SOUTH WALES CAVING CLUB

BELIZE 2002

REPORT OF THE EXPEDITION TO THE TOLEDO DISTRICT OF BELIZE, CENTRAL AMERICA. EASTER 2002



BELIZE 2002

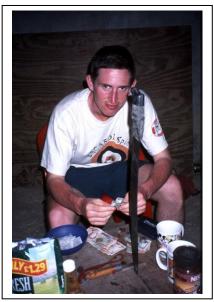
EXPEDITION AIMS

- To discover new caves and extend existing sites.
- To return with a larger team to build upon the 2001 expedition's finds.
- To reconnaissance new areas for future development by other expeditions.
- To establish links with the local communities that will support future trips.

EXPEDITION MEMBERS

- Alan Braybrooke
- Gary Evans
- John Roe
- Toby Dryden
- Martin Hoff





John Martin Toby Gary Captain Al

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ABSTRACT

This report is the result of a five-person expedition to Belize, for three weeks during Easter 2002.

The expedition was to follow up the work started by the team of Alan, Phil Walker and Pete Francis of SWCC, who had visited the area in 2001, with some successes as follows:

- Visiting some small communities in the Toledo district, establishing contacts for future expeditions
- Entering several new caves.
- Surveying the new discoveries as well as some locally known caves.

The success of the expedition was limited by its small size. Though allowing us to fit easily into small local communities, it did require extra care and caution to be used in our explorations.

The 2002 expedition built upon this foundation and achieved its aims, though its modest discoveries were due to the effects of Hurricane Iris. Due to it mainly hitting the sparsely populated region of Toledo, there were few reports about it and it wasn't until we arrived we saw its full effect.

Trails usually used by local hunters and farmers had been blocked and had been only opened a short distance into the bush. Many trees had fallen and the floor was littered with leaves and branches, along with the dense new growth springing up, blocking all views and making travel arduous. The locals who knew of caves or promising areas were also busy, completing repairs, or in some cases complete rebuilding of their homes in preparation for the coming hurricane and wet seasons.

Tiger cave, which had been located at the end of the previous trip, was fully explored and a lower series gave some new discoveries, the lakes to the roaring river were also crossed.

Long treks were made into the jungle with limited success, though from these we can now consider visiting sites further into the jungle with easier travelling conditions.

Towards the end a small party visited the awesome Blue Creek caves, a well-known cave but surrounded by other sites that would be worthy of future attention.

A large portion of the Columbia Branch River System between the sink and Resurgence was thoroughly explored for cave sites. This dry river bed is around 8km in length and over half this length was extensively explored, though without any significant finds.

Many contacts were made in the communities visited that would be extremely useful to future expeditions to the region.

FOREWORD

The inspiration for the 2001 trip occurred on a trip to Ogof Darren Cilau, thinking there must be something better than the, tight wet and cold passages. Belize proved to have none of these, though it had its own horrors, by the end we thought only of getting back to cool off, sleep an undisturbed night and eat a huge meal.

These memories faded and were forgotten when it came to persuading a new team of cavers in 2002, they soon learnt the error of their ways, as meals of a single cheese triangle and sleep interrupted by dogs, chickens, blasting music and crying children led to hysterical emotional collapses.

Now the memories are fading again we can start thinking about the next trip.



Ogof Daren Cilau, South Wales



Tiger Cave, Belize

BELIZE THE COUNTRY AND ITS CAVES

Belize, until 1974 known as British Honduras, is a small country about 280km long and 110km wide, similar in size to Wales. Lying on the Caribbean coast of Central America, it has Mexico to the north and Guatemala to the south and west.

Belize is a relatively low-lying country with a coastline of small Cayes and the second largest coral reef in the world. To the north the country is flat as it extends to join the Yucatan of Mexico.

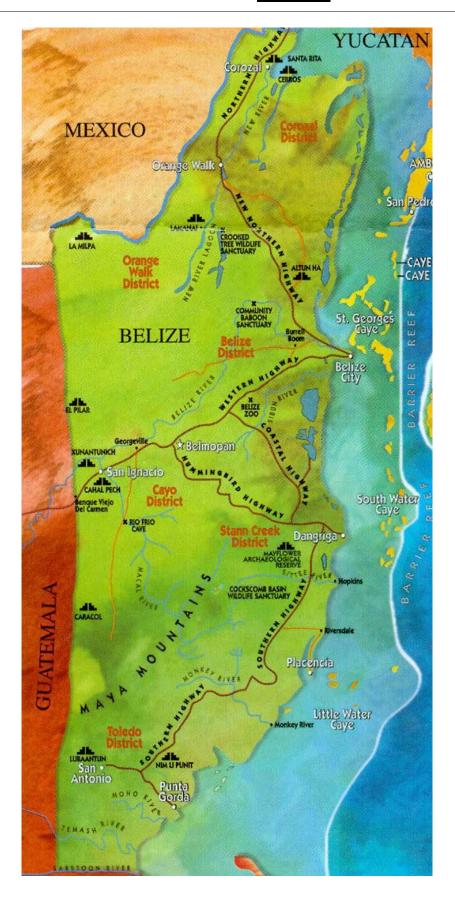
In the centre of the country lies a granite massif, Victoria peak being the highest point at 1120m, formed before the surrounding Cretaceous limestone. Then being responsible for the surrounding uplift, which has formed the Mayan Mountains where the main cave development is located. This mass of limestone along with the large rainfall, which occurs during the wet season, allows for a huge potential for cave development. Unlike the Yucatan peninsula that has received attention in recent years, the landscape leaves potential for dry cave development. In fact it already contains the largest cave chamber in the Western Hemisphere; Belize Chamber, in Chiquibal Cave.

Prior exploration:

With geology like this it is well known as a caving destination. The Americans have been active there since the '50's and there have been several UK expeditions, including two by Queen Mary College in '88 and '89 and one by Mendip caving Group in '94.

In 2001 a small expedition from South Wales had visited the Toledo district, initially in the San Jose area, towards the West and the Guatemalan border. This was following up a visit by some cavers from Ireland and was centred around Gibnut cave which was surveyed and several pitches were descended, giving several hundred metres of large passage. We left this area due to the unforeseen high cost of accommodation and guiding, though there is undoubtedly more to be discovered. Two members of the expedition then relocated to San Pedro Columbia, selected in the field after studying maps, as a promising location. With reduced costs and very helpful locals we continued and successfully made several finds, though only finding Tiger Cave in the last few days. Due to time we surveyed this huge cave system as we explored it, though deep in the cave a fixed rope showed that it had in fact been entered before.

MAPS



PLANNING AND PREPARATION

With the dry season at its height and steady weather, the best time to visit the country is between February and early June, though due to work commitments we were limited to the period around Easter, this causing the prices of flights to rocket.

Contact also had to be made with the Department of Archaeology, who control access to all the caves in the country. Initial emails and letters had no response, but a phone call that unexpectedly put me through to the minister for tourism, Mr George Thompson, got the process started. With the great assistance of Renne Torres who has taken on the task of aiding caving expeditions, it was not until the first members of the expedition arrived and visited the Government offices that our permit was granted

Research was also carried out to find out who had previously explored Tiger cave. Eventually it was found to be a team of US cavers who had mounted several expeditions to the area in the early 80's. They were extremely helpful, furnishing us with some surveys, descriptions of areas visited and more importantly areas they never managed to visit.

The collection and redistribution of group equipment to individuals went smoothly, avoiding having to freight kit, by making use of the huge baggage allowances given on US flights, far more than mortal man can carry.

Expedition Area

From our research, it became apparent that many groups had focused their attention around the Vaca Plateau, where the greatest systems had been found. This basin in the surrounding Mountains was an obvious choice, but to avoid repeating work we decided to travel further south into the Toledo district which, having poorer links to the rest of the country would have received less exploration.

Toledo district is connected by the Southern highway from Belmopan to Punta Gorda (PG), which passes through some awesome Karst features around Cave branch area. After Dangriga we left the "made" highway, though there is a large road-building project underway to connect Toledo to the rest of the country. PG is the district town, set on the coast. It does have some ferry connections and an airport but most travel is by road. Being the main town it's shops sell most things that it is possible to obtain in Belize. From here it is a further hour bus ride to San Pedro.

