

Panama 2006



Thank You

Based on the fact that few ever read to the end of a report I submit this first as a priority. There is a wealth of people without whom the trip would not have been so enjoyable, economic, successful and fun. Paramount among these is James and Marilyn Cobbett who provided hospitality, support, equipment, accommodation, airport transfers, translations, research, and generally held our hands. Thanks are also due to the Speleological Union of Ireland who provided much needed support that helped reduce the financial burden to the Irish team members. Grateful thanks must go to our paramedic Ray Murphy for his medical knowledge, care, support and consideration for the members of the team. To the Panamanian National Park Ranger Service who provided a warm welcome, guidance and support. To the many friendly indigenous people of Isla de Colon and Isla Bastimentos. To Barbara Faulkner who sorted through the maze of World Wide Web information organizing the flights. Particular thanks go the Panamanian health authorities for their kind assistance when some of the expedition fell ill. To all the wives and partners of the team; and last but not least to my wife Pauline Cronin whose continued patience and support for all my projects still amazes me.

Pat Cronin.
Isla de Colon Oct 2006

Introduction

The Republic of Panama is located toward the southern end of the isthmus of Central America bordering Colombia to its southeast and Costa Rica to the west.

The previous visit in February 2005 had been successful in identifying and exploring a wealth of entrances over a number of relatively compact areas. Several of these remained unentered at the time.

During October 2006 a team of four Irish and two British cavers assembled in Panama City with the aim of continuing and expanding the exploration of the limestone area in the north of Panama. On arrival in Panama City a meeting at the Cobbett household produced the final targets of the trip taking into consideration the then available logistics for the proposed exploration program. Specifically the islands of Colon & Bastimentos close to the border of Costa Rica were to be the first.

Team members

Ray Murphy Paramedic, Conor McGrath, Dig Hastilow, Pat C Cronin; Leader, James S Cobbett, Marilyn Cobbett & Phillip C Collett. The team was assembled based on their individual skills and the most important fact that they were all known to the leader who correctly assessed their capacity to tolerate each other during the difficult conditions that were expected.



The Irish Contingent
McGrath, Murphy, Hastilow & Cronin

Accounts

For the most part the day to day expenses were worked on a simple communal kitty method. An amount every so often was put in by each member and held by the leader who paid the accounts as and when they came in. See appendix one.

Weather

A trip was planned for February 2006. Unfortunately the physical health of one of the members precluded any walking whatsoever so the trip was postponed until the October. This time of the year, in northern Panama, the weather immediately preceding the rainy season appeared to be tolerable based on the rainfall figures from the meteorological office. The team witnessed some of the most spectacular lighting storms of their lives, sometimes continuing for four or five hours accompanied by torrential

rain. The heat and humidity varied on a day to day basis. Carrying the heavy packs exacerbated the discomfort. Nighttime temperatures allowed sleeping inside or outside with just a light sheet.

Health

It goes without saying that before an expedition like this, everyone is expected to make sure that they are in the best health possible. An appointment with a Doctor and the Dentist for a check-up beforehand is strongly recommended.

Our research showed that the area was within the malarial zone. Of particular concern was dengue fever; this untreatable malady and steps to reduce the chances of contracting it was prominently displayed at the local Hospital. All the visiting team took anti-malarial precautions some with a weekly dose others with a daily backed up by a weekly dose. Several team members who forgot to eat prior to taking their weekly tablets experienced a temporary but severe debilitating nausea.

A comprehensive medical kit was prepared for the field, which included anti-biotic, anti-diarrhea medication and a "Snake-Bite kit" as well as the standard expedition items. These included a selection of dressings, bandages, and anti histamine cream for bites and scratches.

As expected, the greatest irritant was the Mosquito the fact that you have taken anti-malarial medication does not render you immune to the bites of these insects. The simplest solution to reduce flying insect bites is to wear long sleeve shirts and long trousers, avoid sandals and wear "mozzy" head nets, which we did within the jungle, but in 32 degrees heat, particularly toward the evening when they are active for the second cycle of the day, its not very comfortable. The alternative is to cover all exposed parts with any of the commercially available products on the market. As a rule of thumb the higher the "Deet" factor the greater the effectiveness, However if using DEET based products exercise caution when handling plastics, such as your camera and sunglasses as DEET will dissolve some types of plastic.

You rarely realise you have been bitten till later and only then because the bite comes up in a nasty rash which is also very itchy. This is when the problems really start, because the more you scratch the more you spread the infection.

Everyone on the trip was bitten with some looking like they had the measles and others with only a few red marks. It was later realised that an ant colony had established itself on the yacht and only foraged at night. The bites were obvious after some 12 hours.

Also, even more annoying, were the Midges, which were just as annoying as their Irish cousins. Whilst common they were particularly dense near the margins of the mangrove swamps.

The next most common ailment was Travelers Tummy; the Bombay Trots or Montezuma's Revenge. This affected most of the team at some stage, again to varying degrees. Although we all ate more or less the same diet it seemed to hit us at all different intervals. You could get a bad dose, then be fine for a week and then when you least expected it, it would return. And being caught short in the jungle with all its inhabitants is no fun.

The danger with Diarrhea in these conditions is dehydration; it's not good enough to just drink water (or beer) you need to replace the salts. Although Dioralyte was available to the team they preferred to get their salts from crisps and nuts etc. although one team member took salt tablets as they were complaining of cramps

The treatment for diarrhea was Imodium or for more severe cases Arrett.

Heat Stroke

During the Bluff beach exploration the team worked in an area that did not have the quantity of tree covering as the rest of the island. The result was varying degrees of heat exhaustion. This was alleviated by the team retiring to the beach to cool down in the sea. The effect was almost instantaneous.

Sunburn

This is completely avoidable however we were all guilty to some extent. Although the team were careful to use high factor sunscreen for the first week or two a feeling of acclimatization coupled with the desire to return with a tan made one or two of the team a little lax. They paid dearly for it. Several of the team had hot stinging skin which was cooled by Aloe Vera, but one team member got type 2 burns (blisters) on the backs of his legs while snorkeling which required Waterjel dressings and the loss of several nights sleep.

The most serious occurrence was a member who suffered renal failure and was treated with several dialysis treatments following a liver biopsy. The end result was Weil's disease from which he made a full and complete recovery.

