<i>Adonis annua</i>	Pheasant's Eye	2	5	8		
<i>Agrimonia procera</i>	Fragrant Agrimony	11				
<i>Agrostemma githago</i>	Corncockle	1	2a	8	15	
<i>Agrostis x murbeckii</i>	<i>Agrostis capillaris x stolonifera</i>	11				
<i>Allium oleraceum</i>	Field Garlic	6	9			
<i>Allium scorodoprasum</i>	Sand Leek	9	11			
<i>Alnus cordata x glutinosa</i>	Hybrid Alder	8	10			
<i>Alnus cordata x incana</i>	Hybrid Alder	8	11			
<i>Alopecurus aequalis</i>	Orange Foxtail	9	11			
<i>Alopecurus x brachystylus</i>	<i>Alopecurus pratensis x geniculatus</i>	2				
<i>Anacamptis morio</i>	Green-winged Orchid	7	9	11		
<i>Anagallis arvensis forma azurea</i>	Scarlet Pimpernel	10				
<i>Anagallis arvensis subsp. foemina</i>	Blue Pimpernel	2				
<i>Anagallis tenella</i>	Bog Pimpernel	11				
<i>Antennaria dioica</i>	Mountain Everlasting	2				
<i>Anthemis arvensis</i>	Corn Chamomile	2	5			
<i>Anthemis cotula</i>	Stinking Chamomile	6				
<i>Apera spica-venti</i>	Loose Silky-bent	7	9			
<i>Apium graveolens</i>	Wild Celery	11				
<i>Apium inundatum</i>	Lesser Marshwort	10				
<i>Aquilegia vulgaris</i>	Columbine	10				
<i>Arabis glabra</i>	Tower Mustard	2	5	9		

Scientific (Kent/Stace)	Common	Codes				
<i>Arabis hirsuta</i>	Hairy Rock-cress	11				
<i>Arctium x nothum</i>	<i>Arctium lappa</i> x <i>minus</i>	10				
<i>Arnoseris minima</i>	Lamb's succory	1	2			
<i>Asplenium ceterach</i>	Rustyback	11				
<i>Aster tripolium</i>	Sea Aster	10				
<i>Baldellia ranunculoides</i>	Lesser Water-plantain	7	15			
<i>Beta vulgaris</i> subsp. <i>maritima</i>	Sea Beet	2				
<i>Blechnum spicant</i>	Hard Fern	14				
<i>Blysmus compressus</i>	Flat-sedge	2	6	12		
<i>Botrychium lunaria</i>	Moonwort	2				
<i>Brassica nigra</i>	Black Mustard	11				
<i>Brassica oleracea</i>	Wild Cabbage	10				
<i>Bromus racemosus</i>	Smooth Brome	14				
<i>Bromus secalinus</i>	Rye Brome	6	15			
<i>Bupleurum rotundifolium</i>	Thorow-wax	2	4	8		
<i>Callitriche brutia</i> subsp. <i>hamulata</i>	Water-starwort	15				
<i>Callitriche truncata</i>	Water-starwort	9				
<i>Campanula glomerata</i>	Clustered Bellflower	10				
<i>Campanula patula</i>	Spreading Bellflower	2a	5	9		
<i>Campanula rapunculus</i>	Rampion	2a	5	8		
<i>Campanula trachelium</i>	Nettle-leaved Bellflower	11				
<i>Cardamine impatiens</i>	Narrow-leaved Bitter-cress	2	7	9		
<i>Carduus tenuiflorus</i>	Slender Thistle	11				
<i>Carduus x stangii</i>	<i>Carduus crispus</i> x <i>nutans</i>	11				
<i>Carex arenaria</i>	Sand Sedge	11				
<i>Carex curta</i>	White Sedge	10				
<i>Carex diandra</i>	Lesser Tussock-sedge	2	7			
<i>Carex digitata</i>	Fingered Sedge	2	9			
<i>Carex dioica</i>	Dioecious Sedge	10				
<i>Carex distans</i>	Distant Sedge	11				
<i>Carex divulsa</i>	Grey Sedge	10				
<i>Carex echinata</i>	Star Sedge	10				
<i>Carex elata</i>	Tufted Sedge	9	11			
<i>Carex hostiana</i>	Tawny Sedge	10				
<i>Carex lepidocarpa</i>	Long-stalked Yellow-sedge	15				
<i>Carex pallescens</i>	Pale Sedge	14				
<i>Carex pulicaris</i>	Flea Sedge	11				
<i>Carex vesicaria</i>	Bladder-sedge	11				
<i>Carum carvi</i>	Caraway	10				
<i>Catabrosa aquatica</i>	Whorl Grass	14				
<i>Centaurea cyanus</i>	Cornflower	9	10	12		
<i>Centaureum pulchellum</i>	Lesser Centaury	10				
<i>Cephalanthera damasonium</i>	White Helleborine	2	6			
<i>Cephalanthera longifolia</i>	Narrow-leaved Helleborine	2	6	9		
<i>Chamaemelum nobile</i>	Chamomile	3	6	9		
<i>Chenopodium bonus-henricus</i>	Good King Henry	6	14			
<i>Chenopodium glaucum</i>	Oak-leaved Goosefoot	6	14			
<i>Chenopodium hybridum</i>	Sowbane	11				
<i>Chenopodium murale</i>	Nettle-leaved Goosefoot	6	10			
<i>Chenopodium urbicum</i>	Upright Goosefoot	2	4			
<i>Chenopodium vulvaria</i>	Stinking Goosefoot	2	5	8		