San Pedro, where we planned on basing ourselves, lies on the river Columbia and was about an hours walk South of the smaller San Miguel on the River Rio Grande. These villages lie where the coastal plain meets the hills and the covering jungle. Both the rivers resurge from their underground journeys a short distance above the communities, with dry stream beds continuing above, through a huge area of limestone, allowing for huge potential development.

On the 20th of March 2002, three cavers; Toby, John and Martin set out from Heathrow, to Boston then Miami eventually hoping to arrive in Belize.

Followed two days later by Gary and Alan

FIELD AREA 1, SAN PEDRO.

San Pedro spreads over a considerable area at the western edge of the coastal planes, that have been cleared of jungle. Each family plot, has a water supply and often a selection of buildings, a mixture of concrete 'hurricane proof' and traditional wooden thatched houses, we were lucky enough to live backing on to the river for washing or cooling off. Many of the inhabitants have small farms in the surrounding area to help feed their families, these backup income from jobs with lumber companies, small shops and bars. The jungle has been largely cleared from the flat lands around the village but is soon reached in the local hills, it is crossed by many trails mainly made by hunters.



Expedition Log

Log entries by Alan Braybrooke unless credited otherwise

Wednesday 20th March

Team 1

05.00 the alarm goes off in my ear, but I'm already awake, feeling a bit apprehensive but good. Unpack my rucksack then repack just to make double sure I have everything, dingy, cooker, underwear, etc.

Paula drops me at Neath station, clamber on to the train with my Mobile house on my back and journey to Bridgend to meet John Roe, then both drive to Cardiff, pick up Martin Hoff and off to Heathrow. Still don't feel excited. John & Martin seated together, I'm near the front seated next to the window. Leave Heathrow at 18.00 and arrive at Boston at 20.35 same evening - fast! Boston is very cold, it's been snowing heavily but now rains. Spent night in crummy airport corridor, cold & draughty. Flight is at 06.00 tomorrow. *Toby*

Thursday 21st March

Team 1

04.00 Check in. Fly down to Miami. 5hrs and no Breakfast on flight. When we land we only have 30mins so a quick burger meal at Burger king then check in.

A stunning flight down to Belize over the Cayes, they are Caribbean Islands with lovely turquoise sea and golden sand - pity we can't play.

First Impression at the airport is a hot sunny Caribbean retreat, but once in Belize City its very much a rundown poor town. Stayed at the Seaside Guest House, friendly and clean. Group of 4 German women moaning about everything there, manage to stay out of their way. John and I go out to look down Town. Look for postcard to send home. Temperature hot so John and I go for a drink at the waterside bar. Its now 16.30, back home its 22.30. I'm really tired but very hungry, back to Hotel then out for Chinese meal. In bed by 19.00hrs. *Toby*

Friday 22nd March

Team 1

05.15 and I'm losing track of time. Torrential rain, get up and shower, breakfast of toast, jam coffee. Walk to the bus depot, 1 mile, back breaking. 2 hour bus ride to Belmopan, the capital. We have to stop and visit Rene Torres and George Thompson for a permit to visit the area and enter the caves. Call in to the Forestry Dept, get their permission and then back to George, yes we can go. Catch bus down to Punta Gorda in the south of the Country. 8hrs on a bus through the Jungle on plastic sweaty seats, John and Martin in seats A37-A38 me at the front on A1 with all the locals. Good journey, many people on and off. I'm lucky I had a local man pointing out waterfalls, lagoons, telling me about the villages, Orange plantations, etc. I also get 2 small girls about 9yrs old asking me where I'm from, where I'm going, what I'm doing? Then trying to sell me a basket, fair enough but did not buy. Arrive Punta Gorda 19.30hrs dropped at the hotel - Natures Way, cheap and very basic but on the sea front. Down town for food, rice and fish, bed by 22.00.

Toby

Saturday 23rd March

Team 1

05.00 Early awake, back home 11.00. Down to veranda for coffee with Chad, the American owner. Half an hour later two more arrive, they work for the Peace Corps. Head down town at 7.30, town's in full swing, it's market day, wander around & pick up post cards, bit of a lazy day getting use to the heat.

Toby

Team 2

Awoke in the back of my car minus dinner jacket and mobile phone following disastrous university ball, managed to find my way home to fling final items into rucksack before Gary collected me exactly on time, settling in on his back seat to enjoy my trans Atlantic hangover, stretching from Port Talbot to Boston.

Sunday 24th March

Team 1

05.15 Early awake again. Down to the veranda again, drink coffee then we are invited out of town to a reservation where they help the Mayans to support themselves, and to become self sufficient.

John & Martin go for a swim, I take a dip but then notice what all the brown floating mud like deposits are and leave.

Alan & Gary turn up at 21.30. I'm in bed - John and Martin are in the Pub. *Toby*

Team 2:

Very early start but not early enough to beat large queues at check-in desk. Due to very poor home repairs on hiking boots, glue all over them, I was hauled in by US customs as a potential shoe bomber. Eventually after routing through Miami both my boots and me made it to Belize, travelling into the city with a huge grin.

Straight to the bus station in Belize city to begin the journey to try to meet with the first team, had to pay a beggar who performed eye watering contortions for us, but when another, also very drunk, appeared with paraffin and torches to be juggled we swiftly mounted the nearest bus, for our own safety.

The long and dusty journey rolled under us and we soaked up the views before trying to sleep, arriving late, hungry and tired in Punta Gorda, vaguely aware of meeting Team 1, exactly as planned, before collapsing to quality sleep.

Monday 25th March

Team 1

05.30 Awake, down to coffee on the veranda, out onto sea front to take a brilliant picture of the sun rising through the beams of a fishing boat, John also down here and talking to one of the locals. 06.00 Martin, Alan and Gary join us. 08.00ish down town, spicy café for breakfast, eggs, beans, toast and lots of coffee.

09.30 Back to hotel to pack gear, shower, shave etc. Down to the plaza for the bus at 11.00, though it does not come until 12.00. One and a half hour bus journey to San Pedro Columbia. Meet the family - Mum, Dad, 5 daughters & 3 sons, 1 of the boys is 15, all the others are below the age of 8. Settle in, then off for a walk to gently settle us in. This village is just as you imagine a large Jungle community to look - thatched roofs, huts, pigs, children, then the Captain takes us off for a little stroll, temperature is 34.5, no wind, overhead sun and its bloody hot!

To start we are on a good track but our leader can not remember the correct way down to the river. Thinking we're right we plunge off down a dry river bed, where its even hotter!!! The river bed is full of bushes and trees with 2" long thorns. One stab and you'd be in PAIN. Big rocks - its no fun. At one point we have to stop and I can feel my body cooking under my skin, my internal temp must be high. After 15 mins we move on and we are all having problems in this heat. Finally we reach the resurgence and the water is rising up into the air by a metre, so a good soak, well deserved, then an easy walk back to the Village. Pity Al could not remember this way out, but I have to take my time, the heat really hurts, stop at the shop for COKE! Back to hut and a nice wash in the river then the evening meal, Tortillas & <u>Greens</u> of sorts (leaves). Filter water then bed by 20.00. Goodnight. *Toby*

Team 2

Awoke early as Gary managed to capsize his bed, started coffee marathon with Team 1 catching up on their news and also goings on with their numerous American friends, who seemingly met regularly at the Natures Way Guesthouse at 6.00am.

Arrived promptly in the village square for the 11.00am bus and settled in for an hour of cooking as it became apparent that there was no bus until 12.

The \$3 bus journey to San Pedro showed lots of evidence of the previous years hurricane and I was extremely apprehensive about what we would find.

To my surprise we were expected, an email sent in vain hope had eventually made its way and the Choco family were expecting us, welcoming us back to their home. The Hut that myself and Phil had stayed in previously had been destroyed, but we were given lodging in a new lean-to on the back of the concrete central building, where the family had sheltered the 150mph winds.

An acclimatisation walk to the Columbia resurgence gave us more insight, new buildings had appeared, old ones were at even more relaxed angles, trees were either down or stripped of foliage, the ground between them a tangle of the fallen debris and dense new growth.

The going was far harder than anticipated and all were glad to reach the coolness of the river, the resurgences were impressive due to recent rainfall.

