

Tresviso 2017

Summary of the 2017 expedition to Picos de Europa

The latest Tresviso expedition to the Eastern Massif of the Picos de Europa, Spain was undertaken over two weeks in July 2017. It included 16 people from various UK clubs, including 6 from the BPC. The expedition is the latest in a series of trips extending back to the early 70's, concentrating on exploration of a major resurgence cave, *Cueva del Nacimiento*, at the foot of the mountain range and the deeper potholes higher up the mountain that will hopefully connect and create a significant +1500m through trip.



Picture: FT16 entrance shaft in the Andara region (Phil Walker).

The main objective in 2017 was to continue work in the furthest reaches of *Cueva del Nacimiento*, around the area known as *Jurassic World*. The area was discovered in 2014 and, with a number of unclimbed avens and promising draughts, has been the site of most work in the past couple of years. At the end of the 2016 expedition the current highest point in the cave had been established at +486m above the entrance, following one of many aid climbs.

On the top of the mountain a number of caves drop to depths of -300m to -1200m, with multiple leads still outstanding. A lack of available expedition cavers over the

years has prevented any serious work in these potholes since the mid-1980's. However, the latest expeditions have started systematically revisiting some of the more promising systems and with, better lights and more readily available rigging equipment, have started making significant finds.

In particular the 2017 expedition concentrated on a cave known as *Sistema Castillo*, where multiple entrances give access to a network of mines and natural passages. The furthest limit, as of 1983, was at -298m in a tight rift with the sound of a 'roar' beyond. Unfortunately, the way down to this end point appeared to have collapsed by 1987 and no further progress was ever made.

The inclusion of a couple of divers within the expedition membership also meant that diving in the *Cueva de la Marniosa* system was a possibility for the trip. Firstly, to examine an unclimbed +80m aven just beyond the first sump and a more ambitious task of diving sump 2, only ever visited in 1986 by a handful of cavers.

Cueva del Nacimiento

The expedition actually began much earlier in the year, with 5 cavers spending a long weekend trip setting up the *Death Race* camp in *Cueva del Nacimiento* with food and camping equipment. A 24-hour overnight trip to the back-end enabled the camp to be set up with over 50 (heavy) ration packs, 4 sleeping bags, bivvy bags, stove, rope, bolts, hangars and some surveying kit. A normal trip to the back-end, with camping equipment and exploration gear, can take up to 12 hours, so the hope was that by setting up the camp ahead of time, teams could get to the backend with just equipment needed for exploration and cut the travel time drastically.



Picture: Death Race camp, Cueva del Nacimiento (Chris Jones).

Fast forward to the summer and the first group, comprising Hannah Moulton (BPC), Chris Jones, Alex Hannam and Dave Powlesland, had high hopes of exploiting the camps but before that there was the small matter of getting into the cave.

Nacimiento is a large resurgence cave and the main way into the cave involves crossing a rather cold entrance pool. Although no more than 5m across it's extremely cold and a dinghy is the best way across, especially to keep equipment dry. After crossing the pool, a small climb up leads to a nice large phreatic tube across some deep potholes. It was here that the group was stopped immediately by partly flooded passage. Totally unexpected in all but flood conditions. Potentially worrying for getting beyond the main streamway. A traverse needed to be rigged and it was the following day before the team could attempt to get into the cave once more.

Luckily the flooded stream did not materialise and the team were able to get into the cave and to the back-end in around 5 hours. This first pushing trip

About an hour back from the camp, is the area known as the *Teeth of Satan* and *Hellsmouth*. The area was first entered in 1986/7 when some bold climbing for over 100m upwards reached a number of interconnected ramps and pitches. Although, the main way on to *Death Race* was discovered on the same trip, a number of steep climbs had been left unexplored. This year the team spent a good afternoon exploring and surveying a new series of passages (*Satan's Chode*), finding 189m of cave and still a number of undescended pitches, although the survey would suggest these areas all head back down to the known cave below.



Picture: *Satan's Chode*, with on-going, unexplored passage (Chris Jones).

On the second day the team moved onwards to the *Jurassic World* leads. This area is another 4-5 hours on from *Death Race*, largely due to some airy and time-consuming traverses / pitches that follow the *Death Race* chamber around one side to the ongoing passage. At the far end a couple of avens were tackled. The first, *Pterodactyl Crumble*, follows a chossy climb to some large ramps descending down. The passage closed down, but did have a number of bat skeletons, indicating that some way in from the surface exists (or existed). Another 60m of passage was found and surveyed in this extension.



