

Matienzo Caves Expedition 2019



Traverse Zarco's Shaft
Cueva Vallina

Cave exploration during 2019

This report covers the expedition's speleological work in the permit area shown in figure 1 below, that includes a new area for the expedition of Hazas de Cesto south of the motorway (shown outlined in red on the map). In addition to this municipality the area covers Solorzano, Entrambasaguas and Ruesga north of Cruz Uzano. The permit also covers work in Cueva Vallina which was proved to link hydraulically with the South Vega system in Matienzo in 2016.

In November 2018 and up to September 2019 nearly 5km of new passage was surveyed. The main finds included:

- Linking Cueva-Cubio del Llanio to the Four Valley System bringing the system up to over 67km

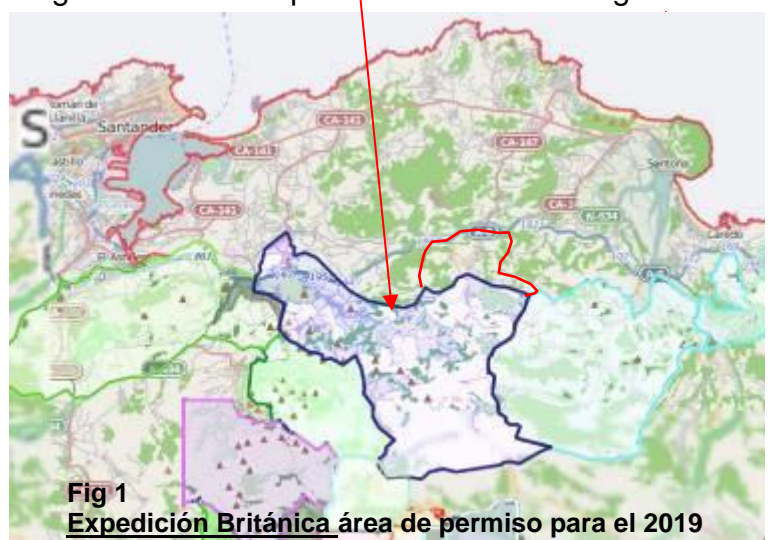


Fig 1
Expedición Británica área de permiso para el 2019

- Continuing the work in Fuente Aguanaz and extending it by 1139m to the SW through a number of short sumps heading towards the Barrio de Arriba area and bringing the cave to just over 4.7km with open leads still to push.
- Diving the south sump in El Cubillón reached dry cave that has been surveyed for over 500m with leads still to be pushed. Water in this sump has been tested to Fuente Aguanaz (work here was in liaison with club G.E. Pistruellos)
- The continuation of the pushing and surveying in Valine with over 250m added with an open lead (pitch) to be pushed in 2020, diving work continues in the main downstream sump 6 at the time of writing this reporting.
- A major exercise to understand the area which identified 75 caves and sites in the Hazas de Cesto area which was new to the expedition in 2019. Many of these require more work and surveying in 2020.

In addition to the new sites in Hazas de Cesto a further 79 new caves and sites were identified, and many were explored. Details of these and comprehensive information on all the work of the expedition can be found on the website <http://matienzocaves.org.uk>. The numbers given to caves in this report are those used in the database of caves found on this website. Sixty different cavers took part in the 2019 Matienzo expedition at various times during the year. The main work took place at Easter and during July and August, with smaller groups working at other times over the year, mainly in prospecting work and preparing for diving in Cueva Vallina.

Scientific Studies

The Matienzo Karst Entomology Project continued its work during the Easter period, recovering the many traps placed in 2018. New specimens taken from some 15 sites



including Jivero II, Cueva del Coverón, Cueva-Cubío del Llanío, Sima-Cueva del Risco, Lenny's Cave, La Cuvía, Torca la Vaca, Cueva del Molino (Agua) and La Bodega. The traps and specimens will be examined in the coming months and a separate report on the work produced. However, with the very large number of finds, work to identify all and make a final report will take a long time.

As reported last year following the successful work developing paleoclimatic records for the last 40,000yrs, in Cueva de las Perlas (0074) under the supervision of Dr Peter Wynn of Lancaster University interest has moved on looking at nitrate levels over time. Work in 2019 proved that the techniques and methodology does work and with this successful outcome applications are now taking place for funding that if successful will lead to the appointment of further PhD students to work in this area. The expedition will support this research work and the results of this work will be linked on our website when the relevant papers are available.

In Llueva, at the archaeology site Cueva Túnel (0658) two members of the team took the opportunity to observe the use of 3D scanning and photogrammetry carried out by experts working for the Consejería de Educación Cultura y Deporte to produce a detailed record.



Hydrology

A water trace from site 1265 to the Carrales resurgence (site 4855) was thwarted when the detector disappeared and a second attempt gave a "negative" result, possibly due to too little OBA or due to low flow, not enough time being given for the OBA to come through. A repeat of this and other planned tests have been left to 2020 due in part to dry weather when we would have had the opportunity to continue the hydrological work.

Matienzo Caves - New surveyed caves and passages 2019					
Cave	Name	Area	Previous Length (m)	New Length (m)	Extra Length Found (m)
3234	Sistema de Cuatro Valles: Cueva-Cubio del Llanio	Riaño	6959	67126	333
0105	Cueva de Riaño		59367		311
0107	Cueva Hoyuca				148
0713	Fuente Aguanaz	San Antonio	3599	4738	1139
2538	El Cubillón	Moncobe	1952	2482	530
4474	Now't but Obstacles	Moncobe	198	512	314
0733	Cueva Valline	Arredondo	35032	35301	269
0106	Torcon de Riaño	Riaño	204	407	203
4911	Cueva El Cortiguero	La Gatuna		196	196
0780	Torca de Corcada	Seldesuto	134	307	173
0138	Cueva de Coberruyo	El Naso	50	210	160
0071	Torca del Mostajo (Systema Cubija)	Cubija	22439	22596	157
4004	Cueva de las Palomas	Riolastras		146	146
4878	Cueva Tesugo	Hazas de Cesto		105	105
3333	Bamboozle Hole	San Antonio		89	89
4927	Cueva Colapso	Riolastras		68	68
4877	3% Pot	Hazas de Cesto	0	52	52
0048	Cueva-Cubio de la Reñada (systema de la Vega Sur)	Vega Sur	34345	34401	56
0394	Cueva de Collada	La Gatuna	1060	1109	49
4856	Cave	El Naso		44	44
3422	Cave	San Antonio	50	90	40
4951	Spanish Flea	Riva		31	31
4960	Cave	Garzon	0	31	31
4919	Cave	Hazas de Cesto		30	30
0014	Cueva de Gonzalo	Cubillas	0	28	28
0841	Cueva Fresnedo 2	Fresnedo	9593	9620	27
2522	Dig	Fresnedo	0	27	27
1017	Socks	La Secada		25	25
4850	Shaft	Riaño		23	23
4871	Shaft	Monte Llusa		21	21
0723	Cave	La Secada	0	19	19
0629	Cave	La Secada	0	17	17
0822	Shaft	South Vega		15	15
1238	shaft	South Vega		15	15
4974	Shaft	El Naso	0	8	8
1557	False Floor Cave	La Colina	0	6	6
4892	Cave	El Rincón		4	4
Total New Cave Surveyed					4909

Detailed Information on explorations made in 2019

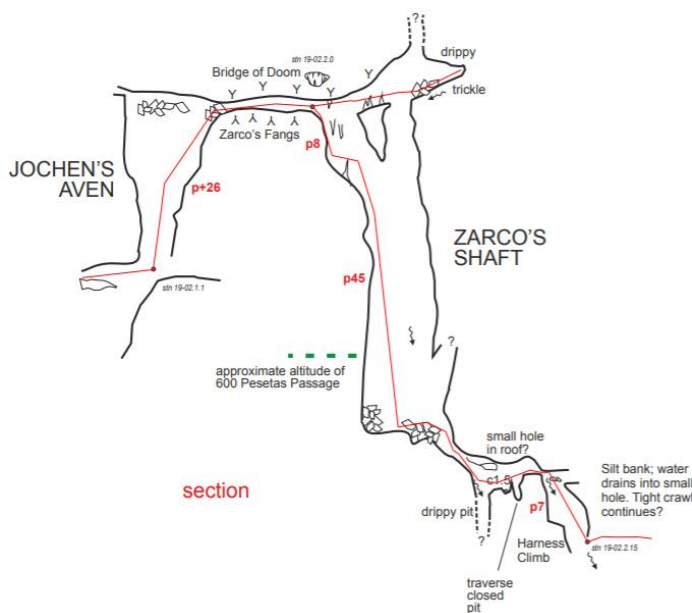
Minor sites and finds that were not accurately surveyed are not listed here, but all details are available on our web site (<http://matienzocaves.org.uk>), including surveys and photographs.

Southern Sector (Vallina, South Vega, Alisas, North Vega, La Colina and Ozana)

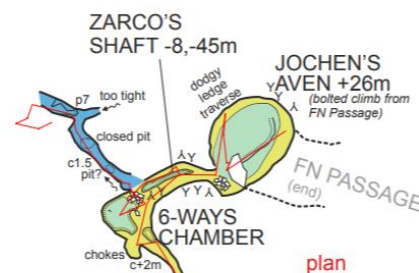
In **Cueva Vallina (733)** work in the main downstream sump was hampered by wet weather early in April and in July the divers dry suit following numerous trips carrying gear to the forward dive site at Sump 6, was found to need new seals. Repairs were made that were sufficient for the access sumps (1 to 5) but not for extensive pushing. Later in the summer the damaged dry suit was replaced and all the kit including the rebreather was serviced and the diving line was checked and adjusted up to the end of the line. Heavy rain was then forecast and so the pushing dive was delayed and will be carried out later in the year. While diving was on hold attention turned to bolting above Double Dutch Pitch, but most leads proved to close down. At the end of FN Passage Jochen's Aven. The climb up was re-rigged and new passage was entered by traversing around the top of an 80m pitch. Anchors could be placed in good rock just above a 2m thick shale bed. But the route beyond closed down almost immediately. The 80m pitch was then rigged, dropping through a slot about 10m down to where the walls belled out below a dense forest of 2 - 3m long, pristine white stalactites on either side and ending on at a bolting route necessary for a free hang down the main pitch.



This traverse later in the year to get a clear drop down the pitch (Zarco's Shaft). This shaft dropped and the survey showed that it was either very near or possibly connected to a pitch



Jochen's Aven and Zarco's Shaft
Surveyed with DistoX by Diane Arthurs and Simon Cornhill as batch 0733-19-02, 27th July & 5th August 2019.

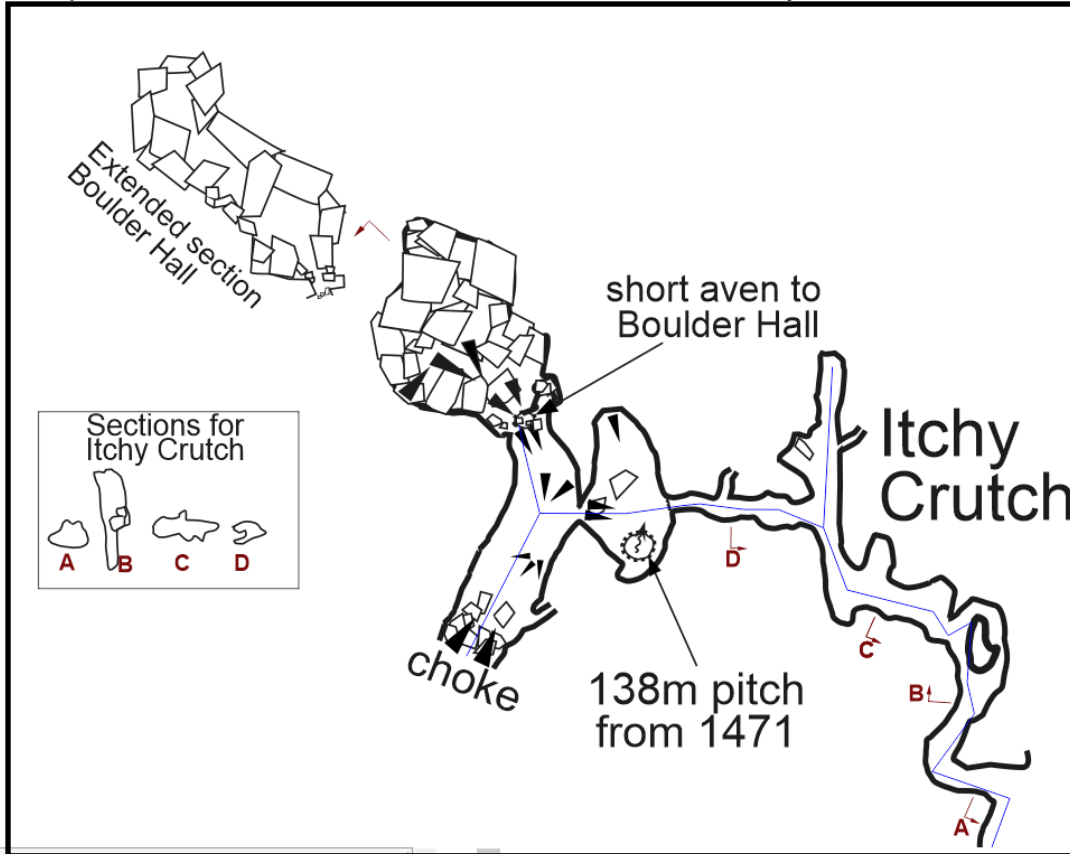


that was pushed by the Espeleo Club Tortosa in 600 Pesetas Passage, although no signs of previous visits were found. No open or good leads were noted.