When hacking through the jungle one particular plant, Dieffenbachia, was common and dangerous. The sap when caught on bare skin causes a rash and irritation like an acid burn. Particular care of the eyes was maintained during trail blazing. Skin and clothing can be washed in clean water to remove the offending deposit.

Recommended Reading: "Wilderness Medicine" (beyond First Aid) by Wm Forgey, MD. This is a comprehensive book dealing with just about any medical situation you are likely to encounter, written in plain simple (American) English.

Water

The quality varies from place to place. Bottled water was available everywhere. For a while the only tap-water used was from the marina. It is noted in the Lonely Planet Guide that whilst water in Panama is safe to consume the water supply in Bocas del Toro requires circumspection. After drinking the local supply several of the team experienced a great flux and looseness in their rear trouser area. After changing to bottled water the individual personal explosions subsided to a more acceptable level. Each member consumed around two litres a day.

Transport, Local & international

The main bulk of the team assembled in Panama City via Atlanta, Georgia, USA, from Shannon, Ireland. Others made their way from Heathrow, UK via France and Gatwick via New York.

Access to most of the areas of exploration was via boats, it is a fact of life in this area of Panama therefore a significant amount of the finance was used up between hiring the boats and their owners. Wherever practicable the local community buses were used or occasionally when emerging from the jungle onto a road stopping a local and agreeing an amount for a ride.

Baggage Allowance: Take Note!

Most American airline companies allow more than their European counter parts. Delta Airlines allowed two bags each of 50lbs (22.5kg's) plus 40lbs (18kg's) hand luggage. So the individual had over a hundredweight to play with. However, the internal flight

allowance from Panama City to Bocas del Toro restricted the traveler to only 20lbs!!! total. A team excess baggage charge was incurred of \$53.00 each way.

Security procedures

Dublin & Shannon airports allow the processing of visitors through American immigration instead of the point of entry in the States. Even if like us you are merely on transit to another country all travelers are processed by the American authorities. Likewise all baggage is scanned, an earlier telephone conversation with Shannon security confirmed that and that the air cylinders sent through should be packed securely emptied of contents and left with the taps open, also a clear and obvious label to this effect needed to be on the outside of the baggage concerned.

On request at the check in desk the baggage was sent straight through to Panama City avoiding hassle etc in Atlanta. Unfortunately the baggage was opened by US officials at Shannon who did not appreciate or obviously understand the careful packing methods of the experienced owner, who on casually replacing the two 4 litres cylinders caused critical damage to other equipment. The accompanying information flyer left inside the baggage denied all responsibility by US security for any damage etc, etc, etc.

I personally recommend avoiding flying via the States at all costs.

Equipment; Personal

The expected cave conditions were that of short pitches and horizontal passages with ducks and at least one diveable sump, which was the present limit of exploration of Domingo's Cave, to push this sump a set of lightweight diving gear of 2 x 4 litre bottles was brought out. SRT gear was taken by three of the team. Overalls were used not only to cave in but also to traverse some of the more dense jungle foliage. Lighting was Petzl Duo 14 led's. These worked well and gave no problems. Batteries were purchased in Panama to reduce weight. Leather gloves are ideal when traversing the jungle. Many of the trees have sharp spines or thorns. Machetes are purchased locally in the hardware shops in Bocas town and prove invaluable.

Equipment; Group

30m of Bluewater Rope, electron ladder and assorted gear were already held by James Cobbett in Panama along with three full sets of back mounted diving equipment and a single set of SRT gear.

Surveying

A Suunto clinometer and Plastimo sighting compass were used with a fibron tape. All recorded on waterproof paper. The entrances were GPS'd using UTM nad27 (canal zone). This system had been used during the 2005 visit. In the previous report (Christenson 2002) a datum of UTM NAD87 was quoted this may be a printing error as no NAD87 could be found in any of the teams GPSR's menus.

Global Positioning Satellites Receivers

Each team member had a GPSR with them. Previous team experience in Mexico was that in dense tree cover the chances of an accurate continuous signal are remote. Whilst intermittent signals were received some doubt was cast upon their accuracy following their comparison with other report information, such as the known previously marked

entrances of Domingo's and Nibida. However the Magellan GPSR showed itself to receive a slightly more stable signal much more often to the frustration of the Garmin owners. However in many cases no signal was received, yet the rangers know of the location of all the sites visited in this report so an enquiry of them will suffice to locate the entrances. Visibility in the jungle can be as little as three metres, loss of direction is guaranteed so the team soon learned to mark trees and remain within earshot when searching the undergrowth.

Wildlife

Bats, Sloth's, (known locally as "Lazy Monkey"), Howler Monkeys, very big toads, Crabs large and small, freshwater Crayfish large and small, Caymans x 2metres in length, Snakes, Hummingbirds, lots of other birds, Vampire bats, other bats, various types of ants large and very small, many, many bugs, Centipedes and Spiders as big as a big! Child's hand, and huge cave crickets, did I mention the Bats? and an amazing variety tiny Frogs coloured red, orange, green, black, black with gold stripes and red with white feet all of whom excrete neurotoxins through their skin. A group of American female researchers from the Smithsonian Institute were encountered in the jungle looking for frogs to study the differences their colouring has on their sexual prowess or lack of; without too much success however. The smug team members were able to point the girls in the right directions where they increased the numbers collected by at least ten fold.



