

NORFOLK BIODIVERSITY ACTION PLAN

SMALL-FLOWERED CATCHFLY (*Silene gallica*)

Small-flowered catchfly grows to about 30cm tall. The whole plant is hairy, with sticky hairs on the upper parts. The flowers are up to 15mm across, with five white or pink petals. It flowers from June to October.

Ref 2/S17	Tranche 2	Species Action Plan 17
Plan Author:	Norfolk County Council	
Plan Co-ordinator:	Farmland Topic Group	
Plan Leader:	Natural England	
Date: April 2007	Stage: Final	

1. CURRENT STATUS

National Status

- Small-flowered catchfly is a species of arable land, waste ground and sandy seashores. It is a winter annual, mainly germinating in autumn but also capable of doing so in spring. It is therefore found in both spring and winter crops.
- This species was once widespread in the UK and has been recorded in 283 ten km squares as far north as central Scotland. However, it has undergone a very rapid decline and is now concentrated in southern and western England and Wales, and most of its remaining sites are in coastal areas. Its decline has been associated with agricultural changes, but has been compounded by its vulnerability to harsh winters (seedlings cannot tolerate temperatures of less than $<10^{\circ}$ C). The loss of repeated introductions from uncleaned European seed may have given the appearance of an even more catastrophic decline. Small-flowered catchfly is widespread in central and southern Europe. It is not threatened in Europe as a whole, but has virtually disappeared from northern Europe.
- In Great Britain, small-flowered catchfly is classified as *Nationally Scarce*. It receives general protection under the Wildlife and Countryside Act 1981.

Norfolk Status

- The Norfolk distribution is very scattered, although this scarce annual does occur in 12 1-km squares in Norfolk, and is particularly abundant on a disused railway line at Gimingham. It has also been recorded from an active quarry site at Beetley, Roosting Hill, and from Felmingham railway cutting. Generally, the outlook for this species is fairly positive, as it does seem to persist even when management is unfavourable, suddenly reappearing when conditions are more favourable.

2. CURRENT FACTORS CAUSING LOSS OR DECLINE IN NORFOLK

- Poorly competitive, and has been affected by increased levels of nitrogen applied to improve crop varieties. Also susceptible to herbicides.

3. CURRENT ACTION IN NORFOLK

- The Norfolk Flora Group check records for this species.
- Felmingham railway cutting is a Local Nature Reserve and County Wildlife Site.
- Roadside Nature Reserve 61 at Long Lane, Strumpshaw was notified for this species.

4. ACTION PLAN OBJECTIVES AND TARGETS

National

- Maintain current range of natural populations within 87 10-km squares in the UK.
- Achieve a two-fold increase in the area of habitat suitable for the natural colonisation of the species by 2010 in priority areas

Norfolk

- Ensure that the population remains viable at all current sites.
- Provide opportunities for the spread of small-flowered catchfly from extant sites.

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NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
5.1	Policy and Legislation			
5.1.1	Encourage the development of relevant agri-environment schemes, such as the pilot Arable Stewardship Scheme in England, as a potential means of re-establishing this species in the countryside. When reviewing such schemes, consider whether changes are needed to increase their potential benefits for this and other threatened arable species.	Use Environmental Stewardship Scheme to help re-establish small-flowered catchfly in Norfolk, where appropriate.	NE	Farmers and landowners
5.1.2	As far as possible, ensure that any seed of this species included in wildflower seed mixture is of native origin.	As far as possible, ensure that any seed of this species included in wildflower seed mixture is of native origin.	Emmorsgate	
5.2	Site Safeguard and Management			
5.2.1	Continue with beneficial management at key sites, implement management at other extant sites and refine techniques as the results of research continue to emerge.	<p>Promote beneficial management at all extant sites.</p> <p>Ensure mineral operators are aware of presence of species at Beetley.</p> <p>Review management of Felmingham railway cutting to ensure the needs of this species are being met.</p> <p>Manage RNR 61 at Long Lane, Strumpshaw to benefit this species.</p>	<p>NE</p> <p>NCC</p> <p>NCC</p> <p>NCC</p>	