In the Zona Blanca area near Swirl

Chamber work was done surveying and sorting out the survey and the link to passages which the Espeleo Club Tortosa had found and surveyed. The undescended pitches in Galería Jesús Lecue were looked at and the one marked p8 proved to be a rope climb with a further 1.5m climb to a ledge over an undescended pitch (c.9m) into a large area where water can be heard falling. This has good potential as there is nothing known below or near this point and will be pushed in 2020.

In **South Vega** in Cueva-Cubío de la Reñada (0048) surveying work and bolting at the Zeppelin Hangers was carried out and this has helped to complete this part of the re-survey. The climbing has identified possible higher passages, but more work is needed to get to possible leads. After studying the survey, it is clear that a small passage in Torca de Azpilicueta (0333) past the Pipe Cleaner does drop into one of the Zeppelin hangers through a small hole, but this connection has not been surveyed and is not the lead seen from below. Just past Ghost Lake the climb at the far end of the Itchy Crutch series was rigged with an



etrier to avoid needing to pull on possible loose rock. This gave reasonably safe access to the large Boulder Hall with very large (up to small house size) boulders with no way on found at floor and easy climb levels. This hall is very close to and below Torca de Papá Noel (1471) and it is possible there is a connection via one of the

gaps in the boulders at roof level. There was possible evidence (oddly placed rocks) that this hall may have been entered previously. The link to Torca del Coterón (0264) via Bootlace Passage was checked out, confirming that ropes are in place above Two Sumps Chamber making access possible from the bottom. However it should be noted the first rope is worn through the sheaf but climbing/abseiling gear can be used above this point which is in reach of the ground, this rope can be used with care but will need to be replaced.

Towards the top of the ridge two sites were found in February (4853 and 4854) both taking water in very heavy rain. When revisited at Easter, both looked like long term digs but a small draughting hole was noted on the south side of 4853 that was draughting. This was opened up to where you can see down a few metres to a standing size passage / small chamber. A little more work will

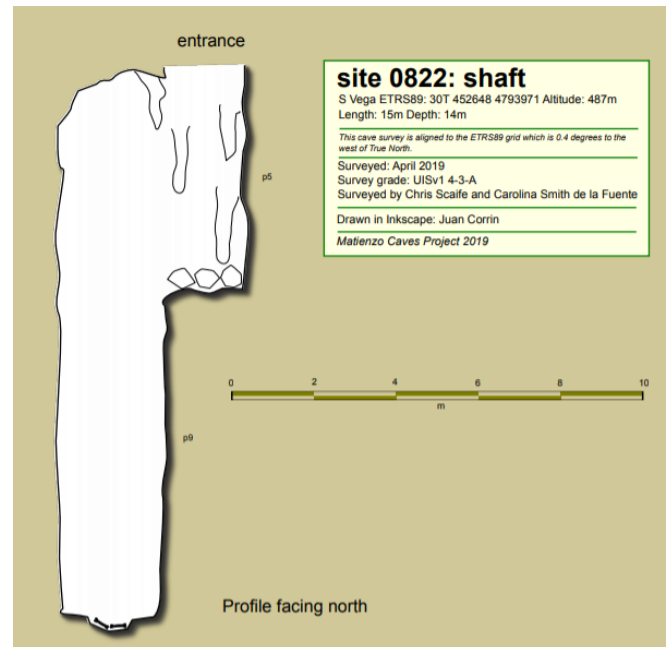
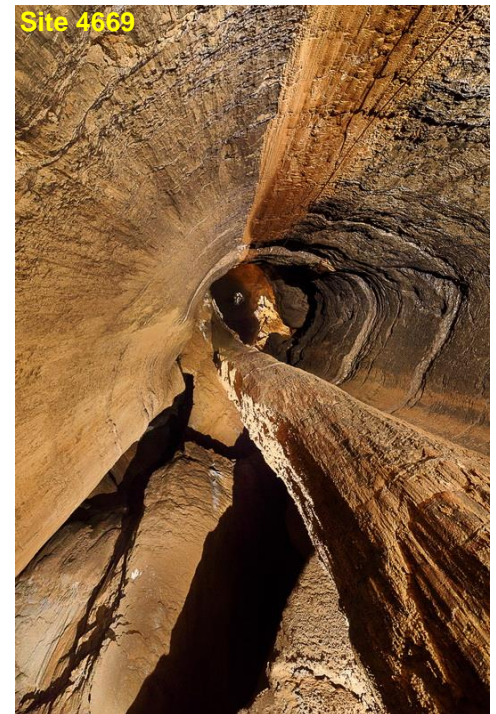


gain access and will be done either later in 2019 or next year. Elsewhere site 0822 was descended some 15m but found to be choked with no good prospect – there had been confusion with another site (Spanish Flea) on the Riva side of the hill and out of our area but also listed as 0822 but this has been corrected and renumbered as 4951.

The cave 4668 just to the west of Torca del Dron (4669) was checked to see if it would give access to Torca del Dron. A connection was dug and made but it is awkward and restricted going via several bends to take a route some three times longer than the distance between the entrances. While this was being done it was found that it was easy



to get under the concrete beams across the entrance to Torca del Dron so giving easy access. A small metal grid has been placed over this gap that can be removed via 2 nuts on our normal 8mm bolts – i.e. a normal bolting spanner and should be replaced to stop any chance injury to cattle using the field. In the cave a traverse round a drop below the entrance pitch reached a further 25m pitch which on a following trip was descended to find a further very large pitch not yet dropped. This find is still to be surveyed.

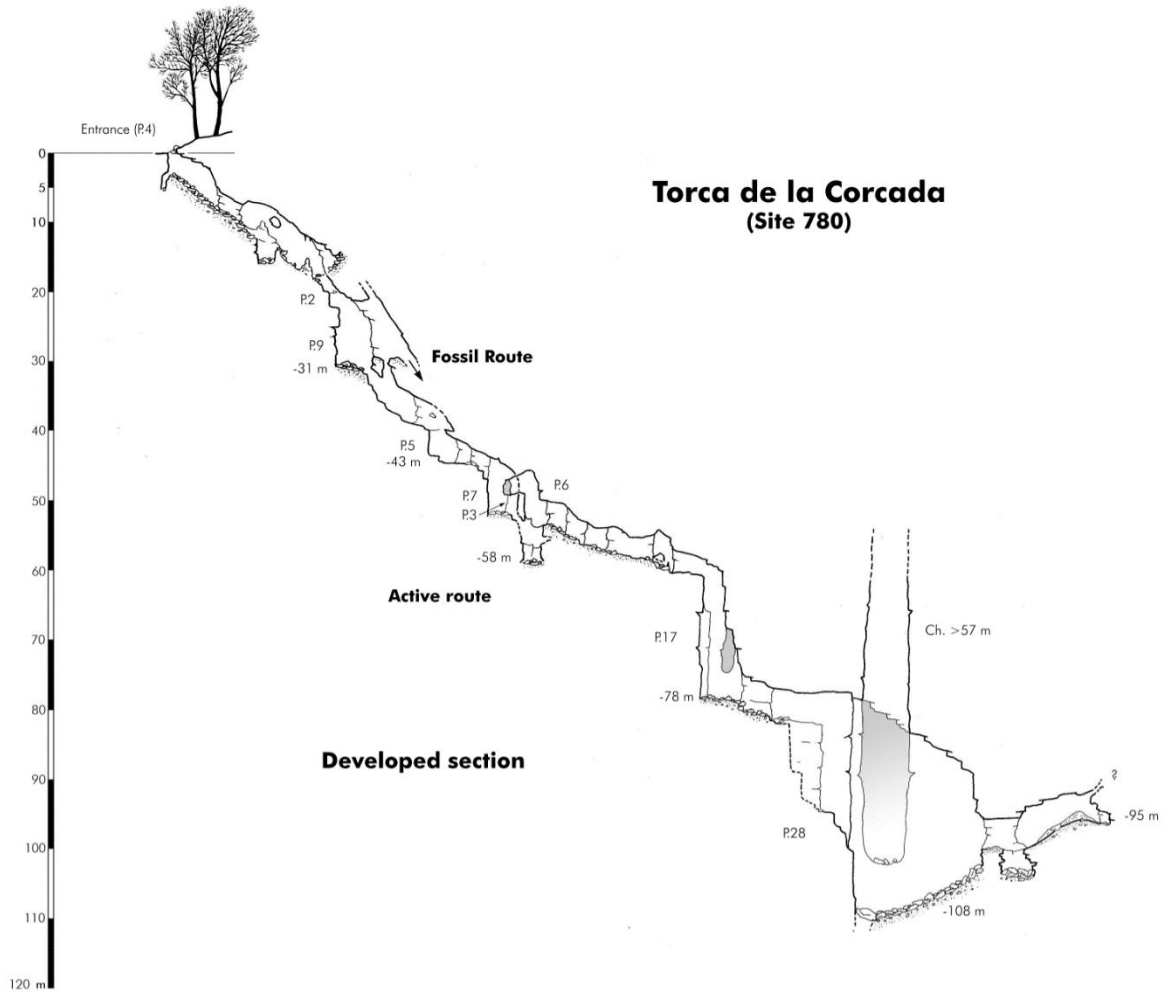
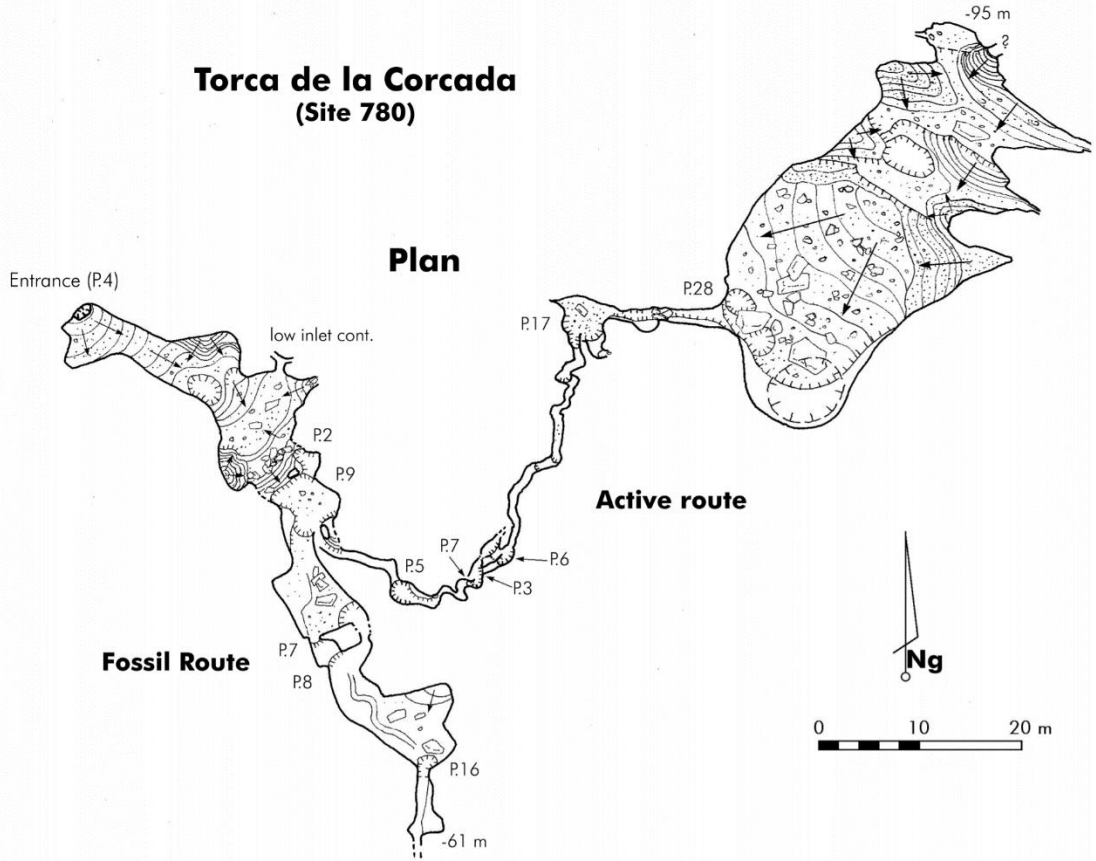


Among other new sites found in the area a draughting undescended tight shaft (4998) goes down to a wider section with a partial blockage 2.5m down, from where stones roll/fall for about 5 seconds.