Scientific (Kent/Stace)	Common	Codes				
<i>Chrysosplenium alternifolium</i>	Alternate-leaved Golden-saxifrage	15				
<i>Cicuta virosa</i>	Cowbane	2	5	9		
<i>Circaea x intermedia</i>	Hybrid Enchanter's Nightshade	10				
<i>Cirsium acaule</i>	Dwarf Thistle	11				
<i>Cirsium dissectum</i>	Meadow Thistle	3	10			
<i>Cirsium x grandiflorum</i>	<i>Cirsium eriophorum x vulgare</i>	10				
<i>Cladium mariscus</i>	Great Fen-sedge	10				
<i>Clinopodium acinos</i>	Basil Thyme	6	10	12		
<i>Clinopodium ascendens</i>	Common Calamint	2a	11			
<i>Clinopodium calamintha</i>	Lesser Calamint	2	6	9		
<i>Colchicum autumnale</i>	Meadow Saffron	2a	7	10		
<i>Convallaria majalis</i>	Lily of the Valley	11				
<i>Crassula tillaea</i>	Mossy Stonecrop	9	10			
<i>Crepis paludosa</i>	Marsh Hawk's-beard	10				
<i>Crocus nudiflorus</i>	Autumn Crocus	11	13			
<i>Crocus vernus</i>	Spring Crocus	11	13			
<i>Cuscuta epithymum</i>	Dodder	6	10			
<i>Cuscuta europaea</i>	Greater Dodder	2	9			
<i>Cynoglossum officinale</i>	Hound's-tongue	7	14			
<i>Cystopteris fragilis</i>	Brittle Bladder-fern	11				
<i>Dactylorhiza incarnata</i> subsp. <i>incarnata</i>	Early Marsh-orchid	11				
<i>Dactylorhiza incarnata</i> subsp. <i>pulchellum</i>	Early Marsh-orchid	10				
<i>Dactylorhiza maculata</i> subsp. <i>ericetorum</i>	Heath Spotted-orchid	10				
<i>Dactylorhiza purpurella</i>	Northern Marsh-orchid	10				
<i>Dactylorhiza viridis</i>	Frog Orchid	6	11			
<i>Daphne mezereum</i>	Mezereum	6	9	10	12	
<i>Dianthus armeria</i>	Deptford Pink	5	9	10	13	16
<i>Dianthus deltoides</i>	Maiden Pink	2a	7	9	11	
<i>Dipsacus pilosus</i>	Small Teasel	11				
<i>Drosera rotundifolia</i>	Round-leaved Sundew	2				
<i>Dryopteris cristata</i>	Crested Buckler-fern	2	4	8		
<i>Dryopteris x complexa</i>	<i>Dryopteris filix-mas x affinis</i>	10				
<i>Dryopteris x deweveri</i>	<i>Dryopteris carthusiana x dilatata</i>	10				
<i>Dryopteris x uliginosa</i>	<i>Dryopteris cristata x carthusiana</i>	2				
<i>Eleocharis acicularis</i>	Needle Spike-rush	9	11			
<i>Eleocharis multicaulis</i>	Many-stemmed Spike-rush	2				
<i>Eleocharis palustris</i> subsp. <i>palustris</i>	Common Spike-rush	2				
<i>Eleocharis quinqueflora</i>	Few-flowered Spike-rush	10				
<i>Eleogiton fluitans</i>	Floating Club-rush	11				
<i>Empetrum nigrum</i>	Crowberry	2				
<i>Epilobium lanceolatum</i>	Spear-leaved Willowherb	11				
<i>Epilobium x brevipilum</i>	<i>Epilobium hirsutum x tetragonum</i>	10				
<i>Epilobium x erroneum</i>	<i>Epilobium hirsutum x montanum</i>	10				
<i>Epilobium x floridulum</i>	<i>Epilobium parviflorum x ciliatum</i>	11				
<i>Epilobium x haussknechtianum</i>	<i>Epilobium montanum x tetragonum</i>	10				
<i>Epilobium x interjectum</i>	<i>Epilobium montanum x ciliatum</i>	15				
<i>Epilobium x limosum</i>	<i>Epilobium parviflorum x montanum</i>	15				
<i>Epilobium x mentiens</i>	<i>Epilobium tetragonum x ciliatum</i>	11				
<i>Epilobium x novae-civitatensis</i>	<i>Epilobium ciliatum x hirsutum</i>	10				
<i>Epilobium x palatinum</i>	<i>Epilobium parviflorum x tetragonum</i>	11				
<i>Epilobium x subhirsutum</i>	<i>Epilobium parviflorum x hirsutum</i>	11				
<i>Epilobium x vicinum</i>	<i>Epilobium obscurum x ciliatum</i>	10				

