

Northern Caves Monitoring Project: Early findings from the cave monitoring data gathered so far

Background

You may be aware that there is a joint project, the Northern Caves Monitoring Project between Natural England and the Council of Northern Caving Clubs (CNCC) to gather local cave conservation monitoring information for all the caves in the Yorkshire Dales and associated areas that are Sites of Special Scientific Interest – this includes most of the major caves and cave systems in the Dales.

Each SSSI cave has a list of special features associated with it that was originally drawn up by Harry Long, Tony Waltham and Dave Brook in 2002 for Natural England (then English Nature), based on their knowledge of what features of likely scientific value were present in the caves. In total there are 543 separate features listed for Yorkshire Dales caves. Information has now been gathered for 93% (504) of these features. As well as being described, each feature has been assigned a score from 1 to 5 during the monitoring process.

Natural England uses the information to make an assessment as to whether each cave SSSI is in a favourable condition or not, as this contributes towards a wider target that Natural England has to ensure that greater than 95% of SSSIs are in favourable condition by the end of 2010.

The average score for each cave SSSI has then been calculated, to act as a guide as to whether the caves are in a favourable condition or not. However other factors are also taken into account, and there are complications in analysing the data as some caves are defined as individual cave SSSIs (e.g. Short Gill Cave), others are defined as being beneath an SSSI land area which is broken down into individual units (e.g. Ingleborough SSSI); others are defined as underground catchments (e.g. Leck Beck Head Catchment SSSI).

Main findings so far

- Average cave SSSI scores are between 3.3 and 4.7, which shows in a broad sense that the cave SSSIs are in a satisfactory to very good condition; 3 score between 3 and 4, and most (15) score above 4;
- Remoter and less well visited caves generally have higher scores e.g. Barbondale and Northern Dales caves;
- Penyghent and Fountains Fell caves score quite highly (Brants Gill Catchment SSSI) 4.2 to 4.3;
- Wharfedale and Littondale cave SSSIs also score quite highly 4.1 to 4.6;
- The average score for the Ingleborough SSSI is 4, but this represents an average of many different cave features (126), including those that are visited frequently and those that are hardly frequented;
- Leck Beck Head Catchment SSSI (Leck Fell Caves and Ease Gill Caverns) has an average score of 3.9, based on 60 features;
- If the scores are averaged out for particular areas of Ease Gill, Lancaster Hole and Cow Pot score quite low, 3.5 and 3 respectively. This is due to damage to formations and clastic sediment in Lancaster Hole and old digging debris the floor of Shale Cavern in Cow Pot;
- Gypsum Caverns and Easter Grotto area also score quite low (3.3) due to trampled clastic sediments and the Queen Victoria stalagmite being covered in mud. (This could be easily cleaned up);
- However despite the longish walk to the cave entrance and relative inaccessibility, Pikedaw scores quite low (3.3), due to damage to clastic sediments;
- Scores can be very dependent on the nature of the features that were originally chosen e.g., Cow Pot has only one representative feature is listed which is the floor of Shale Cavern: this scores low (3), as there is quite a bit of digging debris there, so the whole of Cow Pot (by default) is assigned a score of 3. Pool Sink has 3 features, all which are out of the way formations (e.g. in Magpie Grotto), or macro-features that are unlikely to sustain much damage (Bacon Slicer) so this scores an average of 5.

Project Officer, Northern Caves Monitoring Project 31 March 2010

Caves SSSI Data summary

Name ^{a,b}	Total no of features	Features with data	Features with data missing	Percentage data gathered	Average feature score ^c
Northern Dales (Swaledale, Cumbria, Weardale)					
Cliffe Force and Buttertubs	4	4	0	100%	4.25
Moorhouse SSSI (Knock Fell)	5	3	2	60%	4.67
Fairy Holes SSSI	3	3	0	100%	4.67
Nidderdale					
Stump Cross Caves SSSI	16	16	0	100%	4.00
Nidderdale Caves SSSI	19	18	1	95%	4.22
Dentdale and Barbon (Cumbria)					
Short Gill Cave SSSI	6	6	0	100%	4.67
Upper Dentdale SSSI	11	11	0	100%	4.36
Wharfedale and Littondale					
Sleets Gill	12	12	0	100%	4.08
Boreham Cave SSSI	9	9	0	100%	4.00
Srans Gill Pot SSSI	8	8	0	100%	4.13
Birks Fell Caves SSSI	7	7	0	100%	4.14
Dow Caves SSSI	9	9	0	100%	4.56
Black Keld Catchment SSSI	14	13	1	93%	4.31
Malham and Settle					
Malham Pikedaw Caverns SSSI	6	6	0	100%	3.33
Penyghent and Fountains Fell					
Birkwith Cave and Fell SSSI	3	3	0	100%	4.33
Brants Gill Catchment SSSI	28	28	0	100%	4.21
Ingleborough					
Ingleborough SSSI	126	116	10	92%	4.03
Whernside (W.&E. Kingsdale & Marble Steps)					
Whernside SSSI	60	48	12	80%	3.86
Leck and Casterton Fells (Cumbria, Lancashire)					
Leck Beck Head Catchment SSSI	197	184	13	93%	3.89
Total (all SSSIs)	543	504	39	93%	n/a

Notes

^a Boreham Cave SSSI - diving access only - not suitable for monitoring. Due to very infrequent access, features given a notional score of 4.

^b Strans Gill SSSI - blocked by boulder and cannot be monitored - therefore historic data used

^c Average SSSI feature score, for those features where data are gathered, where 1 is "unsatisfactory", 2 is "poor", 3 is "satisfactory", 4 is "good" and 5 is "very good"