Rooted around for a while after a swim and had a look at the airbell on the river bank behind the resurgence. No air space visible above water other than in the pot hole. Water very still. Then wandered back to village – very tired, stopping at the shop for a cold Sprite. *Gary*

12/13 Tortillas served with leaves before settling into hammock with the faint smell of the longdrop on the wind.

Tuesday 26th March

Bat cave, Tiger cave, San Miguel

Early start, on road by 7.30 reaching the caves on good trails with only two stops, the second by a small resurgence pool, which John entered, swimming back for 6m, no noticeable flow, but lots of fish.

A swim for the whole team at the source of the Rio Grande revived spirits, before entering Bat Cave, visited previously by both the Americans and the 2001 expedition.

Al and I traversed along the left hand wall (looking in) and climbed down to the river whilst everyone else explored the right hand passages. We had no buoyancy so didn't push on into the deep water.

Gary

The whole team accompanied by Basilicus, one of the sons of our hosts, entered Tiger cave, still on awesome dimensions, no snakes, intentions to look at the logistics required to push some areas. A look at a hole found the previous year gave some promising echoes and the terminal sump that had been seen was entered, though no airspaces could be located.





Basilicus

Resting at Tiger Cave Pool

Tiger cave was massive – reached via huge white limestone gorge. Big big passage and numerous open roof entrances. Went to look at lakes and decided we'd need to return with buoyancy. Continued on to 'the connection' where Toby, Martin and Basilicus turned back. Al, John and I continued to far end of the cave through huge passages and had a look at an area called 'jump-off'. Al looked at the pitch and decided to come back with rope. Continued on to the end of the cave and to terminal sump. Al tried an exploratory free-dive attached to me and John by two long slings but could find no way on without diving equipment. We headed out, taking 50 minutes to return to the entrance.

Met the rest of the Team on the beach and after a swim, a rest and some biscuits, began the hard slog back. Got very tired and was exhausted at the San Miguel shop – the heat seemed to affect me more than anyone else. After a rest, we slogged on along the road, dragging myself along and then – good fortune – managed to get a lift in the back of a pickup. A well earned cooling off in the river back at base, more yummy Tortillas and made a plan for the next day, retiring at 9.00pm. *Gary*

Wednesday 27th March

Tiger cave, San Miguel

Plan to split into two teams, one to photograph the cave, and carry inflatables - Gary, Toby, Martin + Basilicus. The second team of Al and John were to descend the hole found. Hitching a lift on the back of a pick-up saw us arriving in good health with plenty of water, underground at 10.00am.

Before going underground, Al and I swam across the lake at the resurgence and explored the West bank. The small resurgence there had no flow and the holes we had seen provided no way on. Only one larger hole looked interesting, but would require enlarging to pass. Geared up and headed for the entrance around 10.00am. Martin and Basilicus had gone ahead to start with the photography. Al and John headed for the 'jump-off' and Martin, Toby, Basilicus and I spent the next few hours with the photography. Slow and methodical was the order of the day. There were some problems with the flash and firefly slave, but we soldiered on and finished around 1.15pm and headed off for the lakes.

Just before leaving for the lakes, I found a side passage in the double skylight chamber and climbed up and around for more than 20 metres. This was not on the survey and appeared to have not been entered before. Finished up high in the wall of the chamber, looking down on the rest of the Team.

Gary

The pitch was dropped, through loose rocks glued by copious mud, 18m in depth, into a 20 by 25m chamber, this was part of a lower flood series, with several meandering lakes, streams and ducks.

The exploration of this area took longer than expected, though this delay ensured that the photographic team had finished inflating the dingy.

As AI and John had missed the agreed meeting time, Martin, Basilicus and I headed off at 2.00pm to look for them. We had covered about a quarter of the cave when we met them and we all returned to the lakes.

Gary

A major event of the day was the near loss of our photographer as he plummeted from a height into the lakes while trying to capture our launch, battered and shaken he was checked and escorted out of the cave.

After discussing progress, I lowered myself into the deep water at the start of the lake and the dinghy and inner tube were passed through. John and Al got ready to join me and Martin climbed up to a rock bridge ready to photograph our maiden voyage. I was up to my chest in the water standing on a ledge and John was in the entrance window above me.

Suddenly from above my head I heard and exclamation, then a crashing followed by a big splash. The dinghy shot down into the water and I realised what had happened. I threw the dinghy off into the lake just in time to see Martin resurfacing. Grabbing his arm, I hauled him out and passing his camera up to Toby helped him up the slope to where John could help. Martin had bashed both elbows, grazed his chest up one side and under the arm as well as banging his head resulting in a cut on the forehead.

Toby and Basilicus helped Martin out of the cave, as although shaken, there seemed to be no serious injuries – other than the camera flash which remains at the bottom of the deep lake to this day

Gary

Several lakes had to be crossed, some waded, others using our dingy and inner tubes until a 4m calcite dam blocked the passage, a short sump and a tight climb passed this, more swims led to the Roaring River 8m below. There was a powerful flow, sucking under edges and mushrooming elsewhere, ledges were followed as far as possible but the only way to follow this passage would be with extensive bolting.

Exited at 5.00pm and set off after Martin and Toby, all finally returning to San Pedro at 7.00pm exhausted and looking forward to an easier day.

Tortillas and beans for tea.





Thursday 28th March

Lubaantum, San Pedro

Following two very constructive days which had acclimatised the team to conditions to be expected, as well as leading to some discoveries and concluding areas of interest in Tiger Cave, we were in need of a rest day.

This was initially spent visiting the local ancient Mayan city of Lubaantum, the museum had been damaged so was empty, though the site was still impressive and the reduced foliage allowed some good photo opportunities. Returning through the gaggle of locals who congregate around this site to sell craft products to the handful of visitors, the rest of the afternoon was spent fixing and fettling kit. Interspersed with trips to sink into the river, the battered Martin received ongoing attention to his injuries, following his fall and he continued to give first aid to his camera.

Friday 29th March

N W Sinks, San Pedro

Plans to be guided by Ansalmo, were stopped when he remembered it was good Friday, so had to go to mass, as an alternative we had identified some sinks, heading West, just North of our location.

Using a GPS to support some unclear mapping we headed across maize fields to a col and had to break trail from there onwards. Trails were there, though had not been travelled since Iris, so required a great deal of machete work. Reaching the streambed we were to follow to the sinks, a quick bit of food was had as it was now only 1km to our destination. Four hours later after cutting through dense new growth and wading pools we started reaching the sinks, several small muddy holes were located giving a total of about 30ft, which was choked with debris. There was some potential in the hillsides above though due to the time and the fact that we were all either low or out of water we headed home.

On reaching the dry streambed, Toby decided to wait there for us as the going looked tough and we were already tired. At 11.00am, we carried on, trying to follow the stream bed, but it was a nightmare of fallen trees and overgrowth. We had to cut our way through with the machete nearly all the time and at times had to go up onto the banks to make progress by cutting our way through the jungle undergrowth.

About half way down the stream bed, I was exhausted and gave up. John went on to join Martin and Al and I sat down to try to rest. After a Muesli bar, some Glucose tablets and about 20 minutes I felt better and went on to try to catch the others (spurred on by something large moving about in the bushes around me).

Caught them up in an area of limestone pavements and wet sections – boots and legs got soaked. Somehow now had the energy not only to carry on but had a long session hacking while the others rested – amazing how one can recover following rest and a little food. Eventually we reached a small sink that went nowhere. Al cut on in a narrowing gulley and just as we were about to give up, John called from ahead and we joined him to find 3 sinks in a row. The first two were only about 2 metres deep and the third one Martin explored for about 8 metres before it choked.

Gary

At 3.35 we headed out – very late and tired. After an hour we reached where Toby had been waiting, but he had already headed home (he later told us he had left at about 2.00pm). *Gary*

On reaching the road again, prayers were answered and pickup passed, despite getting bitten by a dog the lift was fantastic, allowing us to get back and enjoy a well-earned cold drink before black beans and Tortillas.

Saturday 30th March

North of San Pedro

Baby cried from 4.00am onwards, though fortunately it seemed not to disturb anyone else in the village apart from us.

