Derbyshire Dales

National Nature Reserve

Welcome to Derbyshire Dales Nature Reserve

The Derbyshire Dales National Nature Reserve is made up of five superb dales: Lathkill; Cressbrook; Hay; Long; and Monk's Dale. Carefully managed by Natural England, they form one of England's finest sites for wildlife and geology, providing an opportunity to experience nature at its very best. You can access the dales all year. Come in early spring to see woodland, wildflowers and birds, or in early summer to see the internationally-renowned grassland flowers and insects. Guided walks and events run throughout the year, see our website www.naturalengland.org.uk for details.

Lathkill is the most accessible dale for casual visitors. A mix of wildflower-rich grassland, scrub and ancient woodland make it a treasure trove of wildlife. From spring through to late summer you can find more than 40 species of wildflowers, making this habitat one of the dale's most important natural assets.

For further information on the other four dales please visit our website for a full downloadable guide.

Please remember to follow the Countryside Code at all times – these sites are working Nature Reserves. Wildlife conservation and peaceful enjoyment of nature are our goals.

The story begins…

The rocks in the Reserve were formed around 350 million years ago when the Peak District lay near to the equator, under a tropical ocean which supported a vast array of marine life. Shells, corals and mud built up on the ocean floor in layers, until the weight of the sediment compressed these layers, eventually forming the limestone of the White Peak. Some shells survived and are preserved today as fossils.

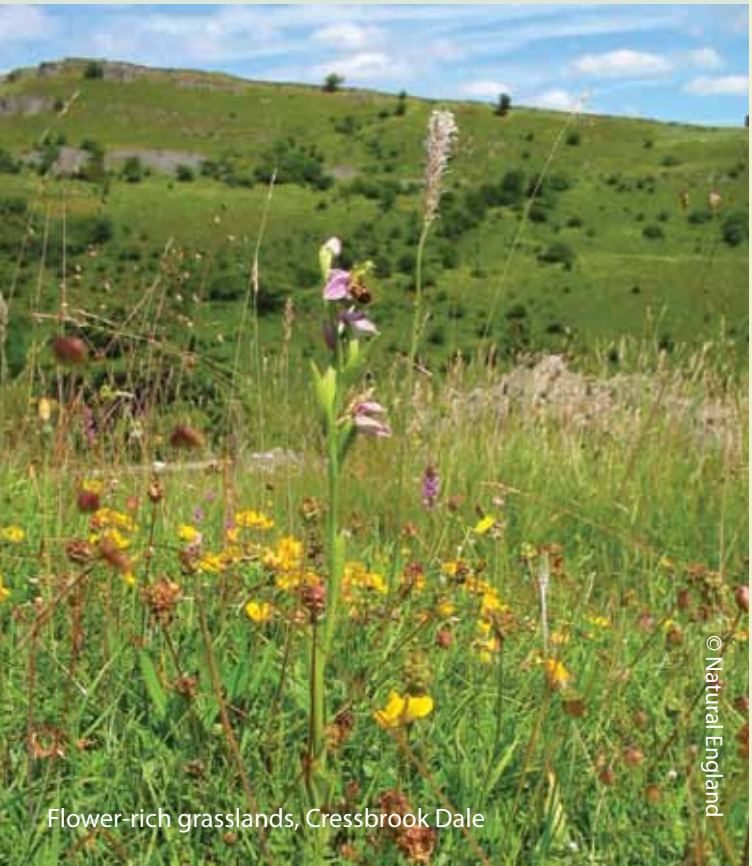
100 million years ago, volcanic activity forced hot solutions carrying minerals through the cracks and joints within the limestone. As the solutions cooled, crystals solidified forming mineral veins. One of the most common minerals found within Lathkill dale today is lead ore or Galena (lead sulphide), which has been extensively mined.

During the last Ice Age, 20,000 years ago, the ground in Derbyshire was frozen (known as permafrost). At the end of the Ice Age the ice sheets began to melt, forming fast-flowing rivers which wore away the cracks and fissures in the limestone, creating the deep valleys we see today. Since the glaciers have melted, water levels across the area have dropped and many ancient river valleys are now dry, such as in Long dale.