Picture: *Pterodactyl Crumble*, Cueva del Nacimiento (Alex Hannam).

The final aven proved more successful, initially been scaled to over 35m high and left with ongoing leads for the next team.

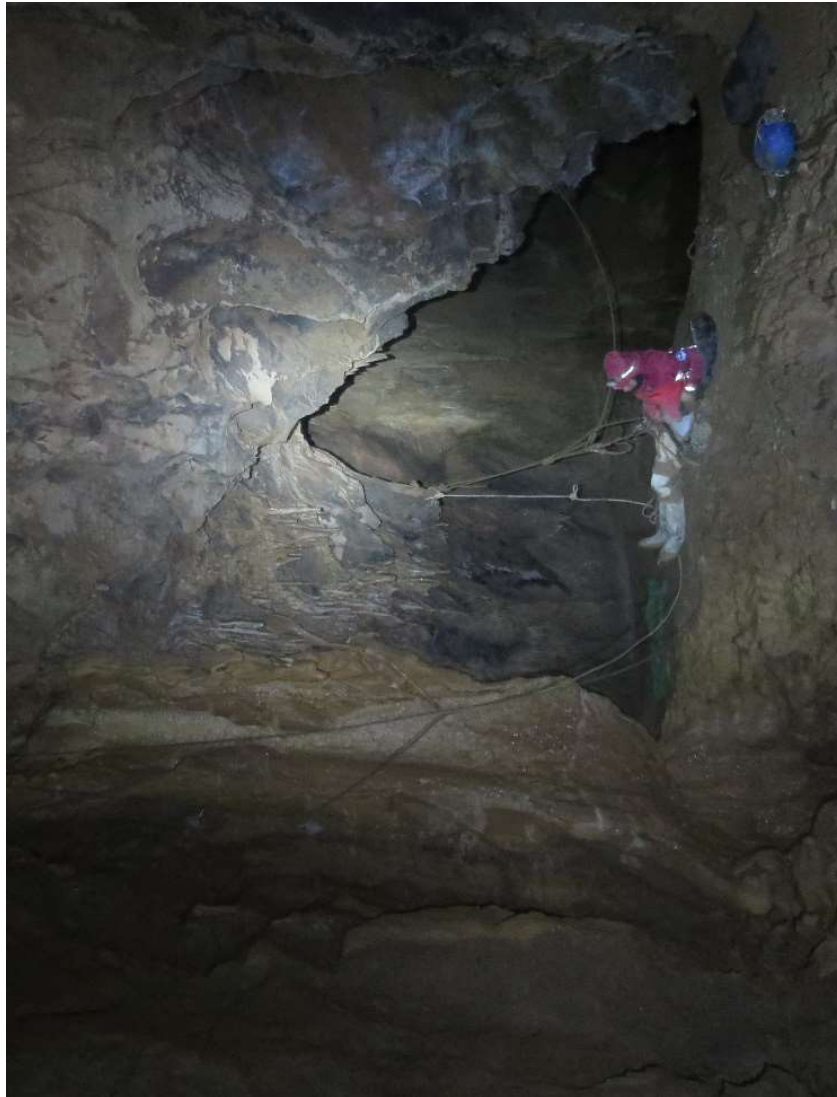
Boats 'n' Hose

At the same time as the first camp was being undertaken, another team of 2 BPC cavers (Sam Deeley and Dan Workman) made their way into the cave. The intention was to get to the *Death Race* camp, picking up an extra sleeping bag from an old camp on the way, and from *Death Race*, attempt to climb the *Wet Aven*, a promising large aven in the *Teeth of Satan* area, scaled previously to +50m, to a small calcite squeeze with a draught and loud echo beyond.

The team had never been beyond *Teeth of Satan* before and, following the standard (albeit dubious) advice of “follow your nose”, spent 3 hours searching for the way on. By now a 7+ hour trip was becoming increasingly grim and the team headed back down to the *Teeth of Satan* and made an emergency bivvy with minimal equipment. Luckily the sleeping bag, collected on the way, made a makeshift ground sheet and as the pair were carrying in more food to stock camp, they didn’t go hungry. A rather cosy but unpleasant night sleeps (in one of the draughtiest places of *Nacimiento*), left the team more dejected and dumping all equipment they made a hasty 6-hour trip back to daylight.