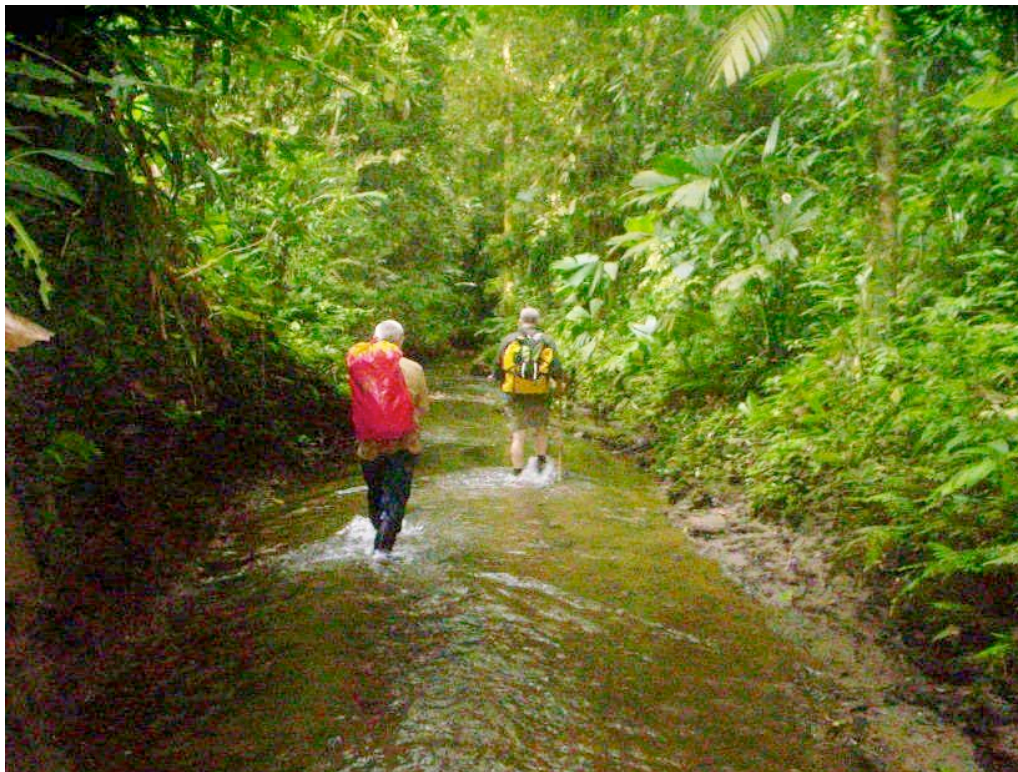
One of the many spiders encountered by Ray

Walking conditions

These varied from good to desperate. Very little limestone occurs on the surface therefore most of the walking is on the leaf mold covering of the jungle floor. Here and there this soft covering gives way to a slippery mud. Good boots with ankle support and good tread is important to reduce overall fatigue. A stout walking staff cut from bamboo is very useful for balance, particularly when carrying a heavy pack on land or when negotiating a river. Wellington boots were purchased locally and proved useful all rounder's for the walking and caving. The rain caused the firm soil to turn into a good quality mud.

Jungle creeks

Negotiating these narrow creeks that give access to the interior is not for the inexperienced hence the need for employing an experienced guide or boatman and craft. On at least one occasion the team had to hack its way through a fallen tree blocking the progress of the boat up the stream. They can however afford an easier route to the interior.



The upper Mimitimbi River near Cayman Cave
Low water conditions

Photography

Sincere thanks go to everyone who took a camera and made their photographs available to the team and others. I would particularly like to thank Conor McGrath and Dig Hastilow who took time and trouble to photograph the underworld of Panama.

Permissions

Some of the sites are located within the national parks. The local wardens were approached and a request for guidance and assistance was made in return for a small donation to the park scheme. This proved to be a wise investment as other sites were gradually shown to the team.

Cave descriptions

Keyhole Cave

UTM no signal

Length 40m

Depth 12m

The resurgence entrance is a narrow vertical slot situated at the head of the surface stream in the same doline upstream as the sink for Angel Cave. Its entrance immediately enters a larger passage after some eight metres the passage narrows at a climb. A scramble up through a narrow rift lands on a stal boss overhanging a deep pool. Another scramble up through the high rift enters a gallery with a gour pool formation of over five metres long. From here a drop into another deep pool can be traversed to the sink entrance. Exiting the cave the entrance is in a doline some 15 metres deep by 200 metres long at the upper end of which is the resurgence of Angel Cave. A rat like creature circled the explorers as they progressed through the cave.



Rift below upper entrance Keyhole Cave

Angel Cave.

UTM no signal

Length 38m

Depth 10m

The entrance, which emits a stream is located some 100 metres to the left of Nibida resurgence. (Domingo's cave is to the right) A very short swim across a deep narrow pool leads to a narrow climb, followed by another deep pool and a scramble up. A chamber some 4 metres high by some 3 metres wide and 5 metres long leads to another rift, immediately the way on was blocked by an ancient timber jam. This was removed and the team squeezed into yet another swimming pool. A short awkward climb out aided by a jammed tree trunk lead to the upper entrance passage. This is in the same doline as Keyhole Cave.



The decaying wood blockage in Angel Cave that was dug out to enter the upper passages

Cave of the Killer Ants

UTM 17P363714E 1036940N

Depth

On the rising ground above Bluff Beach the topography is of rolling hillsides with pronounced valleys.

This site is some 100m just behind a small inhabited timber shack hidden by trees and shrubbery. A steep scramble leads down into a collapsed chamber. The low roof rises to a smaller chamber with many formations. From here to the right over some fallen stalagmites is a crawl for ten metres to another small chamber that leads to a six metre vertical mud climb. Utilising a tree root an ascent was made to within 0.6 metres of the top; the climber's head was just level with the stalagmites that covered the mud floor. These appeared to offer no security so no attempt was made to grip one. A return later with a bamboo maypole ended in near disaster for the climber when half way up the pole collapsed. The attempt was abandoned due to heat exhaustion from working in the extreme temperatures. The way on is open but it is considered that it is heading towards the nearby Toad in the Hole.

Cronin's Cave.

UTM 17P363575E 1036964N

Length 26m

Depth 3m

This was a well hidden sink at the end of a flood channel. The distance to the sea is only some 400 metres. Not much dry passage development was expected. After digging out the considerable wood debris choke a passage some 3 - 4 metres wide and a metre high and 18 metres long lead into a knee deep pool of water. To the right a small bank of mud and stal was passed over into another small chamber with a deep pool, the terminal sump, but with an awful lot of timber debris sticking out of the water. Decomposing vegetation is producing a great deal of noxious gas making the trip very unpleasant.

Diglet's Delight.

UTM 17P363576E 1036967N

Length 40m

A large rectangular 8m high entrance leads down to a large chamber with another entrance coming from the right. At the far end of the chamber a boulder pile is climbed to a passage leading round to the right at roof level. This is blocked.

Toad in the Hole

UTM 17P363672E 1036983N

Length 50m

Depth 15m

The small copse that surrounds the pothole is situated some seventy metres from the Cave of the Killer-Hungry ants. The vertical 12 metre pot is free hanging from about halfway. The pot enters an almost circular chamber some 15 metres by 20 metres that leads into another chamber of almost the same dimensions. The presence of hundreds of bats accounts for the staggering mountains of guano. A minor high level passage (unentered due to the stench) heads back toward the high level passage in the Cave of the Killer Ants.

