

### Lake Passage & Ink Sump

#### Part 6 of Peak Cavern (Castleton).

See *Part 1* for an overview of the entire system, access and location.

#### Introduction

This guide is based upon John Cordingley's 1986 guide book "The Peak Cavern System - a Caver's Guide". Lake Passage enters the Main Stream Passage just upstream of Squaw's Junction. In dry weather, this and Main Stream Inlet become the primary stream sources, as Far Sump becomes static.

#### Description

The passage is gained by a 2.5m climb out of the **Main Stream Passage** and starts as a clean washed, scalloped tube, stooping height with a small vadose trench in the floor. After about 40m the passage widens and a crawl goes off to the right, which leads back to the main streamway via a slippery downward climb. The main route on is to the left over boulders soon leading to a waist deep pool. Another bouldery section leads to a shallower pool and another section of walking passage. A cross-joint rift on the right is choked with a flowstone ramp, just before **Lake Sump** is reached. In average condition there is a low airspace all the way through but after rain the passage sumps for a distance of 2.5m. **Lake Sump** can be bypassed, via a muddy 15m crawl located in the right wall 12m back.

Beyond, a short crawl over clean slabs is followed by another long deep pool to a shingle slope rising up into a rocky chamber. The water emerges from **Quink Sump** at the far side but a short crawl under the right wall here emerges beneath a climb up to a steeply ascending mud ramp, leading up to a dig high above. By stooping under a flake at the climb, another chamber is entered, at the far side of which is **Ink Sump**, recognised by the diving line belayed to the wall. Two divers can easily kit up here.

**Ink Sump** used to be one of the most enjoyable in Derbyshire, with good visibility and varied underwater scenery. However, quarrying operations on Dirlow Rake above have adversely affected conditions underwater. Thick deposits of milky sediment lie on the floor, on the line and cling to rocks and the walls. Visibility is instantly destroyed behind the first diver. From diving base, a short rock slope leads down into a large underwater passage, followed for 31m to a rockpile, with a comfortable airbell above. Beyond, a gradually ascending bedding passage littered with flat slabs of

rock reaches **The Eyehole**. To the right, the tube is blocked by a mud wall but to the left descends round a few bends into a large bedding passage at 12m depth. The line is well belayed and eventually crosses a blind pit in the floor at a left hand corner into a rising rift. A constriction is easily passed with side mounted bottles and the diver rises to surface in the large airbell where the depth-gauge records -1.8m. This point is 172m from base. 20m beyond, the sump ends after a wriggle up through boulders in a high aven 192m from the start of the dive (1). Climbing onto submerged rocks at the shallow end of the sump pool makes dekitting easier, but in wet conditions a sizeable stream falls into this end of the rift, and equipment left here must be securely belayed.

By climbing up and traversing back over the sump pool it is possible to chimney up the north end of the aven past poised blocks to a ledge system 12m up, with the water entering from a crack at the south end. From here an iron ladder leads to the top of the aven some 23m above the sump. A short rope pitch descends from here into **Doom's Retreat**, once quite a roomy chamber but now almost filled with rubble derived from the huge choke just beyond. The dig here is possibly the most extensive ever undertaken in Britain beyond a sump of this length. The choke is probably associated with Dirlow Rake, a large mineralised fault system, and holds excellent potential for more discoveries.

The **Doom's Retreat** choke received a great deal of attention in the 1980's when a considerable effort was made to dig through it. Unfortunately there were no rewards to repay to work and interest waned. In 2005 a new team of divers took on the project which (at the time of writing) is still ongoing. The sump has been entirely re-lined and work is underway to stabilise a couple of sections in the sump where big loose boulders have moved recently, threatening to block the passage, the result of which should only be contemplated (2).

### **Description Notes:**

Based upon the description in John Cordingley's 1986 book, "The Peak Cavern System - a Cavers Guide".

Adapted for this guide by Shaun Puckering.

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### **References:**

1. Cave Diving Group Newsletter no 72, p 23 (+ survey)
2. Jim Lister (pers. com.)

### **Surveys:**

A complete survey of the Peak Speedwell System is available from Hitch n Hike 01433 651013 [www.HNHoutdoors.com](http://www.HNHoutdoors.com)

### **Further reading:**

- Crewe CPC Rigging Guide (topo) available from itch n Hike
- Caves of the Peak District (p93), DW Gill & JS Beck 1991, now out of print ISBN 1-85568-034-3.
- Classic Caves of the Peak District (p144), Iain Barker 1997, now out of print ISBN 1-86126-058-X
- The Peak Cavern System - a Caver's Guide, John Cordingley 1986, now out of print ISBN 0-948152-01-X
- Rocks & Scenery of the Peak District (p76, 82), Trevor D. Ford 2002 ISBN 1-84306-026-4.
- Limestones and Caves of the Peak District (p7, 12, 13, 41, 203, 208-210, 275, 297, 300-5, 341-2), Trevor D Ford 1977, out of print ISBN 0 86094 004 1 (paper) & 005 X (cloth)

### **Entries in Descent Magazine:**

- #151 (p10) Dec./Jan. 1999/2000 (The Ramp).
- #156 (p20-22) Oct./Nov. 2000 (Ink Sump).
- #160 (p10) Jun./Jul. 2001 (Ink Sump).
- #193 (p12) Dec./Jan. 2006/7 (Doom's Retreat).

### **Entries in CDG Newsletter:**

- #55 Apr. 1980 (p17-20) (Ink Sump).
- #60 Jul. 1981 (p24) (Ink Sump).
- #70 Jan. 1984 (23-24) (Ink Sump).
- #74 Jan. 1985 (p30-31) (Ink Sump / Doom's Retreat).
- #102 Jan. 1992 (p16) (Ink Sump / Doom's Retreat).

- #103 Apr. 1992 (p44) (Ink Sump / Doom's Retreat).
- #159 Apr. 2006 (p29-31) (Ink Sump & Quink Sump)
- #162 Jan. 2007 (p13-14) (Ink Sump & Doom's Retreat)

### **Amendments:**

Amendments and additions can be sent to:-  
[caveguides@peakdistrictcaving.info](mailto:caveguides@peakdistrictcaving.info) (any information regarding access or safety issues is automatically passed on the Derbyshire Caving Association).

## **WARNING!**

Caving and exploring mines can be dangerous and fatal accidents can happen, especially if you are not sufficiently trained.

Anyone using this guide does so at their own risk while understanding and accepting that, although every effort has been made to ensure accuracy, the writers and/or contributors can not be held responsible for any outcome however linked to this text. Do not rely on this description as it may contain errors. Your safety and the safety of those around you is your own responsibility. The existence of this guide does not imply a right of access to the cave. An access agreement may or may not be in place with the land owner. Liability Insurance linked to a Landowner Indemnity Clause may be required.

### **CAVE RESCUE**

In case of accident telephone 999 and ask for Cave Rescue.

*Professional caver training is available from*

Page 4 [www.OutdoorInstruction.co.uk](http://www.OutdoorInstruction.co.uk)