Reintroduction of perennial knawel *Scleranthus perennis prostratus* to a site in the Brecklands of north Suffolk, England

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SUMMARY

The endemic subspecies of perennial knawel *Scleranthus perennis prostratus*, is found only in the Breckland area of eastern England. Due to marked recent declines, an attempt was made to reintroduce it to a site known to have historically supported the species in the county of Suffolk. Habitat conditions appeared suitable to support it. Locally cultivated plants were transplanted in the spring, but probably due to summer drought, all died. A second attempt the following year also failed, it is suspected due to a large increase in rabbit *Oryctolagus cuniculus* numbers with many perennial knawel plants appearing to have been scuffed up by their digging activities.

BACKGROUND

In the UK the endemic subspecies of perennial knawel *Scleranthus perennis* ssp. *prostratus* is found only in the Breckland area of East Anglia, eastern England. The Brecklands, one of the driest regions of Britain, cover 940 sq. km within the counties of Norfolk and Suffolk.

Perennial knawel is classified as 'endangered' and is given special protection under the Wildlife and Countryside Act 1981. It is a small woody herb flowering between June and September. It is a biennial or short-lived perennial of very short grassy heaths, compacted tracks and abandoned arable land, and is generally found on well-drained acidic (pH 4.9-6.8) sandy soil. It is a poor competitor, and requires open soil for seedling establishment.

Perennial knawel has never been a widespread and within its restricted range it has suffered a marked decline over the last 50 years for several reasons including: the increased use of herbicides and fertilisers; the destruction of field-margin refuges; the abandonment of marginal arable land and heathland; afforestation of former sites and potential sites for colonisation; deterioration of former and potential sites due to inappropriate grazing; and loss of sites to building developments. It is now restricted to the southern part of Breckland in north Suffolk, and one site in Norfolk (where successfully reintroducted – Leonard 2006).

This case study describes a reintroduction attempt to a former site in Suffolk.

ACTION

Reintroduction site: From historical records, a site in north Suffolk was identified as previously containing perennial knawel *Scleranthus perennis prostratus*. The soil was within the required 4.9-6.8 pH range known to be preferred by the species, and there was 35-50% bare ground giving potential for seedling establishment.

Introduction of perennial knawel & site management: In spring 1995, eight mature flowering individuals (cultivated locally) were planted within a 30 m x 15 m plot. There was no active management as it was deemed there was a sufficient amount of grazing from rabbits *Oryctolagus cuniculus* to maintain a short sward and to create patches of bare ground.

CONSEQUENCES

By the end of 1995 all the perennial knawel plants had died. This is believed to have been due to a period of drought during the summer. In spring 1996, a second attempt was made, and 20 mature flowering individuals were planted. However, by the end of 1996, all plants had died once again. During this year

there was a population increase in the number of rabbits in the area and the site had become overrun with rabbits with many new burrows appeared. It is suspected that many plants were scuffed up by this increased rabbit disturbance. The site has now been abandoned as a site for potential perennial knawel reintroduction.

Conclusions: The reintroduction of perennial knawel at this undisclosed site in north Suffolk has been unsuccessful. The combination of a drought in summer 1995 and an increase in the population of rabbits and associated excessive disturbance in 1996, provided unsuitable conditions for perennial knawel to thrive.

REFERENCES

Leonard Y. (2006) Reintroduction of perennial knawel *Scleranthus perennis prostratus* to Thetford National Nature Reserve, Norfolk, England. *Conservation Evidence*, 3, 9-10.