

Environment & Heritage Service

NORTHERN IRELAND SPECIES ACTION PLAN FEN VIOLET

April 2008

Northern Ireland Species Action Plan
Fen Violet *Viola persicifolia*
April 2008

1 Current Status

- 1.1** Fen violet *Viola persicifolia* Schreber is a subglabrous perennial, creeping herb with underground stolons. It has bluish white to white flowers with a greenish spur, arising on leafy stems from a central tuft. It flowers in June and can grow to a height of 25cm. The leaf shape differs from other Irish violet species in that it is triangular-lanceolate, thin, truncate to subcordate at base (Stace, 1995).
- 1.2** *V. persicifolia* favours damp peaty or clayey base-rich soils, specifically on the margins of turloughs, and dislikes competition. It prefers locations subject to fluctuating water levels, trampling by cattle and some degree of peat digging. Its occurrence on the shores of turloughs is defined by the fluctuating water levels which causes a distribution that varies year on year. On larger more stable lakes the distribution is generally in a well defined narrow band close to the high water level mark (Pullin, 1986).
- 1.3** In Ireland, it is most common in the far west, occurring as a native in damp grassy hollows and around the high water mark of certain turloughs on carboniferous limestone in the centre and west from County Clare to County Fermanagh. It is also recorded in fens and marshes in the east of England from Oxfordshire to south Yorkshire (Clapham *et al.*, 1987). The seed is thought to be long-lived and viable for up to 25 years (Preston *et al.*, 2002).
- 1.4** *V. persicifolia* is widely distributed throughout Europe, with the exception of the Mediterranean region, the Southeast and the extreme North (Tutin *et al.*, 1978). It is also recorded from central Siberia to the Altai (Clapham *et al.*, 1987).
- 1.5** *V. persicifolia* was first recorded in Northern Ireland as *Viola stagnina* in 1919 at Fardrum Lough, Co. Fermanagh (Steele, 1919). This and other early records are listed in a draft manuscript of an unpublished Flora of County Fermanagh (Carrothers *et al.*, 1957). All Northern Irish records are from Co. Fermanagh, generally around Upper Lough Erne. Northridge & Northridge (2005) lists nine locations where *V. persicifolia* has been reported. These are Fardrum Turlough (last reported in 1947), Green Loughs (1992), the shore at Tirraroe north east of Derrylin (1953), Inish Rath (1953), Cornaleck (1953), Aghinish Island (1987), Inishcreenry (1954) Corrad Peninsula (1986) and Corraslough Point (1957). It has also been recorded at Trannish island in 1986 (R. Weyl pers. comm.). It is uncertain as to whether or not the plant still persists at any of these sites (Northridge & Northridge, 2005).
- 1.6** Never a common species in Northern Ireland, *V. persicifolia* was thought to occur in only four 10x10km squares (Preston *et al.*, 2002), all of which are located in the south-west, in and around Upper Lough Erne.
- 1.7** Further survey is required to verify the occurrence of the species at any of the sites listed above.

2 Current Factors Causing Loss or Decline

- 2.1** Agricultural improvement in the form of the application of fertiliser and pesticides, and re-seeding, has been identified as one of the factors that may threaten the habitat of this species in Northern Ireland (Northridge & Northridge, 2005).
- 2.2** Drainage and any subsequent changes in the water table, particularly the lowering and stabilisation of water tables, can affect the extent and quality of turloughs. This can be the result of both direct drainage and indirect drainage of nearby land. Changes in the water levels of lakes through water abstraction from aquifers has resulted in dried up or reduced spring-line flows, and generally lowered the water tables on which turloughs depend (JNCC, 1998).
- 2.3** Extensive grazing or mowing is usually necessary to retain the low nutrient value of the base-rich grassland favoured by *V. persicifolia* in Northern Ireland, and to keep potentially more competitive species in check. Therefore a managed level of grazing is required for this species. But serious overgrazing eventually results in a reduction of species diversity and allows stress-tolerant and nitrophilous species to dominate. Supplementary stock feeding can lead to eutrophication and localised heavy poaching of the soil.
- 2.4** Linked to also to grazing levels, scrub encroachment is also seen as a major factor.
- 2.5** Agricultural run-off can increase the general nutrient status and eutrophication of water bodies and associated habitats. Increased nutrients can affect the base-richness of the peaty/clayey soils which *V. persicifolia* is known to prefer.
- 2.6** Hybridisation with other *Viola* species, may lead to a reduction or possible loss of *V. persicifolia*. Hybrids with *V. canina* have been reported from Co. Fermanagh (Stace, 1975). These plants are sterile and often very vigorous, occurring with the parents (Stace, 1997). There are apparently few confirmed records of hybrids in Northern Ireland.

