

Thistle Broomrape

Our objective for this species is:

to maintain and increase the population by encouraging sympathetic management of sites on which it occurs.



Introduction

Like other species of broomrape, Thistle broomrape does not photosynthesise but is parasitic on the roots of other plant species. The usual host for Thistle broomrape is creeping thistle but occasionally other thistle species are parasitised. The purplish flower spikes, which can grow to about 60cm in height, emerge from late June and can flower until October. The dead flower heads often persist well into winter. Little is known about its ecology. It is, for example, variously described as annual, biennial or perennial. The seeds are thought to persist in the seed bank for many years.

National and regional status

Thistle broomrape has an interesting international distribution, being widespread but localised and rare in Europe. It occurs from Spain in the west to Russia in the east and as far south as Greece. In the UK, it is restricted to mid-Yorkshire and it is sometimes known as the Yorkshire broomrape. It is found mostly in two population clusters, one in the Leeds/Wetherby area and the other around Ripon. Both clusters occur in the Southern Magnesian Limestone Natural Area. It tends to occur on rank neutral (MG1) grassland over calcareous soils, often underlain by river gravels. It occasionally occurs on arable margins. There is also a precarious outlier population on chalk in the Yorkshire Wolds. It is unknown why its natural range is so restricted and there is little historical data. It was only recognised as a distinct species in the early part of the twentieth century and was previously confused with similar broomrape species. It is difficult to assess whether the population is increasing or decreasing overall, as the number of spikes at individual sites tends to fluctuate greatly from one year to another.

Local status

In Harrogate district, it mostly occurs along both sides of the flood plain of the River Ure between North Stainley and Ripon but it also occasionally occurs along the riverside between Sharow and the confluence with Ripon Canal. Key sites include Norton Mills and Ripon Parks. It is also known in small numbers at two sites further downstream at Roecliffe and at Linton Lock (Vale of York NA). It has been claimed that these populations may in effect be a single metapopulation and that the smaller sites downstream may not be viable without the input of seeds from larger sites upstream. The only site in the district where it is known at any distance from the River Ure is at Quarry Moor, Ripon. Thistle broomrape has been recorded at several sites very close to the Leeds side of the Wharfe (which is the district boundary) but it has not been recorded on the north side in Harrogate district.

Legal status

Thistle broomrape is protected under Schedule 8 of the Wildlife and Countryside Act (1981).

Requirements

- Periodic disturbance of the ground seems to be important. It lets thistles develop in grassland and may facilitate seed coming into contact with thistle roots.
- Broomrape does not appear to thrive where thistle beds are too dense.
- Grazing by stock or rabbits may facilitate disturbance and help prevent reversion to scrub.
- Periodic inundation may be important in spreading seeds and in disturbing sites on the floodplain.

Research and monitoring

- Surveys of all known sites (including those in Harrogate district) have been undertaken at five yearly intervals under the auspices of the Leeds Thistle Broomrape Species Action Plan. Harrogate Borough Council (HBC) also survey the sites with which it is involved within Harrogate district.

Threats

- Agricultural improvement, thistle spraying and over-grazing.
- Neglect of grasslands, allowing reversion to scrub.
- Gravel extraction may threaten some sites on the floodplain of the River Ure.

Opportunities

- Raise awareness with land managers of the requirements of Thistle broomrape.
- Use of Environmental Stewardship Schemes to promote suitable management for Thistle broomrape.
- Creation of suitable habitat as part of mineral restoration schemes.

LINKS WITH OTHER HDBAP PLANS:

Harrogate BAP: Lowland Meadows & Floodplain Grasslands HAP.

Leeds BAP: Thistle broomrape SAP.

www.leeds.gov.uk/docs/Leeds%20BAP%20combined.pdf

English Nature North & East Yorkshire Team, SAP, 1995.