Scientific (Kent/Stace)	Common	Codes				
<i>Epipactis palustris</i>	Marsh Helleborine	3	10			
<i>Epipactis phyllanthos</i>	Green-flowered Helleborine	9	10			
<i>Equisetum hyemale</i>	Dutch Rush	2				
<i>Equisetum sylvaticum</i>	Wood Horsetail	15				
<i>Equisetum variegatum</i>	Variegated Horsetail	2	9			
<i>Equisetum x litorale</i>	Shore Horsetail	10				
<i>Erica tetralix</i>	Cross-leaved Heath	11				
<i>Eriophorum angustifolium</i>	Common Cottongrass	11				
<i>Eriophorum latifolium</i>	Broad-leaved Cottongrass	2				
<i>Eriophorum vaginatum</i>	Hare's-tail Cottongrass	3	10			
<i>Erodium maritimum</i>	Sea Stork's-bill	9	10			
<i>Erophila glabrescens</i>	Glabrous Whitlowgrass	11				
<i>Erysimum cheiri</i>	Wallflower	11				
<i>Euphorbia amygdaloides</i> subsp. <i>amygdaloides</i>	Wood spurge	2				
<i>Euphorbia exigua</i>	Dwarf Spurge	7				
<i>Euphorbia platyphyllos</i>	Broad-leaved Spurge	2	9			
<i>Euphrasia anglica</i>	an eyebright	5	11	12		
<i>Euphrasia pseudokernerii</i>	Chalk Eyebright	5	9	10		
<i>Euphrasia stricta</i> (= <i>brevipila</i>)	an eyebright	2	5			
<i>Falcaria vulgaris</i>	Longleaf	10				
<i>Festuca longifolia</i>	Blue Fescue	8	10	12		
<i>Filago vulgaris</i>	Common Cudweed	7				
<i>Fumaria muralis</i>	Common Ramping-fumitory	7	15			
<i>Gagea lutea</i>	Yellow Star-of-Bethlehem	9	11			
<i>Galeopsis angustifolia</i>	Red Hemp-nettle	3	4	9	10	
<i>Galeopsis segetum</i>	Downy Hemp-nettle	1	2	9		
<i>Galeopsis speciosa</i>	Large-flowered Hemp-nettle	6				
<i>Galium constrictum</i>	Slender Marsh-bedstraw	2	8			
<i>Galium palustre</i> subsp. <i>elongatum</i>	a common marsh-bedstraw	15				
<i>Galium parisiense</i>	Wall Bedstraw	3	6	9	10	
<i>Galium tricornutum</i>	Corn Cleavers	2	4	8		
<i>Galium uliginosum</i>	Fen Bedstraw	11				
<i>Genista anglica</i>	Petty Whin	7	11			
<i>Gentiana pneumonanthe</i>	Marsh Gentian	2	9			
<i>Gentianella amarella</i>	Autumn Gentian	11				
<i>Gentianella baltica</i> (= <i>campestris</i>)	Field Gentian	2	6			
<i>Gentianella campestris</i> agg.	Field Gentian	2	6			
<i>Geranium columbinum</i>	Long-stalked Crane's-bill	11				
<i>Geranium purpureum</i>	Little-Robin	9	10			
<i>Geranium rotundifolium</i>	Round-leaved Crane's-bill	11				
<i>Geranium sanguineum</i>	Bloody Crane's-bill	2a				
<i>Geum x intermedium</i>	<i>Geum rivale</i> x <i>urbanum</i>	11				
<i>Glebionis segetum</i>	Corn Marigold	6				
<i>Glyceria x pedicillata</i>	Hybrid Sweet-grass	11				
<i>Gnaphalium sylvaticum</i>	Heath Cudweed	5	9			
<i>Groenlandia densa</i>	Opposite-leaved Pondweed	6				
<i>Gymnadenia conopsea sensu lato</i>	Fragrant Orchid	11				
<i>Gymnadenia conopsea</i> subsp. <i>densiflora</i>	a fragrant orchid	11				
<i>Gymnocarpium robertianum</i>	Limestone Fern	9	10			

