SOUTH WALES CAVING CLUB

CLWB OGOFEYDD DEHEUDIR CYMRU

SWCC
CODC

NEWSLETTER 129
2012-13

The Club has been keeping its membership formally informed via publications since May 1952 following the AGM of that year when the first numbered newsletter was issued (visit http://www.swcc.org.uk/aboutswcc/newslett/index.php for archives). Sixty one years later the SWCC newsletter is still going strong – welcome to Newsletter No. 129 - although as to be expected, the publication has changed over the years, no longer typewritten, it looks a little glossier with high quality photographs, it hosts tales of adventure in locations further reaching than Mendip and is minus the inkblots that are noticeable on those first issues.

Nevertheless its purpose remains the same. The primary intention behind the publication is to keep our caving colleagues in touch with the below, and sometimes above, ground goings-on of our members and to ensure that these accomplishments and events are recorded for posterity.

As Editor however, I see an additional purpose – the opportunity to highlight the skills of SWCC's (professional and amateur) reporters, storytellers, photographers, scientists, historians, as they provide for our enjoyment by sharing their literary talents. Read on and be entertained; read on, and if inspired to put your pen to paper, your contributions will be welcomed, and will be in print in 2014.

Krysia Groves, Editor

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Front cover: Above Zermatt, Switzerland
By Martin Groves

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CAVING IN THE COTSWOLD MASSIF CENTRAL

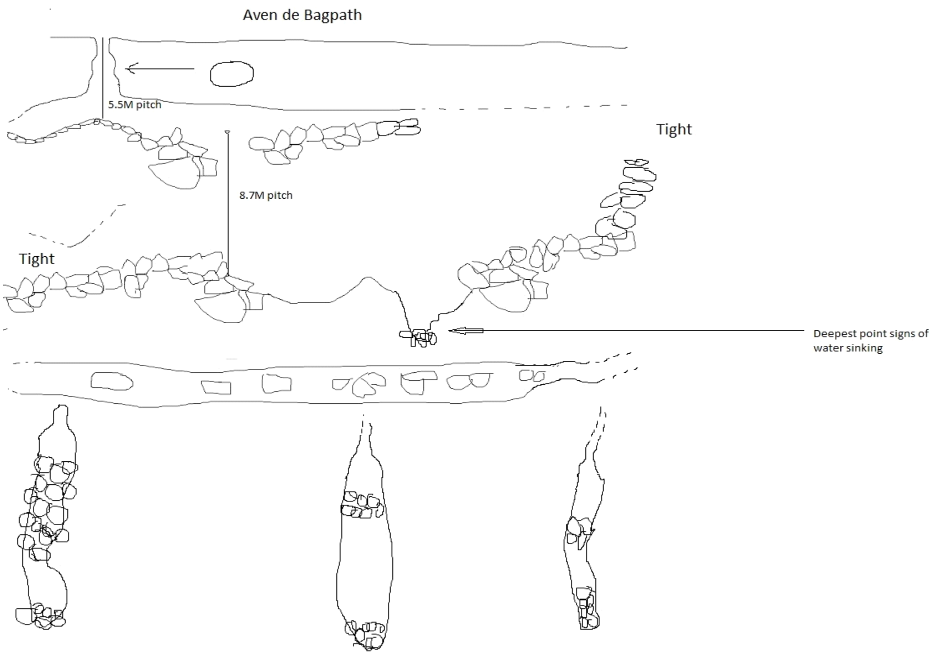
By Andy Ward

It has been known to those with a finger on the pulse of caving that the next big caving area will be the Cotswolds.

Andrew and Nick
Aven de Bagpath the entrance pitch is so close we use the Ranger tow hitch as a belay.

Joking aside I have known of the caves near to my home for a long time and had visited Coaly rift, Jackdaw caves and Hermits cave in the past. I did know of the existence of Aven de Bagpath and visited it with Nick Geh in the late 1980,s but had not fully explored it or surveyed it. The return was prompted by a conversation with Tony Boycott and Charlie Self. After gaining access permission I spoke to the estate game keeper Pete Neil about the location as after twenty plus years I was a little unsure! Pete had when I called him said which cave there are three!!! I replied I would like to see all three so after arranging a time we drove around to each. Follow up visits were made over the next few weeks.
The caves are Gull caves (mass movement caves) in Oolitic limestone.

Aven de Bagpath Central Cotswolds Gloucestershire



Nick and Mick

Mick on the entrance pitch

The cave entrance is found 100M from the edge of a typical steep sided Cotswold valley. The entrance is a circular hole (1M diameter) this immediately bells out in to a rift; the top area is a little unstable with blocks over laying each other. The first pitch is 5.5M and belayed from the surface. You land on a cone of stones and soil fallen from above. This seems to be a jammed floor over the rift.
From this cone the rift goes east and west (as does the valley), west ends after 3M in boulders and stones east can be followed down dip for 6M to were a hole in the floor is meet. Across the hole (2M) more jammed rocks can be reached and the continuing rift followed for another 5M to were the rift diminishes in size and can be seen to go on but not followed.

Two hangers are in place at the pitch the first 1.5M is slightly awkward (on the return) as it is not enough width to bend the legs to move up ladder rungs. This pitch after 1.5M opens out into a 2.M+ wide rift and reaches the floor after 8.5M. You are then at the foot of a large rift up to 18M high and 2M wide with signs of water flow on the walls. Going west you duck under a large jammed rock into a mud and rock jammed passage that trends up after 4M this ends in a boulder ruckle. Towards the end a (sheep?) skeleton is found.

Going back to the ladder the passage can be followed down dip over fallen rocks to the lowest point with clear indications of where the water leaves the know cave. This point is muddy (lots of sticky Cotswold mud).The lows point is 22M (+/- 1M) from the surface. Crossing over the low point the fallen rocks force you to start climbing up higher into the rift. After reaching 3M above the floor the rift becomes too narrow to follow but continues. At this point you are 18M from the ladder.

In simple terms this is one rift that has jammed rocks in areas of the rift giving the appearance of multiple passages. In some ways like Coley rift but muddier.




Aven de Bagpath

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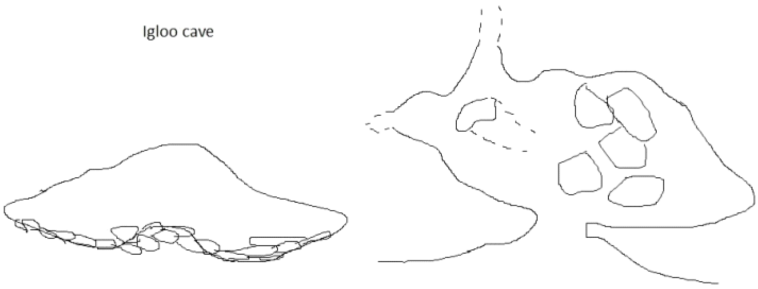
Igloo cave
Central Cotswolds, Gloucestershire



Nick

A small almost circular cave it seems not to follow the normal rift configuration of the area and is more like Hermits cave (Tetbury) in appearance. The entrance is 1.2x0.8M in a small depression the cave is some way from the valley edge (200m) and under a stone wall. The bulk of the cave is only just under the surface of an arable field.

Some modification has been made to the entrance area with a small amount of walling at the cave entrance. The cave itself is almost a dome 2.7M high and 6M wide at its widest there is a small rift in the floor that can be followed for 2M to a lose infill under the main chamber. There is a rift at the back of the cave too small to follow. A small number of formations are present in one area of the roof.

Igloo cave above

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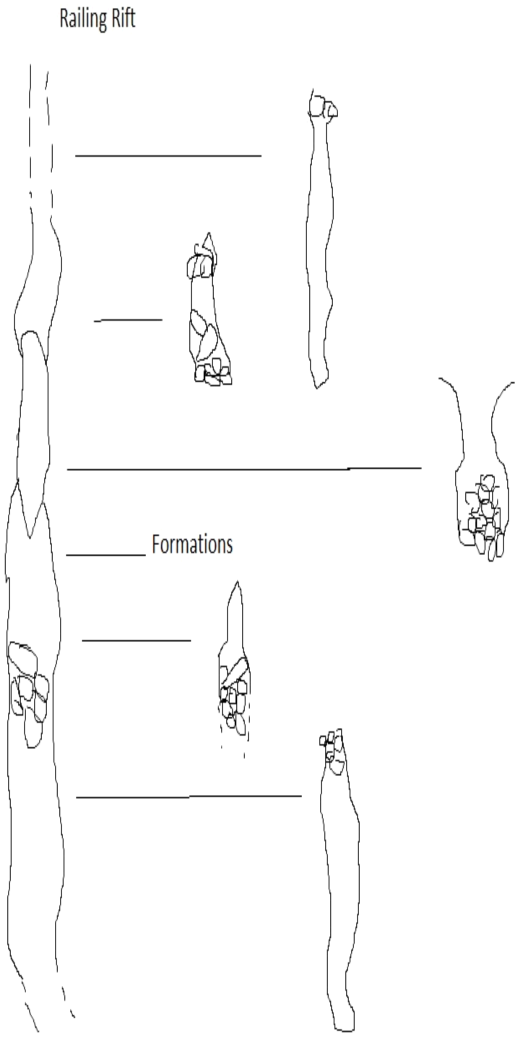
Railing rift
Central Cotswolds, Gloucestershire



Andrew

Andrew

Mick

The entrance is found close to the valley edge although not in line with it but heading towards and away from it. The entrance Is a rift 3M long and 1M wide this drops down on to a boulder and soil cone at 1.8M (as with Bagpath jammed above the rift) heading north a squeeze is passed to the head of a deep rift (5M deep) and around 5M long the rift was smooth sided and 400mm wide at the top with an awkward angle into it. The floor was clear of rocks and ended in both directions down dip it is a blocked continuation of the main passage the blockage caused by surface spoil falling in.

Heading south (towards the valley) a collection of formations including a 0.5M stall pillar is passed into a slight widening of the rift. At 4M from the entrance. a squeeze leads to a slight enlarging of the rift. The floor is 4M below this point and can followed for 6M up to 1.2M wide at this point the passage closes down. The roof was very unstable at the squeeze (this is just below the surface).

Mick

Access

Please note access to the caves is strictly controlled and any trespass will lose access, all the sites are on private property. No access is possible from August to April. Pleases contact AMW Wardgpz@tiscali.co.uk for more information.

My thanks go to:
Pete Neil, Greville Vernon,

And for coming along on the trips: Sue Ward, Nick Hargreaves and Mick Smith

More pictures
http://s5.photobucket.com/albums/y184/AMWard/Cotswolds

Further reading on Cotswold caves:
http://www.ubss.org.uk/resources/proceedings/vol23/UBSS_Proc_23_2_97-117.pdfhttp://www.ubss.org.uk/resources/proceedings/vol21/UBSS_Proc_21_3_197-214.pdfhttp://www.ubss.org.uk/resources/proceedings/vol24/UBSS_Proc_24_1_53-70.pdf

XITU WITH ROSIE*

(*With apologies to Laurie Lee)

By Martin Hoff

Some considerable time ago, long before the internet was a commonplace and all the information ever known was available at the click of a mouse at all times from anywhere except Penwyllt, I picked up a book. It would probably have been the SWCC library copy and one among many books that passed through my hands as I gradually pieced together my limited understanding of the sport of caving and the history of its development.

In the late 1990s I returned to that book again while the collected efforts of SWCC's crack continental hillside-wandering teams were largely failing to establish much of significance beyond that the Pico San Vicente and El Hornijo probably did hide cave systems that would be of some interest had they been in the UK but located in Cantabria they proved just a little too inaccessible and difficult for the technology available to us at that time.

All the same, David Rose and Richard Gregson's 'Beneath The Mountains' reminded me that caves were (and are) there to be found as long as you go looking. For all that, our efforts, long in sweat and labour but short on results, had proven somewhat unsuccessful, I knew that bigger, deeper caves were out there somewhere.

A good number of years later, September 2011 saw the Hidden Earth conference back in Monmouth and me back at Hidden Earth in search of additional caving options for the summer of 2012. The YUCPC members' talk about their exploits in and intended return to Durmitor in Montenegro sounded like an interesting wilderness location but the caves they'd discovered so far didn't sound staggeringly extensive or promising. Then I sat and listened to Fleur Loveridge giving a talk titled 'Xitu 2011', which featured tales of a committed but weather-troubled return to Pozo del Xitu for the first time since exploration moved on to other sites in the mid-1980s, as documented in Beneath The Mountains. "*We're going back next year and if anyone wants to come, they'd be welcome to get in touch...*" Suddenly I had a plan for 2012, a sufficiently definite plan that I didn't need a Plan B.