Toad-2-Go (Cobbett's Cave)

UTM no signal

Length 40m

Depth 16m

This conical collapse lead immediately via a vertical squeeze into a chamber some five metres in diameter with a vertical shaft that rose to the surface some 10 metres above among a small copse of mature trees. From the entrance chamber a low passage lead down hill to a muddy collapsed area. Prospects are zero.

Dum Pit

UTM 17P 363743E 1036667N

Length 9m

Depth 0m

Adjacent to an old quarry now used for the processing of refuse. At road level facing the sea, is an arch some 2.5 metres wide. This leads into a passage some 3 metres wide and 1.5 metres high and eight metres long. At the end a squeeze through old stalagmite grill leads into a small chamber some 2 metre diameter and some 1.5 high. Prospects none

Mondo's Cave

Bryan's Creek

UTM no signal

Length 17m

Depth 10m

An opening some 70 metres off trail in dense cover, up on the obvious ridge some 20 minutes walk from the end of the creek, almost opposite and above Log Lam Sink. The step sided pot reduces to a narrow opening. A short ladder climb drops into a 10 metre long streamway that sump at each end. Prospects appear poor beyond diving that would perhaps give access to the water table below valley floor level.

Ol' Bank Underworld

UTM 17P 375098 - 1028335

Length 1146m

(Ol' Bank is the locals name for Bastimentos).

Following the discovery of Perseverance Pot and its subsequent survey it can be confidently confirmed that it is the continuation of Cueva Domingo. Further consideration of the relative positions of Nibida, Cueva Domingo and Ol' Bank suggests that Ol' Bank is in fact a high level development of the Cueva Domingo system. Time did not allow a visit to Ol' Bank. However it's worth mentioning that the extension to the Cueva Domingo streamway that Perseverance Pot drops into is heading toward Ol' Bank Underworld.

Log Jam Sink

Bryan's Creek

UTM No signal

Length 20 metres

Depth 2m

The sinking stream enters an impassible narrow blocked gap. Some 10 metres beyond the sink a short scramble drops into a collapse behind the blockage and gives access to the stream but only for 20 metres before becoming blocked once again, this time with mud and stone.



Ray at Log Jam Sink

Perseverance Pot

UTM 17P374207E 1028158N

Length 120m

Depth 17m

The entrance is located some 40 metres from the sump in Domingo's cave. A twelve metre pitch drops into a narrow rift with passages leading off in two directions. One is a torturous knobby rift that eventually closes down. Twenty metres in the other direction a two metre climb leads down into a streamway. Twenty metres downstream the way is blocked by a sump whose location is almost certainly to be the upstream side of Domingo's Cave terminal sump. Previously this sump (now known as sump 1) was dived to - 3metres and 9 metres long. The roof of sharp irregular pendants and the constricting soft mud banks that provided the diver with blackout and an impassable obstacle did not encourage the diver to linger. No flow could be seen, most likely due to the visibility being only 0.1 metre, and that only near the roof pendants. The presence of so much mud in a cave with no other similar deposits suggests the main flow does not come up the narrow gap between the submerged mud banks. Upstream in Perseverance, the seven metre high by five metre wide passage, the most beautiful in underground Panama, goes for 105 metres until it meets another sump, (Domingo's 2). This was probed with feet but despite the flat roof of the sump being only just below water level; it was not felt to surface within the length of a (short) body. It was thought that this sump is probably not long because of this, but time did not permit a further trip with dive equipment to the sump.

Later investigations in the jungle suggest that the edge of the escarpment above Perseverance Pot acts as a collector and focuses the rainfall down into the perforated gully floor and two other upper collapses which then carries silts down into the streamway.



Dig descending the entrance shaft of Perseverance Pot

Nibida

UTM 17P 374660 - 1028661

Length (2005 1398m) (2006 approx 2000m)

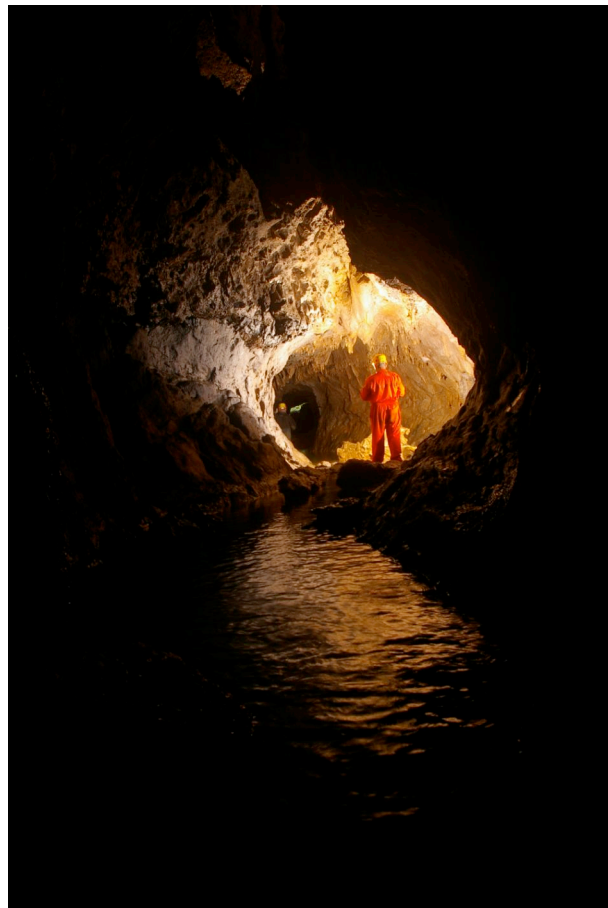
The Irish Connection (Shaft)

UTM 17P 374689E 1028106N

Length 0m

Depth 18m

A large open shaft was found not far from the track this was descended for 18 metres into an active stream passage some 10 metres high and varying from 1.5 to 4 metres wide. After screams of delight and the passing of a committing duck beneath a large stalagmite blockage the returning pair were told that the passage beyond the duck was in fact the upper end of Nibida. However the pitch is now called "The Irish Connection". It would appear that this pitch is the deepest pitch so far found in the Republic of Panama. On returning upstream a small low inlet stream passage was discovered coming in from the left. This was followed for some 80metres. To a point where there appeared to be no way on beyond the flooded section. A little way back from the sump pool a short climb bypassed the sumped area into the streamway beyond and to a wriggle to a tight vertical slot. This slot was dug from Arch cave to make the connection.