Dry River Valley, Long Dale

Walking on wildlife

The limestone grasslands of the Reserve are among the most flower-rich habitats in Britain. A single square metre can feature as many as 40 different species, including wild thyme, milkwort, mouse-ear hawkweed and fairy flax. Life is tough on the steep south-facing slopes of the dales, making it difficult for larger, water-demanding plants to grow. Hot and dry in summer, as the underlying limestone drains water away, and with few nutrients available in the shallow soil, only the smaller plants able to cope with such conditions can grow.



Flower-rich grasslands, Cressbrook Dale

The density of blooms makes this the perfect place to spot butterflies, especially the brown argus, often seen basking in the sunlight or feeding on rock rose during the summer months.

Jacobs Ladder

The damper, north facing slopes of Lathkill are home to the iconic Jacob's Ladder. Extremely rare in the wild, this is one of its most important strongholds and a sight to behold when it flowers during June and July.

Unimproved by fertiliser, the thin soils of the Reserve are home to many wildflowers. Yet the annual plant growth has to be removed to prevent trees, bushes and other plants establishing themselves and eventually changing the soil.

Since medieval times, sheep grazing has been the traditional way of managing the grassland, first by local monasteries, now by local farmers. Letting the land to them also provides important income for the management of the Reserve.

The River Lathkill's vanishing act

During the winter months, the River Lathkill gushes from the mouth of Lathkill Head Cave, into the deep, rocky valley and beyond. During the drier summer months, however, it vanishes underground, reappearing from springs further down the dale.

The lead mines at the eastern end of the dale have contributed to this low water level and, combined with leakage from the riverbed into nearby shafts, can mean the river almost completely dries out at Over Haddon in summer. Natural England is currently conducting research into how best to reduce this water loss.

Spawning beds, River Lathkill

Water vole, declining elsewhere in Britain, thrive on the River Lathkill, and can often be seen feeding on vegetation. They are expert swimmers and live in grass-lined nests at the end of river bank burrows.

Water vole

Adults can survive up to two years and females can have up to five litters during the breeding season (April to September).

Water voles are one of the fastest-declining mammals and are now legally protected. Their population has fallen by more than 90 per cent due to habitat loss and predation from north American mink, which have escaped from fur farms.

Dipper, the only songbird that can swim and dive, breed regularly in Lathkill and can be seen bobbing on rocks or splashing in the water close to the waterfall.

If you go down to the woods today...

The woodlands that fringe the river's edge are ancient remnants of Britain's wildwood and remain as they were 8,000 years ago. Rather than actively managing these woodlands, Natural England trusts the natural processes of regeneration, maturation, wind-blow and glade formation. The woodland, particularly around Meadow Place Wood support bird populations, including green and red spotted woodpeckers, redstart and spotted flycatcher.

Woodland management on the Reserve

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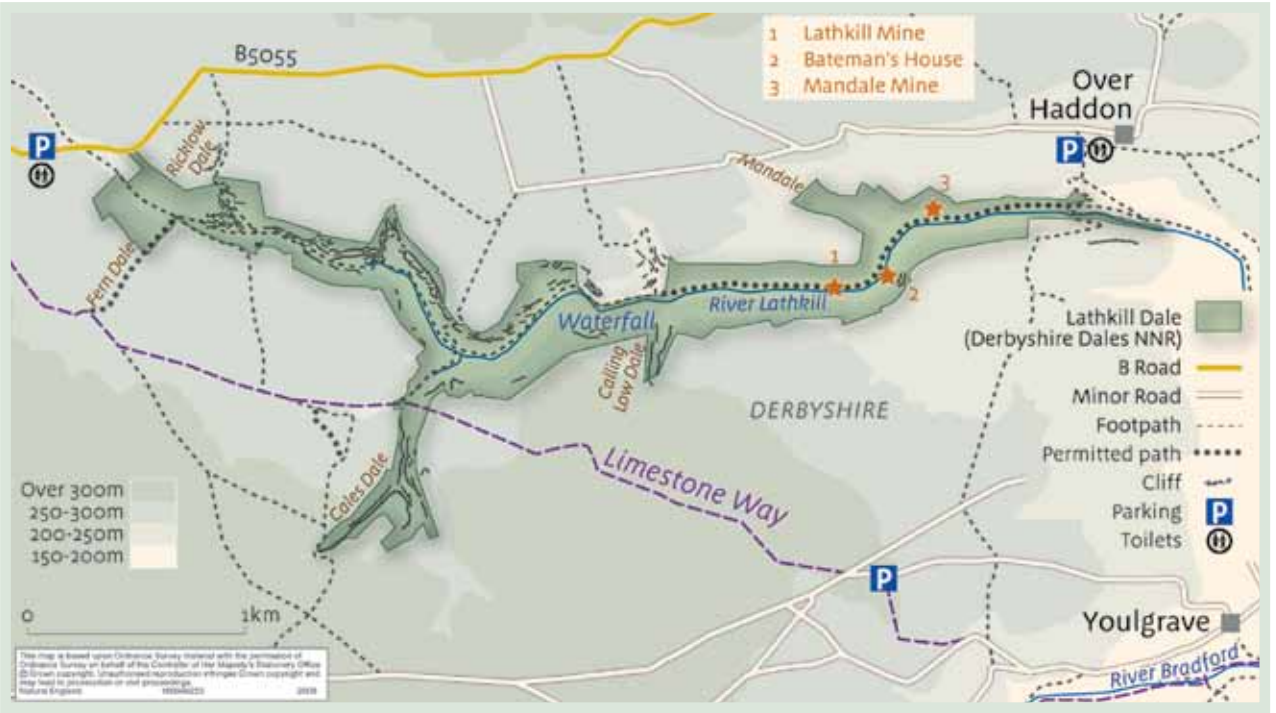