There followed a few caving trips with various members of Oxford University Cave Club – nobody wants to go on a trip intended to involve relatively deep and serious caving and be the idiot in the corner who's an unknown quantity and who might just spoil your chances of getting as far as you'd like, or worse. There also followed some investigations into the facilities available on the Ario plateau, a few timely investments in new caving gear, some booking of flights and airport parking and soon enough the calendar had me once again heading for Stansted with too much gear to legitimately carry on the flight, this time collecting Dave Rose from Oxford on the way.

It's not a short journey from south Wales to Ario but it can be done in one day and more easily so when you have the advantage of not needing to take the four different buses required at the other end. Dave had booked a hire car, which ensured that the bus connections weren't going to be a problem and blue skies opened up above us revealing the odd patch of snow on the peaks as we drove up towards Cangas de Onis.

Soon we were negotiating the many bends of the hill above Covadonga, heading for Los Lagos and a rendezvous with a frequently overheating car pulling a trailer full of caving, camping and sundry other gear out from the UK. With cows crowding the roads, tourist drivers unable or unwilling to negotiate a passage round the cows or stopping in unsuitable places to take photos of cows in the road, there was plenty of fun to be had and the ever-present prospect that the next bend might reveal a full size coach coming the other way.

Over a good number of years and many, many drives up and down these roads, Dave had rarely enjoyed such clear blue skies and looking north and west we could see a few increasingly distant sets of ridge lines as the hills shrank back down towards the coast. The expected car and trailer were not to be seen and after some attempts at making contact on the phone and a brief feed in the Bar Maria-Rosa, it was obvious there was nothing we could do but head off up the hill.

At 8pm and with the temperature around 25°C, we finally shouldered our rucksacks and picked our way across the flat green field next to Lago Ercina. The flat green terrain was not to last and soon we were on Sod 1, the first of a number of hilly obstacles between Los Lagos and Ario. With sweat dripping off my forehead and running down the inside of my glasses lenses, I was happy to stop for a drink at Las Bobias, where the water supply heading over to some mountain shepherds' huts is accessible.

All too soon Sod 2 reared up in front of us but the light was going and happily the temperature was falling as we gradually gained altitude. The top of Sod 3 rewarded us with the sky taking on a wide orange glow as the sun prepared to disappear below the horizon. Again we walked on, again we walked up and with barely a pause at the top of Sod 4 and the entrance to Xitu, the darkness enfolded us as we trudged across the northern path of the Ario bowl and arrived at the refugio around half past ten, eighteen hours since I'd left home.

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Other members of the expedition turned up in due course, the upper end of the cave was rigged and a few days later it fell to Pete Talling and me to take care of transporting the first set of underground camping kit down to the camp area at around -550m .

One of the most memorable features of Xitu is Climax Rift and for good reason. Dropping down one short pitch from the surface, the next couple of tens of metres may easily occupy tens of minutes. Picture the lowest section of Cwm Dwr, tilted through ninety degrees so it takes a vertical position as the eyehole level at the top of an increasingly narrow rift. Wedging yourself between the two walls, progress is reasonably straightforward as far as the narrowest part of the rift where forward movement is only possible with your body in a horizontal plane, on your side. The other end helpfully opens out directly above the next five pitches of the entrance series.

Perched on a wooden stemple in the exposed but still somewhat restricted position on the far side of the narrow section, I fielded the tackle sacks as Pete passed them through and a mere forty five minutes after entering the cave we were both through, each of us carrying one voluminous tackle sack of sleeping kit, one narrow tackle sack of camping supplies and a small amount of personal kit. Forty five minutes and barely two corners away from daylight.

The tackle management skills developed over years of practice at hauling big bags of camera around many different caves stood me in good stead but all the same we travelled onwards and downwards at a speed struggling to match that of a shackled sloth. Our descent was briefly interrupted when I led us down an alternative route which involved crossing over a wide open drop and Pete recognised he'd come this wrong way before and understandably wanted to refresh his memory of exactly where the right way went. Gravity-defying habits ingrained over years of the Marble Showers and OFD3 traverses left us on different sides of the hole but eventually we joined together again and headed on into the widely fractured, shattered and occasionally mildly uninspiring area that follows below The Gap and Dream Lake pitches.

In some ways the section of increasingly awkward short pitches that follows is perfect, leading as it does directly onto the ledge at the top of the Flat Iron shaft and giving cause for a mixture of relief at emerging into broader passage and the requirement for concentration as you start your descent to the bottom of Pregnancy Pitch around 140m below. In common with the bulk of the rest of the cave, Flat Iron feels a friendly place, at least when there isn't a raging torrent pouring down it, and for all that their heights are similar I found it to be a more impressive place than Titan, partly because Flat Iron is a little bigger in horizontal cross-section but also because of how much further it is below the surface.

Dave Rose Flat Iron Belay

With our awkward loads deposited no more than around fifteen minutes caving below Flat Iron, Pete and I headed for the clear night sky, only briefly stopping for our further enjoyment of Climax Rift on the way out.

****

Time was ticking on, other members of the group had already left and there remained just long enough for Dave to have one good deep trip before he needed to be on his way to the airport and his flight home. With other parties having already taken in more kit, set up the camp and stayed there, a number of options were kicked back and forth to establish what we could usefully achieve in the time available to us.

After a late lunch and with tackle sacks full of food and clothes for the camp (and camera gear, naturally) a sunny afternoon saw Dave Rose, Andy Chapman and me once again taking on the Climax Rift tackle sack challenge and enjoying the coincidental timing of being perfectly placed at the top of the entrance pitches to hear a distant gurgle develop and immediately turn into a brief flood pulse to accompany us down the ropes. By half nine that evening we were in the camp, swapping sweated caving gear for dry thermals and furry suits and wondering how the hell the camp could possibly be devoid of coffee, tea or any other supplies for making hot drinks.

Snuggled together after our late dinner and fruitless attempts to raise Ario on the Nicola phone, we slept. Until someone looked at their watch, claimed it was 8.30 and time to get up. Fortunately it was only two in the morning and we slept on. "Silencio la noche!" indeed [see Chapter 4, Beneath The Mountains]. A warming drink of thin custard was welcomed by the two of us still wrapped in our multiple sleeping bags and after a leisurely breakfast we headed off below the camp.
Beyond the several beautiful white veined Marble Steps pitches and Dampturation which follows, a not

very exposed ledge led us out above the remarkably exposed top of Pythagoras, a set of pitches dropping around a hundred metres where the vertical top section is dominated by a huge right angle buttress – hence the name – before the lower section becomes significantly less vertical as you descend a steeply inclined ramp of unreassuringly questionable stability. We passed the site of the underground camp on the trips of the 1980s, sufficiently close to the bottom of the stream running down the active part of Pythagoras to be draughty and not especially well sheltered from the ramp of doom lurking above. I was glad for our camp being sited below Flat Iron, as at -800m it now felt like we were some way from home.

We dropped down a rope-protected climb, negotiated PAFS Pot with the origin of the name fresh in

Martin Hoff at –830m

mind from one of Dave's story-telling sessions and the cave started to take on the character that appears to predominate from here on down. Short sections of streamway and pitch meet sections of hading rift where the walls are built to snag with brittle popcorn formations throughout. Climbing up into the bypass to the Cheese Grater led us over the top of some uninspiring territory through to Choss Chock Pitch. The various names of sections of cave are often this self-explanatory and equally commonly impenetrable without a quality guide from the first wave of exploration, Flat Iron being one example of the latter.

Following a rigging topo which expected us to hang off 'two naturals' at the end of a short traverse, Andy rigged down the next pitch putting in the first deviation which stretched a long way off the wall. It was clear why there was a second deviation as I hung in the spray falling down the pitch and though my lamp picked out its location, there was no way I was going to be able to start swinging over towards it with the nearest wall to push off two or three metres away. I abseiled to the floor. Dave was given the instruction to clip the second deviation if he could make it and he started swinging. Watching from below, Andy and I heaved on the bottom of the rope, playing one-sided conkers with a mid-rope Dave until he grabbed the cord sling and finished off the job.

After more climbing up loose rock to find the head of the next pitch and dropping a few metres back into the stream passage, more higher level bypassing followed as we squeezed up towards the head of the Flyer pitch. With a good few hours of caving behind us and nothing we could do that would materially change the complexion of the next trip rigging beyond that point, we turned round a little way short of Dave's lead at Chunder Pot which he'd started exploring on a previous visit and desperately wanted to pursue. Taking a few pictures and leaving the collected hangers, maillons and tape for making slings, we started the long slog back up towards the camp. Even in clement conditions, the wide open space of Pythagoras remains a mildly intimidating place for the slowly prussiking caver looking at the collection of

Above the Flyer at –900m

random ropes, some apparently deliberately sited with little regard for the niceties of safe rigging practice and some merely washed into unsuitable places. Twelve hours below the camp had enabled us to rig a few more pitches but it was clear just how much further there was yet to go.

A later night this time and uninterrupted by the alarm or the need to make an early start, we dozed through most of the morning, eventually leaving for the surface some time in the early afternoon. Flat Iron with a bag of camera didn't make for rapid progress but Dave's harmonica provided a tuneful backing to my ascent towards The Gap where we met the next incoming party, the first people we'd spoken to in nearly forty-eight hours. Their news of an expected, imminent flood pulse gave our final hours below ground a hint of added urgency despite the accumulated tiredness but we found the entrance pitches considerably drier than they'd been on our way in.

In some ways this was a perfect representation of my experience of Xitu, of expectations being confounded and progress nevertheless being made. As the upper streamway vanishes downwards, the choke which gives access up into the Teresa series turns up in the just the right place to avoid the need for following the stream into ever narrower passage. As the lower streamway meets constricted sections of hading rift perfectly sized to just about allow ingress at the cost of damaging oversuits, bypass climbs over the top become apparent just where you need them. And as in Chapter Six of Beneath The Mountains, where Skippy hides a bottle of ponche in the bedding rolls for the underground camp, our party too lived to be glad it included someone whose personal supply of cup-a-soup, hot chocolate and coffee sachets proved sufficient for the missing coffee jar and tea bags to be a minor inconvenience rather than a major problem.

The night sky was slowly pulling across the clag of Ario as we surfaced from a trip lasting over fifty-three hours into a chorus of cow bells. Dave's laughter broke the evening air as he found we'd been left a carton of wine at the entrance with an apologetic note desperately begging our forgiveness for removing all the tea and coffee from the camp in a gesture of intended tidiness and unintentional deprivation. Removing helmets, harnesses and hardware, we headed for the refugio and the camp, for sustenance and news, for company and for a different set of clothes. There was plenty of rigging remaining to be done over the following days but we'd done what we could in the time available and the rigging front had now progressed down to around 900m below the entrance, Dave had made his first trip below the camp area in thirty-one years and we'd lived to tell our modest tale. The exploration of the area above Chunder Pot would have to wait for another time.

COLUMBIAN CAVING EXPEDITION—2012
In Search of Columbian Caves

By Blanca Aili Usuga

After two unsuccessful visits in the previous years I finally joined SWCC in 2011, my first provisional weekend. What an amazing experience for me to be inside a real cave caving with real cavers. Since then I have become a full member of the club, and thanks to the nice guys that have been taking me on caving trips in OFD my skills and confidence have been constantly increasing. My confidence grew so much that I started to wonder if there were caves in my country of origin, Colombia. I started searching on the web for caving clubs or anything related with the sport, a bit difficult in the beginning especially when you do not know it is called 'speleo' and not caving and you are a speleologist or miner, not a caver. In the end I found a group of experienced cavers from Switzerland and France who were calling for an expedition in Colombia, so I contacted them and travelled to El Peñon-Santander in Colombia to join them.

The organiser, a Swiss caver had already been to Columbia to recce the area to be explored. He had rented a countryside cottage and already been advised of the political and social situation of the region.
To go from Bogota to El Peñon-Santander there is not a direct bus route and after 6 hours travelling from the capital city of Bogota by coach I arrived at Barbosa, at about 1:00am and here I had to wait for the only bus that goes to El Peñon, at 5:00 am. Not the nicest of waits, four hours to experience the temperature dropping down below zero degrees; I was warned about this!

I arrived at the cottage at about 8:00am and after meeting with the team I was amazed with the beautiful surroundings - opposite the cottage there is a big entrance cave called the *Virgin Mary* because there is a big monument to her. After a quick look around the first thing to do was to organise sleeping, kitchen and food and then a briefing from the organiser to explain what we will be doing for the next few days and the plan for the caves he had in mind for us to find.

The team was made up of one French and three Swiss men, all of them experienced cavers, and two Colombian novices including me. The organiser, Mr Fernandez, an ex- Swiss army pensioner; Mr Roman the Director of the Geology department at one of the Universities in Switzerland; Mr J. Marc a photographer and Speleologist in France; Mr Martin an entrepreneur geologist who owns a geological company in Switzerland, he is also a photographer; Mr David, the director of the logistics department at the Red Cross in Colombia; and me .