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NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
5.2.2	Seek to develop a network of suitable habitats within the vicinity of this species' sites, thereby providing opportunities for its spread. Favourable management will include the relevant options outlined under the pilot Arable Stewardship Scheme, eg uncropped headlands.	Establish who owns and manages the disused railway line at Gimingham and ensure management is appropriate for this species. Target neighbouring landowners to encourage spread of species.	NE NE	Landowner Farmers and landowner
5.3	Species Management and Protection			
5.3.1	Undertake experimental management at eight carefully selected historic sites with the aim of regenerating small-flowered catchfly from the seed-bank, seeking opportunities through appropriate agri-environment schemes.	No action proposed.		
5.3.2	Assess the feasibility and desirability of reintroducing small-flowered catchfly to selected sites should attempts to regenerate it from the seed-bank prove unsuccessful.	No action proposed.		
5.3.3	Collect seed from all extant native sites and deposit in the Millennium Seed Bank at Wakehurst Place (Kew).	Offer seed from Norfolk sites to Kew.	Norfolk Flora Group	
5.4	Advisory			
5.4.1	On sites where the species	Ensure owners of extant	NE	

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NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
	is a significant consideration, advise landowners and managers of the presence and importance of small-flowered catchfly, specific management for its conservation, and any potentially damaging actions. Particular attention should be given to optimal cultivation and harvest times.	sites are aware of the presence and importance of this species, specific management for its conservation and any potentially damaging actions.		
5.4.2	As far as possible, ensure that all relevant agri-environment project officers are advised of locations of this species, its importance, management requirements and potential threats.	Ensure that relevant Natural England local team advisers are aware of small-flowered catchfly BAP.	NCC, NE	
5.5	Future Research and Monitoring			
5.5.1	Collate information and resurvey extant and historic sites where necessary in order to gain a more complete understanding of the current distribution and status of small-flowered catchfly, and to assess current site management and threats to remaining populations.	Consult County Recorders and other local botanists to update and collate data on Norfolk distribution.	NE, NCC, Norfolk Flora Group	NBRC, local botanists
5.5.2	Continue monitoring and research work; extend to sites with extant and restored populations with a view to refining conservation management techniques. Where possible, monitoring visits should be combined with meeting landowners to discuss conservation management.	Monitor extant sites, particularly Gimingham railway line.	NE, Norfolk Flora Group	
5.5.3	Undertake research to	Apply results of this	NE	

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NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
	determine the selectivity of all graminicides currently in use so as to identify which, if any, are suitable for use in field margins that support this and other threatened arable species.	research to Norfolk, if appropriate.		
5.6	Communications and Publicity			
5.6.1	Publicise the plight of this and other threatened arable species. Articles should be written for relevant conservation and farming magazines and newsletters. Botanists should be encouraged to report any new records, eg, through Atlas 2000 recording.	Consider developing an article with a well-known local author on arable weeds in general, possibly based on the Red List species.	NE, NCC, Norfolk Flora Group	
5.6.2	Develop links with European ecologists working to conserve threatened plants of arable habitats.	No action proposed.		
5.6.3	Establish arable conservation display and education centres with the aim of raising public awareness of this threatened group of the UK flora.	No action proposed.		
5.7	Links with Other Action Plans			