Talk with the family the previous night had mentioned a cave in the farmland North of the village, learning from the previous day we ensured we were thoroughly hydrated before leaving.

Talked to several farmers as we walked, none of which had heard of any cave, though there were repeated references to Esperanza camp, but that the trails were not open.

Eventually heading for a recently cleared hill we surveyed the local terrain, which did not inspire any hope, instead we headed back to Lubaantum to speak with the curator, who had not been there on our earlier visit. A wall of heat hit us as we stepped back onto the white dust of the road.

A long meandering chat was had with the curator, though he knew of nothing of direct use he did give us some others in the village that could help us.

Having only earned small cokes today we retreated to the river to wash our clothes, a good evening followed. Rice instead of Tortillas for dinner and then to find a cake in my rucksack, which we had to celebrate Toby's birthday made the evening complete.

The night continued with the chase to catch and remove a huge spider, that no one felt comfortable about sleeping with, for fear of being eaten, and removal of first tic of the expedition.

Easter Sunday 31st March

Columbia river, San Pedro

We had planned an early start, though this proved not early enough as our wake up call today was one of the sons of the house being taught how to slaughter pigs for the BBQ later, he proved not to have a great talent for the task. He later told us all about it, going into detail especially with Gary who as a vegetarian greatly appreciated this.

This early start allowed a cool start to the day, when we reached the resurgence of the river the group split in two, with Toby, John and myself pushing up the dry bed to new ground, with Martin and Gary carefully rechecking last years ground. Still full of potential, though nothing was found despite our best efforts, climbing up hard routes with scary descents on the valley walls over rotten logs and loose rock.

Back to join the family celebration and a feast with potatoes, spent the rest of the day chewing over the gristly chunks of pig we were presented with.

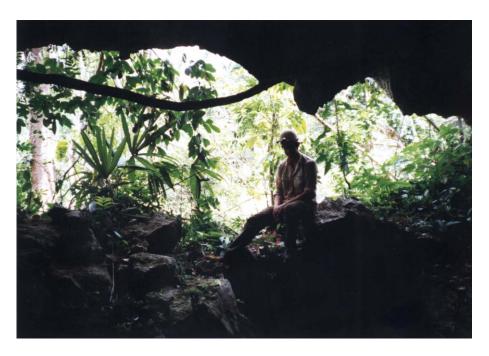
Monday 1st April

Columbia river, higher, San Pedro

Hysteria swept the team, sleep had been very disturbed by dogs chickens etc, but tonight was particularly bad. Ryan, the baby, managed to wail endlessly till almost dawn when he could rest as a stereo started up.

Very tired but off with Ansalmo to visit the upper Columbia and some caves in that area, no bread in the shop so biscuits for breakfast/lunch. The route passed close to the deep shafts visited last year, on reaching the river bed at 9.00am, we were told of another large cave another hour along the trail, though at present it would be over 4 hours.

The cave we were led to was up on the rivers bank, a large entrance, which contained a blind pit, but past this we entered a higher level of tubes. Full of wildlife, many bats, many flying into our faces and also various insects such as large whip scorpions - a very unpleasant looking beast.



Continuing down to the resurgence we passed some huge overhanging cliffs complete with large stals, the temperatures topped 42°C. The fee of \$35Bz was felt to be steep, even by one of the sons of the family who accompanied us. Back onto tortillas for dinner.

Tuesday 2nd April

Uxbenton. San Pedro

This the last day for three members, we planned to visit a Maya site North of the Columbia, the Maya believed the caves to be the entrance to their underworld often building close to them. Planned to use good trails South of the river then ford it, this took us into an unmarked and previously unseen farm. Here we were led to the river, but nerves increased as we were led further from the road passing hidden poly-tunnels.

On the other side of the river we found a community of Americans who allowed us access to the site of the ruins, though confirmed there were no caves on their cleared land, it also appeared that we had left the limestone and got onto some shale's.

To avoid crossing back across the first, scary, set of farmland, we set off down stream for the direct route back to the village. An idea of the support and affection shown for me by the team was demonstrated as the river became deeper and rucksacks needed to be carried overhead.



Belize 2002 - South Wales Caving Club

Leading the way I suddenly found myself in water over 7ft deep, firmly on the bottom and unwilling to get my pack wet I tried to walk backwards, waiting for a helping hand. Eventually lungs forced abandoning the rucksack, on surfacing I found my rescuers helpless with laughter at my peril. Though I was glad to see they were equally caring for all as they later stood watching John, the shortest member of the team, floundering through deep water a rucksack in one hand and unsure which stroke to use that would not result in injuries from the machete in the other.

This was the last night for three members of the team who with real jobs needed to return home, after paying up with Cesario (\$800Bz) we were presented with gifts made by his wife for us. Less gratefully received was the final meal of Tamales, into which must have been put a whole tin of blandness powder, usually rationed into the Tortillas, the longdrop was busy that night and the three were not sorry to leave.

Wednesday 3rd April

Rest day, San Pedro

Team 1

The departure of Gary, Martin and Toby at 5.30am allowed John and myself a lie in , they would be enjoying a large meal tonight after all.

Spent the day wandering the village, following up leads about the best people to talk to, Eventually after much walking and sunburn this paid off.

The village guide, whose name neither John or myself can remember, was eventually located but the only place he was keen to take us was Tiger cave, though he did have a vehicle. Victoriano (Victor) Choco had been involved with logging in the area, he had maps, which were better than ours, though he couldn't read them, telling of cave with many lakes and climbs, an other where a great wind blows out from. Unfortunately he is working at present to support a rapidly growing family.

Alfonso Chi, who has worked with archaeologists in the past was out at his farm and unavailable. Instead a feast of corned beef followed, then an afternoon sat in the river, having a shave and watching a black stork fishing on the opposite bank.

Team 2

Up at 4.45 am after a reasonable night, though the bed was hard again as the thermorest had been packed away the previous evening.

Washed and finished packing and waited for the bus. At 5.15am we decided to head out and found the bus waiting at the top of the road. The ride to 'The Dump' was fairly quick and we got there at 5.45am.

Had an apple and some Pringles for breakfast. The bus didn't arrive until 6.30am, it was full and we had to stand. Toby got a seat after 10 minutes and then Martin after an hour. Then I finally got a seat after an hour and a half – just in time as I was ready to fall over in my food deprived condition. It was really hard trying to stand still for so long packed tightly with a load of kids whilst travelling over what can only be described as 'mile after mile of rocky dirt track'. Had breaks from the travelling at Dangriga and Belmopan of 10 minutes each and got into Belize City at around 10.00pm.

Taxi to Seaside Guest House cost \$6Bz. Got rooms sorted and then after a nap Toby and I went for a walk leaving Martin at the Guest house catching up on e-mails.

The Belize City South Side was quite rough and intimidating, but the North side was better and the Cayes Jetty was amazing – giving a real false impression of the 'Caribbean' Belize. Loads of Americans trying too hard to be beautiful or just way to big.

Back at the Guest House at 4.00pm for tidy up and diary writing.

After a few hours of resting and reading, we went out for food at 6.45pm. The Chinese restaurant was only 100 yards down the road, which was good news as the guide book recommends staying in at night. Vegetable Chow Mein and a Large Sprite – luxury – first decent meal in 2 weeks. Didn't touch the sides and could have eaten it twice.

Back to the guest house going to bed around 9.30am ready for our 4.50pm flight the next day – aiming to arrive in London on the Friday.

Gary

Thursday 4th April

Esperanza camp trail and descent of the Rio Grande

Up and out by 4.15am, this alpine start was to make the most of the cool conditions, Basilicus was supposed to accompany us, we had a big day planned and thought the locals were more likely to rescue one of their own, unfortunately he decided to stay in bed.

Under a good moon we made excellent progress. After an hour and a half we came upon a crag at the side of the track we were on which was riddled with holes, here it appeared was a major Gibnut hunting site, judging by the ropes to holes and number of shotgun cartridges. A fuller inspection was planned for later, though this was never done, as we still wanted to get miles covered before the sun came up.

