



Research Information Note

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Fen Ragwort *Senecio paludosus* L: a review of conservation work carried out under English Nature's Species Recovery Programme, 1991-2005

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Introduction

Fen ragwort *Senecio paludosus* is Critically Endangered in Britain. This review summarises the work carried out on this plant in the period 1991 to 2005, under English Nature's Species Recovery Programme. The main sources of information were contract reports produced by the Institute of Terrestrial Ecology, Terry Wells, Tim Pankhurst and Richard Lansdown.

Although once widespread in the fens of East Anglia, *Senecio paludosus* is currently known as a native from one summer-dry roadside ditch in arable land near Ely, Cambridgeshire. The plant was discovered there in 1972 and is thought to have arisen from long-dormant seed. Only two large clumps of the plant now survive.

Cultivated populations have been established and seed from the UK population is stored in the National Seed Bank, Royal Botanic Gardens, Kew.

What was done

This review of the work on *Senecio paludosus* carried out under English Nature's Species Recovery Programme, covers the period from 1991 to 2005. It is a collation and summary of information contained in contract reports produced by ITE, Terry Wells and Tim Pankhurst. In addition, it draws on the draft ecological profile of the species produced by Pankhurst & Lansdown.

Results and conclusions

The following are key findings from the ecological research on *Senecio paludosus* carried out in the UK and in mainland Europe.

- *Senecio paludosus* is a very long-lived perennial.
- Seed may be capable of remaining dormant for many years, thus enabling the plant to survive unsuitable periods during which vegetative plant material dies off.
- Mature plants do not need a high summer water table, but prefer areas that have a high winter water table or are periodically flooded.

- Young plants require open areas in which to develop, but mature *Senecio paludosus* plants can compete successfully among tall vegetation.
- *Senecio paludosus* is not a ditch plant in mainland Europe; it grows on the margins of rivers and lakes and in mixed fen communities, usually in the floodplains of large rivers.
- In mainland Europe the principle agent of dispersal appears to be flooding, which breaks off plant fragments and carries them downstream, to develop in open areas on alluvial deposits. Populations around lakes along the Rhine valley probably serve as reservoirs from which downstream sections are supplied with propagules.
- The rarity of *Senecio paludosus* in the UK may be due to the fact that the large complexes of water bodies that once occurred in the fens are gone and rivers are no longer allowed to flood in their natural manner.

Numerous sites within the historical range of *Senecio paludosus* were examined for their suitability as re-introduction/introduction sites. Between 1992 and 2000, plants were translocated to nine sites in Cambridgeshire and Suffolk, but by 2005 it was believed that the only introduced populations that survived were at Woodwalton Fen National Nature Reserve and in newly-planted areas at Lakenheath RSPB Reserve.

In the light of repeated failures in the translocation programme and the landscape-level requirements for the long-term survival of *Senecio paludosus*, the question remains as to whether it is practicable to attempt to establish a fully self-sustaining population in the UK. The survival of metapopulations may depend on restoring mobile wetland systems such as those currently proposed for large areas in the Cambridgeshire fens.

English Nature's viewpoint

Excellent summary of work undertaken up to and including 2005. This is a rare plant which English Nature is committed to conserving although the conditions it requires – fast moving waters – so not occur where it currently resides.

Selected references

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