ENGLISH SANDWORT *Arenaria norvegica ssp. anglica* SPECIES ACTION PLAN

DESCRIPTION

This plant is endemic to the Yorkshire Pennines, and for this reason is often referred to as Yorkshire sandwort. It is a plant that naturally favours free draining substrates such as thin peaty soils in cracks, depressions or hollows on limestone rock. It also grows in open habitats by the edges of trackways. Apparently a poor competitor it favours sparsely vegetated ground where associated species may be small sedges, fescue grass and other members of the pearlwort and sandwort families. By contrast, English sandwort is also found in wet, moss-rich, calcareous flushes, and has established itself on man-made tracks where the crushed limestone substrate mimics its natural habitat.

An annual or biennial it is prone to large population fluctuations dependent upon the prevailing site conditions (particularly in prolonged dry spells). With a long flowering period from May to October most new plants come from seed which germinates in the spring. The reappearance of plants at previous localities indicates the long-term viability of the seed.

LOCAL BIODIVERSITY IMPORTANCE

A survey of English sandwort in 1995 revealed about 27 discrete populations, all of which lie within the Yorkshire Dales National Park. Most are to be found on the eastern slopes of Ingleborough, and most also fall within a Site of Special Scientific Interest (SSSI). Numbers of plants in each population varies greatly from a few individuals to many hundred. However, the four largest held approximately 70% of the entire population.

NATIONAL & INTERNATIONAL BIODIVERSITY IMPORTANCE

English sandwort is classified as Vulnerable/Endemic in the British Red Data Books: 1 Vascular Plants. It also receives special protection under Schedule 8 of the Wildlife and Countryside Act 1981. Currently it has no national Species Action Plan (SAP), so this Yorkshire Dales Local Biodiversity Action Plan SAP effectively forms the national plan.

CURRENT ISSUES, OPPORTUNITIES & THREATS

Fluctuations in numbers of plants within individual populations are not considered a threat to English sandwort due to its natural ability to thrive when prevailing conditions favour the plant. This is as long as land use and management remain stable in intervening periods.

However, local extinction of discrete populations does remain a threat. Autecological studies (Walker 1995) have shown that the plant has low dispersal ability. Together with other factors such as slow growth and poor reproductive success, English sandwort is naturally limited in its abundance and distribution despite there being plenty of other apparently suitable habitat in the area.

The populations most likely to be under threat are those along trackways where vehicles, bicycles and foot traffic can damage plants. Whilst some disturbance can be beneficial in

maintaining open conditions for English sandwort in such circumstances, prolonged and severe disturbance will affect the plant.

There are therefore opportunities to work with other countryside users to protect these vulnerable populations by, for instance altering routes and controlling car parking.

There is also a need for a Steering Group to be formed to co-ordinate the conservation of the plant and further research into its ecology and genetics (particularly comparisons to the other subspecies Arctic sandwort *Arenaria norvegica ssp norvegica* which in Britain is confined to Scotland). There are also a number of sites within the current range of English sandwort where potentially suitable habitat exists away from areas of recreational disturbance. The Group should also determine the requirement for, and feasibility of, a translocation scheme.

AIMS OF THE SPECIES ACTION PLAN

- To maintain self-sustaining English sandwort populations at all known sites within the Yorkshire Dales National Park.

- To allow these populations to increase in size in their favoured habitat, by providing ideal conditions to allow the plant to spread naturally.

OBJECTIVES

To achieve these aims we need to:

- Ensure all sites are in favourable management by 2004.

- Ensure that annual surveys are undertaken to monitor existing populations.

- Develop *ex situ* conservation techniques to protect genetic diversity and to provide experimental material (and as a source of plants for re-introductions should this be necessary in the future) by 2003.

- Set up a Steering Group to drive forward positive conservation measures in a co-ordinated manner by 2002. This to include for instance sourcing additional funds, liasing with key organisations and individuals, initiating autecological studies and publicity.

ACTIONS & TARGETS

To achieve these objectives the following actions should be carried out and the targets achieved within the time-scale given:

Actions	Target date	3 year cost £
Determine whether there are any additional colonies of English sandwort away from known sites.	2004	1,000
Establish a Steering Group comprising of relevant organisations/individuals.	2002	Officer Time
Working in partnership with landowners and land managers, and through the use of management grants and advice, ensure all sites are in positive conservation management.	2004	5,000
Develop *ex situ* techniques for English sandwort in partnership with Kew.	2003	2,500
Undertake annual monitoring of any population under threat.	2004	1,000
Identify potential receptor sites for establishing new populations.	2004	1,000
Liase with Scottish Natural Heritage over work on Arctic sandwort.	2002	Officer Time

Note: it is anticipated that further actions will be identified following the formation of the Steering Group.

WHO WILL BE RESPONSIBLE FOR THE ACTION PLAN?

Lead Agency	Key Partners
English Nature	Botanical Society of the British Isles Countryside Agency (re Pennine Bridleway) Relevant outdoor organisations (eg Ramblers Association) Yorkshire Dales National Park Authority Royal Botanical Gardens, Kew Scottish Natural Heritage DEFRA/RDS Landowners and managers