Other woodlands on the Reserve have been heavily exploited, trees have been felled to make way for lead mining or to provide a timber source during times of conflict. The woods have then either been allowed to regenerate or have been planted with fast-growing, non-native species such as conifers or sycamore. Here Natural England is working to restore a more natural balance. Non-native species are slowly being reduced to favour the return of native ash and elm, and selective felling is increasing the amount of deadwood. However, the slow-growth of woodlands means this work could take up to 250 years to complete.

Walkers can use public rights of way and concessionary paths. You are also entitled to open access rights in certain areas, keep a look out for the signs.

Dogs are welcome, although access may be restricted to certain areas during lambing or nesting times. Large areas of the Reserve are home to livestock.

Student and school groups should contact our Education Service on 0300 060 2228.

Caving is only permitted by members of the National Caving Association and clubs affiliated to it.

Climbing is not permitted in Lathkill dale. Cressbrook dale is popular with climbers, but access may be restricted if birds are nesting.

Life in the deadwood

Many insects and other small creatures thrive on rotting wood, in turn providing a rich source of food for birds such as woodpeckers. In natural woodland, deadwood should represent a significant proportion of the total timber, but it is the most depleted part of the woodland ecosystem in Britain. This has resulted in reducing the dependent wildlife.

Woodpecker hole

The influence of human hands

Thousands of years of human influence are evident throughout Lathkill, in the remains of medieval corn mills and sheep-washes. During the 18th and 19th centuries the dale was prized for its 'grey marble'. This was actually a form of limestone, extracted from Ricklow Quarry, and can be seen today in many of Derbyshire's finest houses, including Chatsworth.

Lathkill was also the scene of a lead rush, and even a small gold rush, and remains of old mines and works are scattered among the woods and slopes. Although they are now absorbed into the landscape of the dale, they form part of its essential character.

Local farmers and smallholders have mined the land from shallow shafts since Roman and Saxon times. The Industrial Revolution at the end of the 18th century, brought massive change to the dale, with two mines leading the way in extracting lead ore. Investors, then known as 'Quaker Adventurers', started a mammoth project at the Lathkill Mine in 1740, to construct an underground drainage channel, or 'sough'. This sough became known as the Lathkill Sough, taking 30 years to complete and costing £10,000, but resulting in just £6,500 worth of ore.

The other major mining operation was the Mandale Mine. In 1797, miners began to drive the Mandale Sough into the north side of Lathkill. It took 23 years to drive this sough nearly two kilometres into the dale side.

Soughs were intended to drain water from the ore fields to allow deeper mining, but eventually the miners dug so deep that the soughs were no longer capable of keeping the mines dry.

A victim of this intensive mining, Lathkill Mine was forced to shut its doors, until advancements in pumping technology made it possible for it to reopen in 1825. Its agent, James Bateman, bought in a revolutionary pumping engine to help solve the problem of underground flooding. This was installed in a shaft under the building, which later became his home – Bateman's house. In 1836, Bateman also installed a 15.6-metre waterwheel, reputed to be the second largest in the country, which could pump over 18,000 litres of water per minute. This powerful machinery allowed huge amounts of ore to be mined, but the costs were never recovered and the mine closed in 1842, with financial losses.

