HUNGARY and SLOVAKIA SMALL MAMMAL TOUR

- The Bats and Rodents of Central Europe



Hangarian hay meadow in warm August sunshine.

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1 Introduction

I had long intended to visit Hungary for bats and small mammals but had never quite got round to it. Now, however, a chance presented itself to join a tour with both Hungary and Slovakia on the itinerary and a long list of prospective mammalian targets on offer, including Forest Dormouse, European Hamster, Lesser Mole Rat, Common Souslik and a number of highly desirable bats such as Grey Long-eared, Northern and Parti-coloured.

The tour was organised by Ecotours of Hungary and led by Istvan Bartol. It ran from 9/8/17 to 17/8/17, the two participants being John Smart and me, both of us from the UK.

2 Logistics

I flew from Luton to Budapest on Wizzair. Frankly, I'd never heard of Wizzair before and, given their two hour delay on the outward leg (resulting in an extremely late check in to my hotel in Budapest), I'm not sure I want to hear about them again!

The hotels selected by Ecotours were all very good. In Mezokovesd we stayed at the Hajnal Hotel which was clean and comfortable and offered a good (cooked) buffet breakfast. In Slovakia we stayed at the equally good Penzion Reva which was set in very nice countryside overlooking a picturesque lake.

Istvan Bartol led the tour and did all the driving. He did twelve or thirteen hours in the field each day, fine tuning the itinerary along the way to give us the maximum opportunity to see our various targets. Istvan was supported by local bat experts Peter and "Dodo" in Hungary and Stefan in Slovakia. These were all very helpful and friendly and extremely knowledgeable about bats. In Hungary we also had help from Attila in Tard and, on the first day, before the start of the main tour, I was guided by Dr Attila Nemeth who strove mightily (albeit unsuccessfully) to find me a Mole Rat.

Finally, a word about Ecotours. They could hardly have been more helpful and did everything they could to mould the itinerary to our requirements. I thoroughly recommend them to anyone thinking about visiting Hungary for mammals.

3 <u>Results</u>

We got most of our main targets both mammalian and avian.

We recorded 30 mammal species, including European Hamster (at last!), Forest Dormouse, Hazel Dormouse, Common Souslik and Striped Field Mouse. The list included a formidable total of 20 bats including such desirables as Grey Long-eared, Greater and Lesser Mouse-eared, Parti-coloured and Mediterranean Horseshoe. The only real disappointment was Lesser Mole Rat but, to be fair, it wasn't really the right time of year and conditions (hot and dry) were against us.

On the bird front we did particularly well on raptors, recording Ural Owl, Saker, Hobby, Eastern Imperial Eagle and Lesser Spotted Eagle.

Finally, we did quite well on butterflies recording 30 species. Highlights included Map Butterfly, Hungarian Glider, Camberwell Beauty, Queen of Spain, Glanville and Duke of Burgundy Fritilleries and both Clouded and Pale Clouded Yellows.

4 Day-by-Day Log

Thursday 10th August

Having arrived after 02.00am the evening before I awoke still feeling groggy but determined to press on with the day's planned attempt at finding Lesser Mole Rat. My guide, Dr Attila Nemeth, met me at the hotel in Budapest at 10.00am sharp and we set off to an area east of the city around the small town of Albertirsa.

The first site we visited had clear evidence of Mole Rat presence. There were large mounds of excavated earth here and there, though all of a disappointingly ancient vintage. There were also lots of mounds which were the work of Common Mole, the two types not being easy always to tell apart. Once dug out, they can be differentiated by the type of tunnel within – the Mole Rat digs a horizontal tunnel (which takes a bit of finding) while the Common Mole produces a vertical tunnel coming up almost to the surface and is evident immediately. But, from casual inspection, it is easy to confuse them.

We went on to look at around five or six sites, all producing the same result, namely loads of old mounds but no new ones. Without fresh diggings it is of course virtually impossible to locate the Mole Rat. Attila gamely dug out a number of less old mounds but, unsurprisingly, the reward was not forthcoming. The temperature soared to 37 degrees Celsius and poor Attila's work was starting to look like slave labour. "I dig hole – it is 37 degrees – then I fill it in again" he said with a wry grin. By mid-afternoon it was obvious we weren't going to find a Mole Rat. It was too hot and the ground was too dry. The Mole Rats had retreated into their inner chambers where they stored food and were dormant. We'd have to dig up an entire field to find one. That not being on our agenda, we gave up and retreated to our own food stores. Back at the hotel the ghoulash was delicious!