3 Current Action

- 3.1** *V. persicifolia* is a protected species in Northern Ireland and is listed under Schedule 8 of the *Wildlife (Northern Ireland) Order 1985*.
- 3.2** Under Article 28 of the *Environment (Northern Ireland) Order 2002*, Areas of Special Scientific Interest (ASSIs) are identified and declared by the Department of the Environment (DOE) through the Environment and Heritage Service (EHS). The *Environment (Northern Ireland) Order 2002* strengthened existing protection of ASSIs by introducing a mechanism for the positive management of these sites. The Management of Sensitive Sites Scheme (MOSS) is a voluntary scheme run by EHS and is designed to ensure the positive management of ASSIs and covers agricultural improvement, grazing and control of invasive scrub species. All sites where the species has been recorded in the past are designated as ASSIs.

- 3.3** Under the *Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora* (the ‘Habitats Directive’), Fardrum & Roosky Turloughs and the relevant parts of Upper Lough Erne have been designated as SACs.
- 3.4** *Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources* (the ‘Nitrates Directive’) was adopted by the Commission on 19 December 1991. The Nitrates Directive requires Member States to monitor surface waters and groundwater for nitrate pollution against a maximum limit of 50mg NO₃ / l. Where this level of pollution is reached, or trends indicate that it could be reached if Action Programmes under the Directive are not established, land draining into the affected waters (and which contribute to pollution) must be designated as a Nitrate Vulnerable Zone (NVZ). Up to 2004, seven NVZs had been designated. However, in Northern Ireland the step has been taken to declare “Total Territory” so that a nitrates action programme will apply to the whole of Northern Ireland. This was introduced by the *The Protection of Water against Agricultural Nitrate Pollution Regulations (Northern Ireland) 2004*. The total territory action programme has yet to be established and until it is, the original NVZs remain in operation. In Northern Ireland *V. persicifolia* does not occur within a Nitrate Vulnerable Zone but the legislation offers a mechanism to control agricultural pollution if this is deemed necessary.
- 3.5** The Nitrates Directive places restrictions on spreading organic manure close to lakes, including turloughs. Organic manures including dirty water must not be applied within 20 meters of lakes or 15 metres of exposed cavernous or karstified limestone features. These measures could benefit *V. persicifolia*.
- 3.6** Common sources of agricultural pollution are silos, silage pits and slurry stores. The mechanisms controlling restructuring or moving these constructions are covered by *The Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) Regulations (Northern Ireland) 2003*. Any farmer must now notify EHS of any silo, slurry store or agricultural fuel oil store, constructed, substantially enlarged or substantially reconstructed on or after 21st July 2003. Enforcement of this legislation could help *V. persicifolia* at its Fermanagh haunts.
- 3.7** The *Groundwater Regulations (Northern Ireland) 1998* transpose the requirements of the EC Groundwater Directive (80/68/EEC). The Directive seeks to prevent the direct or indirect discharge of List One substances to groundwater and control pollution resulting from the direct or indirect discharge of List Two substances to groundwater. Under these Regulations, disposal and tipping for the purpose of disposal of List One and List Two substances to land is subject to a formal system of authorisation. For the majority of farms this means an authorisation for the disposal of waste sheep dip, including cosmetic dips and waste pesticides, including tank washings. Enforcement of this legislation could help *V. persicifolia* at its Co. Fermanagh haunts.
- 3.8** Although it is the legislation which will have the main impact, the Single Farm Payment Scheme under Cross-Compliance Verifiable Standards - 2005/06, will have a beneficial impact on water quality by providing an additional incentive for farmers to follow the regulations. For example, Statutory Management Requirement 3 (SMR3) gives the main requirements that farmers must adhere to in order to comply with the

Groundwater Regulations (Northern Ireland) 1988, SMR4 gives the main requirements in order to comply with the Sludge (Use in Agriculture) Regulations (Northern Ireland 1990 and SMR5 in order to comply with the Nitrates Directive.

