

Hong Meigui Yunnan 2003



Cave expedition to Yunnan Province, China

18th July to 21st August 2003

Final Report

Report prepared by members of the Hong Meigui Yunnan 2003 expedition.
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This report is available online from URL <<http://milos2.zoo.ox.ac.uk/~hilary/yunnan2003/report.pdf>>. For further information and/or copies of this report, contact:

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Abstract

Hong Meigui Yunnan 2003 was a 5-week, 10-man caving expedition to Yunnan Province, China. The expedition was affiliated to the Hong Meigui Cave Exploration Society, an international society based in China.

The primary aim of the expedition was to find and explore caves that had the potential for depths in the range 1500–2500m. The expedition investigated a mountain range between the town of Zhongdian (中甸) and the Jinsha Jiang (金沙江) river. Exploration was carried out both at river level, and on the mountaintops. At river level, a large resurgence cave was explored and surveyed for 200m, until exploration was stopped by the high water levels at this time of year. On the mountaintops, 63 new entrances were logged and explored, to a maximum depth of 70m.

Follow-up expeditions are planned for 2004. An expedition in February will continue exploration of the resurgence cave. A summer expedition will return to the plateau areas, and continue the search for connecting entrances.

“红玫瑰—云南2003年洞穴探险”10名成员在中国云南省进行了为期5周的探洞活动。这次活动由红玫瑰洞穴探险协会组织，该组织是一个活动基地在中国的国际协会。这次探险的主要目的是寻找和探测潜在深度为1500-2500米的洞穴。探测地点位于中甸镇至金沙江之间的一座山峰。探险同时在江面与山顶展开。在江面的探测中，发现了一个大的地下河出口洞穴，探测工作因受今年洪水位的影响而停止，只测量了200米。在山顶的活动中，探测并记录了63个新洞口，最深者达70米。

2004年的探险计划如下：二月份将继续探测地下河出口洞穴。暑期探险将回到高原地区（山顶），继续寻找那些能连通的洞口。

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1 Overview

Introduction

Hong Meigui Yunnan 2003 was a 5-week caving expedition to Yunnan Province, China. The expedition was affiliated to the Hong Meigui (HMG) Cave Exploration Society, an international society based in China.

This expedition built on work carried out by the HMG Yunnan 2001 and 2002 expeditions [HMG02]. Before 2001, little cave exploration had been carried out in the north of the province. HMG Yunnan 2001 and 2002 had carried out wide preliminary reconnaissance work across north Yunnan. One mountain range, just to the west of the town of Zhongdian (中甸), was identified as particularly promising: geological maps indicated large blocks of limestone, the altitude difference between the mountaintops and the Jinsha Jiang (金沙江; Yangtze river) made for a potential cave depth in excess of 2000m, and some caves had already been found.

The main focus for 2003, therefore, was a return to this mountain range, with the hope of finding and exploring caves that might begin to realize this depth potential.

The expedition's core membership comprised four cavers supported by Oxford University, and five other members of the Hong Meigui Cave Exploration Society. The expedition worked with the Geography Department of Yunnan University; two members of that department joined the expedition for parts of its time in the field.

This report serves as the permanent record of the expedition. The remainder of this section gives a discursive overview of the expedition's aims, setting and achievements. A diary of the expedition is included in Section 2, and details of the expedition logistics are given in Section 3. Full data on caves found, and cave surveys where available, is included in Section 4. Section 5 is a collection of human-interest articles written by expedition members. Sections 6 and 7 contain a medical report and the expedition accounts.

Aims

Primary aim To continue reconnaissance of the surface and caves of the Zhongdian limestone mountains, with a view to exploring deep caves. Specific objectives were:

- Exploration of C3-1. C3-1 is a large resurgence cave that was found, but left unexplored, by the 2002 expedition.
- Exploration of C3-4. C3-4 is a difficult cave at 4250m altitude, explored to a gruelling 37m depth in 2002, and left at (yet) a(nother) squeeze requiring hammering.

- Reconnaissance of the limestone plateau southwest of C3-4.
- Reconnaissance of the mountain range extending south from C3-4. This area looked promising from geological maps, but was not visited at all by the 2002 expedition due to manpower constraints.
- Search for additional resurgence caves, in the Jinsha Jiang valley and its tributaries.

Secondary aim To continue identification and exploration of other promising areas for deep cave exploration in Yunnan.