Friday 11th August

The main part of the tour began today and at around 13.00 pm my compatriot John Smart and guide Istvan Bartol joined me at the hotel. After a quick lunch we were on our way northwards towards our first destination, the small provincial town of Mezokovesd. We took a while to battle through a monstrous traffic jam but eventually arrived in the late afternoon at the Hotel Hajnal just outside the town centre.

We wasted no time getting into the field. Our first stop was a protected area of meadow and hillside just out of town. Our target was **Common Souslik** which we duly found at the end of the meadow in rank grass. We didn't get great views unfortunately – just heads bobbing up and down in the long grass. (We put that right later in the trip). Nevertheless, our first mammal of the trip went on the list.

There were butterflies all over the place including Pale Clouded Yellow, Meadow Brown and Camberwell Beauty. In fact this abundance of butterflies was to become a feature of the trip – a testament to the large areas of flower-rich meadows that are so lacking in the UK.

We then took a meandering route to our intended bat-netting site for the evening. This took us through very pleasant rolling hills with mosaics of woodland and open meadows. There were **Brown Hare** and **Roe Deer** in numbers and, on the verge of a ploughed field, we stopped to check for Hamster (which apparently had been seen recently in the rough grass at the edge of the ploughed area). Needless to say, given the difficulty I have had thus far in finding them, there were no Hamsters on view this time.

With dusk fast approaching we hurried on to the bat site, a natural spring beside some woodland where our bat guides Peter and "Dodo" had already set up a net to intercept bats emerging from the woods and going towards the water to hawk insects. In fact they had already caught some bats. It was dark when we arrived on the scene and they'd already caught Whiskered Bat and Soprano Pipistrelle. But, no matter. It was to be a fabulous evening's batting and within minutes we had **Brandt's Bat** and **Geoffroy's Bat** to hand. **Natterer's, Alcathoe's, Lesser Mouse-eared** and **Bechstein's** soon followed. And, to my delight, we got two **Grey Long-eared Bats** as well, a species I had long wanted to see. If we carried on at this rate we'd run out of targets on the first night! We rounded things off with a number of **Daubenton's Bats** and a few **Barbastelles**, producing nine species in about ninety minutes. A terrific start!

Saturday 12th August

We started the day by going to church in the small village of Cserepfalu. However, no-one who knows me will be surprised to hear that our intentions were not spiritual. We were there to see the roosting colony of **Lesser Horseshoes** in the roof. There were several hundred of them, hanging shrink-wrapped in their folded wings from the rafters. The floor was inch-deep in guano and the stink was ammonial. But what a glorious sight! This was the first of a number of churches we were to visit in Hungary and Slovakia – where there seems to be a welcome tolerance of bats, unlike our own grumpy Church of England who would probably evict all roosting bats if they weren't protected by law.



Lesser Horseshoe Bat

Our second stop was an old cottage at Oszla in the Hor Valley. This picturesque thatched cottage had been turned into a sort of museum (presumably to depict old-style rural life) though the triple lock

on the door suggested that visitors were infrequent. Inside, there was a benign air of neglect. Dust and cobwebs were everywhere. But, more importantly, there were several **Lesser Horseshoes** hanging from the ceiling. And running around amid the stacked pillows on a bed were two **Striped Field Mice.** At first I thought they might be Wood Mice but the dark dorsal stripe told a different story. They seemed quite unconcerned by our intrusion and at one point I found myself eyeballing one from a mere eighteen inches!

Outside, in the nettles, brambles and rank grass, there were squadrons of butterflies. Dozens of Silver-washed Fritillaries flitted about – one bush held over twenty! – together with Hungarian Gliders, Map Butterflies, Woodland Graylings, a Queen of Spain Fritillary and numerous other common species. I had never seen anything like this outside of the tropics. I have seen similar sights in the Brasilian Atlantic rainforest but never before in Europe. Everywhere we looked there were butterflies, butterflies and more butterflies. Extraordinary!