We continued until the end of the loggers trail, copied from Victors map, up to this point 4wd access would have been easy and at 8.30 we had breakfast. From this point onwards the trail had not been cleared, we started off but were repulsed, not by thick growth, instead by huge spiders, almost hand sized and vividly coloured, these built webs that were surprisingly strong across trails. There they sat in the centre of the web, often at face height, almost invisible, several near collisions later, we were walking with machete held vertically in front as if on parade, before losing nerve and retreating. Some side trails were investigated, though often leading to a selectively felled tree or blocked by our arachnid friends.

We then returned to the Rio Grande Bridge, where we decided to attempt to journey to Tiger cave and take in some of the reported American discoveries on the way, only 6km to Tiger cave.

This river bed did not provide easy travel at all, the most enormous 'strainers', great dams of fallen trees, had to be passed by precarious balance or desperate squeezing, more evidence of the hurricane?

Between the dams we made good progress, so over lunch it decided to rain briefly to ensure these rocks became good and slippery.

By 3.00pm things were not as expected, it now appeared that we were heading upstream, though the GPS and other map features confirmed our position, the river eventually petered out less than 1km from Tiger cave. On to our last drops of water and night imminent we turned back, unfortunately for the fish and tadpoles in a puddle left in the riverbed, we had a filter and managed to pump enough to get us back on our legs and back to the road for dusk. The walk back in darkness was added to by the quantities of fireflies around, disorientating or pretending to be the village that we were hoping to see.

Our large cokes were well earned as we collapsed in a dirty heap outside the village shop, we later calculated that we had covered about 40km - a distance that I had thought impossible in the climate.

Our footsore return coincided with a call from an English inhabitant of the village we had spoken to, requiring some house sitters. A quick look at his new home, with toilet, kitchen and no wailing children convinced us.

Back to the Choco's for a quick swim then tea, rice and salsa, no tortillas.

Friday 5th April

Rest day, San Pedro

Children banging rocks together inches from my head indicated time to relocate to Rob + Marta's, one of the first on the PG road. The day was spent eating as many meals as possible with cups of tea in between.

No one could be found to guide us to any of the talked about caves, the only person who could be persuaded was Basilicus who said he had heard of one upstream of the Rio Grande Bridge, so this was planned for Sunday.

Saturday 6th April

Upstream of Tiger Cave, Rio Grande

Curious about the apparent mismatch between our map, the Americans reports and our own experience found on the journey down the Rio Grande on Thursday, we set out to connect from Tiger Cave upwards.

A full day of rest with plentiful food left us feeling back on form, making it to Tiger Pool in an hour and a half.

From here on the speed stopped, a ladder seen the previous year led to a continuation of the gorge, but no one had been that way since the hurricane, even with balancing along fallen tree trunks to make progress, in 2 hours we had only got about 300m, getting back to the start in minutes.

We then went into Tiger Cave to GPS locate some of the other entrances, these proved to be under 200m from our far point on our descent on Thursday, though with the fallen trees and new growth they were invisible from only a few metres away.



Had forgotten how large the final chamber and exit was, having visited it the previous year, though we saw a lot of it as we tried to remember which hole in the floor we had climbed through to get there.

Returned to the village where I helped Cesario set out the new footings for what he intends to be his guesthouse, the quality of my surveying skill will be apparent to future visitors.

Sunday 7th April

Upstream of Rio Grande Bridge

The porridge we had for breakfast tasted fantastic, an indicator of how bland our diet had become.

It was a fine blue day so applied copious quantities of sun cream before we set out at a blistering pace, the cream then spent the whole journey relocating itself to my eyes. The terrain upstream of the bridge was far easier going, less of the huge dams encountered previously, instead mainly dry boulder streambed. The cave was supposed to be a 45min walk, but we had seen no trace after an hour and a half, John and Basilicus continued to set a GPS high point at an obvious hill. We were surrounded by very promising looking hills but our experience over the previous days had shown us that we could easily walk within 5m of an entrance and miss it under the tangle of fallen trees. One small tight entrance was found giving 20m of unpleasant passage.

We had now become very demoralised by the effect of the hurricane and were feeling that we were expending huge amounts of energy and getting nothing to show for it, we decided to have another rest day and try to make some new plans.

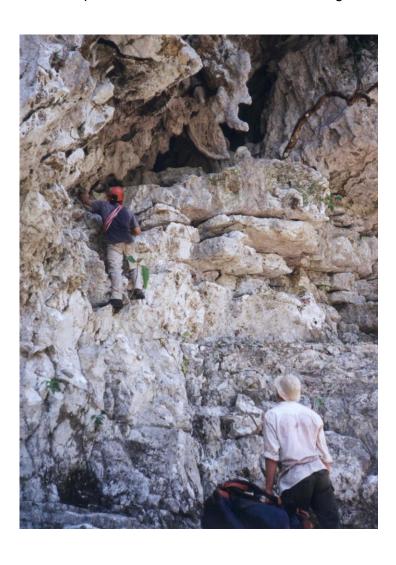
Monday 8th April

Rest day, San Pedro

Another easy day, managing six meals each and firmed up plans to move to Blue Creek tomorrow, an area that is mentioned in guide books as being known for its caves. Eventually we had to move out of our adopted residence and returned to the Choco's to pack for tomorrows move.

I think this pack may have been even more popular a spectacle than when the other three left, or perhaps word had got out. There was not a doorway or window that was not occupied to watch the Gringos, Mrs Choco even had to get a chair in our room.

The last three nights had made me soft and the cockroaches woke me as they ran over me while I slept on Martins bloodstained bed, causing me to return to the hammock.



FIELD AREA 2, BLUE CREEK

Blue Creek is a far smaller village set along the road as it crosses the river, two small stores a school and a tourist lodge as well as a couple of dozen homes.

Tuesday 9th April

Blue Creek

The Choco's had got up early leaving only a handful of children to see us off as we set about hitching.

Our first hitch was in an extremely fast pickup driven by Mr Christopher, one of the Americans living up near Uxbenton. I had a constructive journey and found out a lot from him. He had spent some time in the Esperanza area, telling us of a good location half way along the route. While I was chatting, John was hanging on in the back of the pickup, in fear for his life as we skidded round bends and bouncing along the unmade roads.

Our third hitch was kind enough to take us straight through Blue Creek before we realised, leaving us to haul packs back in the midday sun. Searching for accommodation initially looked hopeless, though the offers soon started flowing, each only a slight improvement on the last. Luck went our way as we met Sylvano Sho, a local caver who had only recently accommodated another group from the UK, so we set up in his guest hut and kitchen. This had also been hit hard by the hurricane, now consisting of a frame covered by a US Aid tarpaulin and lacking in walls but allowing 270° views of the road, huge potential for gringo watching. With this sorted we set off for the caves, a chat with the keeper of the Jungle lodge, tourist accommodation, where we paid our registration fees to allow caving.

The Blue creek cave was monstrous, a great tall entrance with a river emerging from it, Dan yr Ogof multiplied by ten, at least.

We decided to check out the river level first as we had our inner tubes with us and fancied cooling off. Our journey involved two hours of swimming, until hands went too rubbery to continue. On the way we had to climb past large waterfalls, where the river is sucked through a tiny hole, that we were careful to avoid, through low sections with barely airspace and plenty of evidence of flood debris high in the passage roof.

Once out it was only a 15min walk back to camp, the way it should be. We were taken up the hill behind Sylvano's home, which had a view right across the coastal plane, though none of the wildlife he had hoped, was around.

Little food could be got for dinner, though we did get a fish Sylvano caught with the help of our caving lights, before the complicated task of getting into a hammock whilst in a mosquito net.

Wednesday 10th April

Blue Creek Cave

Went into dry cave above the river today, this apparently leads to Guatemala, which according to locals, many of who never enter the caves, is not an uncommon trait irrespective of their location.

We explored much of the dry cave available, though there were some obstacles we could not pass, pitches and lakes, it was fine caving, with good formations.

Food was still very difficult to get in the village and dinner consisted of Spam on biscuits.

Thursday 11th April

Blue Creek Cave

Food was becoming a big problem, only muesli bars from emergency rations could be found for breakfast, though it was very civilised being able to kit up for caving at camp.

Our intention was to find a trip that would take us through the hill, described to us by Sylvano, though he had too bad a head to cave today.

We wandered extensively through the dry series though not past yesterday's obstacles, though I was now struggling, feeling pretty weak and run down, leading to several small falls.

