

## **Freshwater snail (*Anisus vorticulus*)**

### **1 Definition**

This nationally rare snail (*Anisus vorticulus*) is now confined to East Anglia and small areas of southern England. The snail lives in unpolluted, calcareous waters in well-vegetated marsh drains and ditches. It is associated with a rich assemblage of plants and other species of mollusc.

### **2 Current status**

#### **2.1 National**

A rare snail known since 1965 from only Kent, Norfolk, Suffolk, Middlesex and Sussex. It is continuing to decline and has recently been lost from Middlesex. The marshlands of east Suffolk and Norfolk hold the principal UK populations. *Anisus vorticulus* is associated with other national rarities, including the priority Biodiversity Action Plan snail *Segmentina nitida*.

#### **2.2 Local**

This freshwater snail is found at Carlton Marshes (SWT reserve) and North Cove (outside SWT reserve). The former is one of the most important sites for the species in Britain with records from seven of 11 ditches sampled. At North Cove, the species was recorded from two of 10 ditches sampled. At both sites *A. vorticulus* is found at low density, although at Carlton marshes numbers have increased throughout the 1990s.

There have been records for Redgrave Fen (1907) and Knettishall (1906) but they are thought to be fossil records. A survey in 1999 of the Waveney grazing marshes showed this species occurring in low numbers. Nonetheless, the number of new locations for this species was extremely encouraging. The Waveney valley now appears to be the main stronghold for *Anisus vorticulus* in this country.

### **3 Current factors affecting *Anisus vorticulus* in Suffolk**

*Anisus vorticulus* is believed to be declining nationally. The main threats appear to be over-frequent ditch clearance, nutrient enrichment of ditches from fertiliser run-off and the loss of grazing levels to arable.

## **4 Current Action**

### **4.1 Legal status**

The IUCN Red Data Book for Invertebrates (Bratton, 1991) places *Anisus vorticulus* on the Vulnerable list.

### **4.2 Management, research and guidance**

Carlton Marshes is a SWT reserve and is managed for its wetland interest. However, ditch management cycles have been reviewed in the light of the species' requirements as they are currently maintained on a relatively short dredging cycle. The ditches on the privately owned North Cove site were at an advanced successional stage in 1997, although some were dug out that year. The Site Management Plan has been rewritten to incorporate the requirements of the species.

This species seems to have a preference for fairly wide (3 metres or more) and comparatively deep dykes (in excess of 1 metre) with little emergent vegetation. It also appears to tolerate channels where grazing takes place on the adjacent fields. This is in contrast to *Segmentina nitida*. *Anisus vorticulus* appears to tolerate eutrophic conditions and will quickly colonise newly dredged channels.

## **5 Action Plan Objectives and Targets**

1 *Maintain all known sites*

2 *Enable existing populations to increase in size and spread in range*

**6      *Anisus vorticulus*:      Proposed Action with Lead Agencies**

Action	Date	Partners
<b>POLICY AND LEGISLATION</b>		
Seek to include this snails habitat requirements in Strategic Plans, Development Plans and Policy documents in Suffolk.	2004 2005 2006 2007	EN, SWT, SBRC, EA, RSPB, NT, Defra, Local Authorities
<b>SITE SAFEGUARD AND MANAGEMENT</b>		
Develop a ditch management cycle that allows the recolonisation of cleared sections from adjacent sections for North Cove.	2004 2005 2006 2007	SWT, EN
<b>SPECIES MANAGEMENT AND PROTECTION</b>		
Prepare advice on ditch management to benefit this species, by the year 2007.	2007	<b>BAP Wetland Working Group</b> , EA, SWT, SBRC,
<b>RESEARCH AND MONITORING</b>		
Co-ordinate surveys of Carlton marshes, Barnby Marshes and North Cove on a 5 year cycle, firstly to determine distribution and ecology of species and to establish baseline distribution and population size.	2007	<b>BAP Wetland Working Group</b> , EN, SWT, EA, SBRC
Commission research to establish the ecological requirements of the species, particularly water chemistry and physical characteristics of ditches.	2006 2007 2008	EA, EN
<b>ADVISORY</b>		
Ensure that land managers are aware of the presence and vulnerability of the species and its management requirements Advise landowners on presence and requirements of snail.	2005 2006 2007 2008	<b>BAP Wetland Working Group</b> , EA, IDBs, SWT, SBRC
<b>COMMUNICATIONS AND PUBLICITY</b>		
Produce an information sheet for contractors and land managers.	2005 2006 2007	<b>BAP Wetland Working Group</b>