El Peñon is a small town of the Department of Santander, Colombia, located at 1468 meters above sea level, with a cold and foggy climate but surrounded by beautiful country side , mountains and rivers. It has a population of only 4680 inhabitants with no paved roads in the outskirts of the town, but you are able to find anything you need for daily living.
The cottage we were staying at is located at about 10 minutes by car in the outskirts of the town. It has three rooms, a kitchen, an outside loo and 'countryside laundry' i.e. no washing machine and no hot water. Soon we were organised to start looking for caves.

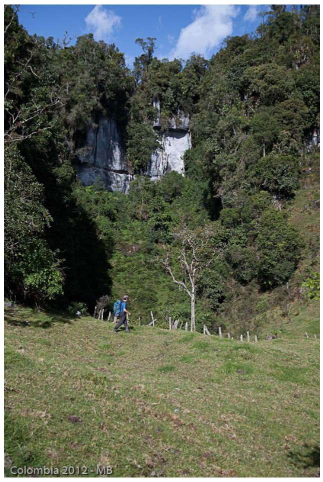
On the first day we got up very early. Three hours were spent walking in the hills and asking the local farmers if they were aware of any Caves around. We meet a family who advised us of a cave nearby and one of the members of the family took us to the entrance. The terrain was some of the most difficult I have ever experienced and I struggled as we traversed up and down hills, crossing muddy areas that, because of my height and the heavy kit I was carrying, seemed to suck me in - I got stuck many times, the Swiss guys, used to this terrain and twice my size, having to pull me out, making the trip embarrassing but quite funny too. Well, they also got stuck ...but they managed to pull themselves out.

At the bottom of the hill I had my first encounter with a Colombian Cave; I could not believe what I was looking at, the huge entrance in front of me with a massive formation that looked like a monster hanging from the ceiling. I was so excited that the exhaustion disappeared, but the fear took it over. We all got changed and the geologists immediately start the surveillance of the cave. Mr Pulido and I were asked to have a look around for other entrances or passages. I was amazed by the beautiful waterfall just at the entrance with a height of approximately 50m. We followed the streamway until we came to a small lake where the water disappeared and the cave seemed to end. By one side of the huge chamber I noticed something like a passage, and thanks to the climbing skills I have learnt at SWCC I climbed up and found a passage that took me to a dry lake. The Swiss guys rigged it and we abseiled down about 15m. Crossing sand we climbed up about 5m to another passage that ended flooded with water; it seemed to connect with the other lake.

Although a small cave there was a beautiful ceiling and many small formations. It was noted that in the ceiling there were a few holes from which formations were hanging. The height of the ceiling was about 40 to 50m.

We finished the survey and the photographs were taken. There is Potential for dive exploration in the future and who knows what we could find up the waterfall. A successful and dramatic first day came to an end.

The second day dawned with another early morning and another 3 hours walking up and down hills, asking the locals for possible cave information. We were looking for a limestone wall which was approximately 100m high and covered with undergrowth. We found it via a wooded and muddy way, the entrance was accessed by a walk through the middle of dense forest to then encounter a small entrance with a small cave. Our leader was aware of a crack that would lead us into a huge chamber. Following what looked like the footprints of a dry stream we crawled along it to find a 15m pitch to abseil , then we found a passage that took us to an amazing 1 km passage full of beautiful formations, all sizes and colours.



Some of the stalactites and stalagmites were destroyed or broken, possibly by the tremors caused by geological movements in the region. There was no running water or streamway so most of the formations looked dead or dry. There were signs of previous bat colonies and throughout this long passage were formations like I have never seen before, beautiful crystals and figures that appeared to hang from nothing. At the end of the tunnel was a huge column that marks the end of the cave.

We spent the day surveying and photographing. Walking inside the cave it felt like being inside a fossilised whale! There is potential to explore more as we did not have the time to search properly for other entrances or passages.

On the third day my body was aching and I was feeling very tired so I took the day off. The team was split in two groups. Both teams found caves and returned with surveys and photographs. One of the groups went to find some sinkholes that local people suggested were huge holes approximately 200m deep. I spent my time looking for caves nearby. I also went to visit the local hospital taking with me some medication and medical equipment that the Swiss team brought with them to offer as a gift for welcoming us into their town.

Both teams' returns were delayed making me wonder whether or not to call the police. One team returned at about 6:00pm and suggested we wait a bit longer for the other team to arrive before calling the police; they emerged at about 7:30pm tired, dehydrated, hungry and exhausted; their tiredness had caused their route finding problems on their way out of the cave and then back to the cottage. I put some of my A&E skills to good use to help them to recover. They did not finish exploring the cave they were in as they ran out of rope and batteries. They decided to leave it for the next day.

On the fourth day one group went to a Sinkhole the other to yesterday's unfinished cave. The Sinkhole Cave was a big and deep hole that ended in a siphon of great importance for a future exploration, as indicated by the extent and depth of the system. The second team, with whom I was with, went to find another cave that the locals have told us about the day before, one hour from the cottage and one hour away from the main road. The terrain was harsh with many deep muddy areas in which we found ourselves stuck, yet again. We found many empty houses and farms on the way, abandoned by those who have migrated to the big cities looking for better life styles.

This was my third encounter with an impressive entrance, so majestic and so big, just in the middle of the forest, this cave is known by the locals as the Guacharos Cave because of the noise coming from the inside caused by the birds that live there, called the guacharos. These birds only come out at night and travel long distances to find their favourite food.

We explored the entrance which was a big chamber with big formations cover with green mould. Looking down hill into the cave all that you could hear was the screaming of the birds, the noise was such that I was afraid to go in. As we were walking the birds got nervous and started flying over us we tried to be quiet as we carried on into the unknown dark cave; it was another amazing experience. We found big chambers, big boulders, a big dry lake with an astonishing window on the top and beautiful sunrays coming through.

With lights directed on to the lake it looked like there still water in it, one of the team members asked me to cross the lake to the other side to serve as a reference point for the measurements, I thought by myself "How the hell I am going to cross this, I do not want to get stuck in the lake" so I started walking around the lake to go to the other side when the other team members shouted at me "Just cross you don't need to go around…. " But I just could not do it, it was terrifying when I saw one team member walking across the lake which was formed by just sand, how did he do it?? Well, they are experienced geologists so I guess they just knew.

The place was a nightmare for me, I have never been in an environment where all I could see was their lights walking around, jumping from one side to the other. They assumed I was a caver so I should know everything, all I could see were the little points far away from me, as the chamber was so big, at some points they just disappeared from my view and I started to feel nervous; I had to get control of the fear of being on my own in a cave. It was a big challenge and part of the experience, I kept looking around with caution as the team split to search. Just at the end we found a pitch to abseil but we were all tired, time spent surveying had taken its toll. We noticed that the ceiling had fallen in over time and was probably blocking other passages; there were so many columns and formations all over the floor, probably because of small earthquakes in the area. The end of the cave was another siphon.   A lot of opportunity for future explorations as there are some small holes that we did not follow, also, we could hear running water and waterfalls but time was too short.

I had spent four amazing days on expedition with cavers I have never met, in caves I have never visited before, practicing the skills learned back in Wales. I fought my fears and learned some more. What else I could ask for? It was a dream comes true.

"Thank you to SWCC for your support and the encouragement given to me in the last year with which it was made possible to join this expedition. "

JUNE JAUNT TO THE GÖRNER GLACIER (ALMOST)

By Krysia Groves

Photo by Krysia Groves

Trip number four to the Görner Glacier (my third) was tinged with uncertainty. Previous trips have taken place in the height of summer (July/August) or at the start of winter when weather conditions could be a little more accurately anticipated, but the first trip to Görner in 2013 was scheduled in June when the spring melt on the glacier should have been well under way…or not. The agenda for the trip was scientific baseline measuring, mainly surface work but with some choice descents into moulins, conditions allowing.

The aforementioned uncertainty lay in many facets of the trip, even before the arrival on Swiss soil (ice). It lay in the numbers available to make the trip viable; whether prevailing conditions would render the journey onto the glacier possible; and if it was actually worth spending the time and money to get there, for such a short stint. On the first count, there were no 'homies' making the trip but a Swiss PhD student contact sealed the deal to go, on the basis that for part of the week at least, there would be four of us (safety and capacity). On the second count, the prevailing conditions on the glacier were, quite literally, in the hands of the Gods, we would wait and see what was in store – and frequent checks of the forecast showed consistent fluctuation in anticipated temperatures and precipitations – which were being so fickle they could not choose between wet or crystal, in other words, the current weather was being erratic, unpredictable, unusual and other similar adjectives.

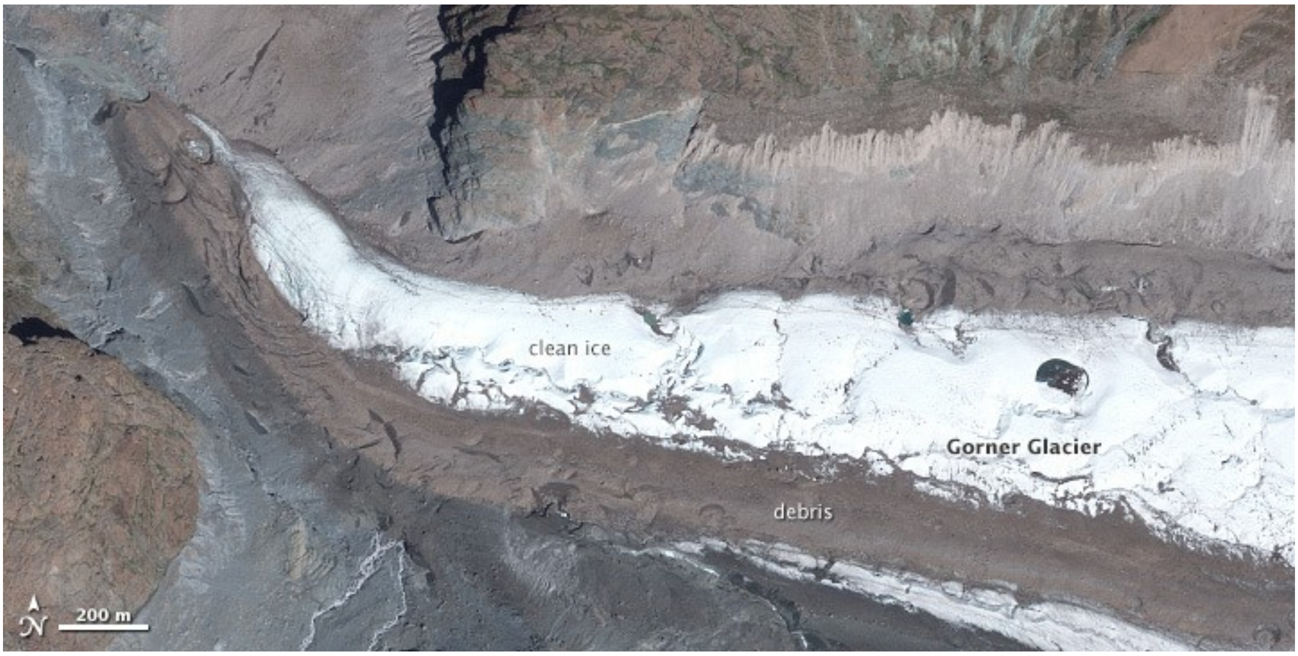
On the final count – the window of time – I personally decided that if all else fell apart, a little one to one time with my spouse in a 'chocolate-box-pretty' part of Switzerland was well worth the expenditure.
Having gone through the airport checks and avoided drawing attention to those things that often cause cavers concern (the bulging, overweight backpacks and the heavier than usual hand luggage for instance), the rest of the journey to Zermatt followed suit and was tiresome but without incident. The following day found us donning snowshoes at Rottenboden, the start of the walk-in to the glacier.

The snow was deeper than expected, and that was according to the locals we'd spoken with in the Valley too - for the month of June there was far more snow falling than usual, but it was wet, and getting wetter as the day wore on, so not ideal. It was difficult to discern the conditions we were about to encounter, but what was certain was that camping on the glacier was not going to be an option (so the tent had already been pitched near the start of the walk-in).
The snow was more than knee high on parts of the trail and the glacier looked seriously silent as it came into view. Being a team of only two the dangers of crevasses were that much more significant and mostly hidden under the blank, white canvas.

The original plan had been to walk out onto the glacier to inspect some known landmarks, place monitoring sensors in appropriate places, GPS glacial features and build up a file of baseline measures to underpin the ongoing data collection that would be taking place in the summer, all of which would build up a dossier of evidence for analysis to add to the understanding of moulins and associated glacial activity.