- 3.9** The *Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2003* transposed *EC Directive 2000/60/EC, Establishing a Framework for Community Action in the Field of Water Policy* (the ‘Water Framework Directive’ (WFD)) into Northern Ireland law. This legislation is still being implemented but will have potential benefits for *V. persicifolia* as it will provide a mechanism for meeting water quality and quantity objectives.
- 3.10** In 2000, the Northern Ireland Biodiversity Group (NIBG) produced its recommendations to Government (NIBG, 2000). These recommendations were accepted by the Northern Ireland Executive in 2002, with the publication of the *Northern Ireland Biodiversity Strategy* (DOE, 2002). As part of this process, a revised list of priority species was published in March 2004. This list includes *V. persicifolia*.
- 3.11** Regional Planning and Transportation division within DRD is responsible for the implementation of the *Regional Development Strategy (RDS) for Northern Ireland 2025*, which provides an overarching framework for competitive and sustainable development in Northern Ireland (DRD 2001). Operational policies to give effect to the Strategic Planning Guidelines of the RDS are contained in Planning Policy Statements (PPSs).
- 3.12** Planning Service assesses the impact of development proposals on wildlife using policies in *Planning and Policy Statement 2 – Planning and Nature Conservation* (currently under review). EHS is a statutory consultee to Planning Service and provides advice on site specific impacts both within designated sites and in the wider countryside, when requested to do so. Impacts of development proposals are assessed and the proposals amended or mitigated to ensure continued sustainable development in the countryside.
- 3.13** Site protection policies are included in Development Plans. These include the identification of Sites of Local Nature Conservation Importance (SLNCIs). Planning Service is currently considering which SLNCIs will be formally identified in Development Plans. Where such sites are confirmed in adopted plans, specific planning policies will be applied to development proposals on those sites.
- 3.14** The development of Local Biodiversity Action Plans (LBAPs) based on District Council areas and/or discrete landscape areas, and the appointment of Local Biodiversity Officers will help to build on the SLNCI network and encourage, co-ordinate and inform local biodiversity action.
- 3.15** The Department of Agriculture and Rural Development (DARD) through its Countryside Management Branch (CMB) has developed a series of Agri-environment schemes including the ESA scheme and the Countryside Management Scheme (CMS). Further revisions to both the ESA and CMS have recently been approved under the current Northern Ireland Rural Development Programme (2000 - 2006).

Their objectives are to protect and enhance semi-natural habitats and species by encouraging more sensitive management practices. Both these schemes have similar management provisions, are voluntary and apply to the whole farm. These schemes provide mechanisms for delivering some of the targets in Action Plans for species and habitats and are currently targeting areas of as little as 0.1 ha of semi-natural habitat in order to maintain and improve their present conservation value. Around 230,000ha of farm land, approaching one quarter of total agricultural land in Northern Ireland is currently in agri-environment schemes.

- 3.16** The designation of ESAs started in 1988 and today there are 5 ESAs in Northern Ireland. DARD has determined a number of priority habitats, which, if they occur on the farm, must be brought under agreement and managed according to relevant prescriptions determined by DARD. All sites that supported *V. persicifolia* are within the West Fermanagh and Erne Lakeland ESA.
- 3.17** The Countryside Management Scheme (CMS), launched in 1999, was developed with the primary aim to maintain and enhance biodiversity and is open to all farmers and landowners outside ESAs. Where funding is limited entry into the scheme is competitive and based on who can offer the greatest environmental benefits.
- 3.18** A new agri-environment scheme, called the NICMS (Northern Ireland Countryside Management Scheme), will be launched in late Spring/early summer 2008. The NICMS is an integral part of the Northern Ireland Rural Development Programme 2007 – 2013 (NIRDP). This programme is part-financed by the European Agricultural Fund for Rural Development (EAFRD) with co-funding provided by the Department of Agriculture and Rural Development (DARD). The NICMS will play an important role in delivery of Axis 2 of the NIRDP - Improving the environment and the countryside through land management.
- 3.19** The NICMS aims to make a major contribution to the conservation action required for many Northern Ireland priority habitats and species. The habitat management plans in NICMS specify how farmers and land managers can best contribute to the conservation of these priority habitats and species.
- 3.20** A review of the status of *V. persicifolia* was recently undertaken on behalf of EHS. There is now a need to follow this with targeted searches (Northridge & Northridge, 2005).
- 3.21** Appointment of Local Biodiversity Officers by many district councils in Northern Ireland will result in the development of Local Biodiversity Action Plans (LBAPs) which will encourage, co-ordinate and inform local biodiversity action. County Fermanagh has published a Biodiversity Action Plan which includes reference to the species.
- 3.22** Other relevant information is gathered through specialist biological recording groups, NGOs, universities and other government bodies. Biological records are currently stored in Museum and Galleries of Northern Ireland (MAGNI) at the Centre for Environmental Data and Recording (CEDaR).

CEDaR was established in 1995 in partnership with EHS, MAGNI and the biological recording community. There are currently over 1.4 million records held by CEDaR and there are plans under way to make these records more accessible through the internet. This will be achieved through the National Biodiversity Network - a union of organisations throughout the UK working together to create an informal network of accessible biological data for biodiversity information.

4 Action Plan Targets

- 4.1** Re-establish populations of *V. persicifolia* at 4 former known sites by 2015.