Terror Firma and Joes Crack

Dan bravely decided to go back into *Nacimiento* the following day, this time armed with Dave, who knew the way. Starting late in the afternoon they arrived at camp within 7 hours and had a good night’s sleep before setting off to the end and the leads in *Terror Firma*. It took another 5 hours for them to get to the end, but a lot of re-rigging of the traverses was achieved. Due to the length of time to get from the back-end to camp, they decided to have an epic 18-hour trip and climbed an additional 20m of the *Terror Firma* aven. The aven splits into two, with one of the leads ended at a tight squeeze, the other wet route continues. The pair returned to *Death Race* for 6.30am and slept until 7pm before exploring and surveying some leads near camp, finding 200m of passage and some unclimbed avens.



Picture: Belaying at Terror Firma, Cueva del Nacimiento (Chris Jones).

At the same time, myself and Alex arrived at camp. The plan was to explore a small rift behind camp, that had been looked at the previous year to a pitch. Unfortunately, no one had told me this was one of the tightest bits in the cave so I spent a good proportion of the time in camp, making tea and food for Alex, while he explored. The passage leads down a tight rift and pitch, to another rift and the head of an undescended pitch (12m). Another 110m of passage was surveyed and although there is potential for more discoveries, the general trend of the new passage is heading down under the chamber to the known lower *Death Race Pitch Series*.

South Bristol pathfinders

The final planned pushing trips into *Nacimiento* was undertaken by 2 teams; Bob Clay and Arwel Roberts and once more Sam and Dan, attempting to not repeat their previous attempt.

Dan, now armed with route finding knowledge, had no problems getting himself and Sam to the end. However, the same could not be said for the South Bristol contingent. Bob had not been beyond *Consort Hall* (about 1/3 of the way through) before, but Arwel had been to the *Teeth of Satan* on 3 occasions. It didn't take too

long before they became lost. Although on the correct route, the cave was not appearing familiar, and before long they retraced their steps to *Consort Hall*. After a brief discussion they resumed on the same route and made it to the *Hall of the Green Domino* (the start of the climbs up to the back-end). Unfortunately, they couldn't find the rope up for the first climb. After exploring the chamber multiple times and now 8 hours into the trip, with probably at least 4 more hours to Death Race, they had dinner and decided to exit the cave.

In the meantime, Sam and Dan, had made it to camp and settled in for the night, awaiting the arrival of the others. Morning came and no Bob or Arwel, so rather than travelling to the end of the cave they explored some avens near camp, that lead to around 70m of cave and more unexplored avens.

Nacimiento Summary

Although there were 7 planned pushing trips into Nacimiento over the 2-week expedition, only 4 were successful, route finding being the main culprit for failure. However, the 4 pushing trips discovered and surveyed over 700m of new cave and increased the height of the cave to +534m above the entrance. There remain multiple climbs at the back-end and a number of promising leads closer to the entrance.

Sistema Castillo

Exploration in *Castillo* began with some surveying of existing passage. The original 1980's exploration by a French team was quite poorly documented, with co-ordinates missing, entrances excluded from the survey and new caves 'created' that were actually the old cave, with a different name. It's taken a few years to piece together various descriptions and survey notes to provide a more accurate picture.



Picture: *Sistema Castillo* entrance shaft (Duncan Hornby)

What is known, is that *Pozo Castillo* ends at -292m in a tight rift, with an encouraging sound beyond, described as either a waterfall or a large draught. However, a potential collapse in the near reaches of the system has prevented access since the original exploration. In order to try and find possible ways past the collapse, some systematic surveying has been instigated, in order to try and fill in gaps on the survey and connect some of the other entrances / mine passages in the area, that are known to be part of the system.

Pozo Natacha is a series of pitches within *Castillo*, which ends at -282m in a small rift. The end is at similar depth and heads toward the limit in the *Pozo Castillo* series, so potentially may end up in the same place. The pitches were rigged in 2016, so a team of two tackled the cave over the first couple of days of the expedition. The end was found to be very tight, as expected, and it took nearly 2 hours to enlarge the rift enough to allow Arwel (very skinny) to pass. Immediately after the enlargement a 6m drop led to another tight rift above a 20m pitch! Unfortunately, the rift was too tight for Arwel and it's reckoned that nearly 2m of the rift would need to be widened to get to the pitch head and the person doing the enlargement would have to be inverted! A rather disappointing end to the cave, although it now means the *Castillo* system is slightly deeper at -309m.