At **Seldesuto** the Active Route in Torca de Corcada (0780) was pushed to gain access to further drops. These were opened up to gain the tight top of a 20m pitch. This was opened up on a second visit and reached a further 30m drop into a large chamber with a boulder choke. There was no very obvious way on but slots down in the boulders have not been examined due to lack of gear. This work has extended the cave to over 300m long and over 100m deep. Corcada is in a significant area beyond the end of Cueva-



Torca de la Corcada (Site 780)



Cubío de la Reñada and Cueva del Arenal (0035). Unexpectedly the survey showed that this Active Route deviates well away from the *Fossil Route* so making the dig in the latter also very worthwhile, this will be on our list of projects for 2020.

At **Alisas Area** three new sites were identified all require more work as well as three existing sites checked out but found to be poor prospects. Of note was a depression to the south (site 4955) that had a small stream sinking and could be a good location for a water trace. It is very possible that Alisas is at the watershed between Fuente Aguanaz catchment and the one to the south, so possible test sites in this area are important.

At **Las Calzadillas** Sixteen holes were investigated, of these 12 were new sites which are either digs or sites needing significant work. Of these Site 4771 was dropped 8m after opening up the tight entrance. About 50m to the north, a constriction in a shaft at site 4772 (now called La Sima Grande de Las Calzadillas) was opened up and a 20m pitch explored to a small chamber with the draught coming from a rock-choked rift under one wall. Site 4992 was found as an open entrance to a small chamber with formations and a continuing passage with a draught that needs excavating.

In **North Vega** one new site (4997) was located, needing work to enter and a dig 4716 was opened to get to a 6m drop in a rift and a further 3m choked pit. The draught is coming from a hole that needs two sandstone blocks removing to gain further access.



In **Cubija**, possible leads below the Golden Void in Torca del Mostajo (0071) were pushed and over 300m of passage surveyed of which some 157m were new. Previously a section of the survey only had a centre line and was dotted in on the old paper survey. With this work, this defect has been corrected. The possible easier link to the Manchester Series is proving elusive. Some radio location work may be needed to fix key points on the survey in relation to each other at Easter in 2020.



The sumps in the Powerhouse area of Torcón del Regaton (0892) were dived to check if any had good potential. Spike Hall sump went down to 8m with slots in the floor with no way on found. Peaky Passage East sump has a sandy passage leading to where it goes steeply down a silt slope to a cross rift with an air bell above at a depth of 5m. The rift could



not be fully checked due to lack of visibility. Peaky Passage West sump looks inviting and is steeply descending to 9m where it is partly blocked by rock and chert, needing a lump hammer to remove. The sump can be seen continuing beyond, still steeply descending and is big enough to get through once the partial choke is removed.

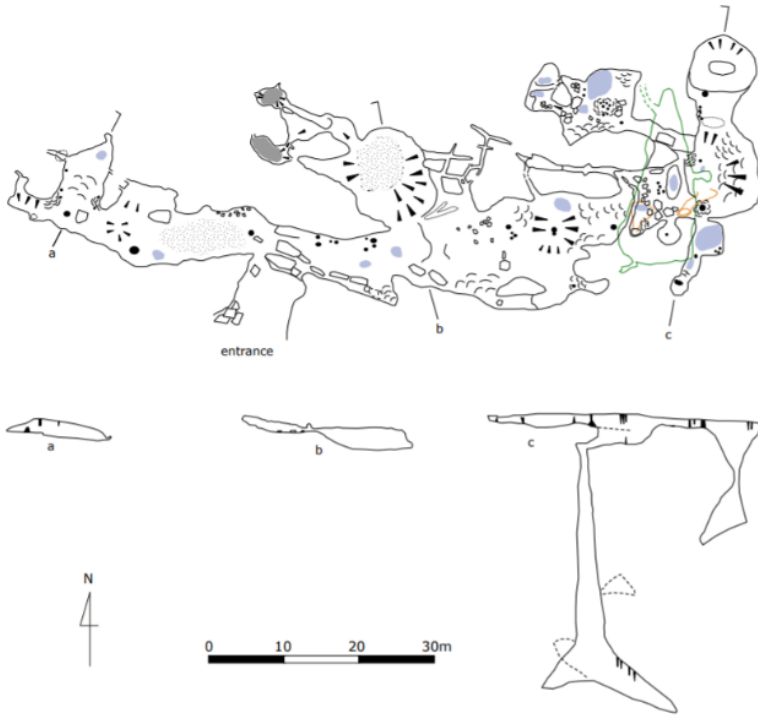
At Simas del Picón (0075) a member of a caving team (not connected to the expedition) fell on the entrance pitch suffering extensive damage to ligaments to his knee, a broken kneecap and



bruising to ankles and leg, The Matienzo Expedition team, used our rescue kit and Titan stretcher to get him down the very steep hillside from the entrance to the field below from where he was air lifted to hospital. The injured caver's team had done a good job getting the patient up out of the cave. The Spanish air ambulance team were extremely efficient with one member winching down to the patient through the trees.

On **El Naso**, Cueva de Coberruyo (0138) was resurveyed and pushed over a number of trips, extending the length by about 50m to 210m.

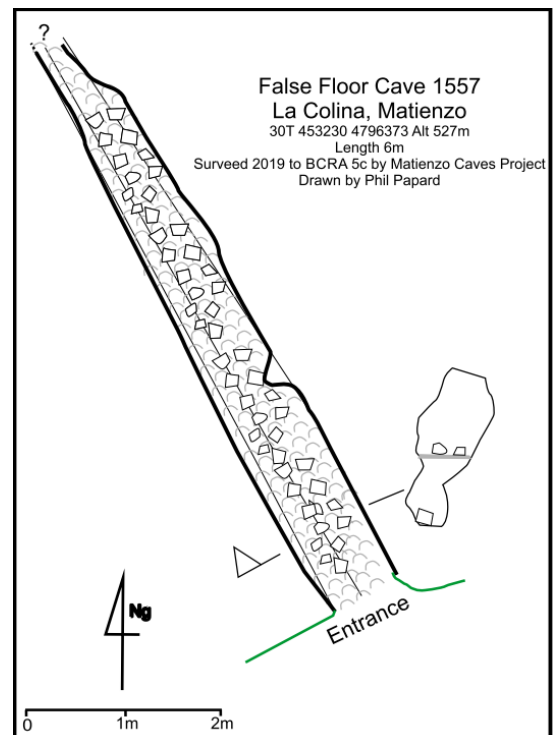
On **La Colina**, new GPS and photographs were made of both Sima



Site 0138 Cueva Coberruyo (La Vega-El Naso)
 30T 0451394 4796223 320m (ETRS89) Length 229m Depth 42m
 Surveyed Jan.-Aug. 2018, and April 2019: P. Smith with Carmen Smith,
 Patrick Warren and Peter Eagan; 33m pitch surveyed by B.P.C., August 1986



and Cueva de Entrambascuetos (0381 & 0382). High up on the hill at False Floor Cave (1557), a bolt was placed for a ladder or etrier to gain access above the false floor and a survey was made. The cave is a sideways crawl for some 6m, but the end needs checking out by a thin person.



On **Muela** a new small and obscure draughting hole (4994) was opened up, allowing low, sloping access down to a small "sit-up" space and then a slope down to an open "pocket" in heavily altered limestone (grainy with grey and pink colour)



was identified.

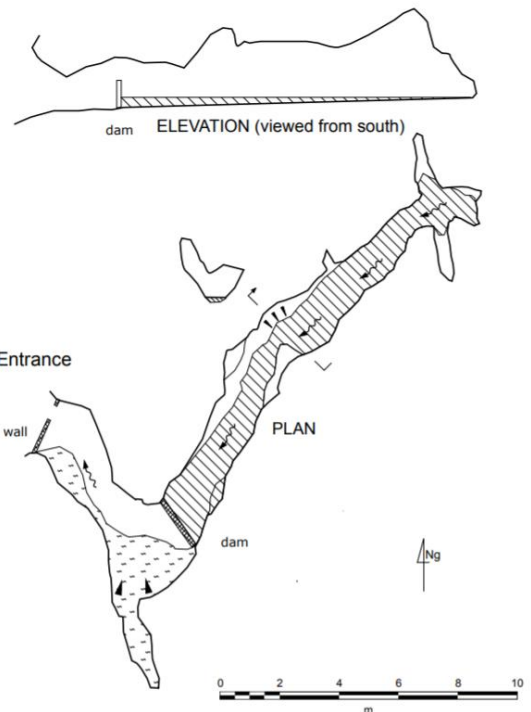
which seems to be affected by hydrothermal activity. The end draughts but no clear way on

In **Cubillas**, Cueva de Gonzalo (0014) was surveyed and new photographs in Cueva de



Tiva (0026) were taken.

At **Barrio de Carrales**, the cave 1265 was dug but more work is needed.



Site 0014 Cueva de Gonzalo

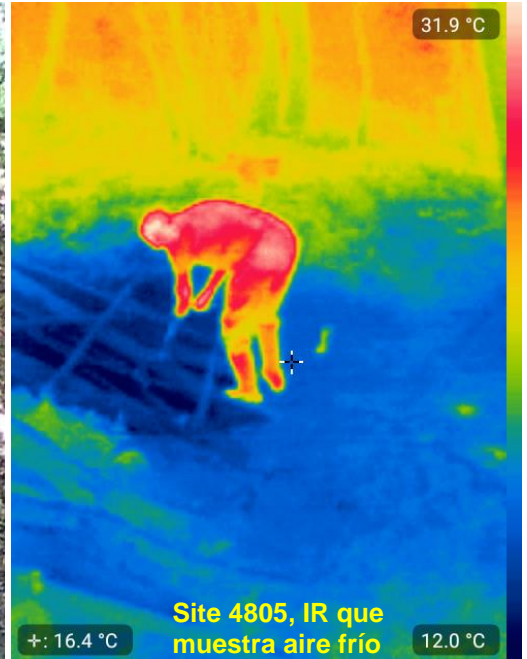
Cubilla 30T 452747 4796103 Altitude 173m Length 28m Depth 0.0m Re-surveyed 2019 BCRA grade 5b
Matienzo Caves Project Drawn by NJD

The Northeast Sector and The Four Valleys System

In **La Secada**, a number of digs at key sites and caves were worked on and the report of our Summer and Easter expeditions on our website gives full details. A number have good draughts and are situated in a key location to the west for the Four Valleys System. Of these a lot of work was undertaken at site 4805 to stabilise limestone blocks (eroded bedrock) using rebar pins and resin and scaffolding installed to make further digging safe. Digging

continued with an open space on the uphill side. It seems the way on is down and work will continue at this important site later in the year and in 2020.

