

The Durham Dolomite

ANTHONY TOOLE

“This is primary grassland,” says Mark Dinning. “The valley sides are too steep to have allowed agriculture other than the grazing of animals. There has been little human intervention and no use of fertilizers.”

The Reserves Officer for the Durham Wildlife Trust is talking about Town Kelloe Bank, one of a cluster of four small, but beautiful nature reserves, all Sites of Special Scientific Interest, lying within an arc eight miles to the south-east of Durham city. The Trust has only recently acquired this site, which lies alongside the village of the same name, so much survey work still needs to be completed. Consequently, access is at present restricted, though visits can be arranged by contacting the Trust. The reserve, however, can be readily viewed from a footpath that runs along its northern border.

Town Kelloe Bank occupies a channel cut by glacial meltwater toward the end of the last Ice Age, some eighteen thousand years ago, and as such is rare in County Durham. Though the valley floor has been affected by farming, the slopes have evolved a species-rich ecology.

“This plant diversity needs to be conserved by sustainable management,” says Mark, “and the correct grazing pattern is important. The slopes are grazed from November to March by sheep from an adjoining farm. This allows flowers to grow and seed throughout the summer.”

The grassland is divided into fenced compartments, with eight sheep being allowed to graze one compartment for eight weeks before being moved on to another.

“Significant flowers that flourish here include the bird’s-eye primrose and the rock rose, on which the rare Durham argus butterflies depend. The slopes are also an important habitat for a variety of invertebrates.”

The common factor that links Town Kelloe Bank with its neighbours is the bedrock of magnesian limestone, a mixture of magnesium and calcium carbonates which was laid down in the sediments of a shallow sea, around 250 million years ago. The thin soil covering is alkaline, but supports an extremely rich flora that is rare, both nationally and internationally. The reserves are all situated near minor roads and are easily



Bishop Middleham Quarry, once a scene of industrial devastation, now a nature reserve.

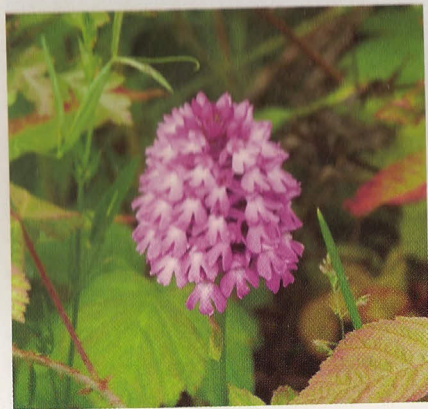
reached, though they do not advertise their presence, and one discovers them with an element of surprise.

Possibly the best known reserve, Bishop Middleham Quarry, enjoyed a brief period of fame in 2002, when a pair of bee-eaters nested in a quarry face. As this was only the second recorded such nesting in Britain, it attracted several hundred bird enthusiasts and a round-the-clock guard until the three chicks were successfully fledged.

The quarry runs parallel to a minor road that leads north out of Bishop Middleham village. It is so well hidden behind a tall hedgerow that one could

easily pass it by were it not for a small notice board announcing its proximity. Yet on stepping over a stile by the roadside, the visitor immediately enters an amphitheatre, which a little imagination could conjure into the site of a ruined Inca city. The brittle, yellow walls stand over a floor on which the foundations of former buildings remain just discernible, and stairways, almost obliterated by vegetation, lead up the sides of hills to higher terraces.

“Unlike Town Kelloe,” Mark explains, “Bishop Middleham was a busy quarry until the 1930s. It was only after its abandonment that flowers were able to spread in from the quarry



rims onto the floor.”

During summer, carpets of wild thyme spread over limestone boulders. The cowslips and primroses of early spring give way to fairy flax, field scabious, common centaury, greater knapweed, milkwort and several varieties of vetch. Tall valerians cling to high, inaccessible ledges and wild strawberries ripen around the bases of the cliffs, amid prominent patches of yellow rock rose.

The flowers that one most readily notices among the grasses of the valley floor are the orchids. Among such common varieties as spotted, fragrant and pyramidal orchids are the much rarer bee orchids and dark red helleborines.

“As with the other reserves, scrub management is a major activity. Teams of volunteers annually cut down invasive plants such as blackthorn, hawthorn and gorse. For example, in 2007, our volunteers spent between five and ten days at Bishop Middleham alone, clearing scrub from the quarry rim.”

Less than three miles to the north-east of Bishop Middleham is the smaller and even more recondite quarry of Trimdon Grange. The left fork on the road running north out of Trimdon village leads to a roadside parking space by the entrance to a footpath along the course of the former Raisby Way rail track. Again, the surrounding hay and

**Top, Burnet moth on greater knapweed.
Middle, Pyramidal orchid.
Bottom, Restharrow.**

wheat fields give no hint of the nearness of the quarry, which remains hidden behind a dense forest of ash and elder. A short distance along the footpath, a narrow track snakes through the wood, past fungus-covered logs, and opens abruptly into an almost perfect circle of vegetated crags, which encompass the level floor of the quarry.

The walls are not high, but are crowned by a near impenetrable barrier of hawthorn, so that on a sunny day, the quarry becomes a heat trap, with little breeze to wave the grasses. An array of flora, similar to that at Bishop Middleham, grows here, including autumn gentian, carline thistle and twayblade. The shelter provides an ideal ambience for the numerous butterflies that roam over the quarry floor: ringlet, common blue, orange tip and small copper, as well as colourful burnet moths.

“The Durham argus is one of our main concerns,” says Mark Dinning. “Its caterpillars feed exclusively on rock rose, the quantity of which has increased in recent years, as a result of effective management. Yet the Durham argus has declined in numbers. This could be attributed to a couple of factors. One of these could be climate change, which is resulting in the rock-rose producing less fleshy leaves which are less palatable to the larvae of the butterfly. In addition, there is the fact that the Durham argus does not travel beyond a radius of around forty metres during its lifetime. We have also noticed a steady increase in the numbers of speckled wood, a largely southern

species of butterfly.”

To the west of Trimdon Grange, and completing a right-angled triangle with Bishop Middleham quarry, is Raisby Hill grassland, which is most easily reached by following a public footpath downhill from Kelloe village. The importance of Raisby Hill, as with Town Kelloe Bank, lies with the flora of the undisturbed grassland that covers the steep hillside to the south.

The orchids, wild thyme, fairy flax, harebell, scabious and autumn gentian of the hill slopes are augmented on the valley floor by the fen vegetation of sedges and reedmace that almost fill the two small ponds. Areas of marsh valerian and meadowsweet surround these to the extent that the almost narcotic scent of the latter is the first thing one notices on entering the reserve.

A disused rail track runs alongside the ponds and through the woodland to the west. The natural hillside blends into a scree slope that has been restored from old quarry workings and planted with seeds from the grassland.

These reserves can be visited separately or linked together easily in a day's visit. Each one has sufficient of interest to occupy a visitor for several hours. Taken together, they provide a wonderful insight into a rich ecology that is exclusive to this small area of County Durham. ■

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