We took a picnic lunch beside a carp fishing lake where we watched a young lad and his mother catch a couple of small fish, (which were unceremoniously tipped into a plastic bucket for later consumption at home). We tried unsuccessfully for River Warbler in some nearby reeds after which we headed back into the Hor Valley to look for **Ural Owl**. And, eventually, we got one! The owl was sitting on a horizontal bare branch some forty metres away facing away from us. But, after a while, it turned to face us and give us the full frontal view we craved.

Our intended bat-netting site for the evening was on higher ground in an open area near to a small lake. It was still some distance away so we had to step on it a bit to arrive before dark. We finally met Peter and Dodo at the entrance to the site in fading light. Bad news. A storm was heading our way and the wind had already freshened to the point that netting at the planned site would be impractical. So we resorted to "Plan B", namely a known roost in a cave not too far away. This took us down a rough and vertiginous track that severely tested our little minibus. But, finally, we got to our destination and, as the last of the light faded away, Peter and his assistant got the net up in front of the cave entrance. This got us a large number of **Daubenton's Bats**, the main occupants of the roost, and a single **Pond Ba**t. A fairly meagre return for our efforts but at least we had one new species to add to our list. And I had only seen Pond Bat once before, so its appearance was very welcome.

The return to Mezokovesd saw the storm arrive in force and the two hour journey back home saw us battling through torrential rain – quite a contrast to the blistering sun of earlier and the thirty-plus degrees to which we were becoming accustomed.

Sunday 13th August

I was very excited about our prospects for today because I knew we were visiting a site with a very high likelihood of Forest Dormouse. Our host for the morning was Attila from the little village of Tard, not far from Mezokovesd. Attila had around fifty nest boxes set up in orchards to the rear of his house. On average, he explained, about ten percent of them might be occupied on any one day. We could hope to see both Hazel and Forest Dormouse together with the odd bird or small rodent that might have claimed one of the boxes as home.

But before the main event came a quick visit to a cellar in a nearby house where several **Lesser Horseshoes** were in residence. Builders were on site refurbishing the main structure but their noise and disturbance didn't seem to concern the bats who clung to the ceiling with one or both legs cloaking themselves in their own wings. We slowly made our way up the hill into the orchards. Various passerines, nuthatches, tits and so forth, were flitting about and a **Sparrowhawk** gave us a superb demonstration with a harum-scarum chase over what must have been half a kilometre. Its intended victim finally escaped and several of its mates came to the rescue with a brave mobbing attack on the predator.

The first two boxes we checked were empty but then we struck gold. Attila carefully removed the lid and there, buried in a nest of leaves and inter-woven grass was a bandit-faced little occupant. A **Forest Dormouse**! I tried to take a photo but at the critical moment it fled the box and scampered up the trunk of an adjacent tree. We still had good views though, especially of the plain tail which readily distinguishes it from the otherwise similar Garden Dormouse which occurs further west. We found a second Forest Dormouse soon afterwards and, then, several **Hazel Dormice**. We briefly had a glimpse of a fairly distant Red Squirrel, which capped a very successful morning.

Back in the village we celebrated the success with a shot or two of Attila's home-made "brandy". The first, optimistically designated as "peach brandy" was not altogether unpleasant though strong enough to melt the tungsten off a set of darts. The second, "plum brandy", had no redeeming characteristics and taking a shot was not unlike accidentally brushing against an electric fence. I think it's safe to say that I have never tasted anything quite like it.

With our first Souslik sighting being so poor we decided to re-visit the same site (not far away) to try to get a better view. This time we took the obvious step of climbing a nearby hillside to get some elevation and thereby to see over and through the tall grass. Why hadn't we thought of that on our first visit? It took us a while to re-locate the **Sousliks** but, once we'd found them, we had much better views in Istvan's scope. In the distance were several **Roe Deer** and a **Lesser Spotted Woodpecker** flew across the meadow and settled in a tree behind us.

We took a picnic lunch in a field near Mezokovesd and spent the afternoon birding along several country roads in what is known as the "Little Hortobagy". Here there were open fields and wetlands, the latter holding **Purple Heron** and **Great White Egret**. We had superb views of a **Saker Falcon** perched in a nearby tree and far in distance, just about identifiable in Istvan's scope, were a pair of **Eastern Imperial Eagles**. In one of the wetlands I glimpsed a dark brown canid stalking through the reeds. Was it a Domestic Dog or a Golden Jackal? The fact that there were houses nearby obviously suggested the former but I wasn't sure. I've quite often seen Golden Jackal in daylight before so it would be no great surprise to come across one. Frustratingly, the animal disappeared and denied us the chance to make a definitive ID.