More work was done at Two and a Half Fat Ladies (0880) with an open space dug into in the roof of the dig. This was found to be going into a tight rift going up with a tiny hole at floor level. It

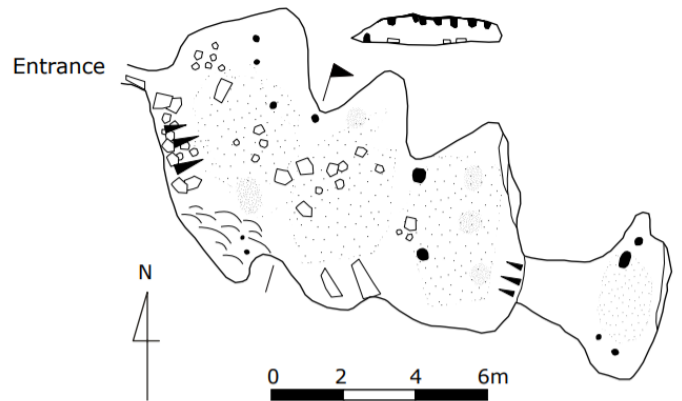


seems the main way on is down and this is where digging will resume in 2020. In the fill at the end, a number of bones were recovered, and two Spanish experts visited the site with our members and identified bones found previously. They also dug out more large mammal bones (limb and vertebrae) possibly of a bison. Information on the bones found here and at other digs in this area can be found on our website at <http://matienzocaves.org.uk/Archaeology/190906-Bones-Teeth.pdf>

A survey and photographs of bones was carried out in the archaeological cave 0629.

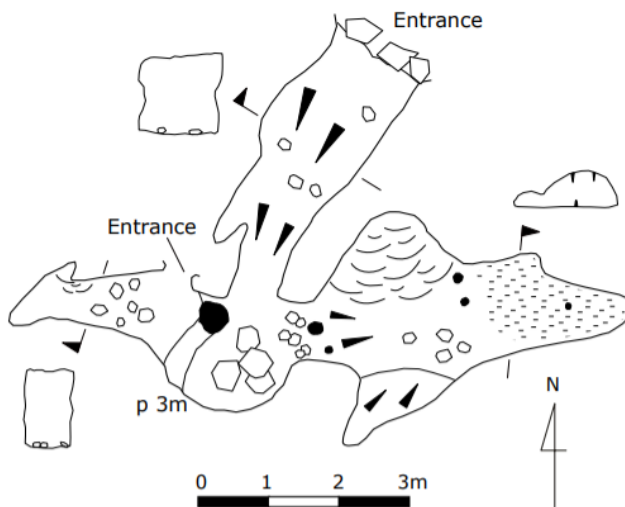
The underground survey work in Cueva las Cosas (0084) was completed and the survey linked from the dig 4599 giving it a new GPS.

On the western side of La Secada, cave



Site 629 (La Secada) 452890 4797152 257m
Length: 17m August 2019 Survey:PS

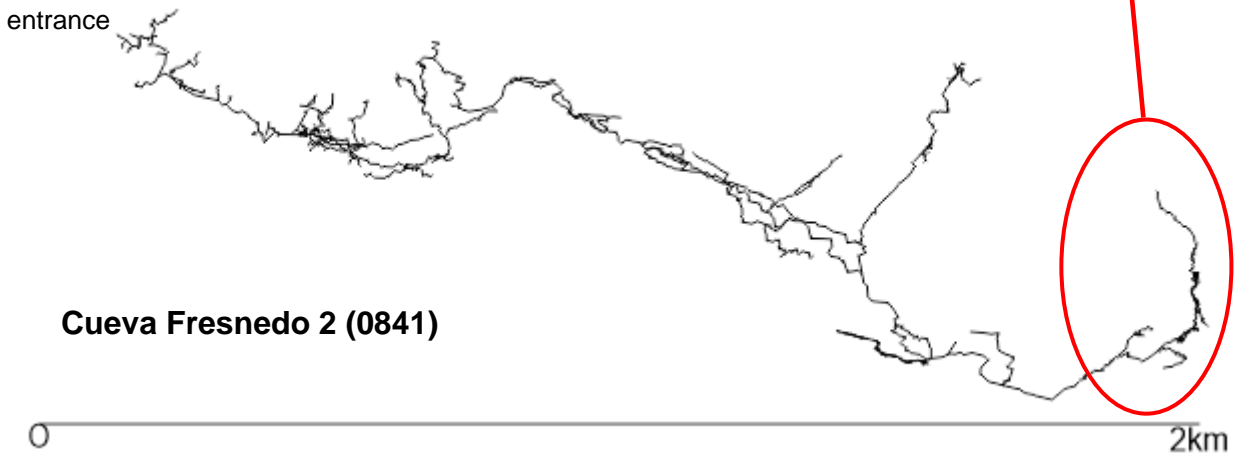
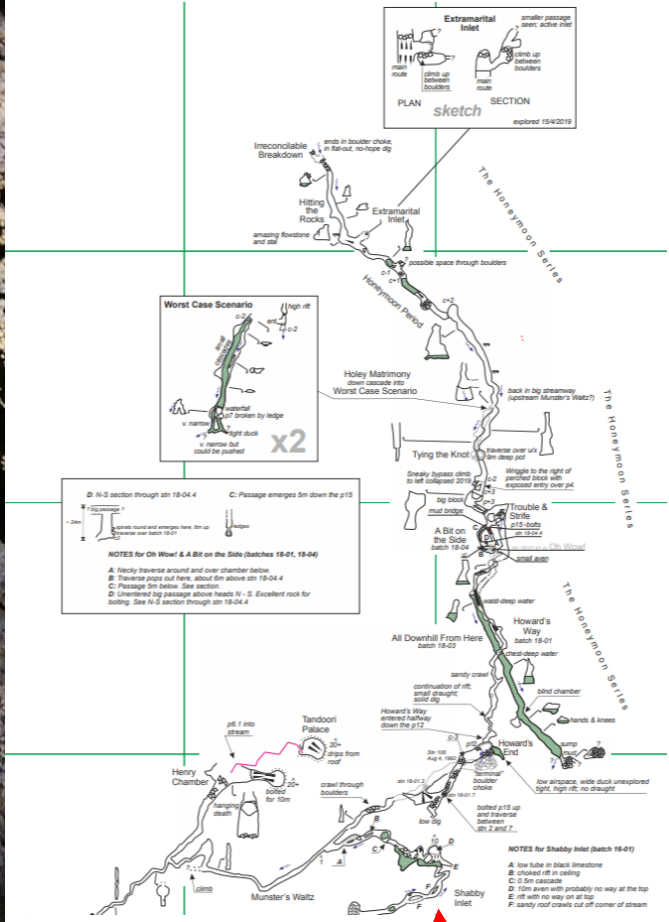
0723 was checked out and surveyed to resolve different descriptions - this seems to have been due to there being two entrances to the cave.



Site 723 (La Secada) 451542 4797106 265m
Length: 19m August 2019 Survey:PS

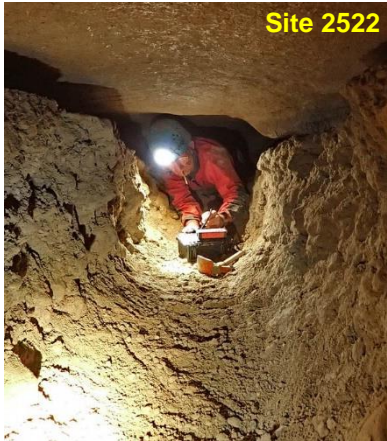
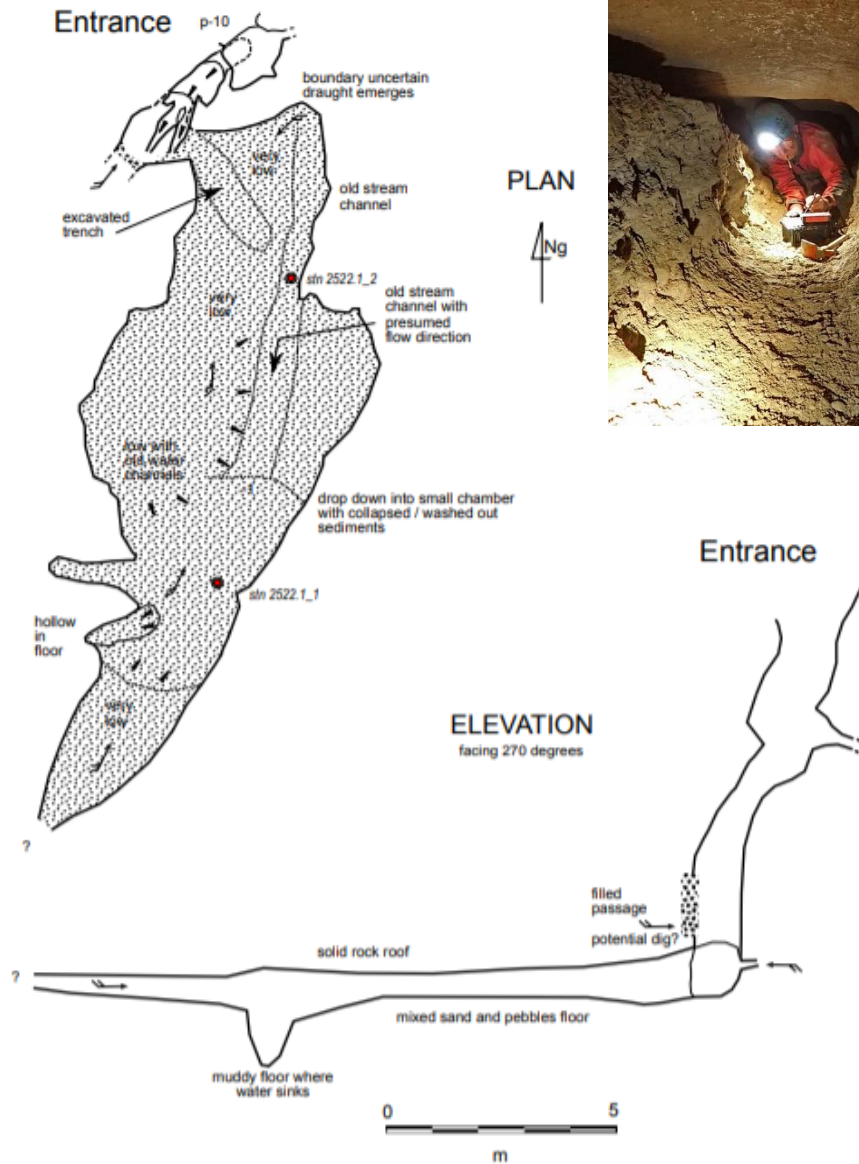
At the west side of La Secada, more progress and capping at Socks (1017) was carried out and the site surveyed. The site draughts well but less than at Easter, it will be checked out on a hot day in summer to identify the best place to dig.

In the **Fresnedo Area** in a twelve hour trip to the far end pushed the leads in the extension found in 2018. None went any great distance apart from 30m in a significant streamway. In the summer a long trip to the far end where the aven "Bit on the Side" was climbed. There is a possible passage on the opposite side of the climb,



however, a minor injury to one of the pushing team prevented a second pushing trip in August to complete the traverse and survey the finds so this will now be left until 2020. An attempt was made to find possible digs above Cueva Fresnedo 2 in the Campo la Cruz area, but the team only found blind depressions with some areas difficult to get to due to the dense summer undergrowth.

The strongly draughting dig 2522, situated above Cueva del Torno (2366), is hoped to link it to this cave which would give better access to its far end. The site was extensively excavated over six days down to where an open low “bedding” above fill was found. Digging of a trench in this fill showed it was in an old stream bedding plane. This dig reached an open downstream section of standing height where sediments had collapsed – it is not clear where the draught is coming from and hence where to dig. A hole at the bottom of the entrance shaft draughts strongly and seems not to connect to the streamway area. This hole needs digging to check it out but, due to lose fill above, it will take a few hours to get access it is hoped this site will give quicker access to Cueva del Torno (2366). A visit was made to the end choke in Cueva del Torno (2366) where there is some possibility of getting up higher in the area, but progress is not easy through the choke.