We left to sit on the end of the pier at the resort drinking cokes and eating what was left of our emergency food, the sight of two emaciated cavers sat in their pants may just have marred the trip of the two Canadians who passed us.

With this the last day we spent the afternoon washing kit, though torrential rain prevented much drying, we also threw away as much as possible but found a good deal that could be donated to Sylvano for allowing us to stay, John was required to trade his pan grabs for a necklace with Sylvano's wife.

We had exhausted rations with corned beef on biscuits for lunch, with nothing else in the shops, we were extremely grateful of the meal of rice and squash provided for us by the family.

Friday 12th April

Blue Creek to Belize city

Very cold night, no problem in getting up for the 4.00am bus, though we then waited till 5.00am, a little concerned that I have not found the flat tarantula that terrorised us yesterday, I think it has stowed away in my pack.

Arrived in Belmopan at 11.00am, well ahead of schedule, our intention of paying a courtesy visit to the consulate was almost prevented by a very keen security guard, do not ever try to visit here if you are foolish enough to lose you papers.

Our main aim of visiting Rene, our contact in the dept of Archaeology was foiled by his absence today, so instead we ate dodgy food from a dodgy market restaurant and it tasted fantastic, we had forgotten what flavour was like.

Returning to Belize City we received no hassle from the beggars, who save their attention for paler and cleaner looking folk.

The afternoon was spent in our continued mission to try and regain weight, building up to a huge Chinese in the evening, then proper beds.

Saturday 13th April

Belize City to Dallas FW

Flight not till after lunch so wandered through town, discovered that Belize has a huge flag tax, £20 for a handkerchief up to £180 for a full size, so I spent my money on rum instead. It was overcast as we took off but the clouds did clear for us to get a last look at the city, which would have fitted into the car parks at Dallas. Having put up with another drinks only flight in our ravenous condition I wanted only to eat some good fatty American food - had a special burger fund saved up as well.

To our dismay we ended up in an empty terminal building with no facilities beyond metal seats, so we settled in to watch the cleaner work from one end to the other and count the minutes, too cold to sleep.

Sunday 14th April

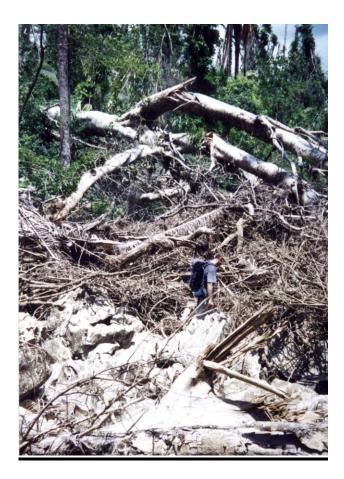
Dallas FW to UK

We were the first to check in at 4.00am, passing the gates to an area still without food, until 5.30 at least, though it did now have cushions on its seats.

For some reason they had decided to seat us apart on the return flights, which was not a serious problem, conversation having run short days before, though being in the middle of blocks of seats didn't cheer us. After managing to grab a burger whilst running through Chicago airport on a changeover I cheered and settled into my seat to sleep home, only slightly aware of the sound of wailing children seated near to John.

Man Hours for Exploration

Date	Participants	Hours	Total Man Hours
Monday 25 th March	5	3	15
Tuesday 26 th March	5	9	45
Wednesday 27 th March	5	11	55
Thursday 28 th March	5	3	15
Friday 29th March	5	11	55
Saturday 30 th March	4	6	24
Sunday 31 st March	5	6	30
Monday 1 st April	4	9	36
Tuesday 2 nd April	5	5	25
Wednesday 3 rd April	2	0	0
Thursday 4 th April	2	16	32
Friday 5 th April	2	0	0
Saturday 6 th April	2	9	18
Sunday 7 th April	2	8	16
Monday 8 th April	2	0	0
Tuesday 9 th April	2	4	8
Wednesday 10 th April	2	5	10
Thursday 11 th April	2	3	6
			390



LOCATION DATA TAKEN BY GPS

26 Mar 02 GPS Grid for Beach in the area of Tiger Cave GPS Lat / Long for above	00293.0 east, 01804.5 north 16°18.822 north, 088°56.267 west
29 Mar 02 Grid (taken at 14:59 local time) GPS Lat / Long	00288.972 east, 01803.917 north 16°18.486 north, 088°58.516 west
29 Mar 02 GPS Grid (taken at 15:23 local time) GPS Lat / Long	00288.953 east, 01803.918 north 16°18.487 north, 088°58.527 west
31 Mar 02 GPS Grid GPS Grid for resurgence	002- 87.762 east, 018-01.585 north 00288.145 east, 018817 north
GPS Lat / Long for resurgence	16°16.800 north, 088°58.965 west
1 Apr 02 GPS Grid	86.970 east, 01.905 north
GPS Grid for "Bat Cave" (taken at 10:59 local) GPS Lat / Long for "Bat Cave"	00287.220 east, 01801.785 north 16°17.322 north, 088°59.488 west
6 Apr 02 GPS Grid (taken at 12:02 local time) GPS Lat / Long	00292.915 east, 01804.960 north 16°19.071 north, 088°56.309 west
GPS Grid for 2 nd Tiger entrance (13:48 local) GPS Lat / Long for above	00292.227 east, 01804.956 north 16°19.066 north, 088°56.695 west
GPS Grid for 3 rd Tiger entrance (14:14 time) GPS Lat / Long for above	00292.009 east, 01804.917 north 16°19.043 north, 088°56.817 west
7 Apr 02 GPS Grid for limestone block on loggers track (9:24am) GPS Lat / Long for above	00289.605 east, 01804.609 north 16°18.864 north, 088°58.165 west
GPS Grid for dry creek (Rio Grande at 12:22) GPS Lat / Long for above	00288.750 east, 01807.819 north 16°20.620 north, 088°58.661 west
GPS Grid for bridge (over Rio Grande at 14:30)	00289.416 east, 01805.542 north

GPS Lat / Long for above

16°19.369 north, 088°58.277 west

Grid Data

Universal Transverse Mercator Grid Zone 16

Projection **Transverse Mercator**

Spheroid Clarke 1866

Datum N. American 1927

Origin Long. 87° W

Lat. Equator

Scale factor at origin 0.9996 False coordinates at origin

500,000mE

0mN Unit of measurement Meter

Corrections from GPS Grid data to map used add 00.369 to the easting and 00.322 to the northing.



SUMMARY

The Hurricane that hit the region nine months before our expedition had a huge impact on the success of our trip, blocking trails, making travel away from main routes impossible and providing a dense coverage of the ground that effectively hid sites of interest from us

We were extremely active, by having a larger team it did allow some members of the team to take a rest when they needed it but still leaving enough to get out or to divide into smaller units to achieve more when out. Altogether we estimate we spent **390** man hours either caving or seeking new cave

So from the perspective of metres of cave discovered we did identify several minor sites and found a considerable amount in Tiger Cave, with the potential that still more could be discovered this is far less than hoped for.

Additional rest days provided extra opportunities for gathering information and also guides who could lead future trips to new caves. Our own extensive travels through the local countryside have also given us a far greater understanding of where to focus future attention and of areas that can be crossed off.

Some of the long days showed that greater distances could be covered than previously believed, allowing other sites to be considered. The time that was spent on roads at the start and end of days was considerable, and made a big difference to the condition that we arrived at the caving sites, the use of a vehicle for some parts of the trip would be useful.

The final stay in Blue creek included some fine caving, both wet and dry, lots more that we didn't have time for, all in a fantastically scenic area but also very civilised distance from the camp.

Future Work

Talking to the locals about the caves they knew of in the jungle, around both areas, but not being able to access them was massively frustrating and the potential of the area is definitely not shown by our discoveries.

We cannot be sure how long it will take for the jungle to recover to a state that it can be easily penetrated, many trails will be open within a year but for the new growth to clear to open the forest floor, will be much longer.

In addition to the discovery of new cave around San Pedro and Blue Creek, there is also the awesome Blue Creek cave, which has some great trips within it and we have not been able to establish yet whether it has been accurately surveyed before.

And there are still the tales of bigger and better things further south.