The expedition planned to carry out further reconnaissance of the following potential cave exploration areas (each of which was visited briefly in 2002), subject to time and manpower constraints:

- Guli (小马厂), near Xiaozhongdian (小中甸);
- Lugu Hu (泸沽湖) area;
- Nu Jiang (怒江) gorge.

Secondary aim To build links with interested Chinese parties, and to encourage local caving.

The expedition area

General

Yunnan province is located in southwest China. It shares borders with Vietnam (to the south), Burma (to the west), Tibet and Sichuan (to the north), and Guizhou and Guangxi (to the east). The expedition's main focus was in the north of the province (See Figure 1). Here, the close parallel valleys of the Nu Jiang (怒江; Salween river), Lancang Jiang (澜沧江; Mekong river) and Jinsha Jiang (金沙江; Yangtze river) run north-south, cutting deep gorges between mountain ranges whose summits are typically 4000m and higher. This provides the steep relief that is (among numerous other factors) conducive to deep cave formation, and that partially underpins our high hopes for the area's cave depth potential.

The expedition's primary focus was the mountain range that runs north-south between the valley containing the town of Zhongdian (中甸), and that of the Jinsha Jiang (Figure 2). Relief at the west edge of the plateau is extreme, with a drop of over 2,000 metres down to the Jinsha Jiang in a horizontal distance of 5–10km. (The drop to Zhongdian at the east edge is more gentle: a mere 800m drop for 5km horizontal.)

The expedition had a base camp in Zhongdian, at a small, family-run guesthouse. From Zhongdian, access to the mountains required hitchhiking a ride



Figure 1: Map of north-west Yunnan Province

10km or so south, crossing a plain that varied between 2km and 5km width (on foot or by hitching), and ascending the 800m on foot to carry out reconnaissance daytrips or to establish camp.

Geology

As the Indian Plate pushes northwards into the Asian Plate, continental crust escapes sideways from the area of collision. This has created large fault systems that run south-eastwards from the Tibetan Plateau into Western China and Burma. Motion on these fault systems is predominantly by horizontal (strike slip) rather than vertical displacement. Numerous slivers of crust have been shunted past each other, with displacements of many tens of kilometres. The area visited by the Yunnan expeditions is caught up within these major faults: specifically, the Red River and Dali fault systems (see Figure 3). An offshoot of the Dali fault system forms the valley occupied by Zhongdian, the expedition's base. In a big-picture view, faulting makes for a relatively complex collage of rock types, juxtaposed across the faults, rather than the spatially very extensive limestone platforms found in the classical karst areas of central China.

The expedition plateau comprises both Paleozoic (i.e. 543 to 248 million year old) and Mesozoic (248 to 65 million year old) rocks, which outcrop in a north-south band which is 20–40 km wide [WBR⁺98]. The Mesozoic rocks are dominated by impermeable mudstones. However, the Paleozoic sequence contains thick intervals of limestone. In many places limestone intervals have been tilted so that their bedding is now nearly vertical.



Figure 2: Map of Zhongdian area



Figure 3: Fault systems of Tibet and Yunnan. (Reproduced from [WBR⁺98].)

Summary of findings

The main achievements of the expedition can be summarised as follows.

Resurgences

C3-1, the resurgence cave logged in 2002, was partially explored during 4 days near the start of the expedition. After 200m of easy dry walking passage, the fossil passage rejoined the main streamway, and dangerous water conditions prevented further exploration at this time of year. However, locals report that (a) 1.5 km of electric cable has been laid in the cave (giving us some idea of the length of explored cave), and (b) they have explored the cave only during the dry season, when water levels are much lower. Rich Gerrish and Duncan Collis plan a return expedition to explore this cave (with others) in January-February 2004.

Two other resurgences were discovered, with the help of locals: C3-45 and C3-46 (see Section 4).

The tops

The expedition focused almost exclusively on the southerly part of the mountain range — further south than any exploration carried out during the Yunnan 2002 trip. (See Figure 2.) Several daytrips and many short camps at various locations carried out assessments of the potential, and began the search for entrances.

The southerly areas look more promising than the peaks and plateaus explored during 2002. From initial field observations, it appears that the limestone continues from the plateau all the way down to the Jinsha Jiang (金沙江), in the vicinity of Camps 8, 9 and 10. Entrances seem easier to come by, although still not growing on trees. 63 new entrances were logged during this expedition, most at altitudes in excess of 4000m. Two dropped to depths of approximately 70m before choking (in one case) or becoming too tight (in the other). Many remain unentered and several are promising exploration prospects for 2004.