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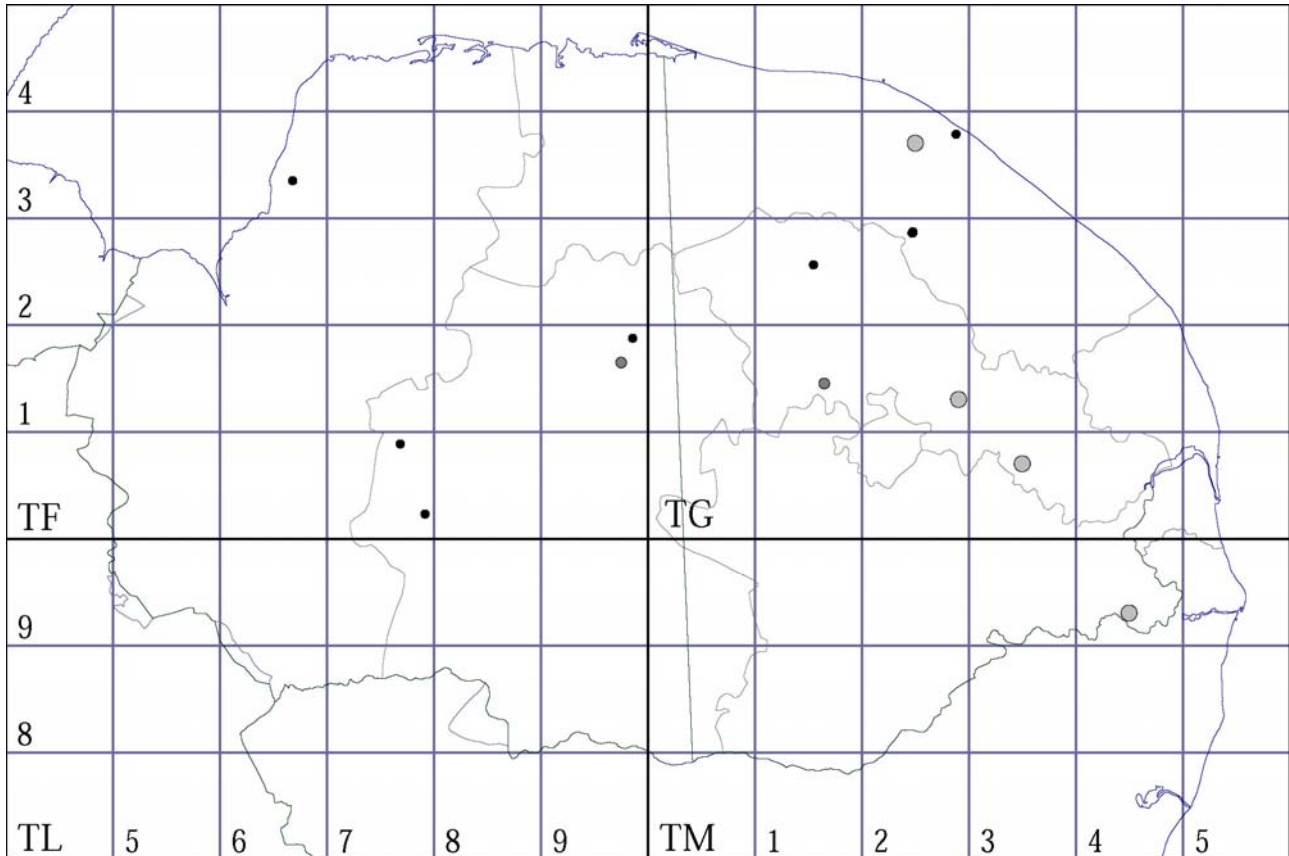
NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
5.7.1	It is likely that implementation of this action plan will benefit other arable species, including <i>Arabis glabra</i> , <i>Bromus interruptus</i> , <i>Centaurea cyanus</i> , <i>Filago lutescens</i> , <i>Filago pyramidata</i> , <i>Fumaria occidentalis</i> , <i>Fumaria purpurea</i> , <i>Galeopsis angustifolia</i> , <i>Galium tricornutum</i> , <i>Scandix pecten-veneris</i> , <i>Torilis arvensis</i> and <i>Valerianella ramosa</i> .	It is likely that implementation of this action plan will benefit other arable BAP species in Norfolk.	Heathland Topic Group, Farmland Topic Group	
5.7.2	The plan should be considered in conjunction with those for cereal field margins and vegetated shingle.	This plan should be considered in conjunction with the Norfolk HAP for cereal field margins and the national HAP for vegetated shingle.	Farmland BAP Topic Group, Coastal BAP Topic Group	

Abbreviations

NBRC	Norfolk Biological Records Centre
NCC	Norfolk County Council
NE	Natural England

NORFOLK DISTRIBUTION

The Norfolk distribution of small-flowered catchfly is shown below, based on records from 1986 to 2006. The size of the dots indicates uncertainty of location (rather than abundance). The large grey dots are based on tetrad records only, whilst the smaller black ones have six-figure grid references. Middle-sized dots are based on 1km square records. The fine lines represent district boundaries.



MANAGEMENT GUIDANCE

(This guidance is a general summary; for more detailed information or advice, please consult the references or contacts below.)

Conservation headlands or cultivated margins within either spring or autumn crops is the recommended farm management for this species, as it competes poorly with improved crop varieties and related species are susceptible to a wide range of herbicides (ELS/H:S options EF9, EF10, EF11, HF16, HF19 or HF20).

Buffer strips sown with grass will be detrimental to the conservation of this species, as they fail to provide the open disturbed ground conditions necessary for the plant to flourish, in the only area of the field where the seed bank may still exist.

REFERENCES

Beckett, G., Bull, A. and Stevenson, R. (1999). *A Flora of Norfolk*. Norwich: Jarrold Book Printing.

Wilson, P. and King, M. (2003). *Arable Plants – A Field Guide*. Peterborough and Old Basing, Hampshire: English Nature and **WILD**Guides Ltd.

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