

Environment & Heritage Service

Northern Ireland Species Action Plan - Smooth Cat's-ear *Hypochaeris glabra*

March 2007

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1 Current Status

- 1.1** Smooth Cat's-ear *Hypochaeris glabra* (L.) is a member of the composite family. It is an annual, usually glabrous plant growing to 40 cm., with a bright yellow capitula 1-1.5 cm. across, opening only in bright sunshine, though flowers often close during the afternoon (Preston, 2002). The leaves are bright and glossy (Stace, 1997). It flowers from June to October (Clapham *et al.*, 1987).
- 1.2** *H. glabra* is found in Europe northwards to S. Scandinavia and N. Poland, the Middle East and North Africa (Clapham *et al.*, 1987).
- 1.3** In the UK, *H. glabra* occurs as a native in grassy or open ground on usually acidic, nutrient-poor, sandy or shingly soils. Found in grassy fields, arable land, heaths and dunes.
- 1.4** In Northern Ireland it is confined to coastal sand dune grassland with significant areas of bare ground around Lough Foyle and the north coast of County Londonderry. *H. glabra* was first recorded in Northern Ireland at Magilligan, County Londonderry, by Rev. H. W. Lett and Rev. C. H. Waddell in 1900. (Stewart *et al.*, 1938)
- 1.5** *H. glabra* has declined nationally and was formerly widespread as an arable weed. This reduction has been partly attributed to agricultural improvement and loss or reduction in grazing (Preston, 2002).
- 1.6** In Northern Ireland, post-1987 records for *H. glabra* show the number of occupied 10km squares to be three. This has since decreased to 1 location at Magilligan, County Londonderry, where it has been recorded in 2006 (D. H. Riley, pers. comm.) This site is designated as ASSI, cSAC and is in part NNR. It is managed, in part, by the Ministry of Defence. There are approximately 16 historic records; 15 from County Londonderry and one from White Park Bay, County Antrim, where *H. glabra* has not been recorded since 1959. The other three most recent sites where *H. glabra* has been reliably recorded are Grangemore, County Londonderry (part of the Bann Estuary ASSI and SAC, owned and managed by the National Trust) 1998, a rabbit warren near Ballykelly, County Londonderry, 1998 and Portstewart, County Londonderry (ASSI and SAC, owned and managed by the National Trust), where it is presumed extinct, last record 1998 (Tickner, 2004 & 2005: D. H. Riley, pers. comm.).

- 1.7 Always a scarce plant in Northern Ireland, 1987-1999 records for *H. glabra* show it surviving in only 3 10 x 10km squares, having been lost from 2 10 x 10km squares (Preston *et al.*, 2002). Post Atlas records indicate that there is now thought to be only one site remaining with possibly two populations (D. H. Riley, pers. comm.)

2 Current Factors Causing Loss or Decline

- 2.1 Agricultural improvement in the form of cultivation combined with the application of fertiliser and pesticides, ploughing and re-seeding, has been identified as one of the factors that may threaten lowland grassland including stable dune grassland in Northern Ireland, where *H. glabra* can occur.
- 2.2 Grazing (by rabbits and/or livestock) or mowing is usually necessary to retain the low nutrient value of the grassland favoured by *H. glabra* in Northern Ireland and to keep competitive species in check. Overgrazing can result in a reduction of species diversity and allow stress-tolerant and nitrophilous species to dominate. Severe over-grazing by cattle can result in the creation of bare sandy areas with little or no vegetation. Supplementary stock feeding can lead to eutrophication and localised poaching of the soil. These conditions, as long as not over-severe, are likely to favour *H. glabra*. Undergrazing on coastal sand dunes can lead to invasion by coarse grasses and scrub leading to the loss of the original grassland community and this should be considered as a major threat to *H. glabra*.
- 2.3 Abandonment has been identified as a factor that may threaten lowland dry acid grassland in Northern Ireland, where *H. glabra* can occur. Absence of management by cutting or grazing can lead to the development of heath or rank growth or invasion by bracken, scrub or woodland.
- 2.4 Habitat fragmentation has been identified as one of the factors that may threaten lowland dry acid grassland in NI, where *H. glabra* can occur. Reduction of parcel size and isolation of unimproved grassland parcels results in reduced opportunities for desirable species to colonise relatively impoverished lowland dry acid grassland. Fragmentation of habitat further increases the severity of piecemeal habitat loss.
- 2.5 Airborne pollution, which can result in acidification and nitrogen enrichment, has been identified as one of the factors that may threaten lowland dry acid grassland in Northern Ireland, where *H. glabra* can occur.