The evening's bat-netting took place in a public park in Felsotarkany. Peter was by himself this time and, by the time we arrived, had already set the net up adjacent to a lake. Apparently we were in with a chance of Parti-coloured Bat and even Greater Noctule had once been netted here a long time ago. Rather predictably we caught a lot of **Daubenton's Bats** and one **Pond Bat**. Otherwise we only had a few **Common Noctules** to show for our efforts. We picked up some "chip-chip" calls at around 27KHz on our bat detectors, strongly suggesting Leisler's Bat but we weren't able to catch one to prove the point. It was a cool, breezy evening and, with not much doing, we closed the net not much after 22.00pm.

Monday 14th August

The day ahead would see us travelling across the border to Slovakia but first we had a number of interesting diversions in mind.

Our first port of call was a cave with roosting bats near Lillafured called Kecskeljuk. This involved a moderate uphill hike but we were rewarded with the sort of "walk-in" cave that makes mammal watching easy. Of course the ground was inches deep in bat guano but at least it was level and there was no danger of bumping your head. Above us was a solid mass of bats hanging from the ceiling. Most were **Schreiber's Bats**, dark little chaps with dog like faces. But a few were **Mediterranean Horseshoes**, a species very much on the "most wanted" list. We didn't stay long – we still had a lot to cram into a crowded schedule – so we sauntered back down the hill through pleasantly cool beech forest along a tiny stream.

Next up was a site where we were informed there were roosting bats in the eaves of an old building. We had no information as to what they might be so it was simply a case of turning up and seeing what we could find. The site in question was Javor Spring, a protected area of woods and wild flower meadows. The meadows of course were heaving with butterflies and we soon accounted for Ringlet, Small and Large Skipper, Common Blue and Duke of Burgundy Fritillary. After a picnic lunch we went to investigate the building we'd been told about. A single **Geoffroy's Bat** was on view tucked into a corner in the eaves. We got talking to a local guy who told Istvan that there were more bats inside the hollow wooden pillars of the structure. I couldn't detect any "chatter" on the bat detector so we had to take his word on that. Certainly there were holes which would easily have afforded the bats access. However, apart from staying on site till their emergence at dusk, there was no way of finding out what lurked within.



Gruelling field vigil for European Hamster.

Our last stop before the drive to Slovakia was the most important. We had been tipped off about a village where, apparently, European Hamster was not only common but abundant. One particular villager was willing to show us the area behind his house where, according to reports, he saw them "every night". Expressions like "guaranteed" and "one hundred percent" were being bandied about.

Of course I had heard all this sort of stuff before but nevertheless it did sound exciting. I had tried before to find Hamster but been spectacularly unsuccessful so this was a ghost I was keen to lay to rest.

We arrived a couple of hours before dusk and were greeted immediately by the avuncular owner of the house in question. He presented each of us with a bottle of home-made "Tokay" wine, a remarkably generous gesture to complete strangers turning up on his doorstep at short notice! He showed us round to the rear of the property where we found a number of apparently active Hamster burrows in his back garden. Behind was an area of rank grass and behind that an area of cultivation that had been cropped to stubble. Istvan went to explore and reported that there were Hamster holes everywhere. This did indeed look quite promising! Then, the owner re-appeared with three folding chairs for us to sit on and a set of glasses for us drink our wine from. For the next two hours we sat back sipping Tokay and watching the sun go down. Life in the bush can be Hell.

As dusk approached we became more and more expectant. I was expecting them to appear about half an hour before it got completely dark but as the light faded there was no sign of our quarry. John and I were watching the garden and Istvan was monitoring the cropped field. Then, with the light almost gone, Istvan whistled us over. He'd seen one, albeit briefly. I scanned the field desperately but without reward. Then, with darkness apon us, I glimpsed a dark blob scampering across the open ground about thirty metres away. It disappeared down a hole before I could really see much of it. Was that going to be my only chance? By now it was time for torches, something which I thought would probably suppress any emerging Hamsters and ruin our chances altogether. But I was wrong. Suddenly it seemed there were **Hamsters** everywhere! We got great views of two together (one evidently a juvenile) and a couple of others. In fact, they didn't seem to mind the torch beam at all. In the distance we found at least three pairs of bright yellow-green eyes – domestic cats – a factor which I'm sure caused the unexpectedly late emergence of the Hamsters.

