

Health and safety risk assessment for bat surveys at underground sites



Underground Section

This risk assessment identifies the hazards associated with underground bat survey visits, assesses the severity and likelihood of those hazards occurring, and identifies appropriate, reasonable control measures. It applies to all visits and all members of the Underground Section that attend underground visits to mines, caves, tunnels and associated structures.

Whilst each site has its own characteristics, this risk assessment applies to all sites visited by Gloucestershire Bat Group Underground Section. If in doubt about any aspect of the health and safety relating to a site or a particular visit, always seek further advice initially from your Visit Leader before proceeding with the survey. The bat group or the Bat Conservation Trust can provide further guidance. Please remember that as a volunteer you are under no obligation to take part in underground surveys. You should not put yourself or others in danger.

If the revised risk rating remains high (16+), then the visit must not proceed (see matrix on page 3).

Hazard	Severity	Likelihood	Risk rating	Prevention / control measure	Revised likelihood	Revised risk rating
1. Weather/climate conditions						
Becoming ill, cold or wet – risk of exposure or hypothermia	4	3	12	Members will ensure they don't undertake visits unless they are suitably fit and well for the conditions. Wear warm, protective clothes, bring emergency rations and a change of clothing for after the visit; use waterproof bag.	1	4
2. Caves/mines/tunnels – general hazards						
Getting lost	3	3	9	Visit Leader will be familiar with the layout/conditions of the site. Sites will not be entered alone (minimum group size: 4 people). Always remain within sight and shouting distance of each other. Always tell someone who can raise alarm if necessary where you're going and what to do if you're not back by a specified time.	1	3
Injury rendering an individual unable to exit site	4	2	8	Ensure at least 4 people are in group: 1 to remain with injured person, 2 others to summon help. All Underground Section members know to call 999 and ask for Cave Rescue in the event of emergency.	1	4
Being struck by falling rock	4	2	8	Wear hard hat; avoid dislodging loose stone or other materials. Members will not use routes with heights/drops sufficient to cause significant rock fall.	1	4
Roof collapse	5	2	10	Expert advice should be sought on the stability of sites; do not enter unstable structures.	1	5
Colliding with rock / hard objects	3	4	12	Wear hard hat, kneepads etc.	2	6
Getting stuck	3	2	6	Avoid going into tight spaces and be aware of your capabilities – never work alone.	1	3
3. Water hazards						
Rapidly rising water levels – risk of drowning	4	1	4	Visit Leader will be familiar with the layout/conditions of the site - GBG will not enter sites/parts of sites with water hazards.	1	4
Falling into water – risk of drowning	4	1	4	GBG will not survey sites / parts of sites with water hazards.	1	4

4. Fall hazards						
Falls from height from collapse of floor	4	2	8	Expert advice should be sought on the stability of sites; do not enter unstable structures	1	4
Falls from height from openings in floor	4	3	12	At least one member of the survey team (Visit Leader) must be familiar with the layout of the site. Wear grippy footwear to avoid slips. GBG will not visit sites with significant / deep openings in floor.	1	4
Falls and slips/trips	3	3	9	Wear appropriate, grippy footwear, bring a good head torch.	2	6
Cuts/grazes	2	4	8	Wear strong gloves, knee pads; Visit Leader brings first aid kit.	2	4
5. Environmental hazards						
Hazardous gases, lack of oxygen	4	2	8	Expert advice should be sought on the safety of sites; do not enter sites where such hazards may occur. GBG will not visit sites with a history of such hazard.	1	4
Industrial waste, eg. dumped chemical drums	4	2	8	Be wary of such hazards; avoid areas which have been used as dumps; if you come into contact with waste materials, wash hands thoroughly; seek medical advice if illness follows working near waste materials. GBG will not visit sites with a history of such hazard.	1	4
Explosions from ignition of flammable gases	5	2	10	Expert advice should be sought on the safety of sites; do not enter sites where such hazards may occur. GBG will not visit sites with a history of such hazard.	1	5
6. Biohazards						
Contracting European Bat Lyssavirus (EBLV) from a bat bite.	4	2	8	No-one will handle a bat unless they are fully vaccinated against rabies. Anyone handling a bat will wear suitably thick gloves where practicable and appropriate. If bitten, wash bite area as soon as practicable and cover with suitable dressing and seek medical advice.	1	4
Weil's disease (Leptospirosis) – a particular threat near water.	4	2	8	GBG will not visit sites with likelihood of immersion in water. Avoid immersion of open cuts in water and avoid ingestion. Ensure cuts and scratches are covered with waterproof plasters or micropore tape and any new injuries are thoroughly treated. Seek medical advice if illness follows work near water especially if injured or following immersion in water. Wash hands before eating or touching mucous membranes (mouth, nose etc).	1	4
Tetanus infection	4	2	8	Ensure tetanus vaccination is up-to-date. Ensure cuts and scratches are covered with waterproof plasters or micropore tape and any new injuries are thoroughly treated	1	4
7. Equipment						
Accidents caused by lack of training / experience using specialist equipment	4	4	16	GBG will not use specialist equipment (e.g. ropes, rope ladders) unless members have appropriate training/experience and insurance.	1	4
Accidents caused by faulty or incorrect use of ladders (for tunnel access).	4	3	12	Ladders will be visually inspected for faults (cracks, fatigue etc) prior to each use. Ladders will be sufficiently long and positioned at an angle of 1:4 and securely footed at all times. No over reaching and no sideways force.	1	4
Torch/headlamp failing	4	3	12	Bring spare batteries and spare torch. Minimum group of four. Tell group if your torch fails.	1	4
Battery leaking	3	2	6	Use modern torch batteries. Take care that old batteries cannot cause injury or damage to belongings if they leak.	1	3

8. Other factors (human factors)						
Risk to/from other people in area	2	2	4	Be wary of other activities in and around the site, eg. biking. Access gates, lids etc. should be closed on entry and again on exit to leave the area safe for others.	1	2
Risk of attack (e.g. if caves / mines have any public access then drug users, vandals etc may be present)	2	2	4	Do not work alone. Ensure good reporting system and carry a mobile phone (NB. mobile phones are of limited use due to difficulty of getting signal within remote areas, and of no use while actually underground. Consider using 2-way radios).	1	2



During each underground surveying season (usually January to March inclusive), this risk assessment will be reviewed (annually) to ensure that it is suitable and sufficient for the activities being undertaken. A review will also be carried out following an incident or change in relevant guidance. This will be done by comparing the written details with the actual practices. Have we missed a step, hazard, reasonable control measure? Does anything need amending? The revision date, including the person/s undertaking it will be recorded within the version control table below.

VERSION CONTROL	
Prepared / revised by	H. Brookes
Issue	Version 2
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