Site 2522 (cave)

EI Torno 30T 452696 4800996 Altitude 209m Length 28m Depth 10.8m Surveyed 2018-9 BCRA grade 5b
 Surveyed by Peter Clewes Drawn by Nigel Dibben Additions by Juan Corrin



Conexión del sitio 0105 al sitio 3234 In the **Riaño Area** the main find of the 2019 expedition was the linking of Cueva-Cubío del Llanío

Site 0105 SubPhone ubicación base



(3234) with Cueva de Riaño (0105) bringing the length of the Four Valleys System to over 67km. At Easter over three pushing trips, more than 300m of new cave was found and surveyed. The extension started at a pitch

near Bear Chamber and reached the same level as Cueva del Riaño (0105), apparently only 5m away. Other extensions seemed to take the cave further away from

Cueva del Riaño. This link proved elusive when pushing in

Llanío at Easter despite it seeming to be only a few metres away from Cueva de Riaño (0105). This summer we had teams in both caves with SubPhones and a team on the surface with a further set. The surface team got to the possible

link site at 11:45am on

time and heard tone from the SubPhone in Cueva de Riaño. It was weak, probably due to the depth and not being able to get directly above locations because of the jungle. Later they could just hear the Riaño team communicating with the Llanío team despite the aerials then being held vertically. Underground, the team in Riaño made connection to surface using the SubPhones and a horizontal aerial loop and then switched to a

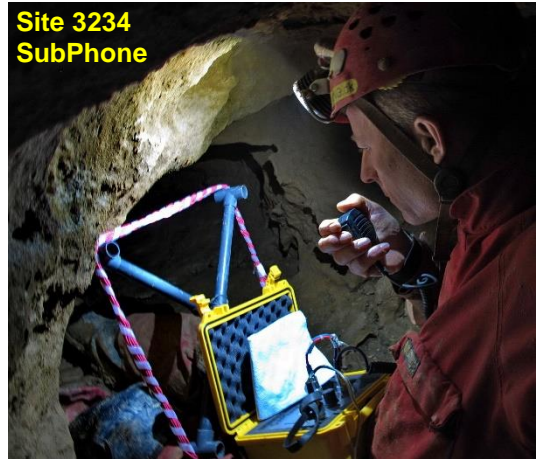
Grupo de conexión



vertical loop and made contact with the 3234 team. It was clear the surveys were correct, and locations were close. Shouting eventually identified a site to dig in order to connect. After 2 hours digging, connection was made by touching hands, then the passage was enlarged, and members of both teams were able to get through.

In Cueva de Riaño, side passages in the area of the connection were explored and surveyed and the Ammonite Choke was examined and pushed a further 28m towards Cueva del Torno at a higher level.

Site 3234 SubPhone



Conexión del 105 al 3234



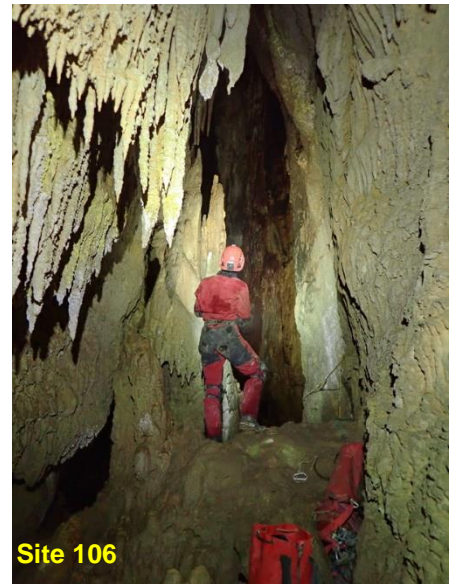
Site 0105 Ammonite Choke



The main, 93m deep shaft in Torcón de Riaño (0106) was dropped to check outside passages seen on a visit some years before. The team traversed 50m down the shaft to reach a good side passage that ended in a dig. On a later trip, this was dug for 7m in a sandy choke. Some other prospects in the shaft remain to be examined. A small side passage to a pool of water was also surveyed on the entrance slope.



Site 106
King Horn Traverse



Site 106



Site 106

In the resurgence cave of Fuente de la Cuvia (0207), a small draughting



Site 207

passage to the left was dug enough to see it continuing 4m as a 1m high rift. On a later trip, this was capped and pushed for more than 10m to where the passage pinched in. At the start is a 30cm diameter, draughting hole. This was later dug, but it proved difficult and much and more

work is needed. It was noted that the entrance seemed to be in the wrong location, so this was later GPS'd and the location corrected.



Site 207

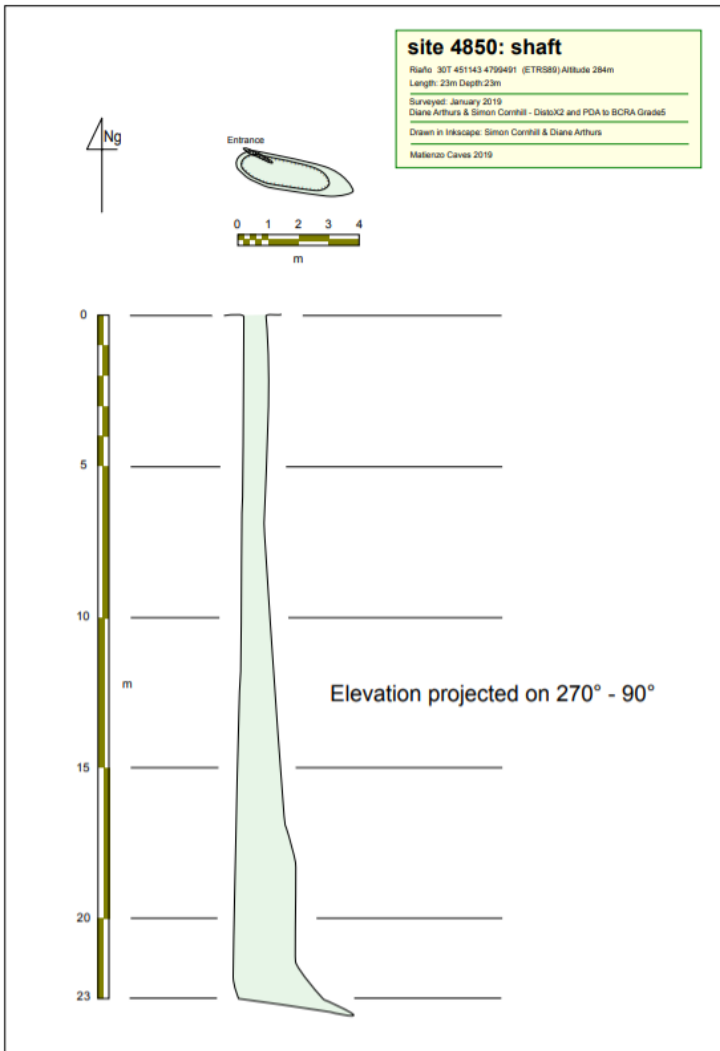
The Giant Panda entrance (2691) to Cueva Hoyuca (0107) was found collapsed with "several large, torso-sized boulders" fallen in. The entrance was re-engineered with scaffolding, rebar and boards ensuring a safer climb down to the recently installed tube to the head of the pitch. Using this entrance Tixtu Aven and Professional Advice Chamber were pushed, and the 2014 finds were extended along a 5m high rift for another 40m. A skeleton, first discovered in 2014 above Professional Advice Chamber, was videoed and later identified as that of a

leopard. In the summer further leads



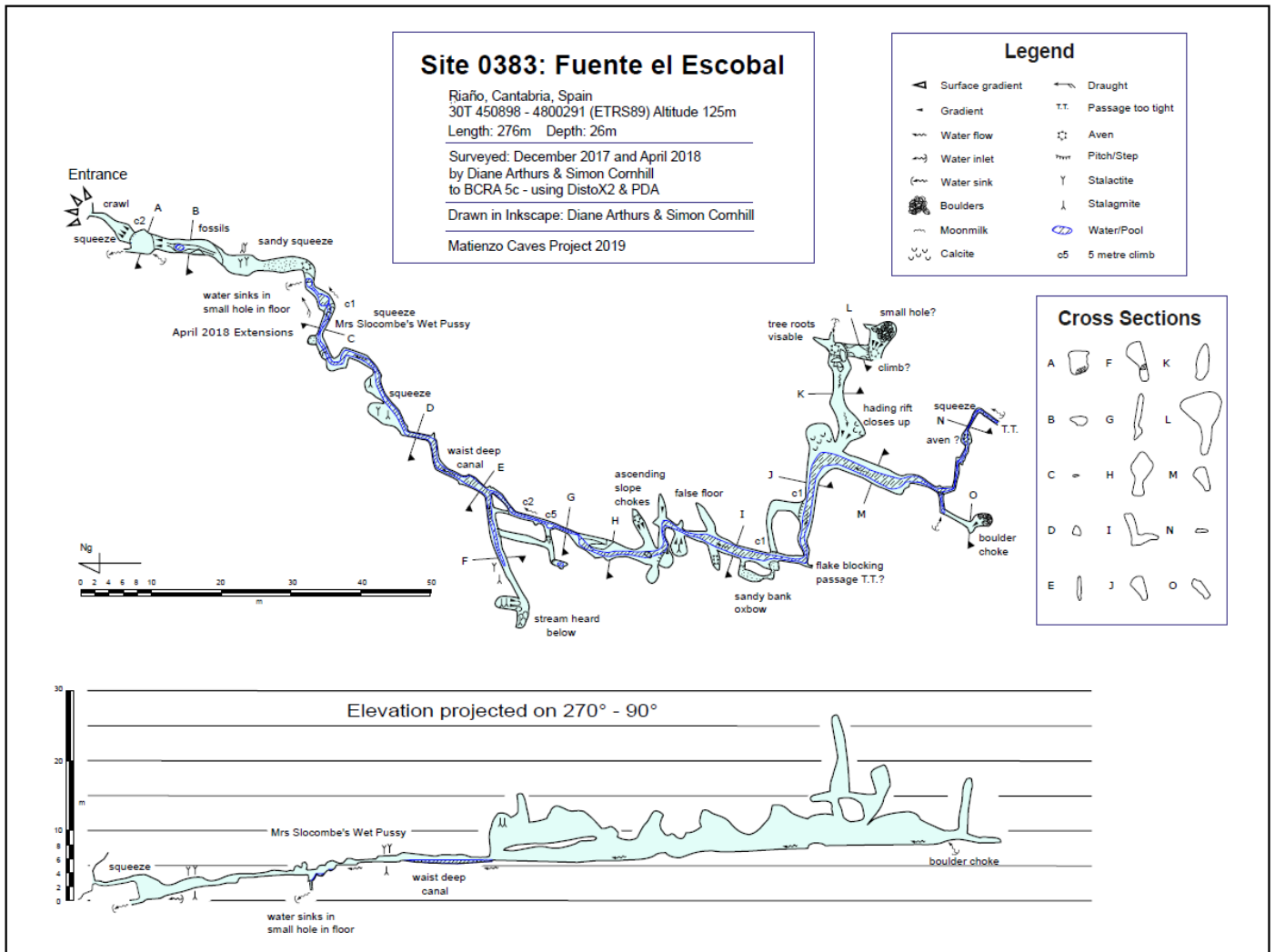
in this area were pushed, surveyed and further photographs of the leopard skeleton were taken.

Elsewhere in Riaño, a number of other sites were looked at including: a new shaft (site 4889) with easy access and a good draught is worth some more work; Shaft 4848 was found to be 10m deep and 13m long, ending small chamber



with an animal skeleton and Site 4850 is a narrow shaft emitting a good warm draught that was surveyed to 23m deep. It was noticeable that summer vegetation was unusually dense, hindering much of the work. A further attempt to get to and look at some of these sites will be made at Easter when vegetation growth should be less.

The survey of Fuente el Escobal that was pushed and surveyed in 2018 is now complete and is shown below.