With the job done and a lot of ground to cover before we reached our hotel in Slovakia we had to call it a night. We reached the Hotel Reva just before midnight.

Tuesday 15th August

We awoke to find glorious sunshine. It was going to be another warm day with temperatures in the thirties. Our first target for the day was a nearby church with a large roosting colony of **Greater Mouse-eared Bats**. The fierce ammonial stench hit us as soon as we climbed the stairs up to the roof. And, on the floor, the guano was four or five inches deep in places. A few **Lesser Horseshoes** were also in residence. There must have been three hundred or more bats present and, according to our guide Stefan, there were more up in the church tower above. We didn't stay long. We'd already had great views and there was no point stressing the bats further. Besides it was so hot and smelly that it was a relief to get back outside in the fresh air.

We proceeded to an interesting couple of disused mine workings on a nearby hillside. These mines were relics of an aborted project dating back to the days of Communism. It was a good kilometre uphill to the mines, a bit of a slog in the hot sun, but eventually we found the first of the two workings. The original intention had apparently been to bore right through to the other side of the hill but as far as I could see the hole extended only about forty or fifty metres into the hill. I've no idea what purpose the project had in mind but evidently it was abandoned when Socialism came to its abrupt end in the "turnover" (as they call it). Access was tricky – we had to scramble over boulders and squeeze through gaps – but we were rewarded with several **Greater Horseshoe Bats**, hanging like Christmas decorations from the ceiling. The second mine was a much more civilised

affair with level ground underfoot and plenty of headroom. This one penetrated much further into the hillside and the remnants of an old narrow gauge railway track suggested that mineral extraction had once been its purpose. Again there were a few **Greater Horseshoes** hanging around (literally!).



Roosting colony of Greater Mouse-eared Bats.

After all this exertion it was necessary to take an early lunch at a nearby cafe in Zadiel – which Istvan and Stefan supplemented with "Slovakian Tea", (which looked suspiciously like beer). We then set off on a three kilometre uphill hike which was at least shaded as our path took us up through thick beech woods. We found a few good butterflies on the way: a Brown Hairstreak which sat obligingly on the path and a Glanville Fritillary. Our route took us alongside a rushing boulder-strewn stream. It looked good for Dipper but instead we found **Grey Wagtail**. At the summit, footsore and weary, we found (thank God!) another café and Istvan bought us all a beer. We were joined by a pair of **Nuthatches** eating crumbs off the table next to ours.

The route back downhill passed by a delapidated holiday chalet, the roof of which held a few roosting bats. We found a **Grey Long-eared Bat** which glowered back at us from a rafter ten feet away and several **Common Pipistrelles** which had squeezed themselves into tiny crevices in the eaves – so much so in fact that only bits of their anatomy, legs, wing tips and so on, were visible. Along the main track I found a profusion of yet more butterflies, this time including Pearl-bordered Fritillary and Black-veined White.

The plan for the evening's bat-netting was a little unusual. Stefan had a roosting cave in store for us at Jasov. But this time we weren't intending to net the bats coming out – we were going to net the bats going in! Apparently this was a "swarming cave" where bats from elsewhere would rendezvous to mate. Any or all species could be expected so we had no prior knowledge of what would turn up – if anything! The "swarming" generally went on from August through October according to Stefan so on any one night there might be a lot of activity or there might be none.

Just after dusk we erected a net that covered the inner part of the cave. We allowed most of the resident **Mediterranean Horseshoes** and **Schreiber's Bats** to escape first but couldn't avoid netting stragglers. It was interesting actually to see these species in the hand. I hadn't realised how easy it was to tell Mediterranean from Lesser Horseshoe; the former has much bigger ears, a feature not well illustrated in my field guide. After a while we began to receive visitors. These included **Greater Horseshoe Bat, Daubenton's Bat, Greater** and **Lesser Mouse-eared Bats, Whiskered Bat** and **Western Barbastelle**. A pretty good variety of species and vindication of Stefan's plan!