What actually happened was, on arrival at the point where normally crampons are pulled on and one steps down onto the ice we came face to face with a wall of white – the snow was a little deeper than expected. Close to, it was not so easy to identify demarcations that would distinguish the fissures and cracks that could prove dangerous. Crevasses could be anticipated from a distance but once on the surface they were not so easy to perceive. To stand silently and breathe the air was invigorating, but the glacier itself was far from silent, calling out with unnerving creaks and groans and distant clatter.

Walking and hearing the ice fracture some feet away with the pressure of our footsteps was also a significant part of our decision not to proceed onto the glacier – the thought of fracturing ice as we walked, and having whatever lay beneath, if anything at all, flaking away, was enough for us to seriously consider the consequences should the two of us find ourselves in a rescue scenario. (We were likely the only people on the mountain, there were certainly no signs of others.)



Snout of the glacier (Picture ref: http://earthobservatory.nasa.gov/IOTD/view.php?id=81608)

Having aborted the plan to proceed onto the glacier we turned back towards camp, rueing the fact that our Swiss contacts had chosen not to come – together we would have been a much more robust and capable team of four, adding a different weighting to the should we, shouldn't we debate. We did meet a cross-country skiing couple as we walked the trail back who we thought might be our Swiss colleagues arriving a little late, but they skied past us as if on a mission, although obviously not a mission that was "…seeking Brits with GSOH for fun in the snow".

After a blustery, and rainy, and snowy night it was back down the valley in the morning. Determinedly not wanting to be defeated a plan B began to emerge – attack from another angle. We decided to snowshoe an approach to the snout of the glacier where there was potential for some interesting observations, but once again we were scuppered when at the last hurdle, after a good few hours shuffling, the way on through the gorge was blocked by a cascading waterfall.

The expedition element of the trip was definitely over, it was now a holiday. We spent the rest of the time frolicking on snowshoes then feeding birds with morsels of goodies purchased from the local bakery. Görner Glacier expedition #5 in August 2013 is bound to be more successful! Watch this space, as they say.

Photo by Martin Groves

POSTCARDS FROM THE 16th INTERNATONAL CONGRESS OF SPELEOLOGY, CZECH REBUBLIC

By Lizzy Das Neves Wire

This year Claire Vivian, Duncan Hornby, Matt Wire and I drove to Czech Republic for the 16th International Congress of Speleology. Not knowing what to expect, as none of us had previously attended a congress, we turned up on the Sunday evening to find a welcoming ceremony of food, free alcohol and light entertainment. As the British do best, we took advantage of the free wine carrying trays piled in formations across to our tables. My main purpose for attending the congress was to make as many contacts as possible to try caving in other parts of the world, including Brazil. It was my turn to collect the tray of drinks and whilst carefully balancing the alcohol pyramid I bumped into the Brazilians and with a leap (literally) of happiness, chucked 7 plastic glasses of wine all over myself; they seemed to remember me for the rest of the week!

At some point or another during the congress we all managed to suffer either from the cheap alcohol or the fatty food (fried cheese and fried meat), except for Matt whose peril would come at the end of the week. Throughout the event we attended some excellent lectures on cave expeditions all over the world, cave science, cave films, and the 3D caving films shown at the end of the week that were absolutely amazing! There were also some of the best cave scientists in the world visiting to present lectures.

Mid week we were taken on a tour to the Punkva show cave in the Moravian Karst, which involved a boat ride through the cave and a visit to the Macocha Abyss. The Macocha Abyss, at more than 138m deep, is the biggest gorge in the Czech Republic. At this point we didn't know we would have the chance to abseil down it in our post congress trips.

That evening was followed by live music and more partying. Partying played a key part in making contacts, [especially if you had pictures of their bum on your camera!!] The more socialising we did, the more invitations we seemed to get to visit other countries. We also managed to acquire a Mexican cave survey.

As the week came to a close, we finished off with a group photo followed by a banquet - more free booze. (Due to my previous experience of free alcohol on the first evening I decided to stay on the other free stuff called water).

An awards ceremony added to the entertainment as did Les Williams (organiser of Hidden Earth) who talked about the forthcoming Euro Speleo Congress in 2016. He showed a great video which included some of SWCC's very own, Nicky Bailey's pictures. This was followed with a firework display courtesy of Andy Eavis , and the inevitable music and dancing. Towards the end of the evening Matt decided to try and piggy-back a very large, sweaty, Australian man; to his drunken dismay he slid off the aussie's back, landed head first on the floor, broke his wrist, and bumped his head for good measure. Despite this I should like to state we were 'the hardcore' being the only ones standing at 6am that morning, and that was after spending the early hours in A&E, which incidentally, for a Saturday night was extremely quiet, populated by a single drunken Brit.

Post congress was the excursion in the Moravian Karst. Our camp site here was very much like a communist camp, but the caving was plenty and we were very excited about what lay in store. We had the choice of at least 4 different trips every day, some with SRT but mainly with fixed ladders. We found out that the Czech Republic cavers wanted to maintain traditions of using ladders; totting up the rungs of that week we probably went up and down 300 or 400 meters of fixed ladders. One very interesting ladder I found myself on, on my last day, was a 70 meter completely vertical one, down a large tube which felt like it never ended. We were given little guide books with pictures of what the trips entailed; at the end of each trip I felt obliged to add to the descriptors with more pictures as even the easier trips entailed ducks, ladders, traverse lines. Other trips incorporated swing ropes as Claire found out, via ferrata and traverse wires over deep pools of water and several rifts.

The caves had some great huge passages and pretties and some had been so dry due to recent temperatures of around 40 degrees, that we could walk through 'sumps' using the dive line. We also got to visit Bone Cave, filled with bear, foxes and lots of other bones found within - there was literally a wall full of bones in the cave.

Back on the surface the local saying in the bars by the campsite was "you like beer? "and "you like wine?" which seemed to get us into 'trouble' most nights.   Overall a great experience that has us coming away with possibilities for caving in New Zealand in December and organising trips to Brazil and America in 2014 or 2015 – well worth all the socialising and mingling.

Macocha Abyss

Bums from the mid-week car party

Congress banquet

Fireworks

Post excursion campsite

Matt getting ready to cave with broken wrist in plastic bag to keep dry in Nova Amaterska Cave

Me doing a duck in Byci Skala Cave

MITES (ACARI) COLLECTED BY JULIAN CARTER AT OGOF FFYNNON DDU NATIONAL NATURE RESERVE IN 2006

By Julian Carter

Identified by Alan Orange
August 2011

METHODS

Study area

The study was carried out on the Ogof Ffynnon Ddu National Nature Reserve (OFD) which covers around 413 ha and is located above the 300m contour in the Western Part of the Brecon Beacons National Park (NGR SN8615 / 51°49′49″N, 03°38′44″W) situated in South Wales, UK. The area was designated as a NNR in 1975 and was established to protect a major portion of the UK's deepest cave system, Ogof Ffynnon Ddu (O'Reilly *et al.* 1969). The surface geology and ecology are also important features of the reserve (Haycock 1984). The surface geology of the reserve consists of a narrow band of Carboniferous Limestone forming a series of hummocks or knolls with scree and collapsed pavement along the northern edge of the reserve. Above this is an extensive Millstone Grit plateau, exhibiting shallow crags, boulder scree and extensive areas of pavement. Large areas of the grit slab are bare of vegetation and show good examples of glacial striae. Another important feature found within the reserve is the numerous sinkholes in the area between the gritstone plateau and the limestone hummocks. This range of geology and associated features provides an interesting upland ecology. Calcareous grasslands, acid grasslands, and dwarf shrub heath are intimately mixed allowing calcifuges and calcicoles to be found growing in close proximity (Brecon Beacons NPA 2002). In addition a characteristic flora of bryophytes, lichens and vascular plants inhabit the deep grykes found on the limestone pavement. This has resulted in continual vegetation surveys on the reserve. Since the 1970s permanent vegetation transects have been in place and part of the reserve has been fenced to exclude sheep grazing (Haycock 1984; Averis and Averis, 1998). Since 1994 livestock grazing outside the permanent enclosures has been set at 300 sheep or 300 ewes with lambs depending on the time of year.

Due to the area of the reserve, and the time it takes to process each field sample, the number of sample sites was kept limited. These sites were chosen to reflect some of the key habitats on the reserve;

G1: SN864159 Open upland at around 460 m altitude, bordering between *Nardus stricta* grassland and *Agrostis – Festuca ovina* turf. The site is open to controlled levels of sheep grazing.

G2: SN855154 *Agrostis* turf dominated grassland on improved soils at 360 m. The site is open to sheep grazing and was formerly used as vegetable garden plots in the 1960s.

U1: SN865160 *Calluna / Molinia* open heath at an altitude of 460 m. The site is situated in the enclosure excluding sheep grazing.

S1: SN865160 Limestone sinkhole at 460 m altitude consisting of a mix of *Juncus and Sphagnum*. The site is situated in the enclosure excluding sheep grazing.

S2: SN854156 Limestone sinkhole at 340 m amongst unimproved grassland used for sheep grazing. Within the sinkhole the vegetation is dominated by a mix of *Juncus* and *Sphagnum* marsh.

S3: very near to S1; sampled only once.

<u>Sampling methods</u>

Suction sampling used a modified hand held garden leaf vacuum unit (Stewart & Wright 1995) to collect the fauna from the ground and vegetation. Paired sampling was used on each site visit, each involving 2 minutes of suction time from within a defined area of 3 × 3 m. The samples were then placed into plastic clip bags for sorting in the laboratory where the bags were emptied onto large white trays and the obvious invertebrates quickly collected by hand using a pooter. As the samples contained a lot of vegetation and soil they were then placed in mesh bags and hung in Winkler extraction bags (Owen 1987) and left for a period of 2 weeks.

Pitfall trapping was used for other invertebrate groups, but not for mites.

The emphasis was to apply equal sampling effort to each sample site to allow comparison between them. Sampling was carried out during 2006, with suction samples being taken on three occasions (May, June and September) and pitfall trapping on a single occasion (June).

After collection the samples were sorted into a number of major taxonomic groups including the Araneae, Opiliones and Pseudoscorpions. A sub sample of the Acari was also collected for future identification. All samples were preserved in 80% Industrial Denatured Alcohol (IDA).

Table 1. Mite samples received for identification, in order of collection date.				
bottle number	label in bottle	collection date	assigned number	summary of sample data
GS1	Mites 28.4.06	2006 04 28	18321	G1 April (suction)
GS2	[label transcribed and discarded, 28 April 2006]	2006 04 28	18322	G2 April (suction)
G1	Acari OFD Grazed 1 suction 12.5.06	2006 05 12	18323	G1 May (suction)
G2	Acari OFDNNR Grazed 2 Suction 12.5.06	2006 05 12	18324	G2 May (suction)
S2	Acari OFD Sink 2, Suction grazed area, 12.5.06	2006 05 12	18325	S2 May (suction)
S1	7-6-06 Suction	2006 06 07	18326	S1 June (suction)
U1	U1 7-6-06 Suction	2006 06 07	18327	U1 June (suction)
G1	G1 Suction 22-6-06	2006 06 22	18328	G1 June (suction)
S3	S3 22-6-06 Suction	2006 06 22	18329	S3 June (suction)
G1	G1 suction 12-9-06	2006 09 12	18330	G1 September (suction)
U1	U1 12-9-06 Suction	2006 09 12	18331	U1 September (suction)

<u>Laboratory methods</u>
To enable each sample to be referred to simply and unambiguously, Alan Orange assigned 'collection numbers' to each mite sample (Table 1).

Preserved mite samples were sorted into major taxa under a dissecting microscope. Oribatid and mesostigmatid mites were placed in 70-100% lactic acid for clearing; however, due to the relatively long storage in alcohol, clearing was slow (many months) and usually incomplete. Prostigmatid mites, especially large ones, were generally cleared in Nesbitt's Fluid (Walter & Krantz 2009), which usually took weeks or months. A few of these were accidentally over-cleared, becoming very fragile. Some mites could be recognised without clearing, but clearing is essential for proper examination of most taxonomic characters.

Mites were identified by examination under a high power microscope, initially in lactic acid or other fluid, lying in a cavity slide with the cavity partly covered by a coverslip. The mite could be orientated in the correct position by pushing it with a fine needle inserted under the cover slip. Some individuals were dissected and examined under higher power, or mounted as semi-permanent preparations in Hoyer's Fluid. Once identified, most mites could be sorted into species under the dissecting microscope, and counted. Occasionally high magnification was needed to separate superficially similar species, and these were then examined in lactic acid in an open preparation. Individuals were sometimes laid in a horizontal line and examined in turn under a ×10 objective without a coverslip.

Identified and counted individuals were placed in Koenicke's Fluid (Walter & Kranz 2009).

