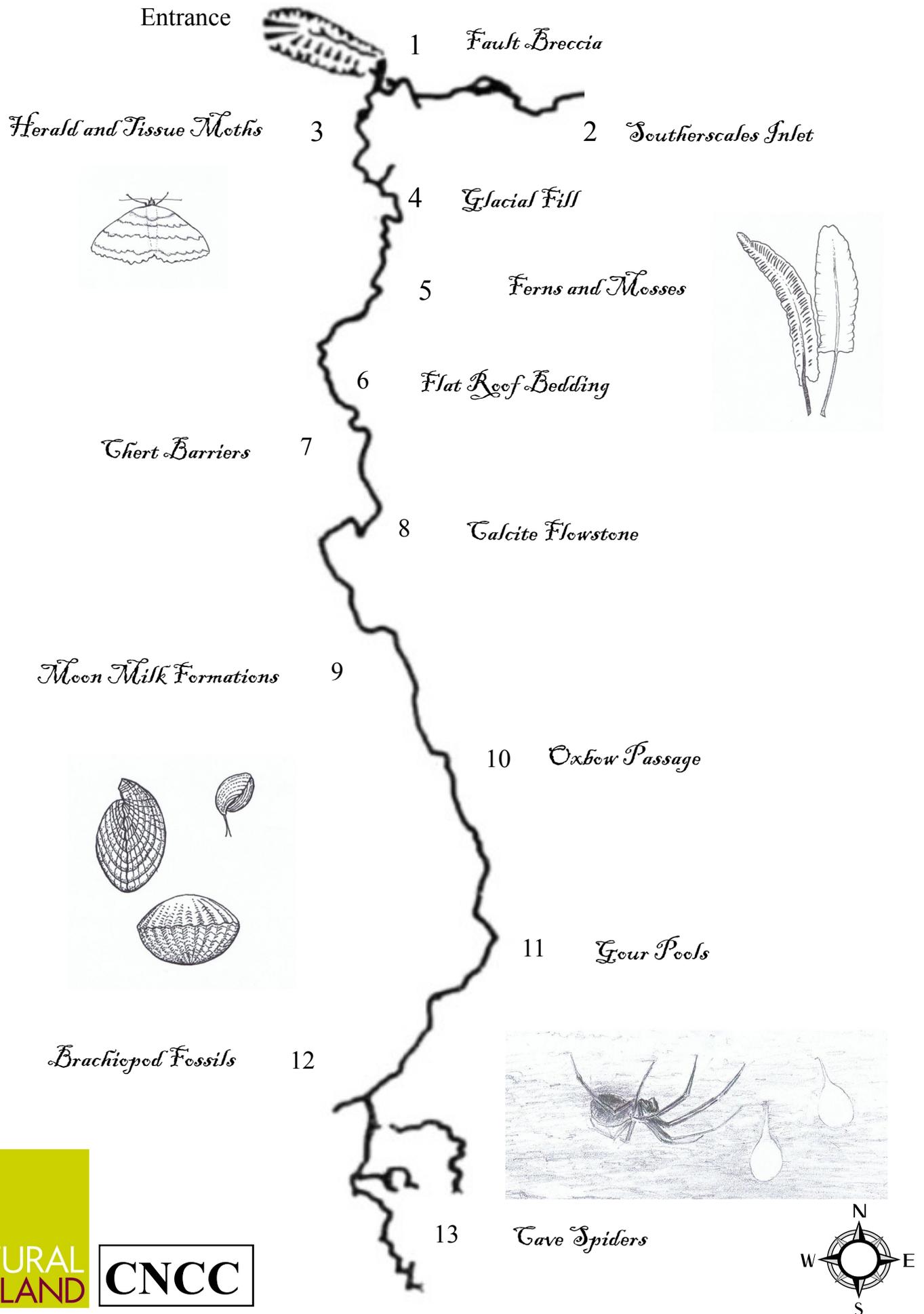


# Great Douk Cave. A Guide to Hidden Gems



# Great Douk Cave

## *A guide to Hidden Gems*

### **1 Fault (crack) left of entrance with breccias.**

Caves are primarily formed by the solution of the limestone rock, and this process is easier if the water is able to penetrate existing cracks. In the cliff to the left of the entrance, you can see a fracture zone in the rock. This has allowed water to penetrate and dissolve the rock around the cracks. This takes the support away from the rock fragments, and over a period of time they fall forming the large void you are standing in. When the void is open to the surface, frost accelerates the collapse process.

### **2 Southercales Pot Inlet ,**

On the left is a low passage with a small stream coming out which is where another cave, Southercales Pot, joins in with Great Douk Cave. Southercales Pot is over 750 metres long, but we cannot explore it from here as just round the corner, a 7m long section of the passage is totally filled with water. The combined waters sink into the big Great Douk shakehole, and merge with other major streams before resurging in the valley floor.

### **3 Moths in twilight zone**

Herald Moths on roof have reddish colour and Tissue Moths on the walls have a silvery colour and are a favourite food for Bats.

### **4 Glacial Fill**

Choked rift filled with angular unsorted glacial fill. 30m in on the left.

Cave development in the Yorkshire Dales often has a long and complex history, which can span several hundred thousand years and several ice ages. Great Douk probably has a fairly simple history, but even so the rift on the left is choked with unsorted debris that has been forced in by a glacier. The last ice disappeared from this area some 18,000 years ago, so it shows that the passage must have been formed well before that.