A similar story occurred at Mandale Mine, where a water wheel was installed in 1840, supplemented by a Cornish beam engine in 1847. But the mine closed in 1852 having lost £36,000.

The end of the 19th century brought with it an end to mining and quarrying, and nature slowly began to take back the land. The remains of mine machinery, as well as the aqueduct and leat which carried water to power the pumps, can still be seen and have now been given scheduled monument status.

Getting to the Derbyshire Dales

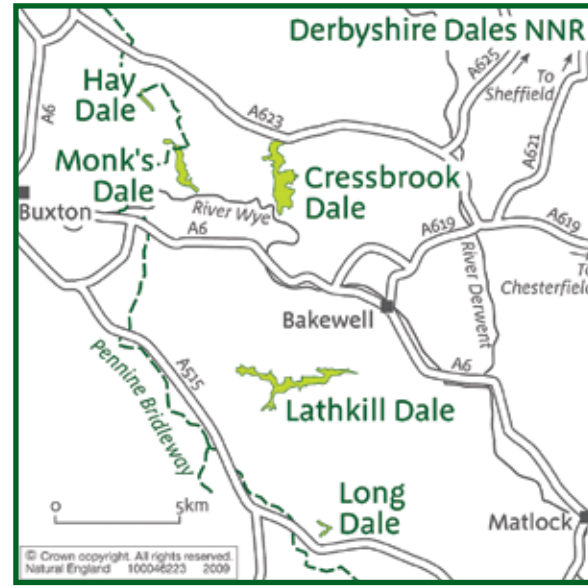
By foot: Several long distance paths run through or close to the Reserve, including the Limestone Way and the Monsal Trail. Youth Hostels, camping barns and campsites are located close by.

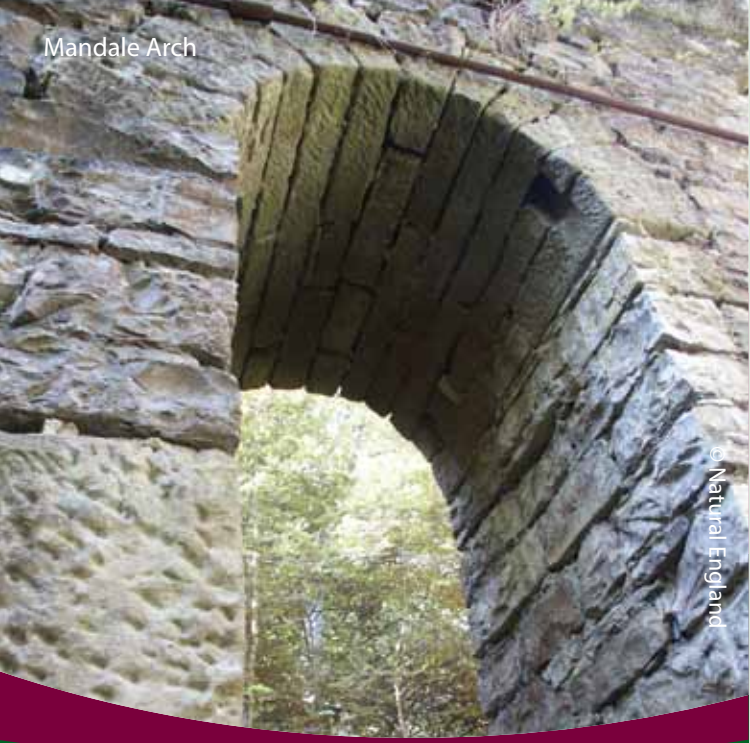
By rail: The nearest rail stations are located at Matlock, Buxton and Hope.

By bus: Bus stops are marked on the map.

By car: There are direct routes from the M1 and M6 into the Derbyshire Dales.

Lathkill Dale is situated two miles south-west of Bakewell, between the villages of Over Haddon, Monyash and Youlgreave. There are car parks at Over Haddon and Moor Lane, Youlgreave. There are toilets at Over Haddon and Monyash. The eastern end of the Reserve offers an easier route, the western end of the footpath can be narrow and rocky in places.





Front cover photograph: Lovely Lathkill © Natural England

NATURAL ENGLAND

Natural England is here to secure a healthy natural environment for people to enjoy, where wildlife is protected and England's traditional landscapes are safeguarded for future generations.

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