Scientific (Kent/Stace)	Common	Codes				
<i>Helianthemum nummularium</i>	Common Rock-rose	11				
<i>Helleborus viridis</i>	Green Hellebore	10				
<i>Heracleum sphondylium</i> x <i>mantegazzianum</i>	Hybrid Hogweed	10				
<i>Herniaria glabra</i>	Smooth Rupture-wort	2a	8	10		
<i>Hippocrepis comosa</i>	Horseshoe Vetch	2				
<i>Hordelymus europaeus</i>	Wood Barley	9	11			
<i>Hottonia palustris</i>	Water Violet	14				
<i>Huperzia selago</i>	Fir Clubmoss	2				
<i>Hydrocharis morsus-ranae</i>	Frogbit	6	9	10		
<i>Hyoscyamus niger</i>	Henbane	6	9	11		
<i>Hypericum androsaemum</i>	Tutsan	2a	10			
<i>Hypericum maculatum</i>	Imperforate St. John's-wort	15				
<i>Hypericum montanum</i>	Pale St. John's-wort	7	9	10		
<i>Hypericum x desetangii</i>	Des Etang's St. John's-wort	11				
<i>Hypochaeris glabra</i>	Smooth Cat's-ear	6	15			
<i>Illecebrum verticillatum</i>	Coral-necklace	2	6	9		
<i>Inula helenium</i>	Elecampane	15				
<i>Jasione montana</i>	Sheep's-bit	11				
<i>Juncus compressus</i>	Round-fruited Rush	7				
<i>Juncus x diffusus</i>	<i>Juncus inflexus</i> x <i>effusus</i>	10				
<i>Juniperus communis</i>	Juniper	2				
<i>Kalmia angustifolia</i>	Sheep-laurel	10				
<i>Lathyrus aphaca</i>	Yellow Vetchling	3	6	9	10	
<i>Lathyrus nissolia</i>	Grass Vetchling	15				
<i>Lathyrus palustris</i>	Marsh Pea	2	7	9	10	
<i>Lathyrus sylvestris</i>	Narrow-leaved Everlasting-pea	11				
<i>Legousia hybrida</i>	Venus's-looking-glass	10				
<i>Lepidium latifolium</i>	Dittander	9	15			
<i>Limosella aquatica</i>	Mudwort	9	11			
<i>Linaria repens</i>	Pale Toadflax	15				
<i>Linaria x sepium</i>	<i>Linaria repens</i> x <i>vulgaris</i>	11				
<i>Linum bienne</i>	Pale Flax	10				
<i>Lithospermum arvense</i>	Field Gromwell	5	11			
<i>Lithospermum officinale</i>	Common Gromwell	11				
<i>Littorella uniflora</i>	Shoreweed	2				
<i>Lotus tenuis</i>	Narrow-leaved Bird's-foot-trefoil	14				
<i>Luzula sylvatica</i>	Great Wood-rush	11				
<i>Lycopodiella inundata</i>	Marsh Clubmoss	2	9			
<i>Lycopodium clavatum</i>	Stag's-horn Clubmoss	11				
<i>Lythrum hyssopifolium</i>	Grass Poly	5	8	10	12	16
<i>Lythrum portula</i>	Water Purslane	14				
<i>Marrubium vulgare</i>	White Horehound	3	9			
<i>Medicago polymorpha</i>	Toothed Medick	9	10			
<i>Medicago sativa</i> nothosubsp. <i>varia</i>	Sand Lucerne	9	10			
<i>Medicago sativa</i> subsp. <i>falcata</i>	Sickle Medick	9	11			
<i>Melampyrum cristatum</i>	Crested Cow-wheat	2	6	9		
<i>Melampyrum pratense</i>	Common Cow-wheat	10				
<i>Melica nutans</i>	Mountain Melick	2				
<i>Mentha pulegium</i>	Pennyroyal	5	9	11	12	16
<i>Mentha x piperata</i>	Peppermint	15				
<i>Menyanthes trifoliata</i>	Bogbean	10				

