

NORFOLK BIODIVERSITY ACTION PLAN

LITTLE WHIRLPOOL RAM'S-HORN SNAIL (*Anisus vorticulus*)

A truly aquatic species, the small shell is 5mm across, in the form of a spiral disc, shaped like a ram's horn. It occurs in unpolluted, calcareous waters in well-vegetated marsh drains and is usually found with a number of other molluscs which are rare and vulnerable, including *Segmentina nitida*.

Ref 1/S13	Tranche 1	Species Action Plan 13
Plan Author:		English Nature
Plan Co-ordinator:		English Nature
Plan Leader:		Waterbodies Group
Date:		Stage:
31 December 1998		Final Draft
December 2000		Under Review

1. CURRENT STATUS

National Status

- This snail is local throughout its central and southern European range. In Britain living colonies have not been confirmed outside East Anglia for over ten years. The snail is listed as vulnerable in the GB Red List.

Norfolk Status

- Found within the Broads, North Norfolk, Old Hunstanton to Sheringham and Breckland Natural Areas. Rarer than *Segmentina nitida*.

2. CURRENT FACTORS IN NORFOLK CAUSING LOSS OR DECLINE

- Inappropriate ditch clearance.
- Nutrient enrichment may be a factor, but organochlorines, heavy metals and other toxic chemicals from anti-fouling paints are almost certainly detrimental.
- Conversion of grazing marshes to arable farming with associated water table lowering.

3. CURRENT ACTION IN NORFOLK

- None.

4. ACTION PLAN OBJECTIVES AND TARGETS

National

- To maintain populations at at least 15 sites.
- Produce management advice by the year 2000.
- Establish baseline monitoring data for all known populations by the year 2000.

Norfolk

- Maintain population at the 4 Broads sites and at the single North Norfolk Coast site.
- Establish if it still persists within Breckland Stanford Training Area SSSI.
- Produce Management advice by the year 2000.

- Establish baseline monitoring data for all known populations by the year 2000.

Little Whirlpool Ram's-horn Snail - Norfolk Action Plan

NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
5.1	Policy and Legislation			
5.1.1	Identify water quality requirements and take account of these standards when setting standards in watercourses occupied by this species, seeking to restore clear, unpolluted water to ditches to provide opportunities for expansion or re-colonisation.	In view of national identification of water quality requirements, take account of these standards when setting standards in local watercourses occupied by this species, seeking to restore clear, unpolluted water to ditches to provide opportunities for expansion or re-colonisation.	EA, IDB, EN	
5.2	Site Safeguard and Management			
5.2.1	Seek to ensure that management plans prepared for existing and newly-discovered sites take into account the presence and requirements of the species on a case-by-case basis.	Seek to ensure that management plans prepared for existing and newly-discovered sites take into account the presence and requirements of the species on a case-by-case basis, using Sites of Special Scientific Interest and Environmentally Sensitive Areas mechanisms.	EN, DEFRA (RDS)	
5.2.2	Establish and implement a ditch management cycle that allows the re-colonisation of cleaned stretches from adjacent sections, taking into account the length of rotation necessary to avoid the ditch becoming choked with emergent vegetation.	Develop guidance on appropriate ditch management in the light of results of research into the species habitat requirements.	EN, DEFRA (RDS), IDBs	
5.2.3	Seek to ensure that Water Level Management Plans take into account the ecological requirements of this species, where appropriate.	Seek to ensure that Water Level Management Plans take into account the ecological requirements of this species, where appropriate.	EA, IDBs	