### **5 Ferns and Mosses in Little Douk**

Little Douk is a skylight formed predominantly by collapse. The humid and shaded environment creates a very special ecology where mosses and ferns thrive. Look out for the hart's-tongue fern (illustrated on the map).

### **6 Constant flat roof bedding**

As you walk up the passage from Little Douk, you will see that the roof is flat and remains at the same height, with the floor gradually rising to meet it. Towards the end the floor has risen so far that it is within a metre of the roof. The roof is formed at the junction between two layers of rock, called a bedding plane. The cave originally formed within the bedding plane boundary, and the stream has since been slowly wearing down the floor.

### **7 Chert Barriers.**

40m beyond Little Douk Hole.

Apparent on both sides of the passage are darker bands of rock which have interrupted the steady erosion of the rock. These are bands of chert, a hard and relatively insoluble mineral which has been injected as veins into small fractures of the rock. Because of their relative hardness and insolubility, they now form barrier features in the passage.

### **8 Flowstone with Coloured Staining.**

80m upstream from rapids and pools. Calcite can form in many different colours depending upon the amount of mineral or organic material carried by the percolating water.

### **9 Moonmilk**

Flowstone and calcite formations covered with moonmilk can be found around the small inlet on the right. The relatively soft moonmilk deposit has probably been deposited as a result of bacteriological action, whereas the other calcite formations are formed as a result of water saturated with calcium carbonate evaporating off and leaving behind the calcite deposit. The wall and roof formations are associated with cracks in the rock from which the water emerges. The floor formations are formed below the cracks in the roof. Calcite formations are not only decorative, they are scientifically important. They can tell us how old they are, as well as giving us information about the climate as they were formed. Some stalagmites in Yorkshire caves have been dated to some 350 thousand years old.

### **10 Oxbow**

10m beyond inlet on right. An oxbow is an abandoned passage or by-pass which rejoins the main passage. This oxbow has some evidence of water erosion features or speleogens.

### **11 Gour Pools**

On shelf to left beyond oxbow. Gour Pools with beautiful crystal structures are formed at the surface of standing water saturated with calcium carbonate.

### **12 Brachiopods**

Brachiopods and Coral in floor at the junction where stream enters from the left at 3 way junction. The limestone rock through which we are travelling, was laid down 300 million years ago in tropical seas, and is largely formed from the skeletons of animals. Here you can see the fossilised remains of corals and brachiopod shell fish embedded in the floor.

### **13 Cave spiders -(Meta menardi)**

These are some of Britain's biggest spiders. They produce tear shaped egg sacs which can sometimes be seen hanging from the roof in the Middle Washfold entrance series. They share the cave with their more common cousins *Meta marianae*.

## ***Warning***

Caving can be a dangerous activity and you are entirely responsible for your own safety when visiting this cave. Do not attempt to enter this cave without proper caving lights and suitable protective equipment.

None of the authors or organisations involved in the production of this guide can be held responsible for the outcome of any trip. It is intended as a guide for competent cavers. Novices should be accompanied by an experienced leader.

You are advised to check the weather forecast as this cave contains an active streamway throughout its length and can flood to the roof in places during and after heavy rain.

## **In an Emergency**

Call 999

Ask for police.

Ask the police for Cave Rescue

Say where you are –give grid reference. ( Great Douk Entrance - NGR 747770 )

Describe the problem.

Stay by the phone or where you have mobile phone signal and keep line clear for call back.

## **Cave Conservation Code**

Please read it and try to follow it whenever you go caving. Thank you.

### **1 CAVE WITH CAUTION and WITHIN YOUR OWN ABILITY and EXPERIENCE**

If you are the leader/organiser always be aware of the abilities/limitations of ALL of the members of the party. The 'Weakest Link' must dictate the speed and extent of your trip – not the strongest! Tired cavers will not only damage themselves, they will damage the cave as well!

### **2 KEEP PARTY SIZE**

Appropriate to the particular cave that you are visiting.

### **3 OBSERVE and KEEP TO TAPED ROUTES**

In taped-off sections follow the path and do not cross the tapes. They are there for good reason.

### **4 DO NOT TOUCH FORMATIONS OR OTHER DELICATE ITEMS**

These are easily broken or muddied – they must NEVER be touched.

### **5 KEEP AWAY FROM BATS OR OTHER LIFE**

Bats are endangered species – please keep away from all of them. You must not disturb them. All bats are protected by law.

### **6 NEVER DIG WITHOUT PROPER CONSENT**

Sand/mud banks are valuable sources of information about the cave and its surroundings, and might also contain archaeological remains. Do not dig or disturb without proper consent.

### **7 NEVER INTERFERE WITH SCIENTIFIC EQUIPMENT**

Dedicated cave scientists put a lot of time, funding and effort into their research. Never touch any such equipment that you find in a cave.

### **8 LEAVE NO LITTER OR POLLUTION**

Carbide lighting should be avoided and never used where bats are present. Where it is used take with you a suitable container for its safe removal from the cave.

### **9 TAKE NOTHING OUT OF A CAVE**

Do not remove anything from a cave except your own or others' rubbish.

### **10 TAKE PHOTOGRAPHS WITH CARE**

Do not be tempted to break any of these guidelines.

Great Douk Cave is designated as a Site of Special Scientific Interest. It is a crime to cause any damage to it and could lead to a heavy fine.