Scientific (Kent/Stace)	Common	Codes				
<i>Mercurialis annua</i>	Annual Mercury	11				
<i>Minuartia hybrida</i>	Fine-leaved Sandwort	5	9	10	12	
<i>Misopates orontium</i>	Weasel's-snout	6	10			
<i>Moenchia erecta</i>	Upright Chickweed	2	9			
<i>Monotropa hypopitys</i>	Yellow Bird's-nest	5	10	12		
<i>Montia fontana</i>	Blinks	14				
<i>Montia fontana</i> subsp. <i>chondrosperma</i>	Blinks	10				
<i>Myosotis secunda</i>	Creeping Forget-me-not	10				
<i>Myosotis x suzae</i>	<i>Myosotis laxa</i> x <i>scorpioides</i>	10				
<i>Myosurus minimus</i>	Mousetail	6	9	10		
<i>Myrica gale</i>	Bog Myrtle	2a	10			
<i>Myriophyllum alterniflorum</i>	Alternate Water-milfoil	11				
<i>Myriophyllum verticillatum</i>	Whorled Water-milfoil	6	9	11		
<i>Narcissus pseudonarcissus</i> subsp. <i>pseudonarcissus</i>	Wild Daffodil	14				
<i>Narthecium ossifragum</i>	Bog Asphodel	2				
<i>Nasturtium x sterile</i>	Hybrid Watercress	11				
<i>Neottia nidus-avis</i>	Bird's-nest Orchid	7	10			
<i>Neottia ustulata</i>	Burnt Orchid	2	5	9		
<i>Nepeta cataria</i>	Cat-mint	6	11			
<i>Nymphaea alba</i>	White Water-lily	10				
<i>Oenanthe fistulosa</i>	Tubular Water-dropwort	6	12			
<i>Oenanthe fluviatilis</i>	River Water-dropwort	2				
<i>Oenanthe lachenalii</i>	Parsley Water-dropwort	11				
<i>Oenanthe silaifolia</i>	Narrow-leaved Water-dropwort	3	7	9		
<i>Ophrys insectifera</i>	Fly Orchid	6	10			
<i>Oreopteris limbosperma</i>	Lemon-scented Fern	11				
<i>Ornithogalum pyrenaicum</i>	Spiked Star-of-Bethlehem	9	10			
<i>Orobanche minor</i>	Common Broomrape	15				
<i>Orobanche rapum-genistae</i>	Great Broomrape	2	7	9		
<i>Osmunda regalis</i>	Royal Fern	2a	10			
<i>Papaver argemone</i>	Prickly Poppy	6	9			
<i>Papaver lecoqii</i>	Yellow-juiced Poppy	10				
<i>Paris quadrifolia</i>	Herb Paris	15				
<i>Parnassia palustris</i>	Grass of Parnassus	2				
<i>Pedicularis palustris</i>	Red Rattle	2				
<i>Pedicularis sylvatica</i>	Lousewort	3	10			
<i>Persicaria minor</i>	Small Water-pepper	6	9	11		
<i>Persicaria mitis</i>	Tasteless Water-pepper	6	9			
<i>Petroselinum segetum</i>	Corn Parsley	10				
<i>Pinguicula vulgaris</i>	Common Butterwort	3	10			
<i>Platanthera bifolia</i>	Lesser Butterfly-orchid	2	6			
<i>Platanthera chlorantha</i>	Greater Butterfly-orchid	7	10			
<i>Polygala serpyllifolia</i>	Heath Milkwort	14				
<i>Polygala vulgaris</i> subsp. <i>collina</i>	Common Milkwort	2				
<i>Polygonatum multiflorum</i>	Solomon's-seal	11				
<i>Polygonatum odoratum</i>	Angular Solomon's-seal	2	9			
<i>Polygonum rurivagum</i>	Cornfield Knotgrass	9	10			
<i>Polypogon monspeliensis</i>	Annual Beard-grass	9	11			
<i>Polystichum x bicknellii</i>	Hybrid Shield-fern	10				
<i>Populus nigra</i> subsp. <i>betulifolia</i>	Black Poplar	11				
<i>Potamogeton berchtoldii</i>	Small Pondweed	14				