Wednesday 16th August

Once again we began our day's operations by going to church, this time in the village of Rozsnyo. All the churches we had visited hitherto had involved climbing steep and treacherous stairs and ladders but this one took the biscuit. We were obliged to ascend several very steep and rickety ladders, all covered in bat guano and all very cramped and narrow. Then, at the top, we had to squeeze through a gap and turn 180 degrees in mid-air before compressing ourselves through a ridiculously tiny space to finally emerge on a landing. Here we could look down at a thirty foot drop to the entrance below and contemplate the two unsecured planks that would give us access to the main body of the church's attic. We then found ourselves ankle-deep in guano and breathing in the rich, ammonial stench that so characterises bat roosts in churches. Moreover, the walls were crawling with little bugs, an unwelcome discovery for John who had leant back against them. We were rewarded with huge numbers of **Greater Mouse-eared** Bat and a handful of **Geoffroy's** and **Lesser Horseshoe** Bats. Once back outside we went to the nearby stream to wash off the veneer of bat guano in which we were all now covered.

We had relatively little to do before the last evening's bat-netting so an afternoon siesta was planned. On our way back to the hotel we stopped to scan at a fish pond and were rewarded with fairly distant views of **European Spoonbill** and **Lesser Spotted Eagle**. Then, back at the hotel, while John took a snooze, Istvan, Stefan and I went out to set live traps for whatever small mammals might be around. There was a good looking area of scrub bordering the lake adjacent to the hotel and I felt fairly confident we'd catch a vole or mouse. There was also a derelict building which was evidently being used as a rubbish tip and which heaved visibly when I approached it. So there were rats around at least! Stefan set one trap, baited with sardine, by the lake shore in the hope of a shrew while we set the others at various strategic points around the ruined building hoping for rodents. Of course the shrew trap had to be checked regularly and when I looked at it ninety minutes later it was empty. So I re-deployed it in the "rodent zone" and re-baited it with biscuit. These rodent traps could then sit there till morning.

For our last bat-netting session Stefan chose a site near Zlatka-Idka. This lay at slightly higher altitude and gave us at least some chance of our number one remaining bat targets: Particoloured Bat and Northern Bat. Stefan initially intended to net a small pond adjacent to woodland but when we arrived we were disappointed to see that it was virtually dry. So, Plan B swung into operation. A couple of hundred metres back down the track was a private property belonging to a contact of Stefan's. In its gardens was a good looking pond which would serve our purposes just as well. A quick phone call to the owner and Stefan had secured us permission to net there. We were back on track!

We ate a picnic supper while we waited for it to get dark. I was expecting bats almost immediately given that the pond was the only water in the vicinity but, in fact, we had to wait quite a while for any action. The bat detectors were silent and, as complete darkness descended, I began to wonder if a total blank was on the cards. But, finally, we got something. I could see, even from fifteen metres away, that it was a small to medium sized bat with a dark back and pale underside. My money was

on Daubenton's. But, when Stefan triumphantly brought it back to where John and I were sitting we could tell by the smile on his face that it must be something better. "Particoloured" he said. And, indeed it was. Our first bat of the night and we'd struck gold. A **Particoloured Bat** at last!



Brown Long-eared Bat.

We went on to get several **Common Noctules**, **Greater** and **Lesser Mouse-eared Bats** and **Brown Long-eared Bats**. The hoped-for Northern Bat didn't materialise unfortunately but we were happy enough. We'd ended the trip on a real high.

Thursday 17th August

I got up early and went down to the ruined building to check the traps. All empty! A couple had closed prematurely, possibly after being jogged by an approaching victim. And one of my bigger rattraps had the door wedged open, probably the work of a Brown Rat which had entered and pushed the door up into a position where it couldn't drop back down properly. Anyway, the bait had gone. So, a bit of a disappointment. I had been hoping for say Root Vole or Eastern House Mouse. But not to be.

There remained only the long and boring drive back into Hungary and to Budapest. We stopped briefly at a bird ringing station to see the operations in progress. When we arrived the ringer was processing a **Hawfinch** and it was interesting to see such a good species at close quarters.

Then, we were back on the road again. We did battle with a horrible traffic jam just outside Budapest which briefly threatened my flight plans. But in the end all was well. All that remained was to thank Istvan for his terrific efforts. He really had put in a good shift, driving long distances and spending very long hours in the field. But it had paid off; we'd got a long list of mammals and struck off most of the key target species I'd hoped for at the outset.