Identification was carried out using a variety of sources, the most important being Weigmann (2006) for oribatids, and Evans & Till (1979; keys to genus) and Karg (1989, 1993) for mesostigmatids. The literature on prostigmatid mites is much more scattered. Remarkably, there are numerous common and conspicuous taxa for which no adequate treatments are available for Europe, including the families Bdellidae and Erythraeidae, and the genus *Bryobia*. Some individual publications used are noted in the annotated species list below.

Immature individuals could only rarely be identified by means of published descriptions; they were usually identified by comparison with adults present. Some immature stages could not be identified to species or genus. Much additional examination would have been necessary to be certain in some cases whether adults or nymphs were present, so this distinction was not always made.

Specimens were identified by the writer, who is an amateur and beginner in acarology, with little experience and little free time, with limited access to literature and no access to reference collections. All identifications must be regarded as provisional.

RESULTS

A total of 2226 individual mites were sorted and identified, in a few cases only to genus. A total of 61 species was recorded, comprising 30 Oribatida, 20 Mesostigmata, 10 Prostigmata and 1 Endeostigmata (Table 2; Appendix 1). Table 2 shows the total number of individuals for each species; in some cases additional information on respective numbers of adults and immatures in available in a spreadsheet (not reproduced here).

In terms of individuals, oribatids were overwhelmingly predominant, comprising 87% of all mites present (Mesostigmata 6.8%, Prostigmata 5.5%). Just 5 species of oribatid comprised 68% of all mites present (Table 3).

Without proper analysis it is not possible to draw firm conclusions about ecology or sampling strategy. Despite the marked differences between the three main habitats (acid grassland, *Juncus*/*Sphagnum*, heath), a brief visual inspection does not suggest any strong preference of any species for habitat or season. The number of taxa collected on a single occasion at site G1 between April and September varied from 13 to 24. At the same site, *Platynothrus peltifer* was sparse in the April and May samples, but abundant in the June and September samples. Possibly the weather preceding the collecting period will influence mite numbers, with mites moving into the soil in dry weather. A few species were largely restricted to a particular site, such as *Hermannia gibba* to S2 and *Liebstadia similis* to S3, but these sites were each sampled only once in the season, so it is impossible to determine whether this preponderance is due only to chance.

All the mites collected are probably common and widespread species, with the possible exception of an unidentified oribatid from Site S2, collected as a single specimen (and now a little damaged from examination). It would be interesting to collect soil and litter from this site to search for more material.

Tullgren or Berlese funnels rather than Winkler bags are usually recommended for extracting mites from soil and litter (Walter & Krantz 2009). Sakchoowong *et al.* (2007) found that Tullgren funnels were more efficient than Winkler bags in extracting soil arthropods, although they excluded mites from the study due to the large densities in soil.

Table 2. Mites collected in each sample (total individuals for each species).

			18321	18323	18328	18330	18322	18324	18326	18325	18329	18327	18331	TOTALS
			G1	G1	G1	G1	G2	G2	S1	S2	S3	U1	U1	
			28 Apr	12 May	22 June	12 Sep	28 April	12 May	7 June	12 May	22 June	7 June	12 Sep	
Species	Higher group	Family												
Cheiroseius borealis	M	Ascidae	1											1
Neojordensia levis	M	Ascidae	5											5
Eviphis ostrinus	M	Eviphididae						1						1
Hypoaspis claviger	M	Laelapidae						11						11
Pseudoparasitus placentulus	M	Laelapidae			2			3	8	6				19
Geholaspis longispinosus	M	Macrochelidae			3	1				3	1		1	9
Macrocheles glaber	M	Macrochelidae				1								1
Macrocheles submotus	M	Macrochelidae			4									4
Macrocheles spp.	M	Macrochelidae											3	3
Holoparasitus stramenti	M	Parasitidae						11						11
Lysigamasus runciger	M	Parasitidae			1	1	4	9		6	1			21
Lysigamasus schweizeri	M	Parasitidae									1		1	2
Pergamasus crassipes	M	Parasitidae			1	4	1			8	8		13	35
Pergamasus robustus	M	Parasitidae			3	4					1		5	13
Pergamasus norvegicus	M	Parasitidae									3		3	6
Amblyseius obtusus	M	Phytoseiidae	1					3						4
Polyaspinus cylindricus	M	Trachytidae									1			1
Uropoda minima	M	Uropodidae									3			3
Zercon hemimbricatus	M	Zerconidae			1								1	2
Zercon zelawaiensis	M	Zerconidae	1											1
Anystis spp.	P	Anystidae							1		2	2	6	11
Bdella spp.	P	Bdellidae			3									3
Bdellodes lapidaria	P	Bdellidae			2	1								3
Cyta latirostris	P	Bdellidae	14	6	4				3		5	12		44
Neomolgus spp.	P	Bdellidae	4	6			1	2		1				14
Abrolophus spp.	P	Erythraeidae					1	3		3				7

Leptus ignotus ignotus	P	Erythraeidae			1									1
Leptus spp.	P	Erythraeidae		1				2	2			4		9
Bryobia spp.	P	Tetranychidae	20	1	3		1				2	3		30
Podothrombium cf. filipes	P	Trombidiidae									1			1
Alycus roseus	E	Alycidae				1								1
Achipteria coleoptrata	O	Archipteriidae						4		2				6
Camisia biurus	O	Camisiidae	3	2	2	1	10	1				11	4	34
Camisia spinifer	O	Camisiidae	2	8	6	2	7		1		1			27
Platynothrus peltifer	O	Camisiidae	5	3	69	59		29	2	6	21	1	11	206
Carabodes marginatus	O	Carabodidae				2						1		3
Carabodes willmanni	O	Carabodidae				2	1					1		4
Ceratozetes gracilis	O	Ceratozetidae				1								1
Ceratozetes peritus	O	Ceratozetidae						1						1
Melanozetes mollicomus	O	Ceratozetidae	1		3									4
Chamobates pusillus	O	Chamobatidae	39	4	10	21	13		6	6	19	1	1	120
Damaeus clavipes	O	Damaeidae	6		2	12	9		8	8	4		26	75
Metabelba papillipes	O	Damaeidae						1						1
Euzetes globulus	O	Euzetidae						6		17				23
indet. sp.	O	Haplozetidae?								1				1
Hermannia gibba	O	Hermanniidae								25				25
Hypochthonius rufulus	O	Hypochthonii-dae								1				1
Liacarus coracinus	O	Liacaridae				8		2	12		4		39	65
Punctoribates punctum	O	Mycobatidae						1						1
Nothrus palustris	O	Nothridae						2		3				5
Nothrus silvestris	O	Nothridae									1		3	4
Dissorhina ornata	O	Oppiidae	1		9	2	1				1			14
Oribatula tibialis	O	Oribatulidae	1						2					3
Ceratoppia bipilis	O	Peloppiidae	107	186	163	231	20		41		74	35	20	877
Eupelops plicatus	O	Phenopilopidae	4	5	2	12	1	5			1	2		32
Peloptulus montanus	O	Phenopilopidae	21	23	26	21	5		7		13	1		117
Phthiracarus spp.	O	Phthiracaridae	5	10		55		2	2	1	8		2	85
Liebstadia similis	O	Scheloribatidae	15	24	7	5	10	18	7	2	106		1	195
Scheloribates latipes	O	Scheloribatidae						6						6
Suctobelbella similis	O	Suctobelbidae									1			1
Banksinoma lanceolata	O	Thyrisomidae			1						11			12

Not included in totals:														
indeterminable immatures	M	Macrochelidae									1			
indeterminable immatures	M	Parasitidae				3					2		6	
indeterminable immatures	P	Bdellidae												
Camisia spp. (immature)	O	Camisiidae				3					1			
Number of individuals (all groups):			256	279	328	447	85	123	102	99	294	74	140	**2226**
Number of taxa (all groups):			20	13	24	22	15	22	14	17	26	12	17	**61**

Higher group: M = Mesostigmata, P = Prostigmata, E = Endeostigmata, O = Oribatida.

Table 3. The 30 most abundant mite species collected

	Species	Higher group	Family	No of individuals	% of total individuals
1	Ceratoppia bipilis	Oribatida	Peloppiidae	877	39.4
2	Platynothrus peltifer	Oribatida	Camisiidae	206	9.3
3	Liebstadia similis	Oribatida	Scheloribatidae	195	8.8
4	Chamobates pusillus	Oribatida	Chamobatidae	120	5.4
5	Peloptulus montanus	Oribatida	Phenopilopidae	117	5.3
6	Phthiracarus spp.	Oribatida	Phthiracaridae	85	3.8
7	Damaeus clavipes	Oribatida	Damaeidae	75	3.4
8	Liacarus coracinus	Oribatida	Liacaridae	65	2.9
9	Cyta latirostris	Prostigmata	Bdellidae	44	2.0
10	Pergamasus crassipes	Mesostigmata	Parasitidae	35	1.6
11	Camisia biurus	Oribatida	Camisiidae	34	1.5
12	Eupelops plicatus	Oribatida	Phenopilopidae	32	1.4
13	Bryobia spp.	Prostigmata	Tetranychidae	30	1.3
14	Camisia spinifer	Oribatida	Camisiidae	27	1.2
15	Hermannia gibba	Oribatida	Hermanniidae	25	1.1
16	Euzetes globulus	Oribatida	Euzetidae	23	1.0
17	Lysigamasus runciger	Mesostigmata	Parasitidae	21	0.9
18	Pseudoparasitus placentulus	Mesostigmata	Laelapidae	19	0.9
19	Neomolgus spp.	Prostigmata	Bdellidae	14	0.6
20	Dissorhina ornata	Oribatida	Oppiidae	14	0.6
21	Pergamasus robustus	Mesostigmata	Parasitidae	13	0.6
22	Banksinoma lanceolata	Oribatida	Thyrisomidae	12	0.5
23	Hypoaspis claviger	Mesostigmata	Laelapidae	11	0.5
24	Holoparasitus stramenti	Mesostigmata	Parasitidae	11	0.5
25	Anystis spp.	Prostigmata	Anystidae	11	0.5
26	Geholaspis longispinosus	Mesostigmata	Macrochelidae	9	0.4
27	Leptus spp.	Prostigmata	Erythraeidae	9	0.4
28	Abrolophus spp.	Prostigmata	Erythraeidae	7	0.3
29	Pergamasus norvegicus	Mesostigmata	Parasitidae	6	0.3
30	Achipteria coleoptrata	Oribatida	Archipteriidae	6	0.3

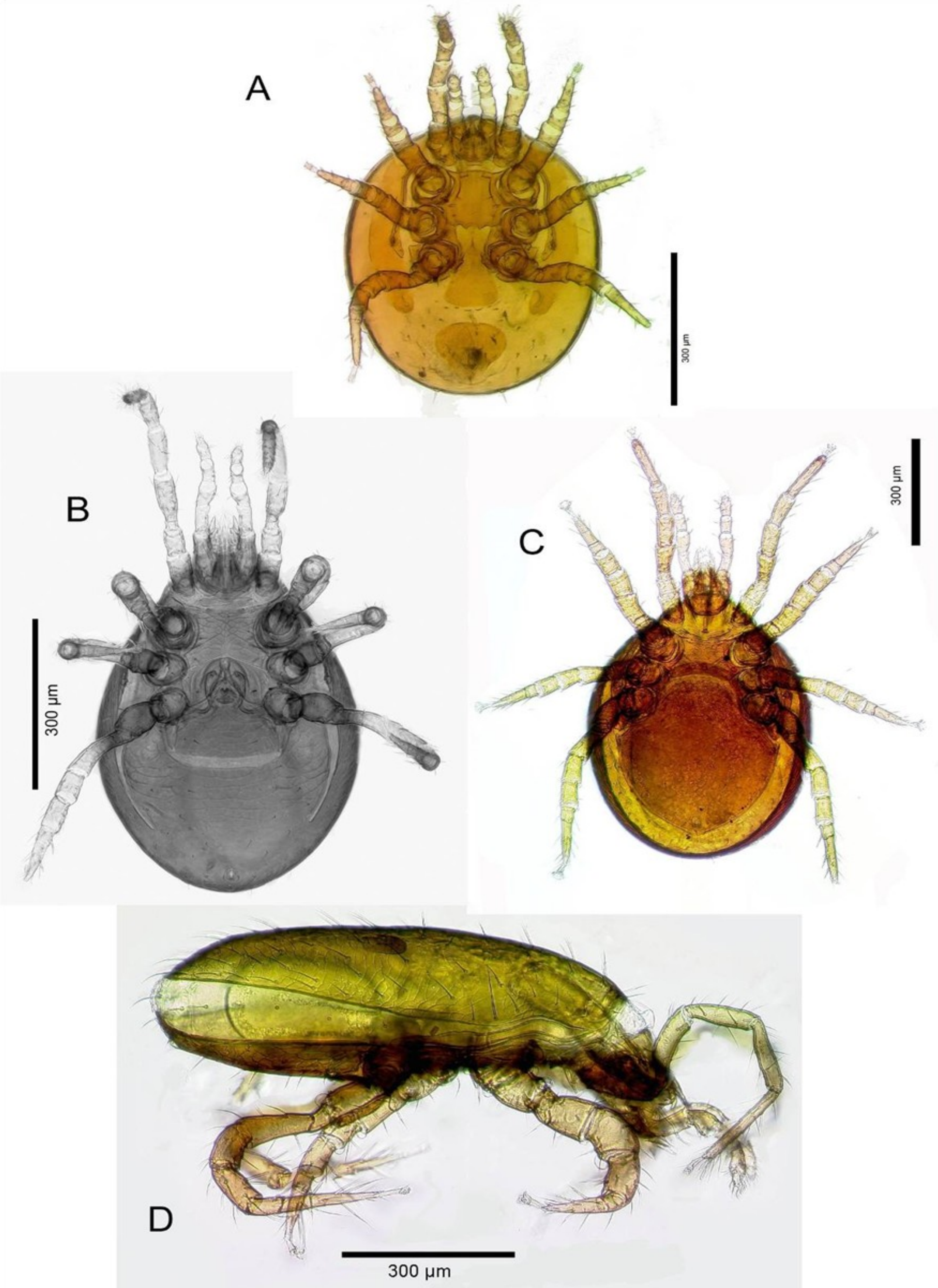


Fig. 1. Examples of Mesostigmata from Ogof Ffynnon Ddu. A, *Eviphis ostrinus*; B, *Holoparasitus stramenti*; C, *Pseudoparasitus placentulus*; D, *Lysigamasus runciger*.