Scientific (Kent/Stace)	Common	Codes				
<i>Potamogeton coloratus</i>	Fen Pondweed	9	11			
<i>Potamogeton compressus</i>	Grass-wrack Pondweed	5	10			
<i>Potamogeton friesii</i>	Flat-stalked Pondweed	7	9	10		
<i>Potamogeton gramineus</i>	Various-leaved Pondweed	11				
<i>Potamogeton lucens</i>	Shining Pondweed	10				
<i>Potamogeton obtusifolius</i>	Blunt-leaved Pondweed	10				
<i>Potamogeton polygonifolius</i>	Bog Pondweed	11				
<i>Potamogeton praelongus</i>	Long-stalked Pondweed	3	7	9		
<i>Potamogeton trichoides</i>	Hairlike Pondweed	3	9	10		
<i>Potamogeton x cooperi</i>	<i>Potamogeton perfoliatus x crispus</i>	2				
<i>Potamogeton x lintonii</i>	<i>Potamogeton friesii x crispus</i>	14				
<i>Potamogeton x nitens</i>	<i>Potamogeton gramineus x perfoliatus</i>	3	10			
<i>Potamogeton x salicifolius</i>	<i>Potamogeton lucens x perfoliatus</i>	10				
<i>Potamogeton x sparganifolius</i>	<i>Potamogeton natans x gramineus</i>	2				
<i>Potentilla argentea</i>	Hoary Cinquefoil	7	9			
<i>Potentilla palustris</i>	Marsh Cinquefoil	11				
<i>Pyrola minor</i>	Common Wintergreen	2				
<i>Pyrola rotundifolia</i> subsp. <i>rotundifolia</i>	Round-leaved Wintergreen	7	9	10		
<i>Radiola linoides</i>	All-seed	2	7			
<i>Ranunculus arvensis</i>	Corn Buttercup	4	9	10		
<i>Ranunculus baudotii</i>	Brackish Water-crowfoot	9	11			
<i>Ranunculus hederaceus</i>	Ivy-leaved Crowfoot	11				
<i>Ranunculus lingua</i>	Greater Spearwort	2a				
<i>Ranunculus omiophyllus</i>	Round-leaved Crowfoot	10				
<i>Ranunculus parviflorus</i>	Small-flowered Buttercup	9	11			
<i>Ranunculus peltatus</i>	Pond Water-crowfoot	15				
<i>Ranunculus sardous</i>	Hairy Buttercup	11				
<i>Rhinanthus angustifolius</i>	Greater Yellow-rattle	2	8	16		
<i>Rhinanthus minor</i> subsp. <i>stenophyllus</i>	Yellow-rattle	10				
<i>Ribes alpinum</i>	Mountain Currant	9	11			
<i>Rosa caesia</i>	Northern Dog-rose	14				
<i>Rosa micrantha</i>	Small-flowered Sweet-briar	2				
<i>Rosa mollis</i>	Soft Downy-rose	2				
<i>Rosa sherardii</i>	Sherard's Downy-rose	15				
<i>Rosa stylosa</i>	Short-styled Field-rose	11				
<i>Rosa x irregularis</i>	<i>Rosa arvensis x canina</i>	10				
<i>Rubus x pseudoidaeus</i>	<i>Rubus caesius x idaeus</i>	10				
<i>Rumex pulcher</i>	Fiddle Dock	2				
<i>Rumex x knafii</i>	<i>Rumex conglomeratus x maritimus</i>	10				
<i>Rumex x schulzei</i>	<i>Rumex conglomeratus x crispus</i>	10				
<i>Rumex x steinii</i>	<i>Rumex obtusifolius x palustris</i>	10				
<i>Rumex x wirtgenii</i>	<i>Rumex conglomeratus x palustris</i>	10				
<i>Sagina maritima</i>	Sea Pearlwort	3	10			
<i>Sagina nodosa</i>	Knotted Pearlwort	11				
<i>Salix aurita</i>	Eared Willow	11				
<i>Salix cinerea</i> subsp. <i>cinerea</i>	Grey Sallow	15				
<i>Salix myrsinifolia</i>	Dark-leaved Willow	2	9	10		
<i>Salix pentandra</i>	Bay Willow	11				
<i>Salix repens</i>	Creeping Willow	10				