The re-surveying project was going well, adding over 1km of passage to the cave. In general, this was 50/50 between existing cave and unexplored leads. The majority of new passage trended back to the surface and, with more pushing, would in all certainty connect with other known entrances. *For context, there are at least 15-20 surface sites in the immediate area above Castillo, but only 6 that have definitely been proven to connect.*

Despite finding new passage in the upper reaches of Castillo, the way on past the known blockage was still illusive. The collapse is reached via a tight, flat out crawl, just off the main passage. A small window leads to a snow-plug with a rather dangerous looking boulder above.



Picture: The collapse (looking up) in Pozo Castillo (Phil Walker)

The snow plug has a small gap down one side, which is the believed way on, but some digging would be required and the nature of the collapse is worrying and has scared off any effort to dig so far. However, directly above the collapse, small shafts of light can be seen high above. Another way in to the same area, and beyond, is a possibility. The 1980's reports also mention further large snow plugs further into the cave, at the bottom of subsequent pitches, suggesting other routes in.

One of the first teams into *Castillo* inadvertently missed the turning to the collapse area and carried on exploring into further mine workings, reporting another large snow plug at the end and daylight above. This part of the cave was explored over another couple of days. The snow plug proved to be at the bottom of a 30m shaft, later identified as FT16, explored in the 80's to the same connection point, with no way on. This time round it was possible to traverse around the snow plug to the

head of a series of pitches, dropping down the side of the snow. At the bottom a short horizontal level, over wooden ladders lead to a final pitch down to a sump / flooded level.



Picture: FT16 snow plug (Hannah Moulton).

The next day, another mine level, Segura 1 was explored for 20m to an extremely dangerous looking 'spongy' floor with a winch platform. This turned out to be above the same FT16 entrance shaft.

Castillo Summary

The way on past the blockage still remains elusive. The subsequent drawing up of surveys has highlighted some further possibilities, but the shoring of the boulder collapse may still prove to be the best option and this is something that will be attempted in 2018.

Cueva de la Marniosa

Marniosa is a 5km system, a few kilometres upstream from *Nacimiento*. It's almost certainly a feeder system to *Nacimiento* and prior to this year's trip the downstream end of the cave was only 500m horizontally and 35m above the closest point in *Nacimiento*. Unfortunately, this point in *Marniosa* was beyond sump 1 (35m long) and ended at the un-dived sump 2. Progress beyond sump 1 has been limited ever since the original exploration in 1986, with the passage described as "unconducive to bottle carrying". An attempt in 2016 failed to get to sump 1 but the cave had been left rigged, so with 2 divers in the team, it was hoped that this year would be more successful.



Picture: Cueva de la Marniosa (Russ Brooks)

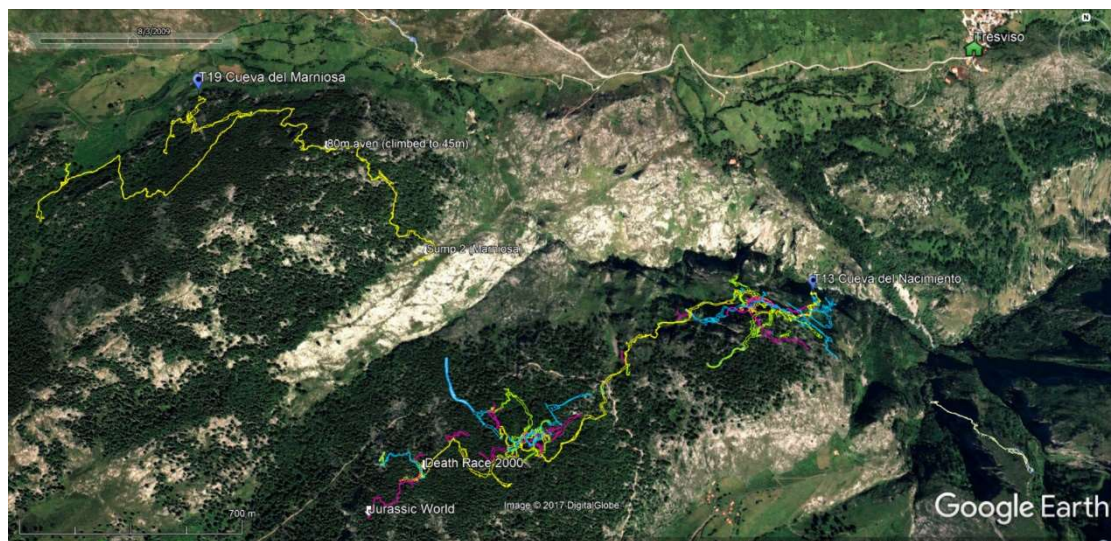
A team of 4 carried in the first divers diving equipment, making quick progress to the dive base just before sump 1. A few days later another team took the remaining equipment and undertook the first dive. This took the form of a number of dives back and forth to ferry equipment through, ready for the arrival of the second diver later in the week.