Secondary caving areas

The expedition had also been considering carrying out further reconnaissance in the vicinity of Lugu Hu (泸沽湖) and in the Nu Jiang (怒江) gorge, both of which were reported as promising by the 2002 expedition. In the event, the manpower requirements of the Zhongdian project prevailed, and these secondary areas were not revisited.

Involvement of local academics and cavers

The expedition continues to enjoy a strong working relationship with the Geography Department of Yunnan University (formerly the Yunnan Institute of

Geography), based in Kunming. Two academics from that department, Huang Chuxing and Liu Hong, joined the expedition for part of its time in the field.

Caving as a sport is in the very early stages of its development in China. The Hong Meigui Yunnan project is committed to encouraging local Yunnanese and other Chinese who express an interest to become involved in caving and cave exploration, and to assist by providing training and caving opportunities where this is both reasonable and necessary. In particular, we hope to involve more Chinese cavers in the Yunnan expeditions in future years.

Expedition timing

The expedition benefited greatly from the help and information of the local Tibetans, not to mention the difference they made to our cultural experience. Up on the tops, by far the most efficient method of cave-hunting was to ask the local yak farmers to show us the entrances they had come across during their work. (Sitting inside a fire-warmed hut was quite a pleasant way of recuperating from a day of battling the altitude, too.) In this respect the timing of our expedition was very fortunate: unbeknownst to us during the expedition planning phase, these farmers live in the mountains only during the months of June, July and August, and were just leaving as our expedition drew to a close. Future expeditions would be well advised to follow similar timing, if reasonable.

Future work

The Yunnan project is still young, but the 2003 expedition has strengthened its members' hope that somewhere in the mountains west of Zhongdian lies an extremely deep cave system, perhaps in excess of 2000m depth, and that eventually we will find our way into it. Plans for Yunnan 2004 are under way.

Objectives identified for 2004 include the following.

- Explore C3-81. This stream cave, at 3900m altitude, lies about 10 km from the resurgence C3-1. Interestingly, the direction connecting the two locations approximates the general strike of the limestone bedding in this area. This may favour water flowing from C3-81 towards C3-1.
- Carry out a dye trace experiment, from C3-81 to (a) C3-1, and (b) various locations in the Jinsha Jiang and its tributaries. A successful dye trace would provide invaluable information about the hydrology of the area.
- Explore caves around the Yě Kāng (也扛) area (Camp 11), and search for additional entrances. The limestone in this area appears to be particularly pure, and cave entrances abound.
- Return to the area surrounding C3-4 during yak farming season, and ask local farming families about other caves in the vicinity.

2 Expedition diary

14–17/7	HG, RG	London–Kunming.
17/7	HG, RG	Meeting with LH in Kunming.
18/7	HG, RG	Errands in Kunming; meet HC, Xiao Gang and Isa.
19/7	HG, RG	Delayed in Kunming; colour in maps.
19/7	HC, HG, RG	Night bus to Zhongdian (中甸).
19/7	HB, MH, ML, GL, LS, PT	Arrive Kunming.
20/7	HC, HG, RG	Zhongdian–Guli (小马厂).
20/7	HG, RG	Rig C4-3.
20/7	HB, GL	Night bus Kunming–Zhongdian.
21/7	HC, RG, HG	Push and survey C4-2.
21/7	DC	Arrive Kunming, with piles of kit.
21/7	DC, MH, ML, LS, PT	Night bus Kunming–Zhongdian, with piles of kit.
22/7	HG, RG	Survey and derig C4-3; Guli–Zhongdian.
22/7	HB, GL	Day recce: Láng Jǔ Shuā (郎举刷).
22/7	All	Meet in Zhongdian.
23/7	All	Admin day in Zhongdian.
23–25/7	HB, GL	Camp recce (Camp 5): Láng Jǔ Shuā (郎举刷).
24/7	ML, LS	Day recce.
24–25/7	DC, HG	Camp recce (Camp 6): Qiān Hū Shān (千湖山).
27–28/7	ML, LS	Camp recce (Camp 7): Nǎi Lā.
27–30/7	HG, MH, PT	Camp recce (Camp 8): Yá Qiān Dòng (牙签洞).
27–29/7	HB, GL	Camp recce above Láng Jǔ Shuā.
29/7– 1/8	DC, RG, LH, ML, LS	Resurgence trip: push and survey C3-1, find C3-45, glean info from locals.
31/7	HB, HG	Push and survey C3-33 (Gú Gě Dòng; 骨骼洞; Bone Cave).
31/7	GL	Access recce to lake.
2/8	All	Up hill, establish Camp 9 (Dá Wàn Lā Zàng; 达万拉藏).