Little Whirlpool Ram's-horn Snail - Norfolk Action Plan

NATIONAL ACTION		NORFOLK ACTION	ACTION BY:	PARTNERS:
5.2.4		Seek to ensure that local water abstraction policies take account of the need to protect the snail.	EA	
5.4 5.4.2	Advisory Ensure that land managers are aware of the presence and vulnerability of this species, and appropriate methods of land and water management for its protection.	Ensure that land managers are aware of the presence and vulnerability of this snail, and of appropriate methods of land and water management for its conservation.	EA, EN, DEFRA (RDS), IDBs, FWAG	Farmers and Landowners
5.5 5.5.1	Future Research and Monitoring Within a single season, undertake a survey of all post-1965 live recorded sites to establish an accurate distributional baseline for the species. Then monitor using fixed point monitoring stations at each of the existing sites.	Collate all known data.	EN	
5.5.2	Pass information gathered during survey and monitoring of this species to Joint Nature Conservation Committee or Biological Records Centre so that it can be incorporated in national databases.	Pass information gathered during survey and monitoring of this species to Joint Nature Conservation Committee or Biological Records Centre and Norfolk Biological Records Centre so that it can be incorporated in national and local databases.	Dr Roy Baker, Ted Ellis Trust	
5.5.3	Survey poorly-recorded areas to discover if further colonies exist.	Survey poorly-recorded areas to discover if further colonies exist.	Dr Roy Baker, Ted Ellis Trust	

NORFOLK DISTRIBUTION

Chiefly in marsh drains and levels, in clean, still water with dense aquatic flora. Favours ditches with little emergent vegetation and often floats on the surface among *Lemna*. In a few sites in Norfolk, including lower Waveney Valley. A survey of the Waveney Valley (on Norfolk/Suffolk border) in 1997 by Jackson and Howlett recorded the species from seven marshland sites.

MANAGEMENT GUIDANCE

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

Prefers wide (>3m), comparatively deep (>1m) ditches with little emergent vegetation cover. Occurs in ditches in wet fields that flood in winter. Can tolerate high levels of filamentous algae and *Lemna*, and has a significant association with frogbit. Aspect and water temperature appear to be critical; the snail can be restricted to one side of a ditch, which has important implications for management.

Although this snail thrives best in areas that are lightly grazed, it can tolerate higher densities of stock than *Segmentina nitida*.

RDB category: vulnerable. Threatened by drainage, over-frequent dredging and eutrophication.

CONTACTS

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REFERENCES

English Nature Species Awareness Leaflet?

Environment Agency (1998). Snails. Environment Agency Species Awareness Leaflet No 2.

Jackson, M J and Howlett, D J (1999). Freshwater molluscs of the River Waveney grazing marshes. A survey carried out during the summer of 1997. Broads Authority report (BARS 18).

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Killeen, I J and Willing, M J (1997). Survey of ditches in East Anglia for the freshwater snails *Segmentina nitida* and *Anisus vorticulus*. English Nature Reports No 220.

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- Willing, M (1997). Fresh and brackish-water molluscs: some conservation issues. *British Wildlife* 8(3): 151-159.
- Willing, M J and Killeen, I J (1998). The freshwater snail *Anisus vorticulus* in ditches in Suffolk, Norfolk and West Sussex. *English Nature Reports No 287*.
- Willing, M J and Killeen, I J (1999). *Anisus vorticulus* – a rare and threatened water snail. *British Wildlife*, 10:6, pp 412-418.

PROGRESS ON PLAN ACTIONS (as at 27/02/01)

	Norfolk Action	Comments
5.1.1	In view of national identification of water quality requirements, take account of these standards when setting standards in local watercourses occupied by this species, seeking to restore clear, unpolluted water to ditches to provide opportunities for expansion or re-colonisation.	
5.2.1	Seek to ensure that management plans prepared for existing and newly-discovered sites take into account the presence and requirements of the species on a case-by-case basis, using Sites of Special Scientific Interest and Environmentally Sensitive Area mechanisms.	
5.2.2	Develop guidance on appropriate ditch management in the light of results of research into the species habitat requirements.	The Broads ESA Review Group will consider the requirements of this species when recommending management prescriptions for ditch maintenance (Broads ESA Review Group).
5.2.3	Seek to ensure that Water Level Management Plans take into account the ecological requirements of this species, where appropriate.	
5.2.4	Seek to ensure that local water abstraction policies take account of the need to protect the snail.	
5.4.2	Ensure that land managers are aware of the presence and vulnerability of this snail, and of appropriate methods of land and water management for its conservation.	
5.5.1	Collate all known data.	
5.5.2	Pass information gathered during survey and monitoring of this species to Joint Nature Conservation Committee or Biological Records Centre and Norfolk Biological Records Centre so that it can be incorporated in national and local databases.	
5.5.3	Survey poorly-recorded areas to discover if further colonies exist.	

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PROGRESS ON PLAN OBJECTIVES AND TARGETS