- 2.6** Recreational pressure has been identified as one of the factors that may threaten lowland dry acid grassland in Northern Ireland, where *H. glabra* can occur and may have contributed to the loss of *H. glabra* from some coastal grasslands sites and 10 x 10 km squares. Trampling by excessive pedestrian use, as well as use of motorbikes and 4-wheel drive vehicles, results in erosion of sand dune systems while eutrophication from material such as dog faeces can also be a threat. The creation of bare ground may actually be of benefit to *H. glabra* unless as with 2.2 it is too severe.
- 2.7** Erosion, as a result of natural processes or recreational pressure, as well as overgrazing and poaching, can lead to accelerated loss of thin acid soils, especially where they are sparsely vegetated. This has been identified as one of the factors that may threaten lowland dry acid grassland and coastal sand dunes in Northern Ireland, where *H. glabra* can occur.
- 2.8** Many dune systems in NI, where *H. glabra* may be found, have been damaged by golf course construction. While the original vegetation may be retained in the fairway rough, tees and greens have been severely modified by mowing, fertilising and re-seeding. Fragmentation of dune systems by golf courses makes management difficult and leads to an inevitable loss of dune grassland. Some small dune systems in Northern Ireland have been levelled to create recreational areas.
- 2.9** Dredging and the extraction of marine aggregate, through disruption of coastal processes can have cumulative and long-term effects on sand dune formation and hence potential *H. glabra* habitat.
- 2.10** Many dune systems in Northern Ireland have been damaged by the construction of sea defence works or artificial stabilisation measures such as fencing and planting of Sea Buckthorn *Hippophae rhamnoides*.
- 2.11** Mechanical beach cleaning can prevent the establishment of embryo dunes by the removal of strandline vegetation and debris.
- 2.12** Alien species such as Sea Buckthorn *H. rhamnoides* have been widely planted on dunes in Northern Ireland to stabilise them and this has led to a net loss of dune grassland.
- 2.13** Predictions of temperature and sea level rise as a result of climate change have been modelled by the MONARCH project (Harrison *et al.*, 2001). These suggest a smaller impact in Ireland than in Great Britain but may result, or have resulted in changes in species composition and diversity.

- 2.14** It is possible that some surviving populations of *H. glabra* have been overlooked, as the capitula only opens in bright morning sunlight and closes by noon. (Wilson & King, 2003)

3 Current Action

- 3.1** *Hypochaeris glabra* is protected in Northern Ireland under Schedule 8 of the *Wildlife (Northern Ireland) Order 1985*.
- 3.2** Statutory site designation granted to areas such as National Nature Reserves (NNRs) is important in the conservation of threatened habitats and species. Management plans exist for all NNRs administered by EHS. There are records for *H. glabra* from Magilligan Point NNR which is managed by the Ministry of Defence (MOD) in consultation with EHS.
- 3.3** One site which has regularly supported *H. glabra* is owned and managed by the National Trust, namely Grangemore, County Londonderry. The presence of *H. glabra* in the recent past (up to at least 1998, D. H. Riley pers. comm.) is recognised in recent National Trust surveys (Tickner *et al.*, 2005).
- 3.4** 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. The only known extant population occurs on Magilligan ASSI, County Londonderry and the other two recent populations occurred within Bann Estuary ASSI at Grangemore
- 3.5** In 2000 the Northern Ireland Biodiversity Group (NIBG) presented its recommendations to the government in the Northern Ireland Biodiversity Strategy (DOE, 2002). As part of this process a revised list of Northern Ireland priority species was published in 2004 and *H. glabra* is included on this list.
- 3.6** Regional Planning and Transportation division within the Department of Rural Development (DRD, Northern Ireland) 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).