PHOTOGRAPHY

Cave photography is notoriously tricky to pull off. It is normal to expect to take three times as much kit as you need to use, on the basis that even if it works reliably every time it's tested, any piece of equipment will fail as soon as it is out of daylight, or at the precise moment when something spectacular occurs. On a trip such as this involving the baggage restrictions of international flights, something has to give. I took everything that worked at the time of the trip, but that hardly meant a huge amount of built-in redundancy.

There is no point taking a camera underground and expecting to come back with decent pictures without being prepared to lose the camera in the process. Like all caving gear, it's there to be used and ultimately to be broken, unless the point of having the thing is to put it behind glass, and on a shelf for the sole purpose of admiring its immaculate condition. As may be reported elsewhere, the camera failed to make it back to the UK in working condition.

Starting off from the entrance to Tiger Cave, our intention was to make use of the huge amounts of natural light filtering into the cave through skylights, and where possible to incorporate something of the feel of the place where vines, fallen trees and all manner of vegetation made their own contribution to the atmosphere. With the jungle growing tall around the skylights, this was only going to be possible around the middle of the day when the sun was at its brightest and close to overhead. The vastness of significant parts of the cave meant that the best representation of its scale was going to be the traditional illuminated silhouette, a figure surrounded by darkness.

This effect was achieved with a certain amount of success, mostly using a single flash on the camera and a Vivitar 283 fired from the Firefly2 slave unit, and mostly using Fuji Provia 100 ASA slide film. It goes without saying that the limitations of technology are to blame for us not returning with more impressive underground pictures, rather than the photographer's inability to keep on his own feet, and keep his camera in working order. Although our photographic efforts were limited by losing the use of the caving camera on only the fourth day of the trip, other cameras among the party were pressed into service to provide a decent record of surface, jungle and other local photography.



ADMINISTRATION AND LOGISTICS

Research

For general information, the backpacker guides, Rough Guide, Lonely Planet, etc. proved adequate.

The results of the 2001 trip were useful in giving information on the main area to be visited. We were also contacted by Peter Bosted and Bernie Szukalski, from the US, who had been heavily involved with the exploration of Tiger cave and other caves in the area during the mid 80's. They provided some surveys and some information about other sites of interest For caving information we started on caving WebPages, which led us to Nick Williams of QMC '88 and '89 as well as members of the '95 MCG expedition. The reports of these trips and in particular assistance from Nick were invaluable.

Permission

All cave exploration in Belize falls within the jurisdiction of the Department of Archaeology who control access. This is due to the significance that caves played in the Maya beliefs and the artefacts that are often encountered within caves. To prevent theft or remains from being destroyed by ignorance, permission must be obtained from the DoA.

I started many months before the trip but it took some phone calls to the minister followed by further letters to start the process. Even with regular contact with Renne Torres, who has taken on the task of liaising with caving expeditions within the Dept, permission to cave wasn't granted until members of the team visited the offices in person.

We also gained permission to camp in the jungle from the Forest Commission in Belmopan which though we did not use it was simpler than seeking the scattered district offices.

Fund-raising

We received a substantial grant from the Welsh Sport Council

Finances

The individuals funded the expedition in the field, with the grant being held in an account to meet any large unplanned expenses. This was then distributed to the members on return.

Travel

Flights to Belize proved expensive as we flew at a peak time. 3 members did make a saving by starting early, it was also difficult getting flights, having been advised not to book early by one agent, we later found that no one else had had this advice and seats were all booked

Once in the country there is an excellent network of buses, mainly old American school buses, which will transport you very cheaply. These though are in position to serve the locals, so the only bus will often leave remote villages before dawn to reach markets.

Hitching is a good alternative, though in some of the poorer and remote communities we saw no private vehicles.

Car hire is available and will be considered in future, though those seen around the airport generally looked far too good for the purposes we had in mind and the conditions of the tracks intended.

Insurance

BCRA insurance was no longer available, so we purchase ours through 'Snowcard'.

Medical

Before leaving, details of necessary inoculations were obtained from GP's, the cost varying from surgery to surgery. The largest expense was to cover for Rabies and required a month to work. Advice on requirements was provided to Team members by the expedition Medical Officer (MO) and medical questionnaire and next of kin questionnaires were completed for all Team members before departure

Anti-malarial drugs were obtained from chemists and were surprisingly cheap. Team members were responsible for their own regimes and were monitored by the MO to ensure that everyone was keeping their Malaria cover current

In the field there were minor complaints, including bites and scratches, the odd tic and one or two infected blisters and cuts. The biggest job for the MO was treatment of Martins wounds following his fall. Whilst they weren't especially serious, there was a very real risk of serious infection in the humid atmosphere and dressings were changed twice a day. Antiseptic and Antibacterial swaps were used as well as a course of Antibiotics.

The use of re-hydration sachets helped at the end of hard days and prevented any serious cases of dehydration. Team members carried up to 4 litres of water each day, but even this wasn't enough on the longer days and everyone was encouraged to properly re-hydrate in the evenings.

Rescue

We have been advised to contact Ian Anderson at Jungle Lodge Tours. As a caver he is best prepared to arrange a rescue, though he is a commercial tour operator, he will keep an eye on local situations.

Equipment

Hardware

We took SRT kits, as our reading indicated that many caves in the area had some vertical elements, as well more than 200 metres of rope. We had a bolting kit, but due to the heat and plentiful natural belays this was not used. Rub points were tolerated

Due to the amounts of water encountered underground the previous year we also took a small inflatable dingy and some car inner tubes, these were excellent, small to pack, and the children appreciated then when we left.

Light

Due to the remote nature of the destination, we decided against electric lights. We were unable to arrange a source of Carbide from the UK, so we all used LED systems. These proved excellent both in the caves and also at our camps, with plentiful life in the 4.5v batteries. We did find them lacking in big passage where we used a 'Q' divers light to investigate distant openings.

Personal

Cotton overalls were used, but still proved very hot.

Surveying

Was carried out using compass and clinometer both from Suunto, recorded in waterproof notebooks, particularly useful with the sweat.

Equipment Field

The GPS last year proved troublesome and ineffective but this years new one was extremely useful, gathering information quickly to mark locations or backup map work, it also worked well with only small clearings.

A water filter pump was taken and all expedition water went through this, a boring and time consuming job it lasted well, producing up to 25 litres a night. This also went on some of the longer days with us, proving to be a lifesaver when insufficient water could be carried. Water could be obtained from puddles or other normally unhealthy places to drink

A multifuel stove was taken which was used to provide cups of tea as required and occasional meals when needed, providing a little more independence.

Also lots of suncream and insect repellent, we all had mosquito nets which were used as required, Johns idea of buying an umbrella for shade failed as it made a very effective solar cooker for his head.

Accommodation and Food

In San Pedro we stayed in a house share scheme, \$10Bz, meals here were \$4Bz, we only took an evening meal, buying breakfast and lunch from the store for \$1Bz and allowing more independence. Though when the shops run out of bread, biscuits can feel a little insufficient. Noodles bought locally helped keep us going but a glut of tortillas tested even a vegetarians taste buds.

In Blue Creek, a smaller community, food in shops was really scarce and we struggled to feed ourselves. In future we decided to try to cater for ourselves more, as the small bland meals, left us short of energy and with poor morale.

Living in the communities is difficult, often sources of entertainment with people sat in our room watching us and there were always numerous children around. Children crying, dogs, chickens and music can all lead to slightly disturbed nights sleep.

Guiding

With many of the locals farming or hunting, there is a vast pool of information available. Previously we had little difficulty arranging this, though following the hurricane more people seem to have taken on normal jobs and were also busy fixing damage to homes or farms damaged by its effects. Though there were many people who claimed to know of sites, finding people with the time was a problem. This year we only had one day of guiding which cost us \$35bz, which was more expensive than expected.