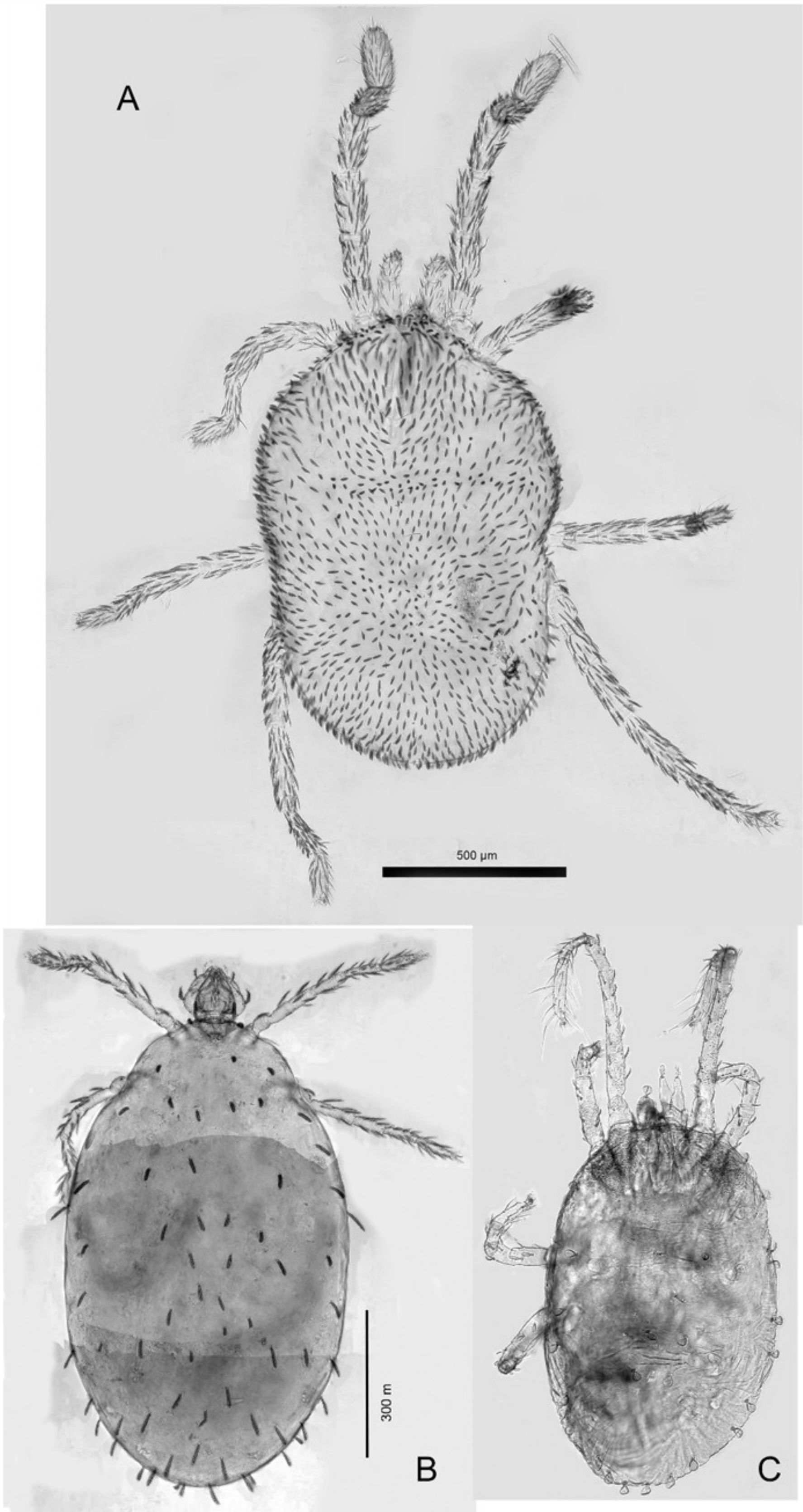


Fig. 2. Examples of Prostigmata from Ogof Ffynnon Ddu, A, *Leptus* sp. (adult); B, *Leptus ignotus ignotus* (larva); C, *Bryobia* sp.

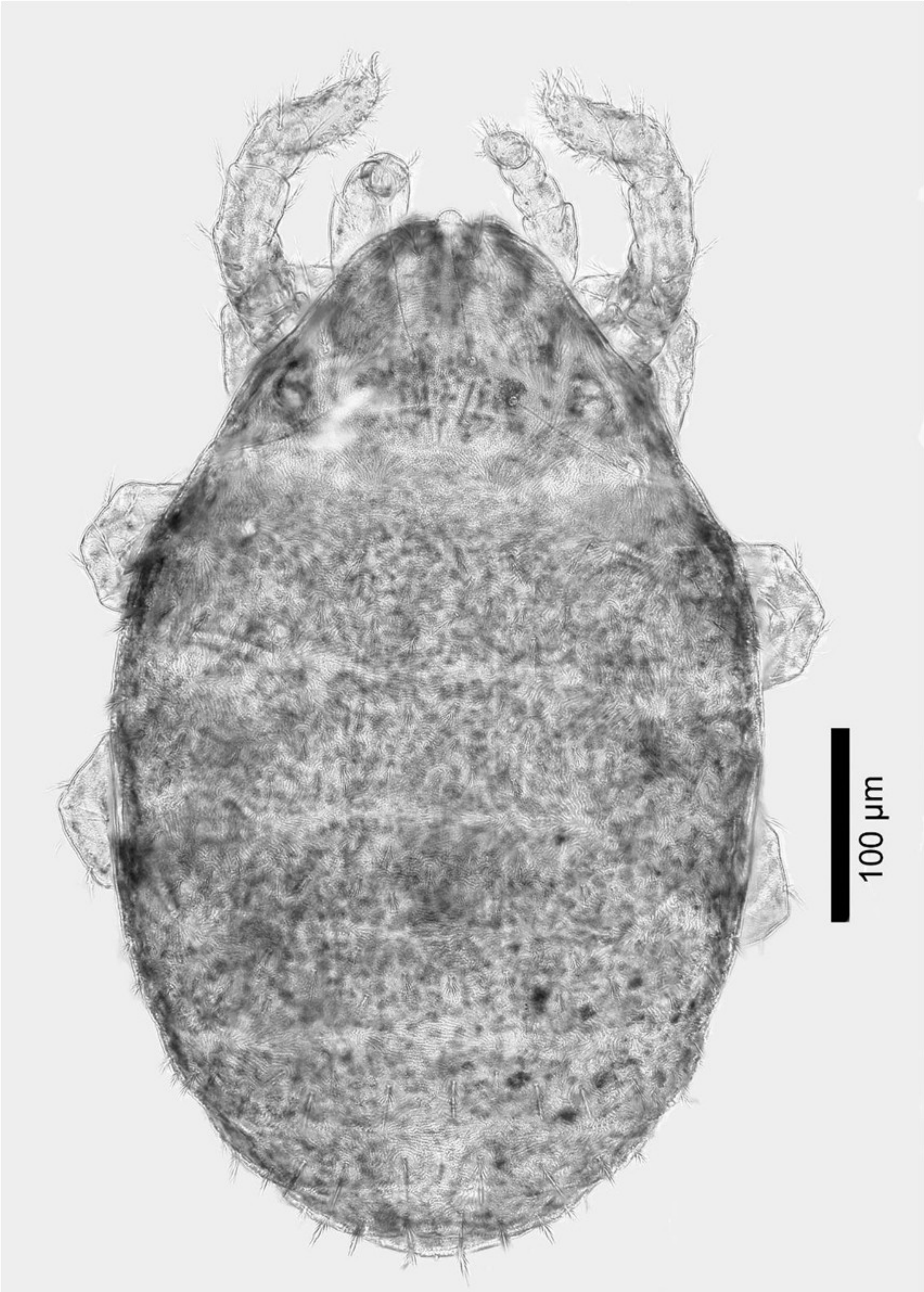


Fig. 3. Endeostigmata from Ogof Ffynnon Ddu. *Alycus roseus*.

Fig. 4. Examples of Oribatida from Ogof Ffynnon Ddu (1). A, *Platynothrus peltiger*; B, *Hypochthonius rufulus*; C, *Damaeus clavipes*.

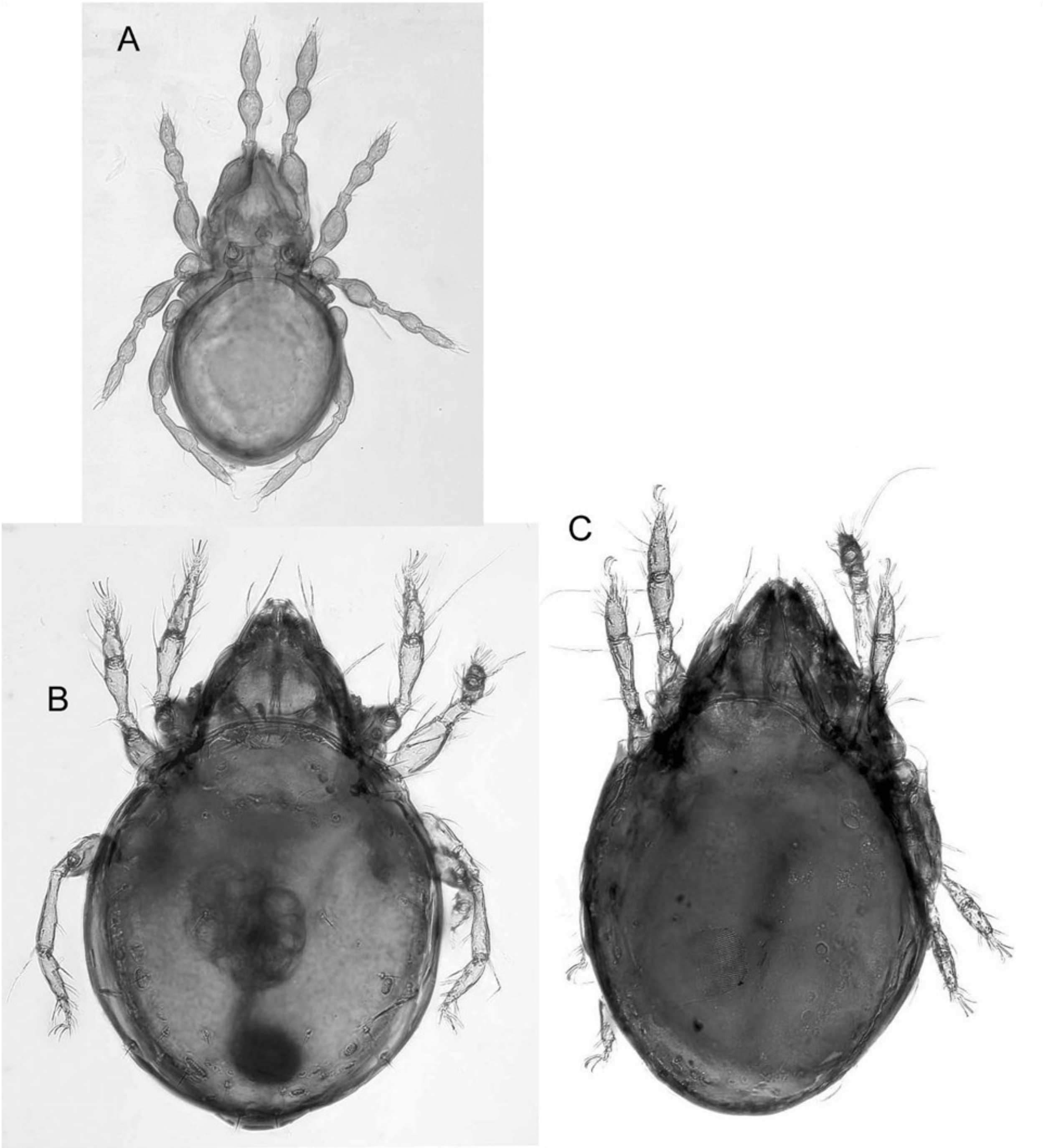


Fig. 5. Examples of Oribatida from Ogof Ffynnon Ddu (2). A, *Suctobelbella similis*; B, *Oribatula tibialis*; C, *Chamobates pusillus*.