A 2-man team (one of which was a press-ganged non-diver) dived the sump to look at the first objective, an unclimbed aven just beyond sump 1. The aven is around 80m high, and sits in a good location close to some known draughting surface sites. If a connection could be made, it would enable non-divers to enter beyond sump 1 and support diving at the downstream end. It took over 3 hours to climb around 26m from the bottom on very loose rock. The aven still continues up for at least 30m, but with increasingly fragile rock a halt to exploration was called.

The second official diver arrived and undertook a solo trip to transport in more

equipment before a final go at sump 2. The push took place with Josh and Arwel on an epic 18-hour trip. Neither having gone much beyond sump 1 on their previous trips meant route finding and the unfriendly passage proving an issue. However, the pair reached sump 2 (unvisited since 1986) and Josh kitted up to dive. The sump was crystal clear and large (2m x 4m), surfacing after 25m into ongoing stream passage. A quick recce of around 40m of new passage showed ongoing leads and no apparent signs of a further sump just yet.

The survey when drawn up showed the passage turning away from *Nacimiento* and heading up the valley, unexpected but more encouraging than a potential sump all the way to *Nacimiento*.



Picture: Nacimiento & Marniosa

Summary

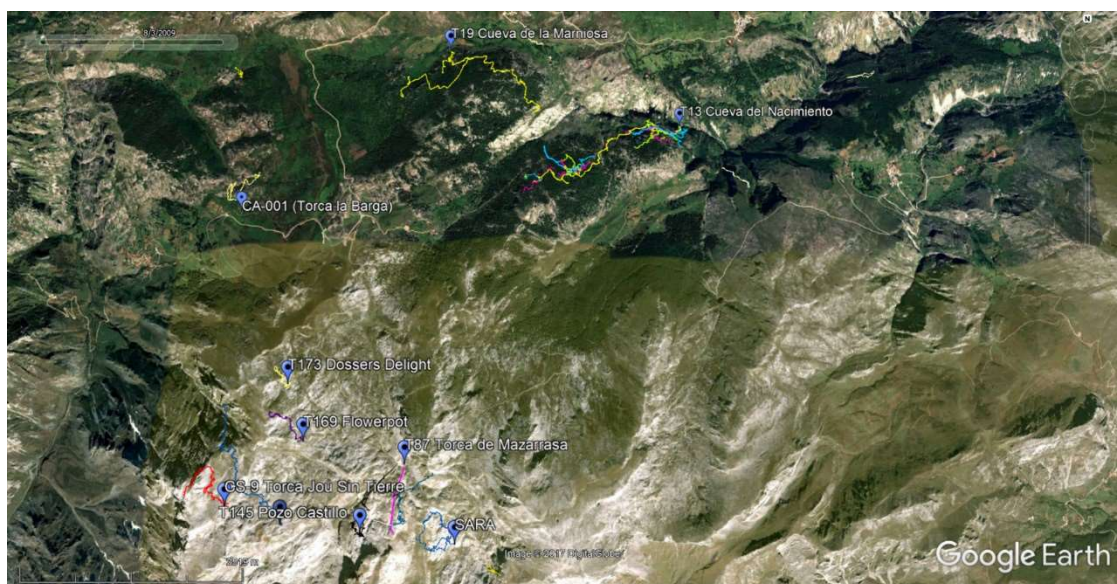
In total over 2km of cave was surveyed in 2017. Exploration of *Nacimiento* encouragingly continues pushing ever higher into the mountain range. Passing the second sump in *Marniosa* is a major achievement in its own right, and unexpectedly has surfaced in passage heading away from *Nacimiento* and into the mountain, possible towards a hypothesized trunk route that may also feed the upstream sump in *Nacimiento*. *Sistema Castillo* continues to prove a challenge, but now with a modern survey and digger expertise planned for the 2018 trip, a breakthrough might be on the cards.



Picture: Expedition members 2017

Standing L-R: Hannah Moulton, Derek Cousins, Josh Bratchley, Jason Lock, Elaine Moulton, Dave Powlesland, Gareth Davies, Alex Hannam, Michael Young, Tom Lia, Phil Walker, Anna, Fernando de la Fuente.

Seated L-R: Arwel Roberts, Chris Jones, Sam Deeley, Dan Workman, Bob Clay, Emma Battensby.



Picture: Andara – Tresviso range