Appendix

BELIZE 2002 COMMUNAL EQUIPMENT

Equipment
Batteries – AA x 30
Batteries - Duracell flat packs x 20
Bin Bags
Bolting kit
Candles & Nightlights (T-lights)
Dinghy
Expedition Report 2001 – Copy
Gaffa Tape
GPS
Hangers
Inner tubes x 2
Kettle
Maillon Rapide 7mm Alloy x 10
Map Case
Maps
Matches / Lighter
Medical kit – Team
Note pads
Pan for stove
Pan Scrubber and Washing up stuff
Photography kit
Ration packs (purchased)
Rope - 10mm Marlow LSK (90+m)
Rope - 9mm Marlow LSK (110m)
Sewing Kit
Slings 16ft x 10
Spits
Stove MSR x 2
String – Ball Of
Survey kit (Tape, Clino & Compass)
Tackle bags x 3
Tin Opener
Water filtration pump

BELIZE 2002 PERSONAL EQUIPMENT

Item
Aftersun
Baby wipes (wet wipes)
Belt – load bearing
Bin Bags / Plastic Bags
Boots for jungle
Bum Bag
Camera (with spare batteries and film)
Caving Helmet with lighting system
Caving overalls
Clothes for travelling
Compass
Copy of Passport main page
Credit Card
Dextrose Tablets
Diary / Notebook / Pencil or Pen
Dry seal bag for documents
First aid kit – Personal
Flight tickets
Gloves, optional
Hammock – optional
Hat – Wide brimmed and/or Bandanna
Insurance documents
Karabiners – Screwgate 2
KFS & plate
Knee pads
Lamp Bulbs – spare
Lighting – spare (Mag light etc.)
Local contact details
Money (US \$)
Mosquito Net & Coils (optional)
Mug
Passport (with 6 clear months left)
Pen Knife
Poly Prop Rope
Powdered Milk
Reading material for journey
Rucksack and waterproof liner
Sandals
Shirts – long sleeved for jungle
Shorts
Sleeping bag liner/system
Sleeping mat – Karrimat or Thermarest
Socks

Spanner for Rigging / SRT Kit
SRT Kit
Sunglasses and retainer strap
Sweets / snacks
Swimsuit
Tea bags
Toilet paper
Tools – Pliers, Screwdrivers
Trekking Poles – optional
Trousers – long for jungle
Underwear
Warm Hat
Wash kit & towel
Watch & spare or Alarm Clock
Water - Platypus and/or Water bottle
Wellingtons
Whistle

BELIZE 2002 PERSONAL MEDICAL KIT

Antiseptic Cream	1
Antiseptic throat lozenges	1 packet
Antiseptic Wipes	10
Bandage – Crepe	1
Bandage – Triangular	1 or 2
Gloves – Surgical	1 pair
Hand Cleaner – gelled types are good	1
Hydrocortisone cream	1
Imodium or preferred diarrhoea tablets	1 packet
Insect Repellent - Body	
Insect repellent - Clothes- Note 1 below	100ml +
Insulation Tape	1
Knee support if prone to bad knees	1 or 2
Malaria Tablets - Chloroquine	8 weeks
Melolin 10 x 10	2
Micropore Tape	1
Pain Killers – Paracetamol or personal preference	1 packet
Personal prescription Medicines – Note 2 below	As needed
Plasters	Assorted
Rehydration powders	2
Safety pins	4
Scissors	1
Steristrips 13 x 75mm	1 pack
Sun Block for Lips	1
Sun Screen	1
Water Purifier – Iodine or Micropur	1 packet

Note 1 – Insect Repellents contain DEET – one of the only substances proven to damage climbing ropes – so obviously, keep Repellent away from Ropes in transit.

Note 2 – Prescription medicines should be accompanied by Prescriptions

BELIZE 2002 BASE CAMP MEDICAL KIT

Analgesic - Paracetamol Tablets 6 Analgesic (Voltarol) 10 Antibiotics 20 Antihistamine Cream - Caladryl cream 42g tubes 2 Antiseptic Cream - Germoline 2 tubes Antiseptic Wipes - Mediwipes 40 Bandage - Open Weave 5cm x 5m 1 Bandage - Open Weave 7.5cm x 5m 1 Bandages - 10cm Crepe 3 Bandages - 5cm Crepe 2 Bandages - Triangular 3 Canestan ointment 50g tubes for sweat rashes 1 Cervical collar 1 Cold & Flue Remedy 3 Container for Kit 1 Cotton wool balls 10 Cotton wool tipped sticks 11 Dioralyte sachets or tablets for rehydration 20 Disinfectant for utensils. 1 Diressing - Finger 2 Dressing - padded plaster for Blisters 1 Eye Bath 1 Eye drops sachets - Amethocaine 2 Eye ointment Chloromycetin 1% 4g 1 Eye pads - sterile 2 Eye Solution - Optrex 1 Flagyl tablets 500mg for Intestinal Diseases 30 Giving Set 1 Gloves - Surgical 3 pairs Imodium to stop 'the runs' 1 box Indigestion - Gaviscon tablets 1 Injection Kit - Syringes and needles 10 Melolin 10 x 10cm 10 Melolin 20 x 10cm 11	Analgesic - Aspirin Tablets	6
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Meiolin 3 x 30m	Melolin 5 x 5cm	2
Micropore tape 2		
Normasol Irrigation solution 1		1

Paraffin Gauze Dressing 10x10	2
Piriton tablets or Benadryl	20
Plasters - Assorted Elastoplast dressings	1 box
Safety Pins	12
Salt	1
Scissors	1
Shampoo Prioderm 25g	2
Steristrips - 6mm x 75mm	1 pack
Thermometers (they break very easily)	1
Throat lozenges - Hibitane or Bradosol antiseptic	10
Throat Lozenges - Strepsils	6
Tweezers	1
Vaseline	1
Wound dressing – small No.8	3
Wound dressings – large No. 3	1
Wound dressings – medium No.9	2
Zinc Oxide Tape	1

<u>ACKNOWLEDGEMENTS</u>

Welsh Sport Council. For all the financial assistance received.

Glan Afon Comprehensive, Port Talbot. For giving me the extra time off and allowing me to return emaciated and exhausted.

The Choco family, San Pedro. For accommodation, making us feel at home, especially to Basilicus for all his enthusiasm and good company.

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Sylvano Sho and family, Blue Creek. For the use of the house and all the information concerning caves, the Maya and wildlife

Also to **Bernard Szukalski**, **Peter Bosted** and **Percy Docherty** for providing information regarding the explorations undertaken around Tiger cave, by their US teams and allowing us to use their material.

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Journal of Cave and Karst Studies

Aug1996 Vol58 no2 (Theme issue on Belize) ISSN 0146-9517

International caving information

www.cavepage.magna.com.au/cave/belize.html

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Maps of Belize

Large map of whole country two sheets Published by Government UK (Directorate of Overseas Surveys) Series D.O.S.649/1 North Series D.O.S.649/1 South

Large-scale local maps

Military Survey UK, MoD Series E755 (dos 4499) Sheet 38 San Pedro Series E755 (dos 4499) Sheet 37 San Jose

Sources; Belize given in addresses, UK, Edward Stamford Itd of London

OS Southampton

Also to:

Rough Guide

and

Lonely Planet guides

GLOSSARY

Caye: low-lying coral island

Gibnut: a rodent about the size of a cat, commonly shelters in caves, popular for its meat, so many hunters know the location of caves and many caves are known as Gibnut hole/cave etc.

Karst: a geological term for areas of limestone containing caves.

PG Punta Gorda, the main town in the southern Toledo district.

Phreatic: cave passage caused by water under pressure, often circular.

Pitch: vertical section of cave normally requiring ladders or abseils.

Resurgence: place where water reappears from a cave system onto the surface.

Shake hole: a surface depression formed by the collapse of cave chambers below.

Sink: place where water leaves the surface and enters a cave system.

Speleology: the study of caves and caving.

SRT: single rope techniques, the means of ascending or descending using a single piece of rope and jamming devices.

Sump: an area of cave passage that is completely filled with water.

Swallet: same as sink.

ADDITIONAL INFORMATION

Currency; Bz Belizean dollars, linked to the US dollar 2Bz=1US for the purpose of the expedition we worked on 3Bz=£1

Capital; Belmopan, though Belize City is still far larger and the site of the international airport, Belmopan is the location of the government and its agencies.

Climate; Wet and dry seasons, though not reliable. It is generally dry from February until April, but this is less likely in the highlands.

Temperatures can vary from a high of over 40°C to 10°C in a day.

Communications; Most villages are equipped with a phone, where it is possible to make national calls. Longer distance calls could be made from main towns, many offering email.