Scientific (Kent/Stace)	Common	Codes				
<i>Salix x calodendron</i>	Holme Willow	11				
<i>Salix x forbyana</i>	Fine Osier	11				
<i>Salix x fruticosa</i>	Shrubby Osier	10				
<i>Salix x leiophylla</i>	<i>Salix triandra x purpurea</i>	2				
<i>Salix x meyeriana</i>	<i>Salix pentandra x fragilis</i>	10				
<i>Salix x multinervis</i>	<i>Salix aurita x cinerea</i>	11				
<i>Salix x rubra</i>	Green-leaved Osier	11				
<i>Salix x stipularis</i>	Eared Osier	2				
<i>Salix x subsericea</i>	<i>Salix cinerea x repens</i>	3	10			
<i>Salvia verbenaca</i>	Wild Clary	11				
<i>Sambucus ebulus</i>	Danewort	10				
<i>Scandix pecten-veneris</i>	Shepherd's-needle	4	9	11	12	
<i>Schoenus nigricans</i>	Black Bog-rush	3	10			
<i>Scirpus sylvaticus</i>	Wood Club-rush	15				
<i>Scleranthus annuus</i>	Annual Knawel	5				
<i>Sedum telephium</i>	Orpine	10				
<i>Selinum carvifolia</i>	Cambridge Milk-parsley	2	6	8		
<i>Senecio x subnebrodensis</i>	<i>Senecio squalidus x viscosus</i>	11				
<i>Silene gallica</i>	Small -flowered Catchfly	3	9	10		
<i>Silene noctiflora</i>	Night-flowering Catchfly	6	9	10		
<i>Silene nutans</i>	Nottingham Catchfly	2	7	9		
<i>Sium latifolium</i>	Greater Water-parsnip	3	9	10		
<i>Solidago virgaurea</i>	Goldenrod	11				
<i>Sorbus aria</i>	Common Whitebeam	15				
<i>Sparganium angustifolium</i>	Floating Bur-reed	2				
<i>Spergula arvensis</i>	Corn Spurrey	6				
<i>Spiranthes spiralis</i>	Ladies' Tresses	2	7			
<i>Spirodela polyrhiza</i>	Greater Duckweed	14				
<i>Stachys arvensis</i>	Field Woundwort	7	14			
<i>Stachys x ambigua</i>	<i>Stachys sylvatica x palustris</i>	11				
<i>Stellaria neglecta</i>	Greater Chickweed	15				
<i>Stellaria nemorum</i> subsp. <i>nemorum</i>	Wood Stitchwort	10				
<i>Stellaria palustris</i>	Marsh Stitchwort	6	11			
<i>Stratiotes aloides</i>	Water Soldier	2a	7	9	15	
<i>Teesdalia nudicaulis</i>	Shepherd's Cress	7	9	15		
<i>Thelypteris palustris</i>	Marsh Fern	2	9			
<i>Thymus polytrichus</i> subsp. <i>britannicus</i>	Wild Thyme	15				
<i>Thymus pulegioides</i>	Large Thyme	10				
<i>Tilia platyphyllos</i>	Large-leaved Lime	9	15			
<i>Torilis arvensis</i>	Spreading Hedge-parsley	5	9	10		
<i>Torilis nodosa</i>	Knotted Hedge-parsley	11				
<i>Trichophorum germanicum</i>	Deer-grass	2				
<i>Trifolium ochroleucon</i>	Sulphur Clover	2	7	9		
<i>Triglochin maritima</i>	Sea Arrow-grass	2				
<i>Typha x glauca</i>	<i>Typha angustifolia x latifolia</i>	11				
<i>Urtica dioica</i> subsp. <i>galeopsifolia</i>	Fen Nettle	10				
<i>Utricularia minor</i>	Lesser Bladderwort	2				
<i>Utricularia vulgaris sensu lato</i>	Greater Bladderwort	2				
<i>Vaccinium myrtillus</i>	Bilberry	11				
<i>Vaccinium oxycoccus</i>	Cranberry	2				
<i>Vaccinium vitis-idaea</i>	Cowberry	2				

Scientific (Kent/Stace)	Common	Codes				
<i>Valeriana dioica</i>	Marsh Valerian	14				
<i>Valerianella dentata</i>	Narrow-fruited Cornsalad	5	9	11		
<i>Verbascum lychnitis</i>	White Mullein	9	10			
<i>Verbascum nigrum</i>	Dark Mullein	11				
<i>Verbascum pulverulentum</i>	Hoary Mullein	2	9			
<i>Verbascum x duernsteinense</i>	<i>Verbascum thapsus x speciosum</i>	10				
<i>Verbena officinalis</i>	Vervain	11				
<i>Veronica scutellata</i>	Marsh Speedwell	11				
<i>Veronica triphyllos</i>	Fingered Speedwell	2	5	8		
<i>Vicia bithynica</i>	Bithynian vetch	2	6			
<i>Vicia orobus</i>	Wood Bitter-vetch	7	9	10		
<i>Vicia sylvatica</i>	Wood Vetch	11				
<i>Viola canina</i> subsp. <i>canina</i>	a heath dog-violet	7	14			
<i>Viola canina</i> subsp. <i>montana</i>	a heath dog-violet	2	5			
<i>Viola lutea</i>	Mountain Pansy	2				
<i>Viola palustris</i>	Marsh Violet	10				
<i>Viola persicifolia</i>	Fen Violet	2	5	8	16	
<i>Viola tricolor</i> subsp. <i>tricolor</i>	Heartsease	7				
<i>Viola x bavarica</i>	<i>Viola riviniana x reichenbachiana</i>	10				
<i>Viola x intersita</i>	<i>Viola riviniana x canina</i>	10				
<i>Viola x scabra</i>	<i>Viola odorata x hirta</i>	10				
<i>X Conyzigeron huelsenii</i>	<i>Erigeron acris x Conyza canadensis</i>	10				

Appendix II: Recorders

The list below includes all of those recorders who have contributed records (modern and historic) to this register.