5 Proposed Action with Lead Agencies

5.1 Policy and Legislation

- 5.1.1 By 2009, assess the occurrence of *V. persicifolia* in SACs, ASSIs and National Nature Reserves (NNRs).
(ACTION: EHS)
- 5.1.2 Ensure all *V. persicifolia* sites are recognised and, where appropriate, site protection policies are included in statutory and non-statutory plans e.g. Development Plans and other strategic plans including Local Biodiversity Action Plans (LBAPs).
(ACTION: Planning Service, EHS, DARD, District Councils)
- 5.1.3 By 2009, monitor and review effectiveness of MOSS and agri-environment schemes on any known populations of *V. persicifolia*.
(ACTION: EHS, DARD)
- 5.1.4 By 2009, ensure agri-environment scheme prescriptions, relevant/appropriate to *V. persicifolia* are contributing to maintaining and enhancing any known populations.
(ACTION: DARD, EHS)
- 5.1.5 By 2009, target positive management through MOSS, agri-environment schemes, the LBAP process and grant aid for biodiversity to secure favourable management of any known *V. persicifolia* sites.
(ACTION: EHS, DARD)

5.2 Site Safeguard and Management

- 5.2.1 By 2008, produce conservation objectives for all statutory designated SAC, ASSI and Nature Reserve (NR) sites where colonies of *V. persicifolia* are known to be present ensuring that, where possible, the objectives do not conflict with the requirements of *V. persicifolia*.
(ACTION: EHS)

- 5.2.2 By 2010, secure favourable management of selected historic sites for *V. persicifolia* to encourage recovery of these ‘extinct’ populations.

(ACTION: EHS)

5.3 Species Management and Protection

- 5.3.1 By 2010, ensure all known sites are managed in a manner that is beneficial to the conservation of *V. persicifolia*.

(ACTION: EHS)

5.4 Advisory

- 5.4.1 By 2009, provide specific advice to any landowners with *V. persicifolia* on their land about suitable management requirements of species.

(ACTION: EHS, DARD)

- 5.4.2 By 2008, ensure that information on *V. persicifolia* in Northern Ireland is available to all those who could play a role in its conservation and recovery including competent authorities and environmental consultants involved in the preparation of Environmental Impact Assessments (EIAs).

(ACTION: EHS, DARD)

5.5 International

- 5.5.1 Further develop links with the Republic of Ireland and other European and international organisations and programmes such as the European Environment Agency and the European Centre for Nature Conservation to promote and exchange information and experience in research, management techniques, education and conservation strategies.

(ACTION: EHS).

5.6 Future Research and Monitoring

- 5.6.1 By 2009, establish distribution, abundance, viability and the extent of hybridisation of all *V. persicifolia* populations.

(ACTION: EHS)

- 5.6.2 Periodically review monitoring protocols and condition assessment methodology for statutory sites with *V. persicifolia*.

(ACTION: EHS)

- 5.6.3 Monitor habitat conditions and management to ensure that optimal site management is achieved.

(ACTION: EHS)

- 5.6.4 By 2008, set in place a reporting and monitoring structure to encourage progress towards delivery of targets and completion of actions identified in this plan.

(ACTION: EHS)

5.7 Communication and Publicity

- 5.7.1 Raise awareness of *V. persicifolia* among the general public including volunteers, botanists, professional conservation workers and researchers to help achieve its conservation and recovery.
(ACTION: EHS)

6 Links with other Action Plans

- 6.1 This plan should be considered in conjunction with the following UK and Northern Ireland Habitat Action Plans.
- Fens
 - Eutrophic standing waters
 - Calcareous grassland
 - Aquifer fed naturally fluctuating water bodies (UK only)

7 References

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List of Useful Acronyms

ASSI	Area of Special Scientific Interest
BAP	Biodiversity Action Plan
CEDaR	Centre for Environmental Data and Recording
CMB	Countryside Management Branch
CMS	Countryside Management Scheme
DARD	Department of Agricultural and Rural Development
DCAL	Department of Culture, Arts and Leisure
DETI	Department of Enterprise, Trade and Investment
DENI	Department of Education for Northern Ireland
DOE	Department of the Environment
DRD	Department for Regional Development
EHS	Environment and Heritage Service
ESA	Environmentally Sensitive Area
ESCRs	Earth Science Conservation Review Site
FCB	Fisheries Conservancy Board
HAP	Habitat Action Plan
JNCC	Joint Nature Conservation Committee
NMNI	National Museums of Northern Ireland
NESA	New Environmentally Sensitive Area
NIBG	Northern Ireland Biodiversity Action Group
NICMS	Northern Ireland Countryside Management Scheme
NICS	Northern Ireland Countryside Survey
NNR	National Nature Reserves
NT	National Trust
PPS	Planning Policy Statement
RA	Rivers Agency
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAP	Species Action Plan
SLNCI	Site of Local Nature Conservation Importance
SoCC	Species of Conservation Concern
SPA	Special Protection Area
UWT	Ulster Wildlife Trust
WFD	Water Framework Directive
WWT	Wildfowl and Wetlands Trust



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