

Limestone ferns *Dryopteris submontana* & *Gymnocarpium robertianum*

WHAT ARE LIMESTONE FERNS ?

The rigid buckler fern, *Dryopteris submontana*, and the limestone oak fern, *Gymnocarpium robertianum*, are limestone specialists with narrow habitat requirements that are found on limestone pavements and exposures of calcareous rocks.

CURRENT STATUS:

The limestone pavements of the North Yorkshire Dales are the centre of distribution for both these species. The limestone oak fern is also found in a thin but widespread distribution over southern England and Wales, but the rigid buckler fern is very rare outside its main centre of population.

The limestone oak fern is a distinctive plant and its local distribution is apparently well known. Currently the species is only known at one site of about one square metre at Swinhope in Weardale. Former sites include Hudeshope and Holwick Scars in Teesdale, it is not known whether the species is extinct at these sites.

Rigid buckler fern is easily confused with other *Dryopteris* species and its distribution may be more widespread than currently known. Rigid buckler fern has only recently been found in Durham in two very different locations, an old lead mining site in the upper Derwent Valley and a railway cutting at Raisby on magnesian limestone.

WHY ARE LIMESTONE FERNS OF CONSERVATION IMPORTANCE?

Both rigid buckler fern and the limestone oak fern are listed in "Scarce Plants in Britain" and are typical species of what is a declining habitat.

LIMESTONE FERNS ARE AT RISK FROM:

Lack of knowledge of distribution.

Potential lack of genetic diversity – the existing colonies are very small.

Loss or damage to habitat – accidental events could eliminate the small colonies. Both of the rigid buckler fern sites are vulnerable to environmental improvement works.

SUGGESTED ACTIONS

Protection of remaining, known sites.

Raise awareness of the presence and requirements of the species with landowners.

Monitor known and potential sites, including historical sites.