North Sector, Solórzano and the Riolastras Area

In the **Solórzano Area** to the east of the main road, a depression (site 4965) with a small rift feature at its base was found. This site is partially choked by vegetation with a slight draught. On the side of the same depression is a short, narrow, phreatic tube too narrow to enter. At **La Gatuna** in Cueva de Collada (0394, a lead at the west side of *White Russian* was pushed and surveyed for nearly 50m, but the dig here and near the entrance did not go and have few prospects.

A draughting shaft (Torca el Cortiguero, 4911) above and to the southeast of Cueva de Collada was found to drop into a passage, not to go to the cave below but to go up to an inlet to the southeast. It was pushed and surveyed to a rift for almost 200m, ending right under a house on the Riaño – Cobadal road. In the same area of La Gatuna a further eleven new sites were identified, most were either choked shafts or possible digs, but four caves have ongoing passages that need digging to enter but lack good draughts. The cave (2246) was re-investigated, but prospects look poor with heavily mud-coated walls 2m above the stream, no footprints left from the last trip some years before and little air movement.

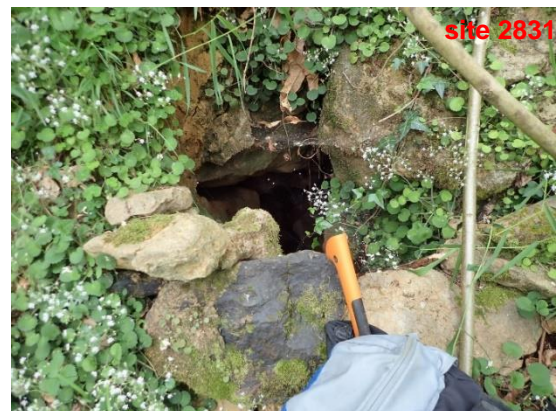
At **Hornedo** several trips were made into Torca la Vaca (2889) via BigMat Calf Hole (3916) were made to check on possible leads, which proved not to be significant. A trip was made to take diving gear in for a push at the sump off the mainstream way past Cockup at Cockermouth Chamber. However, it was found, after transporting diving gear to the site, that the access to this sump needs a guideline putting in due to very low airspace and with lack of time left, diving was adjourned until next year. On this trip a check of the survey in the Bassenthwaite to Whitworth area identified some 100m plus of unsurveyed large passages that will be surveyed next year.



The Río Santa Juliana resurgence (3282), that has been tested and found to have sinks over 1km away, was dug on two occasions. This work is to open up a sump so diving access can be made, more work is needed but the sump can now be seen to continue down at a steep angle and will be revisited in 2020 this site.

An attempt was made to negotiate access to Cueva de los Urros (2917) in our permit area. The residents of the house above the entrance were adamant that there was to be no entry to the cave, and the pushing trip had to be abandoned.

In the **Hoznayo/San Antonio area** at Fuente Aguanaz (0713) divers carried out a major diving project to push and survey leads in Sarah Jean Passage and climb a high aven. In dry weather and low water conditions, very good progress was made over many trips with a number being solo diving trips of up to about 12hours. Over 1.1km was added to the cave in this area. The aven was climbed to a ledge some 15m up from where the top could not be seen due to it curving out of sight and will need to be climbed when at least two divers are available. The work included removing tight sections on route to the Hippodrome to allow easier access with gear to a new area in the summer with leads are still to be pushed. It was hoped to carry out location work using SubPhones, but this was not carried out due to one of the divers being ill, this work is planned to take place in 2020. The surface area above the end of Sarah Jean Passage was checked out for possible digs that may link into the system. Six new sites were identified but none looked to be very good prospects. The one site that was draughting well is the sink at site 2831 located in a key spot at the far reaches of the cave. It had been dug previously and was found to be a massive digging prospect with big boulders extending down. Instead, the team dug some 3m to the east at a draughting slot. At a depth of about one metre this seems to open up on the down-slope side. One more day digging will tell if it is worth any more effort. In the dry streambed and depression below, two further holes were dug, both draught but they look difficult to make good progress.



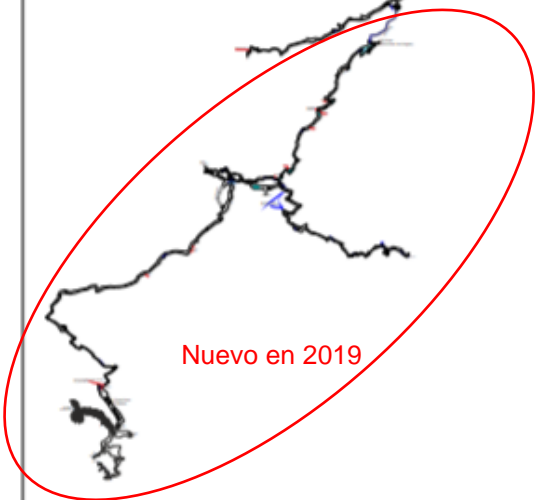
Site 713: Fuente Aguanaz

San Antonio 30T 446482 4801430 Alt: 78m

Length 4738m (after summer 2019)

Surveyed 1988-2019 to BCRA 5c by Matienzo Caves Project

Drawn by Phil Papard



Cueva Laberinto (3268) was pushed and dug in the sand choked passage near the big rift but no major extension was found, and no significant open leads or good digs are left to be looked at in the cave. A similar story was Cueva de Regato (3494) where possible leads were looked at, but nothing significant was found. Downstream, the strongly draughting way on is blocked

by a flake and nothing was found upstream In Bamboozle Hole (3333) the draught was found coming from an 8m deep tight rift that would need digging out all the way down. A dig near the entrance gave access to a blocked rift but no real prospect. The site was surveyed as nearby 3422. At site 4698 the floor below the entrance 5m pitch was dug but the way on requires a massive amount of work and the dig was abandoned. Other holes and finds in the area proved to need a lot of work to make any progress.

In **Cobadal** the cave 4137 was dug to open up a rift and gain access to a cross rift, heading back to parallel to main passage. Other possible leads did not go, and no significant leads are left to pursue in this cave.

At **Camposdelante** two sites were visited. The cave 4550 was climbed down a 2m rift to a choked floor. The rift above the floor was seen to continue for at least 6m but is partly blocked by rocks and needs work to get access. The shaft/dig 4574 was worked on to remove a slab of rock preventing progress and a 7m shaft was dropped to where a further rift is about 6m deep. This needs "pinch points" removing, some 3m down, to allow access.

At **Navajeda** three new caves were found all choked after a few metres with no easy prospects and no draughts. Cueva del Rotizo (4460) was visited, and it was noted the entrance is now accumulating a large amount of dumped rubbish.

Hazas de Cesto Area

This new area for the expedition extends both sides of the main road between Solórzano and the main N-634 road at Beranga. The area has three main types of land: very dense deciduous forest heavily colonised with "killer vines" and other thorny vegetation making access extremely difficult; eucalyptus plantations that allow better access, but can still be difficult, and fairly open farm and fell land, with easy access.

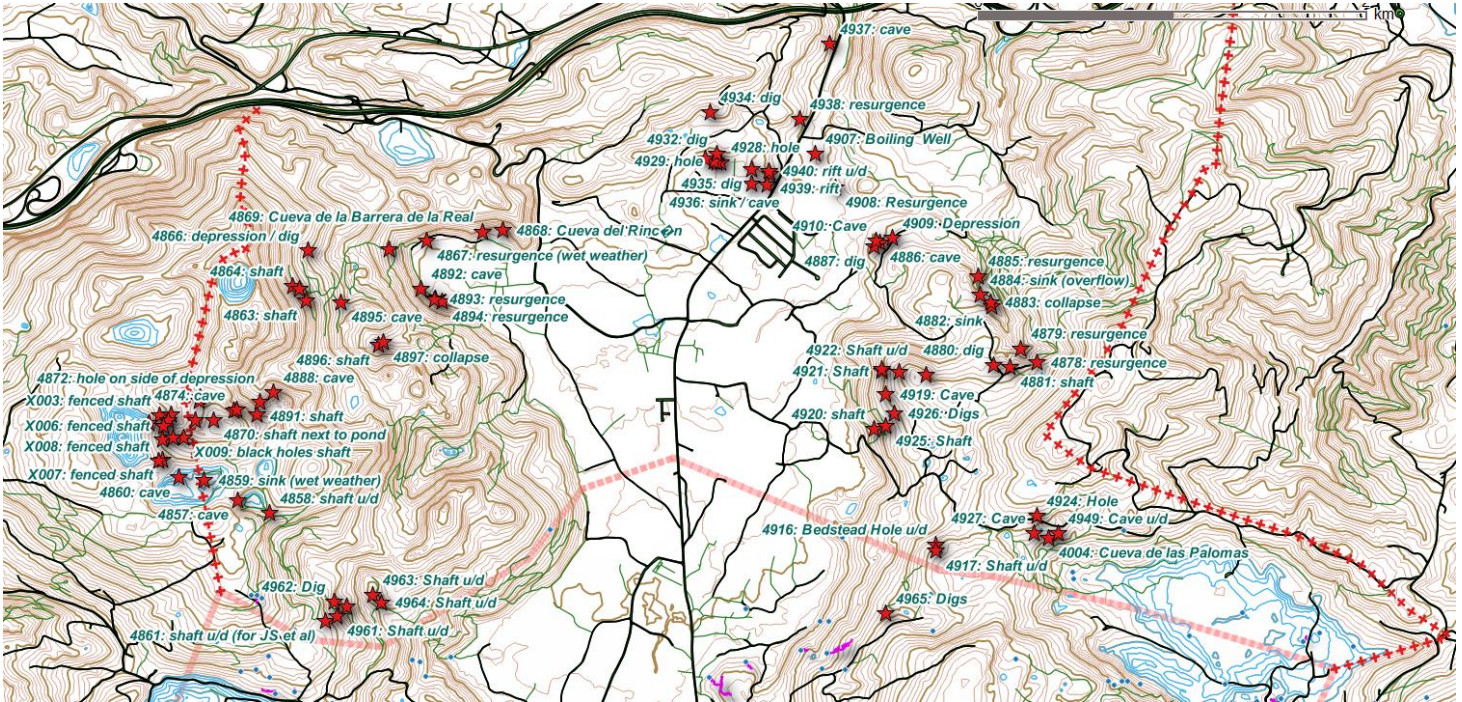
The area to the west on the hill of Monte Llusa is mainly covered by very dense forest and, apart from some tracks (used by hunters), access is a major problem from the east. There are some old aerial photographs from 1956/57 prior to eucalyptus planning and before this dense forest developed. From this resource, we have identified a number of depressions that may have caves in them and marked with "D" codes on our QGIS map for investigating. A few were investigated at Easter, but most remain to be reached but will be left until Easter 2020 due to even more difficult vegetation in the summer.

There are open fell areas on the south side of Monte Llusa that are easily reached from the Garzón side where a number of sites and caves have been found. This area extends into the Anero district which is not in our permission area. A number of sites have been located here (but not examined) during the walk up to our area. To the east of the main road, the area



extends north from Riolastras and is an area of low limestone hills and valleys and, apart from some patches of dense undergrowth and eucalyptus, has better access.

