

## NORFOLK BIODIVERSITY ACTION PLAN

### FLIXWEED FLEA BEETLE (*Psylliodes sophiae*)

*Psylliodes sophiae* is a species of disturbed ground and probably also grassland, particularly on sandy soils of the Breckland of East Anglia. It is apparently associated only with the crucifer, flixweed *Descurainia sophia* (a plant of very sporadic occurrence). The larvae probably mine the pithy flowering stems of flixweed, emerging when fully grown to pupate in the soil.

Ref L/S2	Local Species Action Plan 2 <sup>1</sup>
Plan Author:	Norfolk County Council (H. Thompson)
Plan Co-ordinator:	Farmland BAP Topic Group
Plan Leader:	Norfolk County Council
Date: Jan 2008	Stage: Final

## 1. CURRENT STATUS

### National Status

- Before 1970, the flixweed flea beetle was known from west Suffolk, west Norfolk, Cambridgeshire and Huntingdon; there is also an old record from Bristol, west Gloucestershire which requires confirmation. The most recent records of this species are from Bodney Camp on the edge of Stanford PTA, west Norfolk (1996/97). There are also unconfirmed records from near Lakenheath Warren, west Suffolk (1993/94) and Pashford Poors Fen, a Suffolk Wildlife Trust Reserve (1997). Although recent records are very sparse, the species can occur in reasonable numbers where found. It is widespread throughout north, central and south Europe.
- In Great Britain, this species is classified as Rare.

### Norfolk Status

- The most recent records are from Bodney Camp (TL847992), part of the Stanford PTA, where several examples were found on a small patch of mature flixweed by the County Recorder in 1996. Young plants were also present along the margins of adjacent arable fields but the beetles were not found on these smaller plants. A few years later, the flixweed supporting the beetles was no longer evident, although a thorough survey was not carried out.
- There are old records from two other sites in the Brecks: Thetford (1911-1912) and Methwold (1928). It seems very likely that the beetle still occurs at other suitable sites where the foodplant is allowed to develop to maturity for a few consecutive years.

## 2. CURRENT FACTORS CAUSING LOSS OR DECLINE IN NORFOLK

- Loss of suitable habitat for the foodplant, flixweed.
- Limited information on the distribution of both the foodplant and the beetle.

## 3. CURRENT ACTION IN NORFOLK

- The MoD Stanford Training Area is an SSSI and within the Breckland SAC.

<sup>1</sup> This species was originally included on the Tranche 2 list of national BAP species, but was subsequently removed from the national list in 2007. It has been retained as a local species within the Norfolk BAP.

#### **4. ACTION PLAN OBJECTIVES AND TARGETS**

##### **National**

- Ensure that all extant populations are maintained in a viable condition.
- Restore populations to three suitable sites within the historic range by 2010.

##### **Norfolk**

- Maintain populations at all known sites.
- Increase populations at all known sites by 2010.
- Establish one new viable population by 2010, through re-introduction at a suitable site in the Stanford Training Area.

## Flixweed Flea Beetle - Norfolk Action Plan

NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
<b>5.1</b>	<b>Policy and Legislation</b>			
<b>5.1.1</b>	Where appropriate, include the requirements of the species when preparing or revising prescriptions for agri-environment schemes.	Ensure that the needs of the species are taken into account in Environmental Stewardship Schemes.	NE	
<b>5.2</b>	<b>Site Safeguard and Management</b>			
<b>5.2.1</b>	Where possible, ensure that all occupied habitat is appropriately managed, including the creation of disturbed ground, by 2008. This may be achieved through site management agreements or uptake of relevant agri-environment schemes.	Ensure managers are aware of needs of species, and that this is reflected in agri-environment schemes.	NE	
<b>5.2.2</b>	Ensure that <i>Psylliodes sophiae</i> is included in site objective and site management statements for any SSSIs on which the species is found.	Ensure that <i>Psylliodes sophiae</i> is included in site objective and site management statements for Stanford Training Area SSSI.	NE	
<b>5.2.3</b>	Consider notifying as SSSIs sites holding key populations of the species, where this is necessary to secure their long-term protection and appropriate management.	No action proposed.		
<b>5.3</b>	<b>Species Management and Protection</b>			
<b>5.3.1</b>	Reintroduce populations to a series of sites within the former range, if necessary to establish three new viable populations.	Work with MoD to explore reintroductions on adjacent suitable MoD sites.	NE	

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NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
<b>5.4</b>	<b>Advisory</b>			
<b>5.4.1</b>	Advise landowners and managers of the presence of this species and the importance of beneficial management for its conservation.	Advise MoD of the presence of this species and the importance of beneficial management for its conservation. Involve MoD in development of this plan.	NCC, NE	
<b>5.4.2</b>	Ensure that all relevant agri-environment project officers, and members of regional agri-environment consultation groups, are advised of locations for this species, its importance, and the management needed for its conservation.	Ensure all relevant agri-environment project officers and members of regional agri-environment consultation groups have a copy of this plan.  Include species on information leaflet for NE staff.	NCC  NCC	
<b>5.5</b>	<b>Future Research and Monitoring</b>			
<b>5.5.1</b>	Undertake surveys to determine the status of this species.	Re-survey sites for which there are no recent records. Target surveys on areas known to support foodplant.	Local Specialists, Brecks Countryside Project.	
<b>5.5.2</b>	Conduct targeted autoecological research to inform habitat management.	Pass on practical outcomes of research to relevant landowners and managers.	NE	
<b>5.5.3</b>	Establish a regular monitoring programme for the species.	Contribute to national monitoring scheme as required.	NE	
<b>5.5.4</b>	Pass information gathered during survey and monitoring of this species to a central database for incorporation in national and international databases.	Pass information gathered during survey and monitoring of this species to the NBRC.	NE, NCC	

## Flixweed Flea Beetle - Norfolk Action Plan

NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
<b>5.6</b>	<b>Communications and Publicity</b>			
<b>5.6.1</b>	Promote opportunities for the appreciation of the species and the conservation issues associated with its habitat. This should be achieved through articles within appropriate journals, as well as by a publicity leaflet.	Promote opportunities for the appreciation of the species and the conservation issues associated with its habitat.	NE, Brecks Countryside Project	
<b>5.7</b>	<b>Links with Other Action Plans</b>			
<b>5.7.1</b>	Implementation of this action plan could benefit other species of Breck grassland, including the ground beetle <i>Harpalus froelichi</i> .	Implementation of this action plan could benefit other species of Breck grassland, including the ground beetle <i>Harpalus froelichi</i> .	Heathland BAP Topic Group	
<b>5.7.2</b>	This plan should be considered in conjunction with those for cereal field margins, and lowland dry acidic grassland.	This plan should be considered in conjunction with those for arable field margins, and lowland dry acidic grassland.	Farmland BAP Topic Group, Heathland BAP Topic Group	

## **MANAGEMENT GUIDANCE**

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

The key to the successful management of this species is providing the correct conditions for the foodplant (flixweed *Descurainia sophiae*) to flourish. Flixweed is a ruderal that springs up in light sandy soils, eg field margins, mineral extraction sites, building sites and waste ground, but it does not stay in the same place for many years unless the soil is kept disturbed. Soil rotavation and bare soil creation practices specifically aimed at conservation will help, as will accidental bare ground creation.

## **REFERENCES AND CONTACTS**

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