

Bats in Shropshire Mines

Mike Worsfold, "SCMC Journal No.6"

It really began in February 1993 when the Shropshire Bat Group was invited to descend Sheep Shaft at Snailbeach into Perkin's Level to establish the presence of bats, at a time when the mine was threatened with infilling and closure to make it safe. I was a member of that party, with only limited experience of going underground, and had never heard of Shropshire Caving and Mining Club until that time. In bright sunshine Steve Holding, Adrian Pearce and Neal Rushton led us trembling to the brink and lifelined us down an electron ladder. We found a few bats in the big stope and passed along into the level to where the steel footbridge is now. The level was at that time blocked a little beyond this point. Our leaders, for some reason, now decided that we were ready for SRT (I didn't know it was called that then) and I had my first lesson in abseiling from some rails down the pitch where Stuart Tomlins' red ladder is now.

We then abbed down the Sand Slope and Andrew Mcleish and, I think, Colin Hayton, went down the next pitch, but time was running short and the rest of us stayed at the intermediate level. They didn't explain what lay below me on the sand slope until I had clambered back out. We found enough bats to be sure that this was an important site which should be protected, leading to a visit by Bob Stebbings a few weeks later. They were mostly Lesser Horseshoe Bats, which are quite scarce and threatened nationally, although they are the commonest bat in our local mines. They are near the northern limit of their range here, being confined to the southern and western parts of Britain. We think that the pressure which followed was instrumental in helping to modify the plans to close the mine, to an extent that it was eventually made even more accessible - but not via Sheep Shaft.

Since then, I have been involved in bat counts in most of the Shropshire mines to which we have access every winter. Eileen Bowen has been equally active, with Colin Hayton and Andrew Mcleish coming when they could. Steve Holding was especially helpful in those early days, when we needed a lot of looking after, and several other SCMC members helped too. Some counting had been done at some of the sites prior to this, but it is difficult to be sure of the precise areas covered, and so these earlier counts may not be fully comparable with ours. Certainly we now survey parts which other bat workers do not reach. This is especially true of places like Rhadley, Potters Pit and Huglith.

The results for some of the sites where we have made fairly consistent surveys are shown in the table at Figure 24. In the table, I have only included totals for the years when Eileen and I were doing (more or less) consistent surveys. These are not the total number of bats we have seen, just the ones for these sites. It can be seen that the counts at some sites seem to fluctuate from year to year, usually with the losses at one being offset by gains at another. Overall the

numbers have been fairly constant, and some sites hardly vary at all. Snailbeach had a bit of a dip but now has as many bats as when we first counted them. The numbers in New Central have been particularly steady, going back to 1984. Perhaps it is related to the fact that it is particularly easy to count the bats there, unless there happens to be some at the mouth of the little side passage, preventing you from putting your head in to have a good look, for fear of disturbing them. I think this is what happened in the 1995/6 count when we only counted 19. The dip in numbers reported from Swan Hill before I explored the place thoroughly may also be due to incomplete surveying. The numbers in the little working at Rorrington seem to fluctuate throughout the winter.

The numbers hibernating in any year must be affected by the fortunes of the local summer roosts. Perhaps I should bring in a little bat biology here. Female bats get together in summer and deliver and rear their young in communal roosts near to suitable feeding habitats. Lesser Horseshoe Bats, which are the most frequent and important kind found in Shropshire mines, like to breed in certain kinds of large old houses. Male bats live singly or in small groups. Both sexes of Lesser Horseshoes hibernate, either singly or in groups which may be mixed, in caves or mines which may be several miles from their summer feeding areas. Some of the bats which hibernate in mines close to the border are likely to have traveled from Wales to do so. This is certainly true of those at Swan Hill, which is right on the border. Our bats in the Snailbeach mines are probably associated with a known summer roost a few miles away in Shropshire. This would include those in Perkins Level, New Central, Huglith, Burgam and Potters Pit, I'm not sure about Rhadley.

Another interesting feature of the counts is that some sites contain only Lesser Horseshoes but others are used by Natterer's and Daubenton's Bats (lumped together as "myotis" in the diagram) and the odd Long-Eared Bat. I am sometimes asked, and I wonder myself, whether it is the same bats in any particular spot each year. It would be very hard to prove this without marking the bats, and it is not easy to do this without risk of harming them, but I am fairly sure that the simple answer is "yes". In some places, you see one bat in almost exactly the same spot each year, and it is hard to believe that this is the only spot in the area which can hold a bat. I am sure that these bats continue to use the same berth each year. Bats live for a long time, and are creatures of habit. This is another reason to protect every roost. It may not be easy for a bat which has got used to a particular hibernating pitch to find another one which is suitable to sleep in for five months, in the short time available before it has to commit itself. Lesser Horseshoes, as we have seen, often hibernate several miles from where they feed in the summer. This is at least partly because the mines are not always conveniently situated near to the best places to spend the summer.

The data is now becoming solid enough that we should soon be able to start analysing them to answer questions such as which hibernaculae are associated with which summer roosts. Perhaps the bats which hibernate a long way from

known summer roosts are males. We can't sex the bats in winter without waking them up, which would put them at risk of not making it through the winter. We think we know all the summer roosts nearby. Whatever detailed (tentative) conclusions we wish to draw, it is clear that overall our population seems to be fairly stable. This is significant for SCMC in two important respects. Firstly, the continued presence of good numbers of a threatened, protected bat must be a strong argument for preserving the mines and maintaining access, at least for bats and bat counters. Secondly, we can show that the activities of mine explorers in Shropshire does not seem to be causing any serious harm to the bats. We must continue to respect the bat sites, however, as disturbance, especially during the winter, could weaken them to the point of not surviving. I am glad to say that our club has an enlightened and responsible attitude to bat roosts.

We hope to keep on monitoring our bats for many years. We can't go into their winter roosts with very large parties, especially some of the more confined ones, but if anyone in the club (or any other reader) wants to come along then get in touch with me or Eileen. There is usually room for one or two extra people, and often we would be glad of an additional party member for safety's sake. I would like to thank the club members who have helped us in the past, especially when we were raw beginners, and everyone who takes care of the welfare of the bats.

Results of Bat Surveys

LOCATION	SPECIES	WINTER OF										
		61	84	85	86	87	92	93	94	95	96	97
Burgam Lower Workings	Lesser Horseshoe							0	3	2	1	2
	Myotis							3	1	0	1	2
Burgam Upper Workings	Lesser Horseshoe							1			1	8
	Myotis							0			1	1
Huglith Badger Level	Lesser Horseshoe		3					0	4	8	13	4
	Myotis		0					1	0	1	0	0
Leigh Level	Lesser Horseshoe		4						4	9	2	0
Potter's Pit	Lesser Horseshoe						12	1	8		5	3
	Myotis						0	0	5		4	3
	Long-Eared						0	0	0		1	0