A considerable amount of time was spent prospecting in this new area where 75 sites in our permit area not previously recorded were found, located and photographed. In addition, a number of previously known sites were located and some surveyed and photographed. This report does not go into detail of all the finds, most of which were recorded for further work in 2020. Only the most interesting or surveyed ones are described here. The map below shows the locations found in this area, those marked with an X are noted sites in the Anero area (out



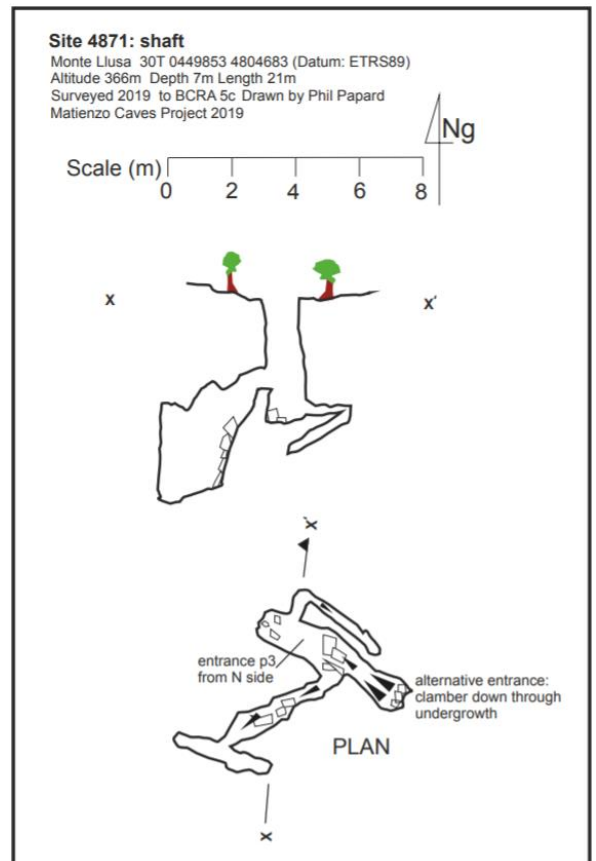
of the 2019 permit area).

In the **Monte Llusa** area, a big open shaft (4870) situated next to a small flooded shakehole was

descended about 10m to a sloping floor. A more restricted drop at the base was descended 7m on a subsequent trip to a further 5m drop to a dig – still to be surveyed. Nearby 4871 is a smaller, open shaft, surveyed to be 4m deep with a 2m choked crawl under and a further rift that drops down 3m to a blind cross rift. Shaft 4864 was dropped for 12m to where it continues too tight to descend for

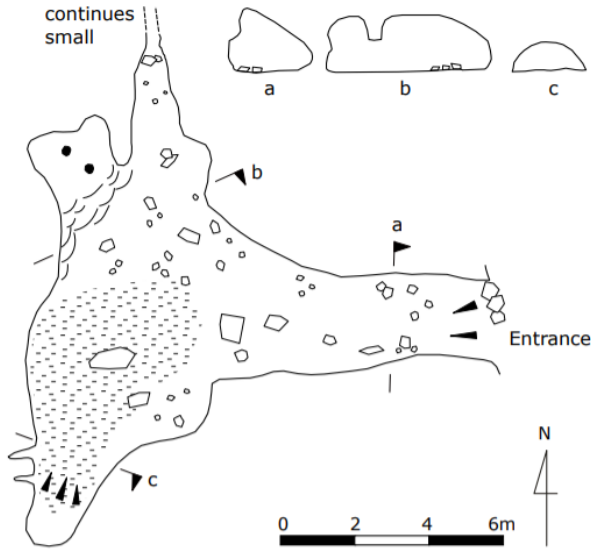


Site 4871



about 5m to a what looks like to be a muddy floor. Shaft 4863 is 8m deep to a small 3m diameter chamber. The floor is loose fill and could be dug, but there was no draught at Easter.

At **Garzón**, the cave 4960 was surveyed and photographed. A small passage on the right could be pushed by small caver. A newly found cave



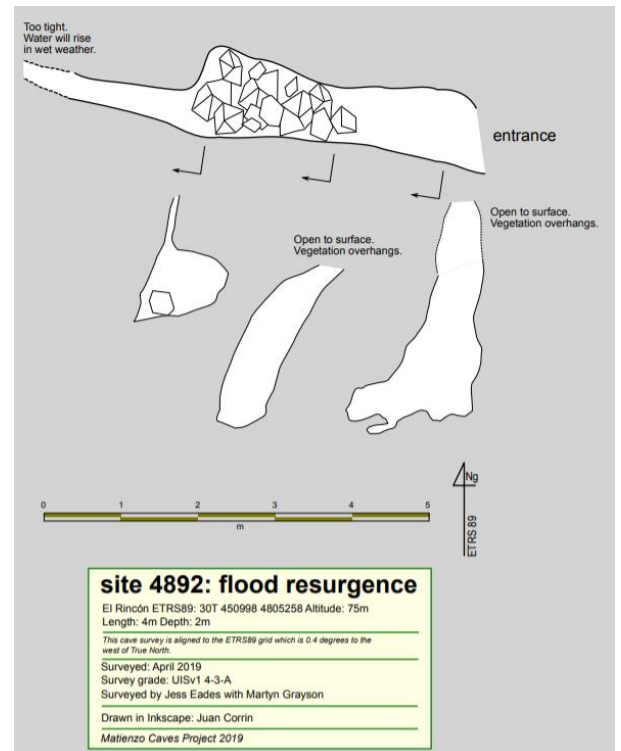
Site 4960 (Garzón) 450615 4803620 222m
Length: 24m August 2019 Survey:PS

(4990) was covered with limestone slabs hiding a 2m drop to 8m of zig-zag passage ending a 2m climb down into a 7 x 5 x 3m high chamber with no way on. Cueva de los Moros (4857) opened out down a climb into a 20m by 11m blind chamber.



At **El Rincón**, an overflow resurgence (4894) was found to have no flow in dry weather so it was possible to lower the

water to gain entry. An attempt was made with a small pump, but a more concerted effort is needed. Another flood resurgence is site 4892,



3m of stooping height passage with a very narrow rift continuing. Site 4942 is a hole to water and a possible dive site

site 4892: flood resurgence

El Rincón ETRS89: 30T 450998 4805258 Altitude: 75m
Length: 4m Depth: 2m

This cave survey is aligned to the ETRS89 grid which is 0.4 degrees to the west of True North.

Surveyed: April 2019

Survey grade: UISv1 4-3-A

Surveyed by Jess Eades with Martyn Grayson

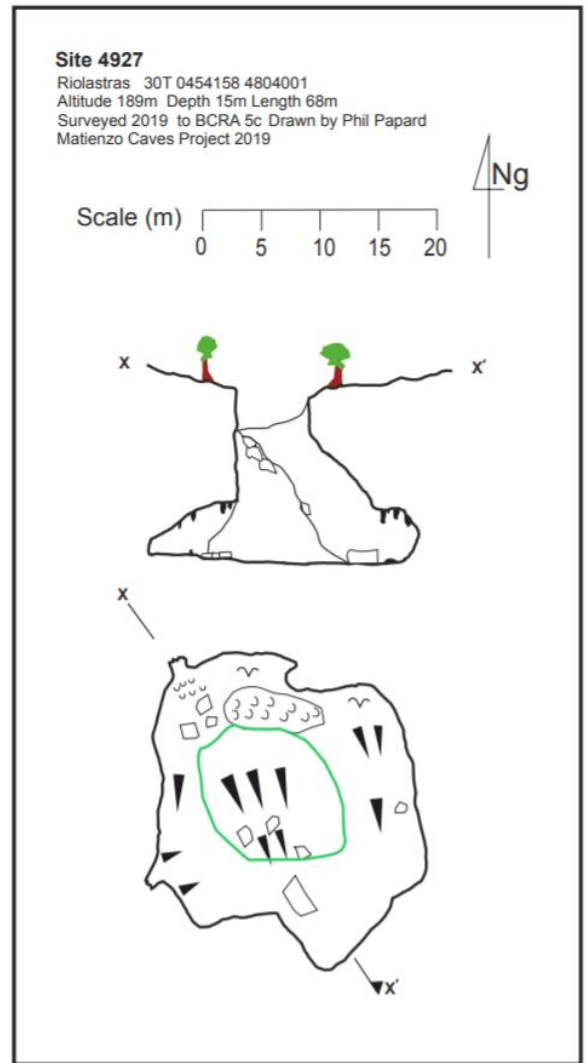
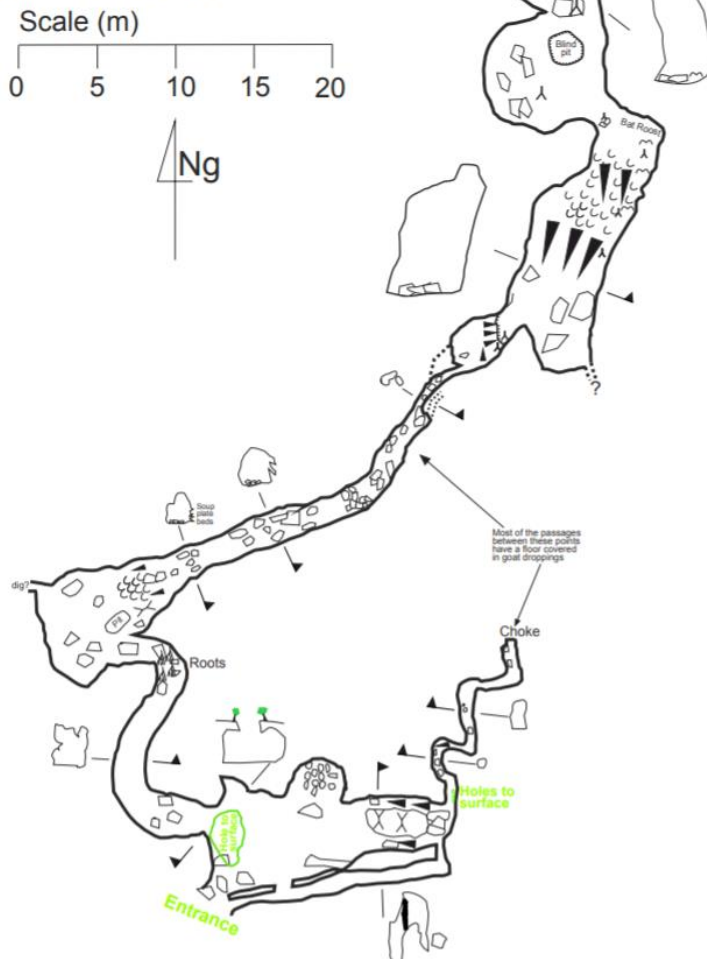
Drawn in Inkscape: Juan Corrin

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behind the main, built-over resurgence (4893, marked with an obelisk). A known cave is Cueva del Rincón (4868) where a dig opened up into a crawl to a small space but with no obvious way on. Other parts were dug but digging had to stop as possible human remains were noted (tibia and a skull fragment) and left in situ.

In **Perlacea** to the west of the main road just south of the motorway, 15 sites (4928-4942) were located. Again, most were new, although site 4937 had, in fact, been found and a sketch survey drawn by the expedition in 1977. This cave still needs pushing and surveying, but at the time of the visit this Easter there seemed to be some pollution of the small stream. Of the other sites, none had any significant extent of cave except 4933 which is a roomy entrance in a steep, fenced shakehole down to a roomy crawl and a small dig; and 4941, a small complex of rifts and tubes where one smaller entrance has a grill and a rift to the left may dig beyond a couple of blocks.