Nibida streamway

Rio Mimitimbi Resurgence Pool

UTM unable to locate signal

Length 0m

Depth 2m

This undived pool is just off to the right going upstream of the main river gulley. An unmeasured amount of water was resurging. However the team plumber estimated some forty two gallons per second.

Rio Mimitimbi River Cave

UTM unable to locate signal

Length 52m

From the resurgence climb the slope to the opening that is the Resurgence Cave. Continue to climb the slope at the top of the hillside heading Southwest through the dense undergrowth. Then Continue down the opposite slope of the hill for some 100m to a steep sided opening some six metres deep.

At the bottom of the pot the streamway is aligned NE/SW, downstream the passage continues for 20metres 2 metres high by 1 metre wide until the passage ends at a small sump pool. Upstream after some 12 metres a vertical sheer sided pot is encountered.

The passage continues for 4 metres into a 5 metre diameter chamber. From here another constricted opening to the surface is found after some 6 metres, beyond this point another 4 metres is the upstream sump pool

Rio Mimitimbi Resurgence Cave

UTM unable to locate signal.

Length 12m

Depth 5m

Situated immediately above the boulder slope where the Mimitimbi issues forth. A large opening 4m x 3m (hidden by a large boulder) in the side of the cliff face drops immediately five metres into a large pool chamber 10m x 4m. This sump pool appears to be perched above the resurgence level by some 5 metres.

Arch Cave

UTM 17P 374654E 1028418N

Length 400m

Depth about 12 metres.

Some distance to the jungle, about an hours walk beyond Nibida, a large spectacular ancient limestone arch was discovered deep in the jungle. Near to this was a steep sided doline with a passage leading off. A shaft descended leading into an active streamway that was followed for 200 metres to a climb out of the water and a roof level obstruction. This was attacked on a second trip with a lump hammer passing the obstruction revealing a 4 metre ladder pitch into a very tight low section of passage in a continuation of the streamway. After 10m and an awkwardly tight duck it joined the passage of the new extension entered several days before from the Nibida main streamway.



The team in Arch Cave main entrance

Dive Reports.

Domingo's Cave (Villagra Cave)

UTM 17P374635 - 1028643

Date 6th October 2006.

Diver Pat Cronin

Depth -3m

Length 9m

Aim

The terminal duck passed in 2005 by James Cobbett, via a desperately minute airspace, lead into a 3 metre diameter air bell that marked the beginning of the actual terminal sump. The theory was that the roomy passage up to the sump should continue below water level therefore a short shallow dive would/should bring us into Domingo's two streamway.

Dive

This sump was investigated using lightweight equipment 2 x 4 litres bottles with 2 x Poseidon Cyclon 5000's. As the water temperature was some 20'c the diver wore a boiler suit and fins. Visibility was 0.8m. The diver moved off straight ahead into a submerged slimy mud bank that forced him around the circumference of the pool to a low opening bearing off at 150'M. Large sharp pendants projecting down from the ceiling some 0.3m long kept catching the diver's equipment restricting forward movement. The passage continued to descend to -3m to where it narrowed to a width of 0.7m as a "V" shaped body sized passage between mud banks. At this point of 9m from base, -3m deep and in zero visibility the diver considered that it was not going to be the easy dive previously thought of. The diver felt too intimidated to continue with the air supplies and the basic equipment available so made an uneventful return to base. The following day 7th Oct the discovery of Perseverance Pot gave access into Domingo's two streamway where it was followed downstream to the other side of the sump.



Pat Cronin about to dive terminal sump Cueva Domingo

Cenote Courtney.

Isla Colon

UTM 17P 362609E 1031509N

Depth -5.5m

Length 6m

Diver: Dig Hastilow

Surface: James Cobbett, Phil Collett.

This site was made known to the team via a local who worked in the marina. We traveled by local bus to the NW of Isla del Colon where we met the land owner of the cenote area.

He drove us in his 4 x 4 up a very rough track that had recently been constructed along the coast. We pulled up at a point where a path led NE into the jungle. Just 15 metres along the path we found a cenote some 10metres across. The center of the cenote was only around 1metre deep but appeared to be deeper in the SE and NW. A number of trees had fallen into the water.

The diver kitted up and descended down a steep slippery slope into the water with the aid of a handline. An initial circuit of the cenote was conducted as a recce. At 2metre depth in the NW corner, a 1.5metre high passage was seen leading off, but a number of tree trunks blocked the entrance. Visibility was around 2 metres.

A similar passage was found in the SE corner. This was followed for 6m and descended to a depth of -5.5m. The passage continues 1.5m high and 3m wide and is very silty.

However as this was only an exploratory dive, the diver was not kitted for full cave diving. Having only a single air source, single light and no helmet (and an uncooperative line reel) he was at the limit of the equipment to hand.

The dive did confirm however that this cenote is a collapse into a flooded cave system in an area where caves are so far unknown.



Dig Hastilow about to dive Courtney Cenote

Other sites

A number of other small sites were investigated but all resulted in no development, these are too numerous to mention here. For the most part they were small vertical holes some needed rigging for SRT others were explored by climbing. Needless to say they took their toll on the reserves of the team thrashing through the terrain to investigate their potential.



Conor descending the "Irish Connection"

Languages

South American Spanish, though European Spanish would go a long way in making one understood. The Caribbean descent indigenous people also use a patois known as Gali-Gali, while those of jungle Indian descent converse in Ngobe-Bugle' or Naso. Also some have a little of English though this is limited.

Folk Lore

The Indigenous people are a superstitious people, and our young guide spoke in awe of larger caves, which he was reluctant to show us because we might disturb the slumbering dragons that dwell there. It was never clear if the dolines, cenotes and cave entrances Malvina showed us included the feared dragon. Yet it must be recognized that whilst he was happy leading us through the jungle, as he approached a cave he knew he became and remained uncomfortable while we explored the area.