5 Summary of Mammals Recorded

We recorded 30 species of mammals as follows:

Species	Latin Name	Notes	
Lesser Horseshoe	Rhinolophus hipposideros	Common in roosts.	
Greater Horseshoe	Rhinolophus ferrumequinum	Several in roosts.	
Meditteranean Horseshoe	Rhinolophus euryale	One large cave roosting colony.	
Daubenton's Bat	Myotis daubentoni	Common over water.	
Pond Bat	Myotis dascyneme	One netted near water; second at roost entrance.	
Brandt's Bat	Myotis brandti	Several netted near pond on first night.	
Whiskered Bat	Myotis mystacinus	Several netted entering swarming roost.	
Alcathoe's Bat	Myotis alcathoe	Several netted near pond on first night.	
Geoffroy's Bat	Myotis emarginatus	Common in roosts and in netting.	
Natterer's Bat	Myotis natteri	Several roosting colonies.	
Bechstein's Bat	Myotis bechsteini	Several netted near pond on first night.	
Greater Mouse-eared Bat	Myotis myotis	Common in roosts and in netting.	
Lesser Mouse-eared Bat	Myotis blythi	One large roosting colony. Some netted last night.	
Common Noctule Bat	Nyvtalus noctula	Several netted. Many recorded flying overhead.	
Parti-coloured Bat	Vespertilio murinus	One netted on last night.	
Common Pipistrelle	Pipistrellus pipistrellus	Several in roosts. A few recorded by detector.	
Brown Long-eared Bat	Plecotus auritus	Several netted on last night.	
Grey Long-eared Bat	Plecotus austriacus	Three netted first night. One in daytime roost.	
Western Barbastelle	Barbastella barbastellus	Several netted.	
Schreiber's Bat	Miniopterus schreibersi	Two large cave roosts.	
European Hamster	Cricetus cricetus	Three (+) individuals after dark nr active burrows.	
Striped Field Mouse	Apodemus agrarius	Two individuals in cottage museum.	
Red Squirrel	Sciurus vulgaris	One in orchards/woodland nr Tard.	
Forest Dormouse	Dryomys nitedula	Two in nestboxes nr Tard.	
Hazel Dormouse	Muscardinus avellanarius	Two in nestboxes nr Tard.	
Common Souslik	Spermophilus suslicus	Two groups, each of circa 4-5 animals.	
Brown Hare	Lepus europeaus	Common in open fields in Hungary.	
Red Deer	Cervus elaphus	Several in open fields in Hungary.	
Roe Deer	Capreolus capreolus	Common along woodland edges.	
Red Fox	Vulpes vulpes	Common throughout.	
Total Species	30		

We also recorded on bat detectors, but did not directly observe, Leisler's Bat.

Roadkill included Eastern Hedgehog and Beech Marten.

6 Summary of Birds Recorded

We recorded around 88 species of birds as follows:

Species	Latin Name	
Common Pheasant	Phasianus colchicus	
Greylag Goose	Anser anser	
Mute Swan	Cygnus olor	
Mallard	Anas platyrhynchos	
Common Pochard	Aythya ferina	
Great Crested Grebe	Podiceps cristatus	
Black Stork	Ciconis nigra	
White Stork	Ciconia ciconia	
Grey Heron	Ardea cinerea	
Purple Heron	Ardea purpurea	
Great White Egret	Ardea alba	
Eurasian Spoonbill	Platelea leucorodia	
White-breasted Cormorant	Phalocrocorax carbo	
Western Marsh Harrier	Circus aeruginosus	
Sparrowhawk	Accipiter nisus	
Goshawk	Accipiter gentilis	
Common Buzzard	Buteo buteo	
Eastern Imperial Eagle	Aquila heliaca	
Lesser Spotted Eagle	Aquila pomarina	
Common Kestrel	Falco tinnunculus	
Eurasian Hobby	Falco subbuteo	
Osprey	Pandion haliaetus	
Saker Falcon	Falco cherrug	
Eurasian Coot	Fulica atra	
Caspian Gull	Larus cachinnans	
Black-headed Gull	Larus ridibundus	
Common Tern	Sterna hirundo	
Whiskered Tern	Chlydonius hybridus	
Feral Pigeon	Columba livia	
Collared Dove	Streptopelia decaocto	
Wood Pigeon	Columba palumbus	
Turtle Dove	Streptopelia turtur	
Little Owl	Athene noctua	
Ural Owl	Strix uralensis	
Common Swift	Apus apus	
Lesser Spotted Woodpecker	Dendrocopos minor	
Middle-spotted Woodpecker	Dendrocopus mediua	
Greater Spotted Woodpecker	Dendrocopus major	
Syrian Woodpecker	Dendrocopus syriacus	
Green Woodpecker	Picus viridis	
Red-backed Shrike	Lanius collurio	
Lesser Grey Shrike	Lanius minor	
European Roller	Coracias garrulus	
European Bee-eater	Merops apiaster	

