

The beautiful woodland that is a feature of so many Pennine valleys is under threat of extinction — if farmers continue to allow their sheep to roam unrestricted in such areas of delicate ecological balance.

The damage that can be caused to hillside woodland by grazing animals is amply demonstrated by a visit to Broadhead Clough, a lovely and well-wooded valley lying more than a mile to the west of Cragg Vale, near Mytholmroyd. The clough has recently been purchased by the Yorkshire Naturalists' Trust and is described by Trust field worker Mr Stephen Warburton as "an extremely good example of Pennine clough woodland."

On a recent visit to the 40 acre site, which is officially designated as an area of Special Scientific Interest, Mr Warburton showed me the damage caused by local sheep. "This area has long been under the insidious threat of grazing," he said, "but at the moment, the effects can only be recognised by the trained eye."

Mr Warburton then demonstrated how undergrowth was gradually being destroyed by the repeated grazing of sheep. Seedling trees have no chance to become established before they are nibbled away by hungry stock, and the cycle of growth and re-growth is thus interrupted. Said Mr Warburton: "Once the young trees and the protective undergrowth are removed then the older and well-established trees are left much more prone to the forces of nature. There will be nothing to replace these trees when they eventually begin to die."

Mr Warburton went on: "If something is not done about this uncontrolled grazing then the entire woodland could disappear within 100 years. The trouble is that people refuse to think more than a few years ahead."

The very real threat facing Broadhead Clough was one of the factors which encouraged the Yorkshire Naturalists' Trust to purchase the property. Although the exact sale price was never revealed it is known that the Trust received major financial help from the Countryside Commission and various local authorities in meeting an asking price that ran into many thousands of pounds.

The Trust was first informed of the availability of the land by the departing owner. It was then possible for the Trust to check the desirability of the site by consulting the regional biological data bank at Keighley — a facility which provides information on all local

areas of special biological significance.

Now that the land has been purchased, Mr Warburton and his colleagues are faced with the daunting task of reversing the steady deterioration of the woodland environment. First priority is the protection of the clough from the threat of the local sheep. Although it is strictly illegal for local farmers to allow their sheep onto the site, the practice nevertheless continues. Even as Mr Warburton led me through the dark woodland, we were eyed suspiciously by an errant and unashamed sheep.

The evidence of sheep is all over, from the widespread droppings to the numerous, sadly-mutilated plants. Mr Warburton pointed out one bilberry bush which he estimated to be at least thirty years old. It was no more than a few inches high, and could only be described as "grazed right down to the bone."

Farmers are legally required to maintain their stock within fenced-in boundaries, but such a requirement is very difficult to enforce. As a last resort the YNT could take the offending farmers to court, but as Mr Warburton was keen to point out, "We don't want to create any ill-feeling among the local people who have generally been most helpful."

Indeed, even if all the local farmers were to fence in their land more effectively, the head of the valley would still be exposed to any animals roaming free on the neighbouring common land. The only failsafe solution would require the YNT to construct a boundary fence around the whole of the clough. Not only would this be counter to the Trust's desire to leave the site as open as possible to the visiting public, it would also be a practical impossibility in the face of some of the sheer slopes which mark the border of much of the YNT land.

Even the undoubted headaches caused by uninvited grazing animals have not diminished the high enthusiasm of Mr Warburton for his, and the Trust's, latest acquisition. As a typical Pennine clough the site is of great biological interest. In a sense, although the clough has been used both as grazing land and as a source of timber, it represents the typical Pennine environment that has been allowed to reach a state of natural ecological balance — what the experts call the "climatic climax."

The long-established nature of the Broadhead Clough plant life is reflected in the fact that plants flourish on three different levels. At ground level bluebells, ferns, horsetails, marsh violets and various rushes can all be found — their location depending on the dampness of the soil. More unusually the clough also provides examples of the sphagnum moss and the heath spotted orchid, one of the rare examples of this flower in the Pennine area.

Forming an intermediate layer of plant life are various bushes, including holly, hazel, willow and alder. The overhead canopy of trees consists of oak, sycamore, birch and beech. Many fine old trees are to be found in the valley.

The clough is also home to thriving animal and bird populations. Woodcock, woodpeckers, many smaller birds and the relatively uncommon pied flycatcher have all been spotted in the valley. Unfortunately, or perhaps fortunately in view of the grazing difficulties, the woodland no longer possesses any deer. The story was different in the 13th century when King John used Erringden Forest, which then included Broadhead Clough, as a huge deer park, which was the source of much royal venison.

While the YNT have no such grand plans for the future, they are making careful plans for the protection of their valuable asset. One of the main reasons for buying the clough was to bring the work of the YNT to the attention of an area which has seen little previous Trust activity.

The Countryside Commission agreed to provide 50 per cent of the finance for the purchase of the site on the understanding that the present public access to the site would be maintained. Several rights of way and paths cross the clough, and the YNT hopes to maintain them all. However, most of the paths are in an extremely decayed condition and it is likely that the Trust will finance some kind of restoration programme.

As a matter of policy the YNT likes to involve the local community in the running of each of its 46 sites. Already Mr Colin Shields has been appointed Chairman of the management committee which will eventually oversee the running of the reserve.

It was hoped that by mid-May administrative organisation of the site may be completed. At that time it was also hoped to launch a county-wide appeal on behalf of the YNT to help them complete the purchase of five other sites. After that it is hoped that the independent and strong-willed farmers of Cragg Vale will relent enough to allow Broadhead Clough nature reserve to thrive.