Settlement at the mouth of Bryan Creek

Appendix one

Expenditure	Dollars	Income	Euro	Dollars
	\$ -	Cronin		\$ 2,013.33
Flights Shannon to Panama via Atlanta	7,225.00	McGrath		\$ 2,013.33
Flights Panama City Bocas Del Toro	500.00	Murphy		\$ 2,013.33
Boat Hire	415.00	Hastilow		\$ 2,013.33
National Park fees	58.00	Collett		\$ 2,013.33
Food & Drink	1,872.00	Cobbett		\$ 568.33
Accommodation	\$ -	Accommodation	0	\$ -
Excess baggage	106.00	SUI Grant Part 1	1200	
Guides	300.00	SUI Grant Part 2	1200	
Air fills for cylinders	40.00			\$ -
Miscellaneous	93.00			\$ -
Fuel	26.00			\$ -
	\$ 10,635.00		€ 2,400.00	\$ 10,635

Flight costs have been converted to Dollars from Euro and Sterling.

The SUI grant was divided among the four Irish participants.

	Part 1	Part 2 Forthcoming
Cronin	300	300
Hastilow	300	300
McGrath	300	300
Murphy	300	300
Received	1200	
Forthcoming on receipt of Report		1200

Final Irish team individual cost as euro € 1,000

once part 2 of grant received

Flights	Excess Bags	Meals	Food	Guides	Boats	Miss	Fuel	Air	Park	Totals	Daily Totals
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01-Oct	Sunday	7225	0	14	0	0	0	0	0	0	0	7239	7239
02-Oct	Monday	500	53	77	0	0	12	0	0	0	0	642	642
03-Oct	Tuesday	0	0	154	179	0	33	0	3	0	0	369	369
04-Oct	Wednesday	0	0	70	0	70	17	0	0	0	0	157	157
05-Oct	Thursday	0	0	0	198	50	46	0	0	0	0	294	294
06-Oct	Friday	0	0	0	124	20	60	0	0	20	12	236	236
07-Oct	Saturday	0	0	97	0	20	74	11	0	0	12	214	214
08-Oct	Sunday	0	0	110	50	0	55	2	0	0	0	217	217
09-Oct	Monday	0	0	104	10	20	60	25	20	0	10	249	249
10-Oct	Tuesday	0	0	23	0	100	32	0	0	0	0	155	155
11-Oct	Wednesday	0	0	56	175	0	12	0	0	0	0	243	243
12-Oct	Thursday	0	0	60	250	0	0	38	0	0	12	360	360
13-Oct	Friday	0	0	0	0	0	0	0	0	0	0	0	0
14-Oct	Saturday	0	0	93	0	0	14	0	0	0	12	119	119
15-Oct	Sunday	0	0	0	0	20	0	17	3	20	0	60	60
16-Oct	Monday	0	0	0	0	0	0	0	0	0	0	0	0
17-Oct	Tuesday	0	0	0	3	0	0	0	0	0	0	3	3
18-Oct	Wednesday	0	0	0	6	0	0	0	0	0	0	6	6
19-Oct	Thursday	0	0	0	0	0	0	0	0	0	0	0	0
20-Oct	Friday	0	0	0	0	0	0	0	0	0	0	0	0
21-Oct	Saturday	0	53	19	0	0	0	0	0	0	0	72	72
Item totals		7725	106	877	995	300	415	93	26	40	58	10635	10635

	Excess												
	Flights	Bags	Meals	Food	Guides	Boats	Miss	Fuel	Air	Park			

Note

1 Miscellaneous contain such items as ice for cooling food stuffs, laundry etc.

Note

2 Accommodation was not an issue as James Cobbett made his large yacht available to the team.

Total expenditure 10635

Crocs, Docs, Critters and Caves

by Pat Cronin

LIKE ALL GREAT CAVING TRIPS, it started in a bar during a pub crawl.

'Come to Panama – I found some caves,' said James.

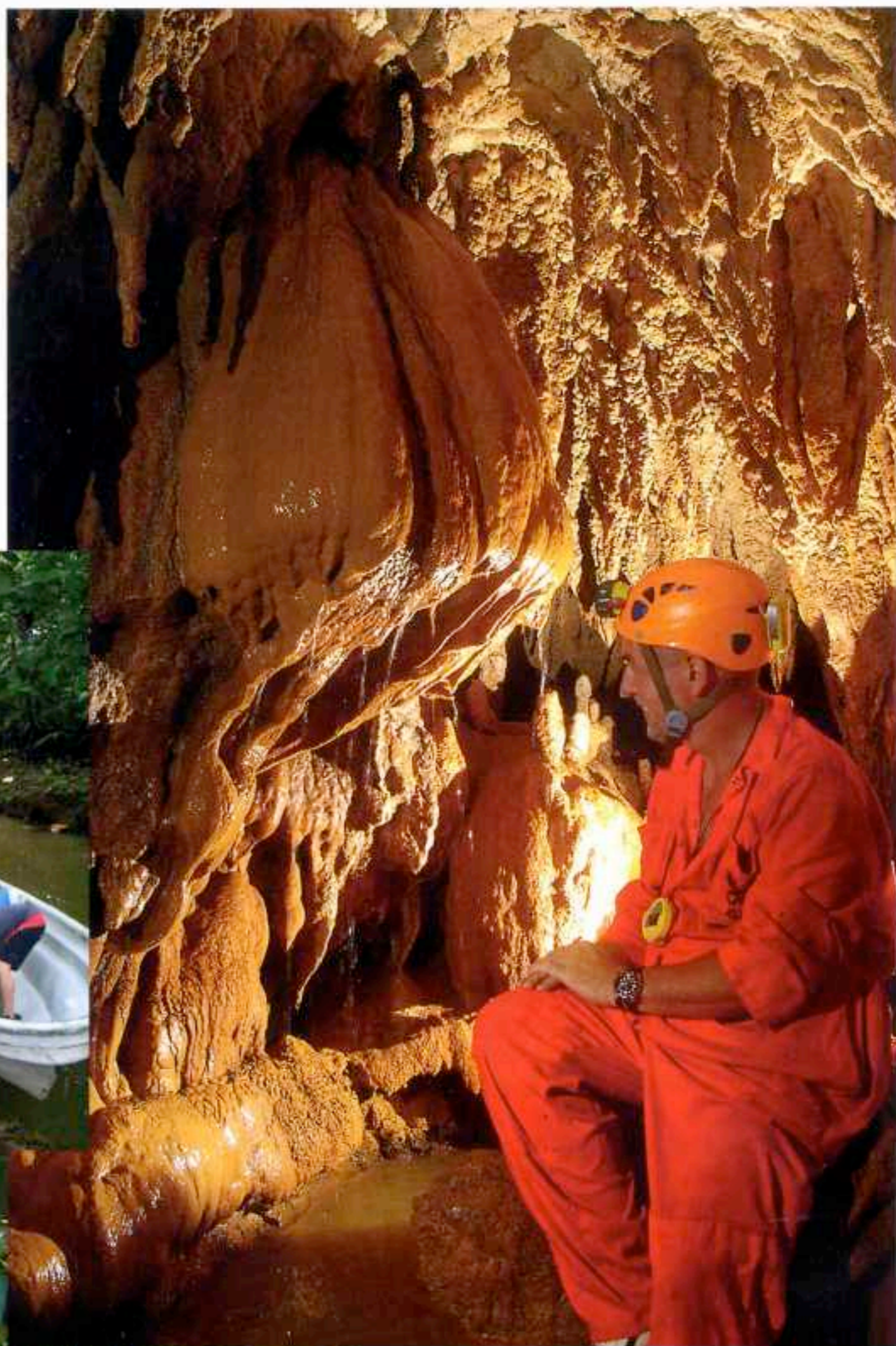
'That sounds good,' I slurred, 'there aren't supposed to be any!' And so began the work and effort of organising a trip to Central America. The plan was simple, as always: have fun and find caves. A date was chosen, but the team's first attempt ended with illness and the next failed due to injury, though a different team did ascertain that there were indeed caves present (see *Descent* 190), despite a certain caving atlas suggesting the contrary.

