Crags, Caves and Tunnels

Summary Habitat Action Plan

Doncaster Local Biodiversity Action Plan
January 2007

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1 Habitat description
The majority of caves and rocky crags within the Borough are found in the part of the Southern Magnesian Limestone Natural Area that falls within Doncaster’s administrative boundary. Central to this area is the Don Gorge, where the River Don has incised its way through a limestone valley, which has been carved out of the Magnesian limestone ridge over thousands of years. Caves and crags within this area are either naturally exposed or have become exposed as a result of limestone quarrying. Quarrying activity can provide opportunities for scientific research and archaeological exploration, as new subterranean crags and caves are uncovered. Sensitive and well-informed reclamation schemes also have the potential to provide for a great diversity of wildlife.

The limestone is as important for geological features and archaeological remains as it is for biodiversity, with significant collections of mammal remains and indications of ice age human occupancy having already been made. Caves further south on this limestone ridge in Creswell, Derbyshire, have become world famous as a result of such finds, however the Doncaster limestone has been subject to very little survey work in comparison.

Artificial cave habitats are also provided by the numerous tunnels running underneath the railway within the Don Gorge. These tunnels provide an excellent ‘pseudo cave’ with similar conditions in terms of light, temperature and humidity, and cracks and crevices in the masonry which imitate a cave interior.

2 Characteristic species

- Daubenton’s bat
- Brown long eared bat
- Natterer’s bat
- Brandt’s bat
- Pipistrelle bat
- Noctule bat
- Raven
- Peregrine falcon
- House martins
- Peacock butterfly
- Small tortoiseshell
- Herald moth
3 Current factors causing loss or decline

- Limestone quarrying can obliterate natural cliffs and destroy any caves present. Quarry restoration schemes have often not taken the biodiversity value of caves and crags into account.
- The Don Gorge has a number of old railway cuttings that no longer provide a rail route. In the past some abandoned cuttings have been infilled with waste.
- The common practice of stabilising crags with wire meshing can prevent birds and bats using the habitat. Similarly the maintenance of tunnels by grouting-up any cracks in brick and stonework; can prevent bats using this common roosting situation and could even trap hibernating bats within the wall.
- The connectivity of tunnels and caves within the Don Gorge has been considerably reduced by quarrying, landfill and tunnel blocking operations. In addition, increasing built development has severed or reduced habitat corridors in some places.
- Recreational pressure associated with informal cave exploration.

4 Objectives, targets & proposed actions

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<tr>
<th>Objective</th>
<th>Target</th>
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<th>Action</th>
<th>Lead &amp; Partners</th>
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<td>1) To ensure the protection and maintenance of existing crags, cave and tunnel sites.</td>
<td>Crags, caves and tunnels to be included in all authority BAPS by 2008. A tunnel-working group in place by 2008. Complete, with management recommendations by 2010.</td>
<td>1.4</td>
<td>Work with other influencing authorities (rail operators, water companies) to ensure that crags, caves and tunnels are included in their corporate BAPS. Set up a tunnel-working group from interested parties.</td>
<td>Don Gorge Strategic Partnership (DGSP), DMBC, Yorkshire Water, Rail operators, Don Gorge Bat Group (DGBG)</td>
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<td>2) To restore degraded sites and ensure appropriate management of crags, caves and tunnels.</td>
<td>By 2008.</td>
<td>1.7</td>
<td>Initiate an invertebrate survey of a sample of caves and tunnels in the Don Gorge, to inform management requirements for cave and tunnel dwelling invertebrate specialists.</td>
<td>DMBC, Doncaster Naturalists’ Society (DNS), DGSP</td>
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<td>3) To create 2 new cave/tunnel sites and create 5 ha of complementary habitat linked to existing crags and caves.</td>
<td>All new planning applications and all revised permissions on limestone sites with crags and caves potential. To create 2 new artificial cave or tunnel schemes by 2010.</td>
<td>1.9</td>
<td>Commission the resurvey of the borough’s 27 RIGs, to include the identification of any management issues. Pursue adoption of the study as an SPD, linked to a specific policy within the LDF.</td>
<td>DMBC</td>
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<td>New planning applications and renewed/revised permissions to require appropriate geological and ecological surveys of limestone sites, with the potential to hold crags and caves, to check for the presence and value of caves and crags.</td>
<td>DMBC, quarry operators, DGSP</td>
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<td>Artificial caves and tunnels to be included in habitat creation schemes.</td>
<td>DMBC, DGSP, DGBG</td>
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5 This habitat in Doncaster
The following describes where in the Doncaster Borough good examples of this habitat can be found, however, named sites may be privately owned and therefore are not publicly accessible. For further information about this habitat and where it can be found in Doncaster see the ‘Crags, Caves and Tunnels Habitat Action Plan’.

Fissured crags are present at Barnburgh Cliff SSI and there are various railway cuttings within the Don Gorge, with the Pot Ridings Wood cutting being particularly deep and fissured. Old quarries, particularly at Stainton and Braithwell have good limestone cliffs remaining. Levitt Hagg Quarries and Crags has prominent crags remaining, along with those at Cadeby Rattles. Some old naturalised quarries within the Don Gorge are now well-vegetated but craggy features remain at such sites as Hampole Quarry, ‘Lady’s Valley’ at Northcliff Quarry and the horseshoe quarries at Nearcliff Wood. Raven Quarry is now an extremely well wooded site. Crags should be admired from a distance, and wildlife viewed through binoculars, they should not be disturbed by close exploration as irreparable damage can be done.

6 How to take part
‘Backyard Biodiversity – Nature in your Neighbourhood’
This is a new initiative launched by Doncaster Council to enable local people to learn about, protect and enjoy nature where they live. Community Groups and Organisations can loan activity packs and equipment to enable them to take part in activities such as bird watching, pond-dipping, building bird and bat boxes and bug hunting. The service is available FREE of charge from selected Customer Service Centres in Doncaster. A pack of Wildlife Gardening fact sheets has also been produced, which provides advice and information on how you can help the wildlife in your own garden.