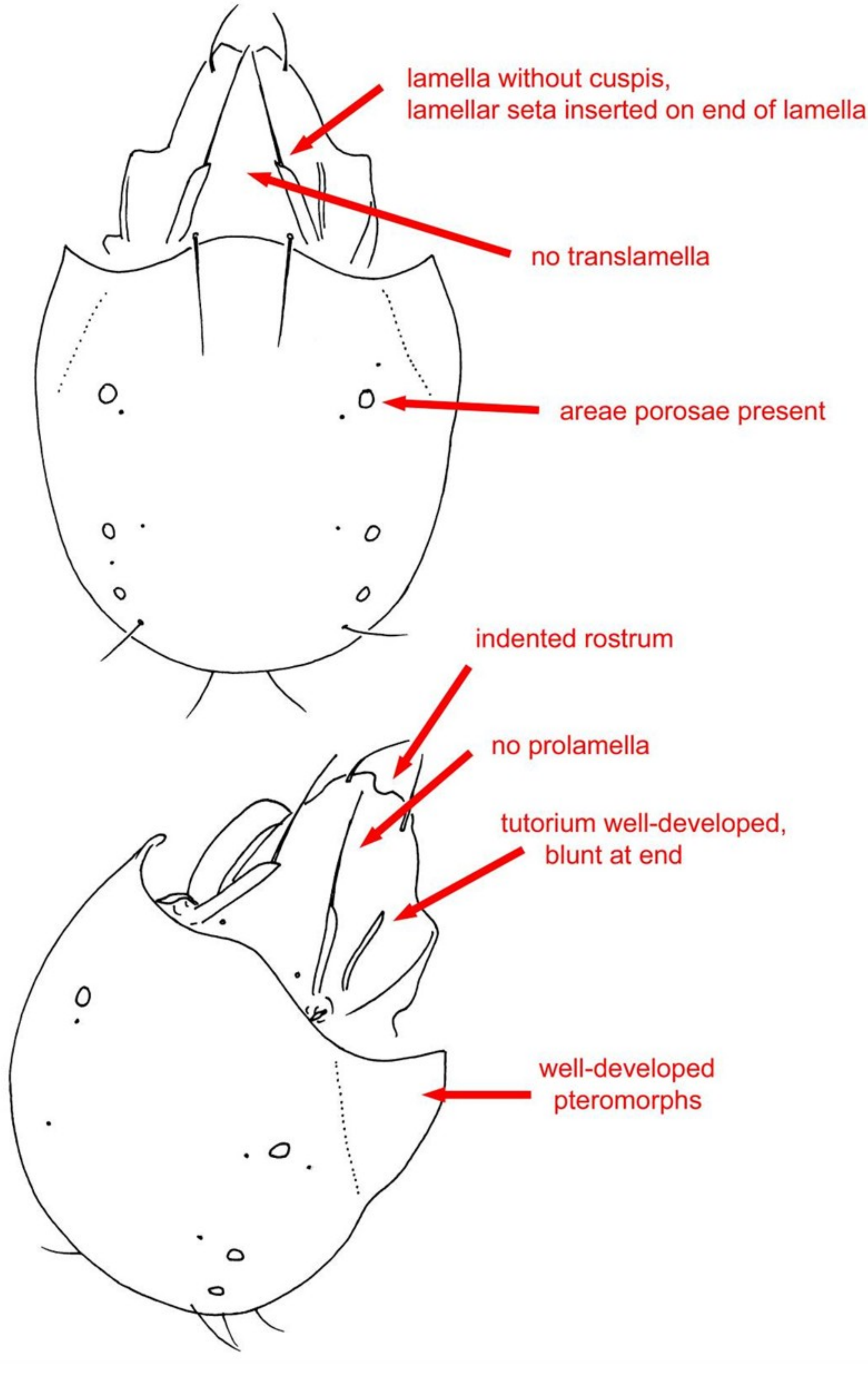


Fig. 6. Sketches of an unidentified oribatid mite (Family Haplozetidae?) from Ogof Ffynnon Ddu.

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APPENDIX. List of species recorded

Within each major group, the families are listed alphabetically.

Order MESOSTIGMATA

Family Ascidae
Cheiroseius borealis a species with a reticulate holodorsal shield.
Neojordensia levis superficially like a small parasitid; female with holodorsal shield, a tongue-shaped genital shield, and a ventroanal shield concave in front.

Family Eviphididae
Eviphis ostrinus a small, strongly dorsiventrally flattened uropodid mite (Fig. 1A).

Family Laelapidae
Hypoaspis claviger
Pseudoparasitus placentulus a mite with convex dorsal surface (Fig. 1C).

Family Macrochelidae
Geholaspis longispinosus Stout mites, no ambulacrum on leg I, 5 pairs of setae on ventrianal plate.
Macrocheles glaber
Macrocheles submotus

Family Parasitidae
Identification in this family has been made more difficult by several futile transfers of species between similar-sounding genera. The most useful works are Bhattacharyya (1963) for *Pergamasus* s.l. (including *Lysigamasus*) and Hyatt (1987) for *Holoparasitus*, backed up by Karg (1993).

Holoparasitus stramenti Fig. 1B.
Lysigamasus runciger females are not particularly easy to identify in the absence of comparitive material, distinctions between this and related species relying on the form of the genital shield. Fig. 1D.
Lysigamasus schweizeri
Pergamasus crassipes (including *P. longicornis*)
Pergamasus robustus
Pergamasus norvegicus

Family Phytoseiidae
Amblyseius obtusus the genus is said to have 57 species in Europe, but this species appears to key down fairly easily by the very long Z5 setae near the hind margin of the dorsal shield.

Family Trachytidae
Polyaspinus cylindricus distinctive oblong species with a elongate-rectangular dorsal shield, and small pygidial shields behind. It is in the lower Uropodina, and does not look at all like the higher Uropodina.

Family Uropodidae
Uropoda minima

Family Zerconidae
Zercon hemimbricatus a very small, pale, dorsiventrally flattened mite with four distinctive pits near the hind margin of the idiosoma. Identified using Skorupski & Luxton (1996).
Zercon zelawaiensis superficially similar to last species. Identified using Skorupski & Luxton (1996).

Order TROMBIDIFORMES
Suborder PROSTIGMATA

Family Anystidae

Anystis sp. A genus of large red mites frequently seen running over trees and other plants, and introduced into Australia and South Africa in an attempt at pest control. Despite this, there is little reliable literature for identification. There are said to be 38 species in Europe, but few names seem to be in current use.

Family Bdellidae
The available literature on this common and easily recognised family is disastrously inadequate. The animals are soft-bodied and are easily over-cleared and distorted or damaged during examination.
Bdella spp. This genus is characterised by the hypostome with 6 pairs of setae, chelicera with 2 setae, and absence of a trichobothrium on tibia II. The material studied may be immature (4 pairs of setae on the hypostome), and the dorsal shields used in some keys could not be seen.
Bdellodes lapidaria The posterior sensillum is extremely small and contained within a pit confluent with the insertion of the posterior propodosomal, and so is easily missed.
Cyta latirostris Easily distinguished from other bdellids by the broad body, stout chelicerae, and the presence of an accessory eye in the midline of the body.
Neomolgus spp. The genus is distinguished by having at least 8 setae on the dorsal surface of each chelicera. The available literature is so poor that a reliable identification cannot be attempted without additional experience.

Family Erythraeidae
Abrolophus spp. No reliable keys to the numerous species said to occur in Europe.
Leptus ignotus ignotus One larva present, identified using Southcott (1992). Remarkably, the larval stages are better known than the post-larval stages, and many species are known only from larvae. This species is said to be ectoparasitic on moths. Fig. 2B.
Leptus spp. A number of adults occurred in the material, but there are no reliable keys to the adult stages. The connection between larva and adult in the same species is often unknown. Fig. 2A.

Family Tetranychidae
Bryobia spp.The studied material could not be confidently placed in any species, but it does resemble the original (incomplete) description of *B. calida*, which was described from the unlikely substrate of cucumbers, and apparently not recorded since. The long and rather parellel-sided propodosomal lobes of the Ogof Ffynnon Ddu material are rather distinctive (like a cow's teats), and resemble this species rather than the widespread *B. praetiosa*. Additional characters rule out the widespread *B. rubrioculus*. Despite the importance of this genus as plant pests, the taxonomy is poorly known, with numerous described species (*c*. 58 in the online checklist of Fauna Europaea), and no reliable key for European species. However, Ros *et al*. (2008) sampled 111 populations from Europe, North America and South Africa, and found only 12 species, including 7 apparently undescribed ones, suggesting that the number of described species is greatly inflated. Molecular studies seem to be the way forward in this genus. Fig. 2C.

Family Trombidiidae
Podothrombium cf. filipes A single individual seen, which appears to be a deutonymph. Identified using Bartsch *et al*. (2007), but needs to be confirmed.

Order SARCOPTIFORMES
Suborder ENDEOSTIGMATA
Family Alycidae
Alycus roseus A tiny species likely to be easily lost in collection and sorting. Fig. 3C.

Suborder ORIBATIDA

Family Archipteriidae
Achipteria coleoptrata Pteromorphs with a long forwardly directed point, notogaster with sacculi, setae very short.

Family Camisiidae
Camisia biurus

Camisia spinifer
Platynothrus peltifer Fig. 4A.

Family Carabodidae
Carabodes marginatus
Carabodes willmanni

Family Ceratozetidae
Ceratozetes gracilis Mite with long cuspides with lamellae seta inserted on the end. This species is similar to the next, but distinguished by slightly smaller size and non-striate lamellae (according to Pérez-Iñigo 1993); the distance between the cuspides is about three-quarters the length of the cuspis.
Ceratozetes peritus Slightly larger than the last species; the lamellae are striate, and the distance between the cuspides is only about half the lebgth of the cuspis.
Melanozetes mollicomus Smallish species (e.g. 530 µm), with rather long notogastral setae, areae porosae, fixed deflexed pteromorphs; lamellae well-developed, only slightly convergent, with cuspides with seta arising from apex, no translamella.

Family Chamobatidae
Chamobates pusillus Small species 4 pairs of areae porosae, deflexed non-moveable pteromorphs; lamellae without translamella, pointed, with seta inserted beside the point, not on the tip. The rostrum has a small tooth on each side when seen in dorsal view (not visible in photograph). Legs all have 3 claws. The sensillus is narrowly club-shaped, but appears broader in some views. Fig. 5C.

Family Damaeidae
Damaeus clavipes This family of mites have globular bodies, and legs with 'beaded' segments. Fig. 4C.
Metabelba papillipes

Family Euzetidae
Euzetes globulus A very large (*c.* 1 mm) dark brown glossy species.
Family Haplozetidae?
Indet. species One individual from site S2 (dominated by *Juncus* and *Sphagnum*; sample number 18325). So far this cannot be identified, but may belong to Haplozetidae. Short description: body length 748 µm; rostrum concave at anterior end; prodorsum with lamellae, without cuspides, lameller setae inserted on end of lamella, no trace of translamella or prolamella; tutorium blunt; sensilli spindle-shaped at apex; notogaster with areae porosae, setae easily seen (at least posterior ones); apparently immoveable deflexed pteromorphs present; genital setae 6 pairs. Fig. 6.

Family Hermanniidae
Hermannia gibba

Family Hypochthoniidae
Hypochthonius rufulus Fig. 4B.