Finally, after eighteen months of frustration, in October 2006 a team comprising James Cobbett, Phil Collett, Pat Cronin, Dig Hastilow, Conor McGrath and Ray Murphy, our paramedic, arrived at the magnificent Cobbett household in Panama City, then flew onwards to Isla Colón and established a base. The small town of Bocas is a hive of activity and, due to the tourist industry, has well-stocked shops for the jungle explorer; big machetes and cheap bottles of beer. The day was spent buying essentials and organising guides and transport for our explorations.

As Isla Colón is an island, our mode of transport was a medium-sized rowing boat with a big outboard engine. Our guides and drivers were Oscar and Carlos, a good-hearted pair of boys who were great fun. Leaving the shore, Oscar gunned the boat up to twenty-odd knots and fired us across the open sea to the next piece of land that lay in the way, the island of Bastimentos some three-quarters of an hour's travel to the south.

This first working day was our initiation into the lush Panamanian jungle. As we headed up a narrow creek (without a paddle), the jungle closed in and the further we advanced from the cooling sea the faster the heat, humidity and torrential rainfall increased. A short walk from the head of the creek brought us to a village of half a dozen huts where we met our guide, national park ranger Domingo Villagra (pronounced Viagra!). A personable guy of great dignity, he softly smiled at the size of our equipment packs and gently shepherded us towards the dark undergrowth.

Our first foray was into the area above and beyond the known Nibidá, at 1.5km the longest cave in Panama. With visibility reduced by the dense foliage to some 3m from the path, the only way to look for entrances was to choose a direction, take a machete and hack a track into the greenery. To the team's surprise, within an energetic hour we located



Top to bottom: Pat Cronin with formations in Nibidá and landing in a creek near the cave on Isla Bastimentos
Photos: Dig Hastilow
Dig Hastilow diving in Cenote Courtney
Photo: James Cobbett
The Nibidá streamway and James Cobbett's base camp yacht. *Photos: Dig Hastilow*

several shafts and, once checked for creepy-crawlies, they were each descended – they all bottomed out within 8m.

This was to be the norm for the next few days – checking short, vertical shafts. However, our fortunes took a turn for the better when, about a kilometre from the Nibidá resurgence, we discovered an opening and volunteered Conor for the descent. The 18m shaft is presently the deepest known cave in Panama, but alas it didn't lead into the unknown – instead, it dropped into the Nibidá streamway.

Still, hope springs eternal and the following day the team decided that Pat should make an attempt to pass the terminal sump in Cueva Domingo; this cave contains another active streamway which resurges within some 150m of Nibidá. As we arrived at the end of the creek after yet another white-knuckle ride, we bumped into several young people of the female variety, all scientists from the local branch of the Smithsonian Institute. They were searching for the little red frogs collected by indigenous people, who tip their arrows using the amphibians' neurotoxic skin excretions, and explained that they were studying how the different shades of skin colouring affected their sex lives (I think they meant the frogs, but I could be wrong). So far, they had not had much luck – what a surprise! Springing to their aid, the team's combined male hormones suggested that the girls followed us into the jungle where: 'We'll show you lots of frogs.' Strangely, they declined our offer. Ah well.

A little later the urge to learn another language overcame one of the lads. 'Señor Domingo?' 'Si.'

'What do you call the little red frogs?' Domingo looked sideways at Ray.

'I call them the little red frogs,' he replied. So much for the pursuit of linguistics.

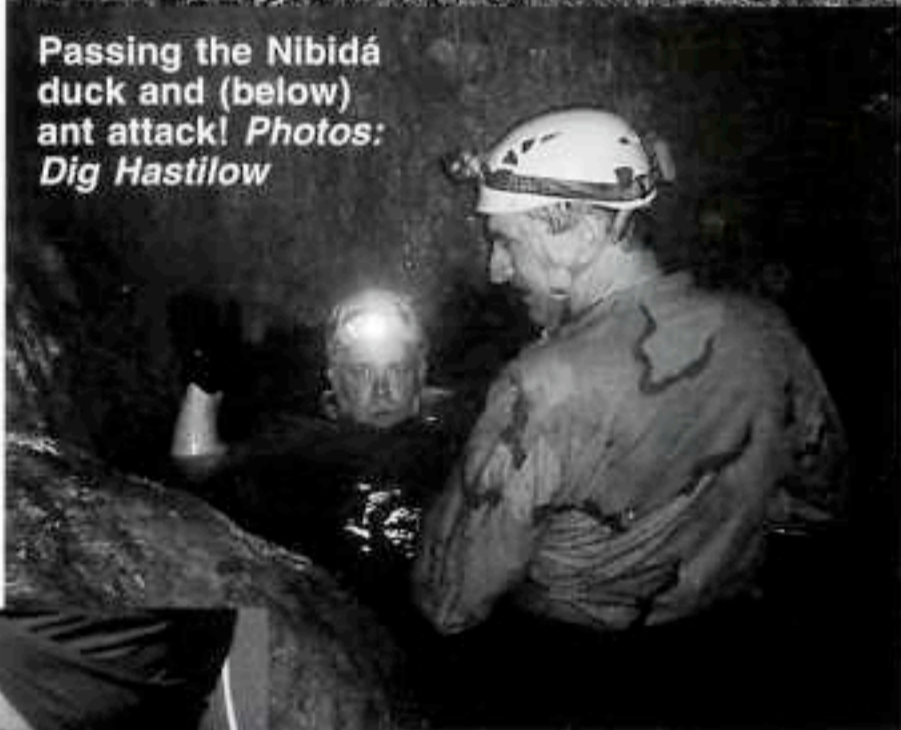
Back to the plot! The active streamway in Cueva Domingo came to an end at a desperate duck, previously passed by James; he always knew that his nose would come in handy. After two long, very narrow metres of what you could laughingly call an airspace, James regained the sump pool proper. The size and shape of the streamway had previously indicated that this should only be a short sump, so a lightweight diving kit had been brought from Ireland. The sump thought differently: it veered away from the main direction then, after only 9m, dropped to -3m where the submerged mudbanks met large roof pendants that blocked further progress. The sump held zero potential. Meanwhile, however, another short shaft dropped by Dig and Conor bypassed the sump and entered the best-decorated streamway so far discovered on the island. It ran for over 100m to a smaller upstream Sump 2.

