The Crags

The 19 miles from Greenhead to Chollerford offer some of the most spectacular scenery and history in the area. It is hard to grasp that, millions of years ago, these crags were formed by the movement of tectonic plates, allowing igneous rock to come to the surface. The Romans certainly made great use of them to create their defensive wall and modern-day quarries are to be found along this section too.

Walltown Crags (NY670660), managed by the Northumberland National Park, seems a great place to start. Roman and modern quarrying have left a small area of open ground colonized by orchids, maybe not with the feel of Gowk Bank but easier to find, with little vegetation to obscure your views. Species like northern marsh, common spotted and twayblade grace the quarry flora list, while colonizers like coltsfoot and yellow rattle share the floor. One rare grassland fern, adder's tongue, has also been found here.

Two small stretches of water allow species like mallard, coot and little grebe to use the area, while pied wagtail and wheatear enjoy the openness of the quarry. Following the footpath to rejoin the Wall, a piece of what can only be described as parkland lies to the east – grassland with scattered trees, some of which have been coppiced. Just as you enter the field, look to your right at the girth of the ash tree closest to you. This tree is hundreds of years old and kept alive by coppicing.

The steep climb back to the Wall gives amazing views of the surrounding countryside and some of the tallest sections of the remaining Wall are located just along from here. The natural cliff here contains natural woodland of birch, hazel and ash, with both redstart and cuckoo using the area, along with tree pipit (the cuckoo lays its egg in the pipit's nest). A drained bog, once enjoyed by snipe and curlew, lies below you to the north.

Above: Walltown Crags

Below: View over Walltown Crags

The SSSI of Allolee (NY686669) has a mixture of plant species growing on the whin sill. The rarest is wild chives, thought to have been brought here by the Romans defending the Wall. The Latin for this plant is *allium* and it grows on the downward (lee) side of the crags, giving rise to the name Allolee. Other species include many annual plants, the soil on these outcrops of rock often being very shallow. Some are quite rare, like hairy sedum, common whitlow grass and parsley piert, thyme and long-stalked cranesbill. Several sedges are found in a wet area below the crag, with spring and flea sedge worth looking for. Lichens are found on the exposed rock and the grassland is open to invasion from natural trees.

This invasion of trees on a unique habitat has led to the launch by the Northumberland Wildlife Trust of their own scheme to try and save places like this. It aims to develop the unique grasslands of Hadrian's Wall and the whin sill corridor, and enhance the nature and culture of what is a World Heritage Site and an important geological feature. This is part of their Living Landscape project, aiming to protect threatened red data book species such as wild chives, spignal, angular solomon's seal and spring cinquefoil.

Cawfields (NY713667) is another worked quarry with a small water area. There is less vegetation here but northern marsh orchid is found, although it seems well trampled by human feet.

By far the most photographed area of these crags is from Steele Rigg (NY751677) running onto Cuddy Crags with Crag Lough below it. This is one of the largest sections along the Wall with whin sill cliffs. Rock climbing takes place here as there is easy access from the minor road to the car park. One plant thought to have been brought here by the Romans is ground elder, once used as a salad but today thought of by gardeners as a very unwelcome weed. A large clump is found in the corner of the garden at Peel, overlooking the Wall.

The size of the crags here allows several bird species to come into their own, using the thermals to rise up over the Wall and away to hunt. Peregrine falcons, the fastest birds on the planet, use the crags to roost, along with kestrels, a smaller version of the peregrine, also known as the windhover. The crags could well have had breeding golden eagle and raven in Roman times. Jackdaws are the most common breeding bird here, along with stock dove, while wheatears and pied wagtails use the crags to catch insects. Some natural regeneration of trees has taken place, allowing redstarts to use the woodland, while crossbills have been found in the Scots pine plantation on top of the crag.

Reduced grazing has brought about a flourish of plants along this section. The yellow flowers of the beautiful rock rose shine out, even growing on the Wall itself. Thyme is everywhere, giving off its amazing scent underfoot. Clumps of heath bedstraw are starting to show, having been grazed down close to the ground. Both sheep's sorrel and common sorrel help to feed the finches like linnet and

Above: Steele Rigg

Below: Ground elder by Steele Rigg

goldfinch, while the extra-thick grasses help to protect the nests of meadow pipit, skylark and even curlew, the symbol of the Northumberland National Park where this site is found.

Not all the outcrops are found along the Wall, and exposed areas can often be seen in the distance. West Crindledyke quarry (NY781670), run by the Northumberland Wildlife Trust, is south of the Wall off the Bardon Mill to Crindledyke road. There is a lime kiln on the roadside indicating that the quarry was used for limestone extraction. This site is sometimes used by little owl with a mixture of lime-loving plants like salad burnet, felwort (autumn gentian) and crested hair grass.

Sowingshields Crags (NY800700) have a wide selection of plants like fairy flax, goldenrod, knapweed and autumn gentian, but the most amazing sight is the badger sett to the right of the farm (NY817706). The badgers had dug into the Vallum, upsetting English Heritage so much that they paid for large areas of it to be covered in thick netting, with only the entrances left open. This was supposed to prevent the badgers making any new holes in the Vallum. I have seen what badgers can chew through, including a security fence at a nuclear installation when a tasty dead sheep happened to lie on the other side. Badgers can outwit even military police.

Raven

The Chollerford bean field

Beans were first found in Afghanistan and appeared in the Mediterranean before the Roman Empire. So important were they as food that the Egyptians buried them in tombs so that the dead could rise in the afterlife and cultivate them again. This field can also be traced back to the Roman Empire, not by archaeology, but via a myth started by the Romans 2,000 years ago about a particular species of bird. They started killing this species – the owl – in a persecution which continues today.