AB	A. Burroughs	JB	Rev. J. Becher	PK	P.Kirby
AG	A. Gilbert	JBn	J. Brown	PO	P. Oxley
AJW	A.J. Worland	JBr	J. Branscombe	PMc	P. McCormick
ARH	A.R. Horwood	JC	J. Carruthers	PMW	P.M. Wade
BF	B. Featherstone	JCo	J. Coales	PP	P. Palmer
BES	British Ecological Society	JCr	J. Carter	PS	P. Shepherd
BMH	B.M. Howitt	JED	J.E. Dandy	PSm	P. Smith
BWB	British Waterways Board	JF	J. Fraser	RAF	R. Frost
CBW	C.B. Waite	JH	J. Hodgson	RAJ	R.A. Johnson
CC	C. Cornish	JMC	J.M.Croft	RB	R. Bulley
CD	C. Deering	JMW	J.M. Way	RC	Unknown
CDB	Unknown	JOM	J. O. Mountford	RCLH	R.C.L. Howitt
CES	Rev. C.E. Shaw	JO	J. Ordoyno	RDM	R.D. Meikle
CGC	C.G.Coppock(Woll)	JR	Rev. J. Roffey	REGC	R.E.G. Cole
CIS	C.I.Sandwith	JS	J. Szczur	RGS	Unknown
CJ	C. Joyce	JSh	J. Shanklin	RPL	R.P. Libbey
CL	C. Levy	JT	J. Thompson	RM	R. Maskell
CN	Unknown	JTH	Unknown	RMe	R. Melville
CDP / CP	C.D. Preston	JWC	J.W. Carr	RMP	R.M. Payne
CS	C. Smith	JWH	J.W. Hopkinson	RN	R. Nickerson
CS(1)	Claire Smith	KB	K. Balkow	RP	R. Penson
CW	C. Waite	KLJ	K.L. Jeffries	RS	R. Smith
DC	Unknown	KRS	Unknown	RVL	R.V. Lansdown
DCW	D.C. Wood	LA	L. Allen	RW	R. Wilson
DK	D. Knight	LC	L. Chilton	Sa	Mrs Sandwith
DM	D. McClintock	LF	L. Farrell	SA	S. Alton
DP	D. Peterson	MAP	M.A. Palmer	SAi	S. Aitken
DRC	Derbyshire Records Centre	MAV	M.A. Vincent	SB	S. Band
DS	D. Sanders	MB	Unknown	SC	S. Clifton
EC	E. Charter	MC	M. Carr	SFW	S. Woodward
EHM	E.H.Mullins	MEP	M.E. Pearce	SH	S. Hammond
EJL	E.J. Lowe	MF	M. Featherstone	SMW	S.M.Walters
ELS	E.L. Swann	MG	M. Grace	SW	S. Wright
EMP	E. Pearce	MP	M. Palmer	TG	T. Gent
EP	E. Palmer	MS	M. Smith	TGCR	T. Rich
GC	Graeme Coles	MT	M. Thompson	TJ	T. Jowett
GHB	G.H. Battershall	MW	M. Woods	TO	Thomas Ordoyno
GH	G. Howitt	MWh	M. White	VL	V. Leather
GL	G. Levy	NC	N. Crouch	WM	W. Martin
GS	G. Smith	NCC	Nature Conservancy Council Staff	Woll.	Wollaton Hall Museum Staff
GT	Dr. G. Taylor	NDS	N.D. Simpson	VD	V. Dale
GW	G. Walley	NFS	N.F. Stewart	VH	V. Heyes
GWi	G. Wilson	NH	N. Holmes	VPDB	Vascular Plant Database
GWW	G.W. Wheeldon	NJH	N.J.Hunter		
HF	H. Friend	NL	N. Laws	VW	V. Wilkin
HFi	H. Fisher	NRL	N.R. Lewis	WJH	W. Heyes
HR	Unknown	Nwi	N. Willby	ZH	Z. Harris
Hu	Mr Hurt	NWT	Nottinghamshire Wildlife Trust		
IB	I. Butterfield	NYS	N.Y.Sandwith		
IW	I. Weston	PA	P. Acton		
JA	J. Alder	PAC	P.A. Candlish		

Appendix III: Supplementary Geological Information

Availability of geological maps and memoirs

The county of Nottinghamshire is covered by twelve Geological Survey maps at scales of either one-inch to the mile (1:63 360, indicated by #) or 1:50 000. Sheet boundaries are outlined in red on figs. 1 and 2. Of these twelve maps, sheets 100 (Sheffield) and 102 (Market Rasen) merely clip the western and eastern edges respectively of the county and can be ignored. Maps are usually available in either flat or folded form, except sheets 101 East Retford and 113 Ollerton, which are currently only available in flat form. Maps are usually described as 'solid and drift' (of older usage) or 'bedrock and superficial deposits'. Most maps are accompanied by Memoirs (M), Sheet Descriptions (SD) or brief Sheet Explanations (SE).

88 Doncaster (1969#) M

101 East Retford (1967#) M

112 Chesterfield (2012) M

113 Ollerton (1966#) M

114 Lincoln (1973)

125 Derby (1972) M

126 Nottingham (1996) M

127 Grantham (1996) M

141 Loughborough (2001) SE, SD

142 Melton Mowbray (2003) SE, SD

It is now possible to access the geological map of Britain as a free smartphone App (iGeology) that allows the user to view the 1:50 000 scale geology of any location simply by tapping in a place name or postcode, or using your phone's in-built GPS. Go to <http://www.bgs.ac.uk/igeology/>.