Day after day the team returned to the jungle. This would have been a real effort and a strain on the support logistics without the generous offer of James' retirement present to himself for use as a base camp – his 'little yacht' that he cleverly moored in the closest marina to the caves and within paddling distance of several bars.

As time passed and Domingo watched us working away, he informed us, almost daily, of yet another hole he knew of. He did have us charging around the undergrowth looking in the most uninspiring of entrances, but you never know ... One morning, he told the team of a big entrance, but it was a long walk beyond the furthest cave we had explored so



James Cobbett sitting on guano in Upper Cayman Cave. Photo: Phil Collett



Passing the Nibidá duck and (below) ant attack! Photos: Dig Hastlow



James and Phil made the trip while the rest of us ferreted in other holes. That night the lads returned, with the news that it was indeed a large entrance and that it entered a cave longer than 200m, so it was worthy of further investigation. However, the passage in what we named Arch Cave became smaller and smaller until, after 400m, it narrowed at a squeeze between stal.

We returned with a big hammer and the squeeze vaporised, bringing us to a 3m pitch into a narrow rift with a stream. As the caiman waddles, the squeeze lay some 85m from the Nibidá main streamway and had been previously reached from the Nibidá side. The link extended Nibidá to well over 2km – not much on the face of it, but every metre had been hard won. We called a halt to exploring the island of Bastimentos; not only had we gained this extension, but we had discovered Angel Cave, Keyhole Cave and some two dozen other holes of various depths and lengths.

We turned our attention to Isla Colón, where we sought out Bluff Beach, an area with far less tree cover and given over to grazing – I suppose you could call it 'pasturised'. James had previously researched the region, but had only turned up rumours of holes with no real detail.

We found a large entrance beckoning but, as James eagerly changed into his kit he was attacked by ants the size of camels (actually, about a couple of centimetres long but with teeth that rivalled Janet Street-Porter's). James named the hole the Cave of the Killer Ants.

The muddy but well-decorated passage led from the entrance chamber via a crawl into another chamber where a short climb dropped into another small space with a streamway that closed down. Above the drop we attempted a vertical climb using plant roots but the lip proved too difficult so, armed with a bamboo maypole cut from a local farmer's garden, we tried again. This time the pole broke when the

climber was 7m off the floor.

This minor, high-level passage was heading towards another cave with a double-chambered cavity, each one being some 20m in diameter with large, steep guano heaps. The largest cave in the area was Toad Two, a 3m diameter passage that closed down beyond the entrance chamber while the smallest lay at the entrance to the island's refuse tip; named Dum Pit, it is short and not so sweet.

The absence of tree cover and the hot sun brought severe heat exhaustion, an ailment that was quickly alleviated by a swim in the sea and a shared bottle of lukewarm beer bought from a bar that only had lemonade left. We moved inland.

The Rio Mimitimbi had previously been followed in 2005 by James and Stuart McManus from the sea to its rising at the base of a boulder pile, but they had been forced to leave at sunset without a full investigation. We planned to examine the river's course further upstream by making camp in the nearby Upper Cayman Cave, where there was a level area and lots of stal to tie our hammocks to. In 2005 the route inland was by travelling up-river, but instead we walked in from the road crossing the island – it was a longer, but easier route with our guide, Ernesto, carrying a large machete. By midday we had reached Upper Cayman via Lower Cayman Cave and set up camp, noting a 'small' reptile on our way through the first cave. The stream from the caves flows into the Rio Mimitimbi just downstream from the resurgence area, where a large pool, some 2m across, warrants a dive with large cylinders – everything points to a long sump.

The scramble up from the resurgence was not difficult and, only 10m above, a large opening led down a steep mud slope into a flooded chamber and a sump with zero visibility. From the slope there was also a short, 6m deep shaft to the south-west, which dropped into a streamway. Its 50m small, deteriorating muddy passage sumped at both ends. This was the only evidence we found in the area of dry cave passage. The outflow from the lower resurgence pool suggests that the bulk of the flow is from a lower drainage system and we believe we have only found the higher level of poorly developed passage with its associated minor flow.

And so we wound up the exploration. The trip had been great fun, though all agreed it was hard work. Three problems ended fortunately well for those concerned. In the wee small hours during the underground camp, while on his third trip downstream to attend to a severe bout of diarrhoea, the depositor completed his task then turned around, ankle-deep in the stream, and noticed a large, submerged log with eyes! The second was a minor ear infection caught while passing a duck in Nibidá, which a trip to a clinic in Bocas sorted out, but the third was more threatening. About a week after the expedition ended, James succumbed to Weil's Disease, though after excellent care and attention from the Panamanian health authority he made a full and speedy recovery. We now believe the source of the infection was from the Bluff Beach region where he was exposed through a cut to his abdomen while crawling in an area where rat-like creatures scuttled about.

The team members sincerely thank James and Marilyn Cobbett for their enormous generosity and for organising the majority of the trip, and to the Speleological Union of Ireland for its moral and financial support. Last but not least, my own thanks go to my wife Pauline, whose patience and support for my projects ever continues to amaze me.