This bean field tells a story of how predators can react to man's meddling in the ecosystem. Too often, modern man feels so dominant that, if something goes wrong, he has to react with a show of sheer strength, either by outright killing with a gun or with poisons which eventually affect the whole food chain.

And so to owls. A long-eared owl was nesting at the top of my drive, just 70 yards from my front door. To the Romans, it would have been a harbinger of death and the owl would have been killed and nailed to the door to ward off evil spirits. A barn owl was nesting 40 yards from the long-eared owl and tawny owls were in the garden. If I'd been a Roman, I would have felt that death was on its way.

A visitor told me the Chollerford story. Due to bad weather, a 30-acre (12½ hectare) field of beans was not harvested and went to waste. As beans are good food for rodents, an amazing number of rats, mice and voles came to the field and started to breed. Many predators – especially the barn owl, now restricted to around 4,000 pairs in the UK – then came to the field to feed on this bonanza.

One of the restrictions on the increase of this species is a lack of nesting sites. As the name suggests, this species once used man-made nest sites on farms. Modern buildings often do not offer suitable sites for nesting and old barns are often converted into homes for Britain's expanding population. Fortunately,

around this field were many old, hollow ash trees used by jackdaws to nest. By adding plenty of sticks to make their nests, they also made trees suitable for many other species like the barn owl, the tawny owl, the kestrel and stock dove.

The staggering number of rodents allowed six pairs of barn owls to nest around the field that next year, a large percentage of the total number nesting in Northumberland. So extreme was it that the local barn owl recorder never believed the story. As the food source was short-lived, the rodent numbers were bound to crash and with it would go the number of barn owls. The number of owls nesting the next year was not recorded but if you look at the way barn owls are used in other countries to control rodents, then a question has to be asked: 'Why is a country like Britain, home to one of the world's largest bird charities, not using barn owls to reduce rodent numbers, especially around built-up areas?'

The next example happened to the north of the Wall, near Otterburn. A farmer had placed nest boxes on his farm to encourage barn owls to breed. He had one pair nesting every year and the local barn owl recorder would come and ring the young birds. Inspecting his nest box one day, the farmer found five dead chicks and was so upset that he sent the bodies away to be analysed to see what had killed them.

He was mortified to find that he had killed the young birds himself. Even though he had the owls on site feeding on his rodents, he had put out rat poison to reduce the numbers further. From that day on, no poison was used on the farm. The following year the barn owls produced six healthy youngsters. If the farmer needs to remove any rodents he uses humane traps and puts out the dead animals for the barn owls to feed on.

The moral of this story is that, even in modern times, we, like the Romans, are killing the predators we love by breaking up the food chain. Of course we have to protect ourselves from rodents, but there is a natural solution which relies on these rodents and which in turn helps us. One of the most common reasons for an explosion of rodents in urban gardens is bird feeding. Councils react to the problem by using poison and so the whole system breaks down. And it is not only barn owls whose numbers are low: kestrels have declined by 50% in some areas. Kestrels are well known for nesting in modern towns but barn owls could do so as well. In the Middle East barn owls have nested in Cairo, a city of more than 20 million people, and in other cities, using the minarets on mosques as nesting sites. No effort has ever been made in our towns to encourage these owls into built-up areas.

Two examples of control by farmers can be seen in Israel and Malaysia. In Israel, a staggering 35% of agricultural output can be destroyed by rodents and the poisons used can enter the food chain, affecting humans. The rodents soon learn to stop eating the poison, leading the companies to try even stronger and tastier

poisons. The use of poison in agriculture was widespread, killing barn owls and large numbers of resident birds of prey and migrants passing through the country. It is estimated that around 100 million birds of prey pass through the country each spring and autumn.

The solution came in the shape of nest boxes. Placed at a staggeringly high density compared with in Britain, there were in some cases as many as 20 boxes in 150 metres stretch of land, with 74% occupancy. The average was closer to 200–400 metres apart and researchers were inspecting 60 boxes in a day. The scheme was so successful that it was expanded into neighbouring countries like Jordan.

Amazingly, the old Roman superstition was found to be alive and well in Jordan and the evil owl was not at first welcome in the fields. Fortunately, though, once the farmers saw the results from those farms that had taken up the scheme, the 2,000-year old hatred of the bird started to fade and the owl was seen as a bringer of wealth rather than of death. The boxes were also used by kestrels, adding to the fight against the rodents and saving money on poison.

The first barn owl projects in Malaysia were targeted at palm oil plantations where rats were destroying the crops. Nest boxes were placed in the crop at such a density as to reduce this destruction and the scheme was so successful that it was extended to the rice paddies. This project was started by the Ministry of Agriculture for Malaysia and it is interesting to note that no such scheme is to be found in Britain, apart from on a small scale via owl charities.

In Britain, as in other countries, poison is affecting many species beyond the barn owl. Red kites reintroduced to Gateshead have been found killed by rat poisons. Kestrels are declining in our area. Mammals like polecats are being killed when attracted to farms, especially in winter, to feed on rodents. Weasels and stoats, foxes and even domestic cats are all at risk. Worse still, some areas have high concentrations of what are called tunnel traps which kill even more of these mammal predators, even though the polecat is supposed to be protected by law. On one estate close to the bean field, 68 polecats were killed by these traps in a single year, which might just explain the subsequent explosion of rats.

So the story of the bean field is an eye-opener. It shows how man can – if he chooses – encourage wildlife not just as a spectacle to be enjoyed by visitors to the Wall, but as a natural defence against rodents.

Above: A sericomyia silentis

Right: Allen banks