Site 4004 Cueva de las Palomas
 Riolastras 30T 0454231 4803976
 Altitude 178m Length 146m
 Surveyed 2019 to BCRA 5c Drawn by Phil Papard
 Matienzo Caves Project 2019

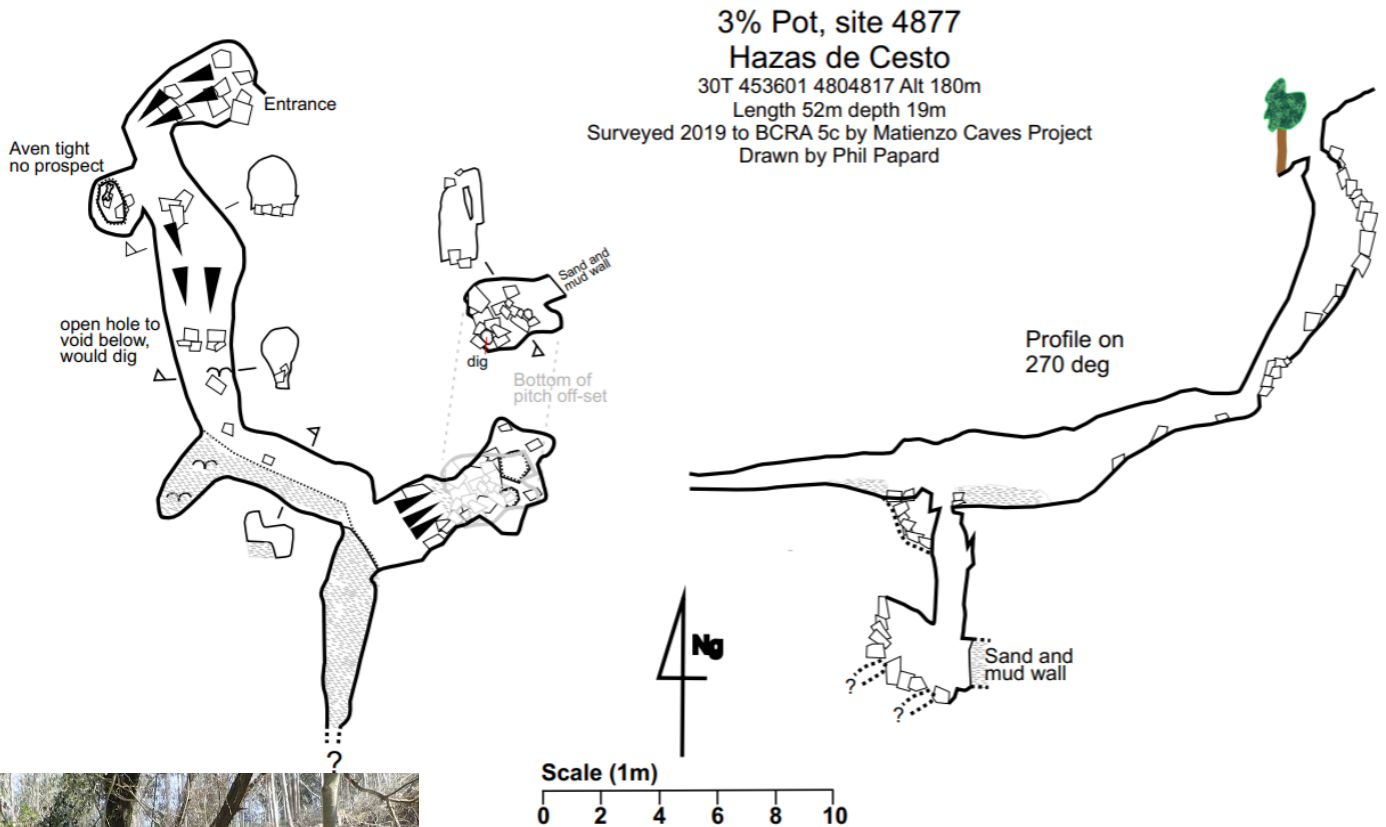


In **Riolastras** in the Hazas de Cesto municipality, five new sites were found of which four had not yet been explored, of more interest was site 4917, a shaft covered with a log where stones fall down "some way" and a deep, large hole (Cueva Colapso, 4927), some 15m across with old cave sections extending all around the bottom, is home to a few bats and seems to be a collapsed chamber. Nearby is the known Cueva de



las Palomas (4004) that was surveyed and photographed. There is a climb to a possible extension in a chamber where there is a large bat colony and a detector was placed here that will help identify the number and type of bats present. It is thought this site may be used as a breeding site. Cave 4095 was explored 10m to a dig in a small streamway.

In the **Alto Panaderia** area further to the north and east of the main road to Beranga, twenty two new sites were found and recorded of these, 15 are digs or small sites with no significant open cave. The other seven are of more immediate interest. Site 4877 (3% Pot) was found to drop some 8m to about 30m of passage leading to a second pitch and dig needing work to extend further.



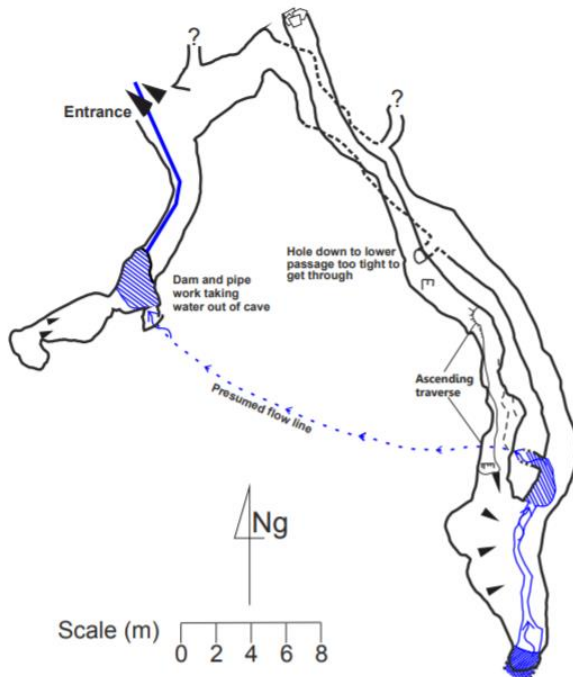
A resurgence, Cueva de Tesugo (4878) is a walking cave to a dam, a tiny stream entry and a small, choked chamber to the west. On a subsequent visit, a low crawl on the east just inside the entrance entered 35m of passage to where the water in the main cave emerged from a sump and into a sink



which appears to flow to the dam. A further passage runs parallel to the low crawl to a choke. In total, the cave was surveyed to

105m and the sump was found to require

Site 4878: resurgence cave
Hazas de Cesto (east) 30T 0454169 4804879
Altitude 173m Length 105m
Surveyed 2019 to BCRA 5c
Drawn in CorelDraw by Phil Papard from
original survey notes and drawings by
Alex Ritchie and Chris Sharman.
Matienzo Caves Project 2019



digging under water if any progress is to be made.

Site 4910 is a 20m long sloping cave to an upward dig at the end and is a bat roost. Cave 4919 was a dig that, after removal of a blockage, is now a 30m long cave with a climb down into a phreatic chamber with two ways on to digs, one of which was dug to a choke. It needs checking out in hot weather when there should be a better draught and surveying. Site 4883 is a collapse hole in a flat area of in-fill in a small valley. A hole in the bottom drops

through boulders to an easily diggable choke where you can see along for some 5m. This is likely to meet a stream that sinks not far up the valley.

The following work was carried out in agreement with the Spanish club G.E. Pistruellos. At **Moncobe**, the sump at Bassenthwaite Water in the south end of El Cubillón (2538) has been tested to Fuente Aguanaz and was dived by Mark Smith and Jim Lister over three trips.



100m plus of new big passage to a chamber. On a subsequent trip this was pushed and in total over 500m of passage are mainly heading south including a stream way going upstream. Downstream will need digging of the gravel fill but there is no draught, more work is needed, with some open leads, at this site.

Site 2538: Cueva El Cubillon (Moncobe)

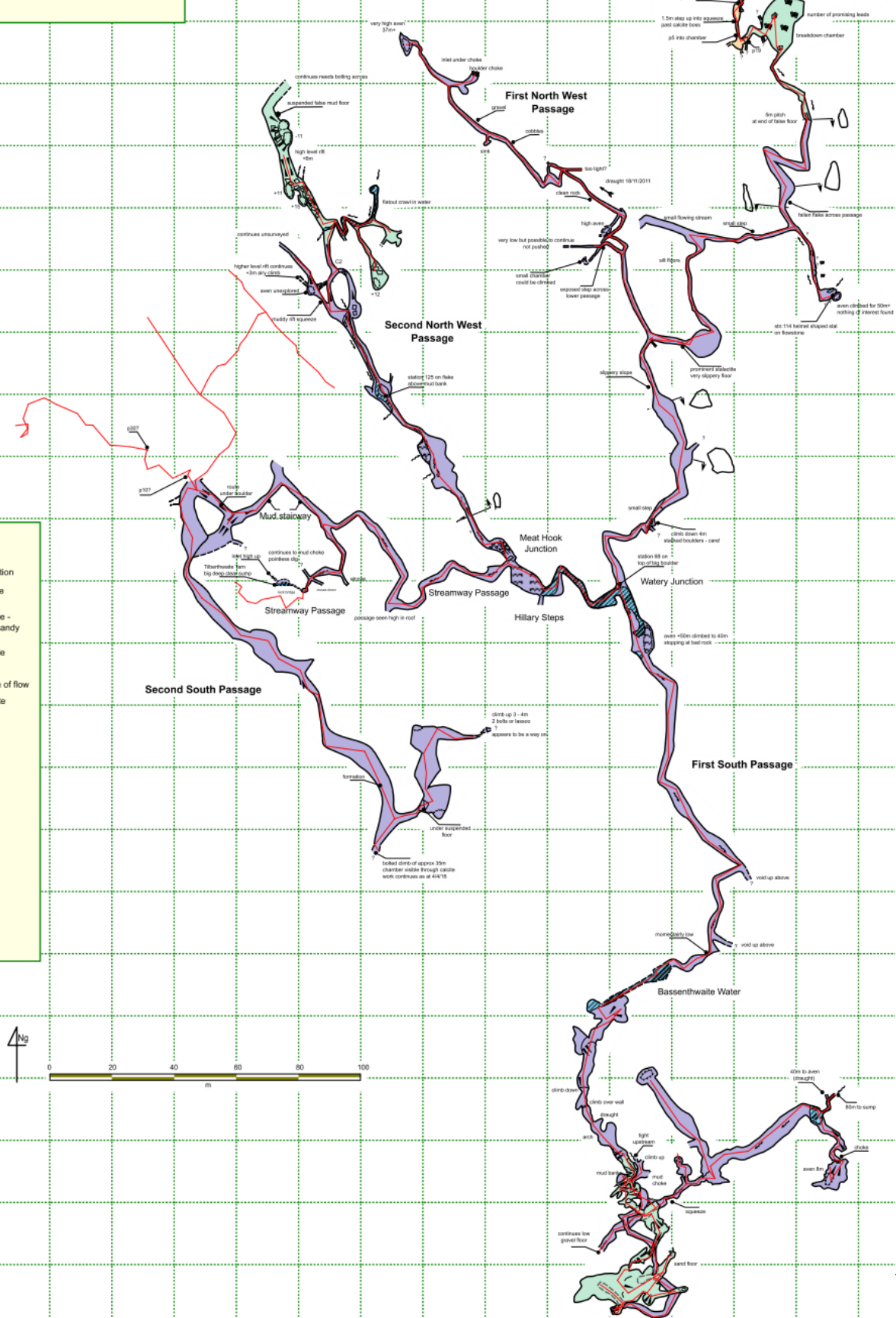
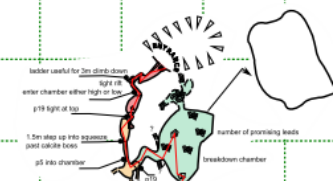
Moncobe, Cantabria, Spain 30T 0446058 4796484
 (ETRS89) Altitude 235m
 Length: 2481m Depth: 92m

Surveyed: 2011, 2012, 2013 & 2019
 DistoX & PDA

Surveyed By: Diane Arthurs, Martin Barnicott, Jess Eades, Phil Goodwin, Tom Howard, Dan Jackson, Brian Latimer, Jim Lister, Steve Martin, Dave Milner, Jon Pemberton, Alex Ritchie, Chris Scaife, Mark Smith & Richard Tooley

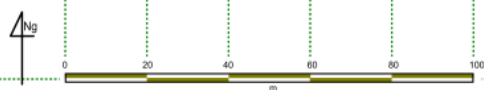
Drawn in Inkscape: Diane Arthurs & Simon Cornhill

Matienzo Caves Project 2019



Legend

- too narrow continuation
- unsurveyed passage
- sand wall in passage - majority of cave is sandy
- continuation possible
- water inlet: direction of flow
- stalagmite - stalagite - column
- straws - helictites
- slope
- pit: depth in metres
- aven
- pool
- large boulder
- small boulders
- stal flow



A shaft 4474 now called Now't but Obstacles was very difficult to push with multiple digs and restrictions to be overcome. However, a lot of cave was found and surveyed over seven trips with 314m added, bringing the length to over half a kilometre.

Several other sites were prospected but most would require a lot of work to make any progress. The exception is a shaft (4525), that was widened out to a hole through a calcite plug. This was opened up to allow access to a sloping passage that ends flat-out with a small hole and an encouraging draught.



At **Barrio de Arriba** a draughting shaft (4966) was dug but to continue the banking needs stabilising and the site made stockproof. More work is needed to clear the blockage down the shaft.