- 3.7** DOE 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.
- 3.8** 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.
- 3.9** 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. The LBAP includes Species Action Plans (SAPs) and Habitat Action Plans (HAPs). The LBAP framework provides a system by which can assess the important habitats and species in a particular area. For the Craigavon Borough Council area a Species Action Plan for Leisler's bats is currently out to consultation with its main stakeholders.
- 3.10** 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 in. The known range of *H. glabra* falls outside ESA boundaries but sites outside ASSIs could in theory be managed under CMS.

- 3.11** The 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.
- 3.12** *H. glabra* and its conservation needs can be discussed at the regular meetings with MOD over its management of parts of Magilligan, County Londonderry.
- 3.13** 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. (EHS 2005b)

4 Action Plan Targets

- 4.1** Maintain current population(s) at 1 site
- 4.2** Maintain current range at 1 10x10km squares.
- 4.3** By 2010 increase number of populations to 2 sites.
- 4.4** By 2010 increase range to 2 10x10km squares.

5 Proposed actions with Lead Agencies

5.1 Policy and Legislation

- 5.1.1** By 2008, review coverage of *H. glabra* within ASSIs and NNRs and if necessary notify further sites which support the species.
(ACTION: EHS)
- 5.1.2** By 2009, ensure important *H. glabra* 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 2008, monitor and review effectiveness of MOSS and agri-environment schemes which may affect any populations of *H. glabra*.

(ACTION: EHS, DARD)

5.1.4 By 2008, ensure agri-environment scheme prescriptions, relevant/appropriate to *H. glabra* are where possible contributing to maintaining and enhancing the population across NI.
(ACTION: EHS, DARD)

5.1.5 By 2009, target positive management through MOSS, agri-environment schemes, liaison with National Trust (Grangemore) and MOD (Magilligan) and the LBAP process to secure favourable management of all *H. glabra* sites.
(ACTION: EHS, DARD, MOD)

5.2 Site Safeguard and Management

5.2.1 By 2008, produce relevant conservation objectives for all statutory sites with *H. glabra* ensuring that where possible the objectives do not conflict with the requirements of *H. glabra*.
(ACTION: EHS)

5.2.2 By 2010, ensure that favourable habitat management of key historic sites is in place to encourage the possible recovery of apparently 'extinct' populations.
(ACTION: EHS)

5.3 Species Management and Protection

5.3.1 By 2010, ensure all known sites, including those which have supported *H. glabra* within the last ten years are managed in a manner that is beneficial to its conservation.
(ACTION: EHS)

5.4 Advisory

5.4.1 By 2007, provide advice to landowners with *H. glabra* on their land about suitable management requirements of the species.
(ACTION: EHS, DARD)

5.4.2 By 2007, ensure that information on *H. glabra* 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 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 2008, establish the current distribution, abundance and viability of *H. glabra* populations
(ACTION: EHS)
- 5.6.2 Periodically review monitoring protocols and condition assessment methodology for statutory sites with *H. glabra*.
(ACTION: EHS)
- 5.6.3 Monitor habitat conditions and management to ensure that optimal site management is achieved at the selected sites.
(ACTION: EHS)
- 5.6.4 By 2007, 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)
- 5.6.5 By 2009, conduct experimental management on former sites whereby the seed bank is exposed to encourage the germination of *H. glabra* seeds.
(ACTION: EHS)

5.7 Communication and Publicity

- 5.7.1** Raise awareness of *H. glabra* among the general public including volunteers, botanists, professional conservation workers and researchers eg. By means of reports, publications, field meetings and presentation of research results at conferences.

(ACTION: EHS)

- 5.7.2** Ensure that relevant landowners and managers are aware of how to find and identify *H. glabra*.

(ACTION: EHS)

6 Links with other action plans

- 6.1** It is likely that the implementation of this plan will also benefit the Northern Ireland populations of the following species:

- Heath cudweed *Gnaphalium sylvaticum*
- Irish hare *Lepus timidus hibernicus*

- 6.2** This plan should be considered in conjunction with the following UK and Northern Ireland Habitat Action Plans.

- Lowland dry acid grassland
- Coastal sand dunes

7 References

CEDaR. Centre for Environmental Data and Recording. Museums and Galleries of Northern Ireland

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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
MAGNI	The National Museums and Galleries of Northern Ireland
NESA	New Environmentally Sensitive Area
NIBG	Northern Ireland Biodiversity Action Group
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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