Family Liacaridae
Liacarus coracinus Dark oribatid with sensillus spindle-shaped at middle but tapering to a fine point; lamellae broad, convergent but not quite touching, cuspides with a distinct tooth either side of the lamellar seta.

Family Mycobatidae
Punctoribates punctum Small, with deflexed pteromorphs, interlamellar seta set on a transverse ledge, conspicuous areae porosae.

Family Nothridae
Nothrus palustris
Nothrus silvestris

Family Oppiidae
Dissorhina ornata A very small, pale species.

Family Oribatulidae
Oribatula tibialis Small medium brown or rather pale oribatid. Areae porosae present. Lamellae rather conspicuous, abruptly but distinctly tapered at edge, seta inserted on lamella but not on a prominence; may have a hook-like forward continuation to the lamella. Translamella absent. Legs with 3 claws. Pteromorphs absent, but body with small 'shoulders'. Sensillus spindle-shaped. Fig. 5B.

Family Peloppiidae
Ceratoppia bipilis

Family Phenopilopidae
Eupelops plicatus
Peloptulus montanus

Family Phthiracaridae
Phthiracarus spp. An easily recognised genus, but the species are unexpectedly difficult to identify; in addition, the material has not cleared properly, and the animals have often 'exploded' during storage or clearing. Identification can be attempted again once a little more experience has been gained.

Family Scheloribatidae
Liebstadia similis
Scheloribates latipes Medium sized species, with sacculi, pteromorphs well-developed and curved downwards, sensillus narrowly clavate, lamellae without cuspide, translamella absent.

Family Suctobelbidae
Suctobelbella similis Small, pale species with 'beaded' legs.Fig. 5A.

Family Thyrisomidae
Banksinoma lanceolata Very small species, converging costulae, sensillum fusiform with pointed tip.

DOWSING: A LITTLE BIT MORE CLUB HISTORY

By Tony Baker

The bottom line is that they [dowsers] all fail, when properly and fairly tested. There are no exceptions. Even after they have clearly and definitely failed, they always continue to believe in their powers - James Randi, http://www.randi.org/library/dowsing/

I hadn't finished reading my copy of SWCC Newsletter no.128 when I came down to the club for the 2012 Digging Week, and so I didn't see Dave Edwards's article on dowsing (ref.1) until after the events described below. I thought that our experiences on the Black Mountain that week might add an interesting perspective to Dave's article…

High on the Black Mountain, a small stream disappears into the base of a sizeable shakehole known as Twyn Tal-Draenan. Some 24 hours or so after it leaves the surface that water emerges from the resurgence at Dan-yr-Ogof, a connection that has been confirmed by dye-testing (ref.2). As regular readers will know, Martin Hoff and I have, along with numerous other cavers, put in a huge effort at a cave in the shakehole, known as Ogof Twyn Tal-Draenan, over the last twenty years (ref. 3, ref. 4, ref. 5). The stream can be followed underground for only a few metres before it enters a sump and despite more than a hundred and forty trips, and the discovery of more than 200m of passage elsewhere in the cave, the stream has never been regained.

At Digging Week in August 2010 Martin and I, with Ben Stevens, decided that a new approach was called for. Those who know the surface topography of the area around the cave will recall that a line of shakeholes can be followed along a vague dry valley, heading in a southerly direction from the main sink. Two of these shakeholes have been confirmed as connecting with Ogof Twyn Tal-Draenan and we made the reasonable assumption that the entire line might be related to cave development below. After a resistivity survey by Bill Buxton (with help from others) that proved inconclusive, work was started on a dig that had been previously worked at by Sam Moore and Nick Geh (and separately by Nig Rogers), situated about a hundred metres to the south of the cave entrance. After seventeen days' work over two years we had a scaffolded shaft some 3m deep with a small stream running across a gravel floor at its base. By the time of Digging Week 2012 we were attempting to follow this stream by blasting the roof of a low bedding plane.

On Tuesday 28th August Ben and I persuaded a few willing volunteers to come and help with the project and we dragged all the usual drills and batteries the three-plus miles up the hill. Heavy rain the previous day had left the Giedd swollen and the small stream in our dig had more than the usual quantity of water in it. As soon as we arrived at the site Jem Rowland produced his dowsing rod and headed off across the hill. A few minutes later he was back, having followed a dowsing reaction that had taken him directly to another, long-abandoned, dig site.

Some while later he set off again and, following the same positive dowsing reaction, arrived at a small resurgence a couple of hundred metres down the hill, out of which flowed a quantity of water very similar to that at the bottom of our shaft. Naturally this sparked our interest and we set off to investigate. The resurgence proved to be one of several emerging from the base of a steep slope. The largest of these was emitting a stream similar in size to that which vanishes in the Tal-Draenan shakehole, arousing even more curiosity!

Resolving to check on the published dye-test results (ref.2) on our return to Penwyllt, we headed off the hill. Next day was wet and miserable but nonetheless Ben, Jem and I were back at the site, this time without digging gear but with a small quantity of dye found in the lab at SWCC. We added the dye to the dig but having no proper detectors we were relying on the hope of a visual 'positive' rather than a more scientifically rigorous one. Two hours passed and no dye appeared at any of the resurgences. In the meantime Jem set to work with his dowsing rod.

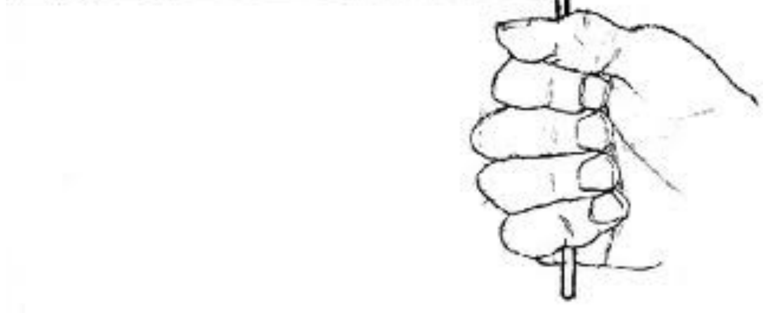
First I suggested Jem try and 'confirm' our assumption about the north-south line of shakeholes. Starting from our surface dig (which is in the most southerly of the line), he headed north along the dry valley but had no reaction from his dowsing rod. Next I suggested Jem start above the entrance to Ogof Twyn Tal-Draenan. Ben and I had a pretty good idea of which way the cave goes underground but Jem didn't, and specifically told us not to tell him. Following what was clearly a strong response of the dowsing rod, Jem went first to one nearby shakehole and then to another. This was interesting, because the two shakeholes were those described above as having confirmed connections to the cave itself (in one case by the scent of fumes from a charge placed in the cave, and in the other by a sizeable run-in underground coincident with a slump at the surface).

From there Jem went across the hill, heading south-east from the cave entrance, all the while the rod twitching wildly as he zig-zagged along the line of the reaction. In total he established three more-or-less parallel lines leading from the Tal-Draenan shakehole in the direction of Rusty Horseshoe Dig, but most interesting was that the first of these lines went straight to another long-abandoned dig (subsequently found to have been dug by Colin Graham in the 1960s).
Ben had a go with the dowsing rod and his reaction was pretty much identical to Jem's, the rod twitching violently as he tracked across the line. Still following the same response, Ben headed off down the hillside towards Rusty Horseshoe.

While all this was going on I was relating to Jem the dowsing experiment that Stuart France carried out in the early 1990s (ref. 6, ref. 7), which showed that, when asked to dowse across a pegged-out grid laid by Stuart across a section of known cave, numerous dowsers came up with inconclusive results and largely failed to replicate the radio-location trace of the cave. Back at Penwyllt I dug out the relevant copies of the Newsletter and also came across an article by John Wilcock (ref. 8) about his dowsing work on the Black Mountain. Here John describes a dowsing 'track' remarkably similar to that picked up by Jem and Ben.

Next day we were back on the hill en masse. We pulled a few rocks out of the abandoned Colin Graham dig and the site looks promising. Work continues. A repeat of the dye trace again failed to show a visual result, this time over more than three hours. Ian Alderman used his dowsing rods and found a positive reaction all along the north-south line of shakeholes, where Jem had had none. Ian also tracked the same south-easterly line from the cave entrance towards Rusty Horseshoe that Jem and Ben had followed.

So, before the dowsing sceptics rush to respond, what exactly am I claiming here? The answer is: nothing. All I can say is that Jem, Ben and Ian experience a strong reaction with their dowsing rods, and that if you plotted their respective tracks from Tal-Draenan towards Rusty Horseshoe on a map the plots would be virtually identical. That their findings mirror those made twenty years ago by John Wilcock is notable. Also of note is that the dowsers seem to be led by their reactions towards sites of speleological interest, be they sinks, shakeholes, resurgences or abandoned digs, on terrain of which they have little or no prior knowledge. I must



also point out, though, that there are inconsistencies: Ben had a strong reaction above the nearby cave at Twll Tal-Draenan (ref. 9) (not to be confused with Ogof Twyn Tal-Draenan) while Jem had none, and as mentioned above Ian had a reaction along the N-S line of shakeholes where Jem had drawn a blank.

(As an aside, many of us have accompanied Ian Alderman on walks down the hillside from Penwyllt, towards Craig-y-Nos, and have watched as his pair of dowsing twigs demonstrates a clear, repeatable reaction in places that may or may not relate to cave development below.)

In general I am inclined to the sceptics' view of phenomena like dowsing. I am fully aware of the scientific arguments against it, and of the controlled experiments in which it has 'failed'. But there is clearly something going on here. I can also say that it doesn't work for me. Back in the early 1990s there was a burst of enthusiasm for dowsing sparked by Clive Jones and the Greensites project (ref. 10) that led to Stuart France's experiment described above. Again and again, at that time, I saw others demonstrate a clear reaction with wire rods or twigs but in my hands, in the same locations, the things didn't move. It happened again on the Black Mountain last year: at one point Jem and Ben were taking it in turns to follow a short straight line and at the exact same point, every time, in either direction, the dowsing rod was swinging violently. I had a go and there was no reaction. I guess I won't be applying for the James Randi Educational Foundation's million-dollar prize (ref.11) anytime soon…

For those interested in reading more, John Wilcock and Geoff Bagley have written a two-part article about dowsing as a means of finding cave in the journal of the Cave Radio and Electronics Group (ref. 12). It is interesting to note that, in the second of these articles, the authors cite the Stuart France experiment mentioned above (ref.6, ref.7) as an example of dowsers' success in finding cave. I recommend that you read the articles for yourself and draw your own conclusions.

Ref. 1: Edwards, Dave, A Little Bit of Club History, SWCC Newsletter 128, 2012, pp.63-64.

Ref. 2: Gascoine, W., A Hydrological Study of Dan-yr-Ogof and Ffrwd Las Resurgences, SWCC Newsletter 97, 1983, pp.9-12.

Ref. 3: Baker, Tony, Late News Extra: Progress at Tal-Draenan, SWCC Newsletter 110, 1992, pp.45-46.

Ref. 4: Baker, Tony, A Game of Two Halves: Ogof Twyn Tal-Draenan 1992-96, SWCC Newsletter 118, 1996, pp.196-199.

Ref. 5: Baker, Tony, Mud, Sweat and Tears, SWCC Newsletter 128, 2012, pp.10-13.

Ref. 6: France, Stuart, So You Think You Can Dowse Caves?, SWCC Newsletter 106 1990, pp.29-30.

Ref. 7: France, Stuart, Jury Still Out in Dowsing Case, SWCC Newsletter 109, 1991, pp.6-9.

Ref. 8: Wilcock, John, Dowsing Dan-yr-Ogof and Pant Mawr, SWCC Newsletter 109 1991, pp.10-11.

Ref.9: France, Stuart. Ogof Twyn Tal-Ddraenan (sic), SWCC Newsletter 106, 1990, pp.25.[Note: this article is about the cave known as Twll Tal-Draenan]

Ref. 10: Jones, Clive et al, The Greensites Project, SWCC Newsletter 108, 1990.

Ref.11: http://www.randi.org/site/index.php/1m-challenge.html

Ref. 12: Wilcock, John and Bagley, Geoff, Why Won't Dowsing Go Away? CREG Journal 79 (pp. 4-8) and 80 (pp.16-19), both 2012.

This issue of the South Wales Newsletter is dedicated to Elsie Little

Elsie was a long-time member of the Club who was highly respected across the caving community and would happily be involved or take the lead in a great many caving and club related activities. She never tired of fighting for what she knew was best for caves and caving.

One of our great characters, her enthusiasm was a driving force, and you certainly knew it if you were in her sights for one caving task or another.; but she was also a warm and generous spirit. There surely cannot be many others who have given so much to British caving.

R.I.P.

14th June 2013

“Astonishing ceiling on top of a dry lake” Columbia 2012 .
Courtesy of Blanca Usaga