Eurasian Jay	Garrulus glandarius	
Black-billed Magpie	Pica pica	
Hooded Crow	Corvus cornix	
Raven	Corvus corax	
Marsh Tit	Parus palustris	
Willow Tit	Parus montanus	
Coal Tit	Periparus ater	
Great Tit	Parus major	
Blue Tit	Cyanistes caeruleus	
Long-tailed Tit	Aegithalos caudatus	
Crested Lark	Galerida cristata	
Woodlark	Lullula arborea	
Barn Swallow	Hirundo rustica	
House Martin	Delichon urbicum	
Common Chiffchaff	Phylloscopus collybita	
Wood Warbler	Phylloscops sibilatrix	
Eurasian Blackcap	Sylvia atricapilla	
European Wren	Troglodytes troglodytes	
Eurasian Nuthatch	Sitta europaea	
Eurasian Treecreeper	Certhia familiaris	
Common Starling	Sturnus vulgaris	
Blackbird	Turdus merula	
Mistle Thrush	Turdus viscivorus	
Song Thrush	Turdus philomelos	
Nightingale	Luscinia megarrynchos	
European Robin	Erithacus rubecula	
Black Redstart	Phoenicurus ochruros	
Stonechat	Saxicola torquatus	
Whinchat	Saxicolarubetra	
Northern Wheatear	Oenanthe oenanthe	
Spotted Flycatcher	Muscicapa striata	
House Sparrow	Passer domesticus	
Tree Sparrow	Passer montanus	
White Wagtail	Motacilla alba	
Grey Wagtail	Motacilla cinerea	
Yellow Wagtail	Motacilla flava	
Lesser Whitethroat	Sylvia curruca	
Common Whitethroat	Sylvia communis	
Serin	Serinus serinus	
Greenfinch	Carduelis chloris	
Goldfinch	Carduelis carduelis	
Linnet	Carduelis cannabina	
Hawfinch	Coccothraustes coccothraustes	
Yellowhammer	Emberiza citrinella	

7 Summary of Butterflies Recorded

We recorded 31 species of butterfly as follows:

Species	Latin Name	Notes
Large White	Pieris brassicae	Common
Small White	Pieris rapae	Common
Wood White	Leptidea sinapsis	One sighting
Green-veined White	Pieris napi	Abundant
Black-veined White	Aporia crategi	One sighting
Clouded Yellow	Colias croceus	Several sightings
Pale Clouded Yellow	Colias hyale	Fairly common
Common Blue	Polyommatus icarus	Common
Holly Blue	Celastrina argiolus	Several sightings
Brimstone	Gonepteryxrhamni	Common
Brown Hairstreak	Thecla betulae	Two sightings
Woodland Garayling	Hipparchia fagi	Common
Map Butterfly	Araschnia levana	Several sightings
Camberwell Beauty	Nymphalis antiolpa	Several sightings
Hungarian Glider	Neptis rivularis	Several sightings
Queen of Spain Fritillary	Issoria lathonia	One sighting
Silver-washed Fritillary	Argynnis paphia	Abundant
Pearl-bordered Fritillary	Clossiana Euphrosyne	One sighting
Small Pearl-bordered Fritillary	Clossiana selene	One sighting
Duke of Burgundy Fritillary	Hamearis Lucina	One sighting
Glanville Fritillary	Meliaea cinxia	One sighting
Peacock	Inachis io	Several sightings
Red Admiral	Vanessa atalanta	Several sightings
Meadow Brown	Maniola jurtina	Abundant
Ringlet	Aphantopus hyperantus	Common
Speckled Wood	Pararge aegeria	One sighting
Comma	Polygonia c-album	Several sightings
Small Skipper	Thymelicus flavus	Common
Large Skipper	Ochlodes venata	Common
Dingy Skipper	Erynnis tages	One sighting
Small Heath	Coenonympha pamphilus	Common
Total Species	31	