3/8	HB, HG, RG, LH, ML, LS	Guided recce: C3-39 to C3-44.
3/8	DC, MH, PT	Guided recce: C3-47 to C3-56.
3/8	GL	Surface recce: Yé Kāng (也扛).
4/8	HG, PT	Bottom C3-49 and C3-50; shown C3-57 to C3-62; begin exploration of C3-62.
4/8	LH	Ill; return to Zhongdian.
4/8	RG, MH, ML, LS	Begin exploration of C3-47 (Lán Yīng Sù Dòng; 蓝罌粟洞; Blue Poppy Pot).
4/8	DC, HB	Attempt C3-42 (Seven Second Rattle), C3-48 (Fairy Cave).
5/8	All	Strike Camp 9; return to Zhongdian; expedition din- ner.
6/8	MH, ML, LS, PT	Leave expedition.
7/8	HB, DC, HG, RG, GL	Up hill, establish Camp 10 (stream sink bowl).
8/8	HG, RG	Bottom and survey C3-62; bottom C3-60, C3-61.
9/8	HB, HG	Surface recce to Yé Kāng; find C3-63 to C3-68.
9/8	DC	Return to Zhongdian; leave expedition.
9/8	RG, GL	Bottom and survey C3-47 (Blue Poppy Pot).
10–11/8	RG, HG	Overnight at Yé Kāng (Camp 11); find C3-67 to C3-80.
12/8	HB, HG, RG, GL	Strike Camp 10; return to Zhongdian.
13/8	HB, GL	Leave expedition.
14–15/8	HG, RG	Surface recce: transect walk from Zhongdian. high- way to Jinsha Jiang; overnight at Hēi Sī Niú Cháng (黑丝牛场).
16/8	HG, RG	Return to Zhongdian; eat chocolate cake.
17/8	HG, RG	Night bus Zhongdian–Kunming.
18/8	DC, HG, RG, EL	Meet in Kunming; sort kit; miss train. . . .
19–20/8	DC, HG, RG, EL	Lug kit Kunming–Guilin–Yangshuo; very tired sesh at Karst Cafe.
21–24/8	HG, RG	Yangshuo–London.



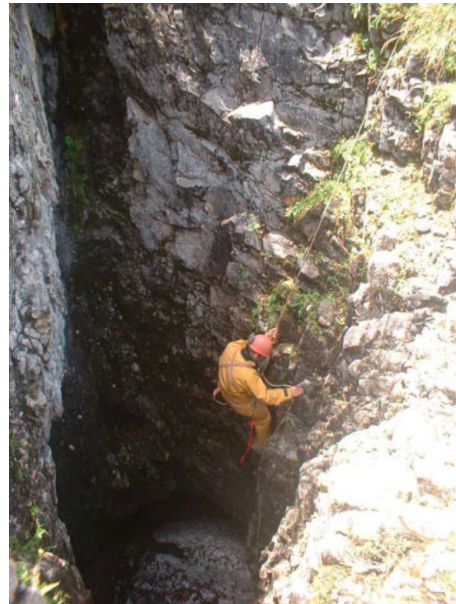
Base Camp: The Milk River Guesthouse. (Photo: HB.)



Rich prepares to descend C3-39. (Photo: HB.)



Survey day at Base Camp; from left, clockwise: ML, DC, PT, GL, MH. (Photo: HG.)



Pete descends C3-49. (Photo: HG.)



A baozi breakfast in Zhongdian; from left: RG, DC, LH, LS. (Photo: ML.)



*Pete and Hilary (at back) unload the tractor after a hitch across the plain.
(Photo: MH.)*



*Breakfast at Camp 9. From left: DC, HB, PT, RG, LS, HG, ML.
(Photo: MH.)*



Duncan passes a logging party, en route to Camp 9. (Photo: MH.)



Rich, Duncan and Martin L prepare dinner (Camp 9). (Photo: MH.)



*Members of the expedition's host family at Dá Wàn Lā Zàng.
(Photo: MH.)*



*Rich and the Yě Kāng villagers take a scenic break from cave recceing.
(Photo: HG.)*

3 Administration and logistics

Travel and equipment transport

Individual expedition members were responsible for arranging their own transport to Kunming. Of the nine non-Chinese members:

- Two flew from London to Hong Kong, crossed the border from Hong Kong to Shenzhen on foot, and took a domestic flight (tickets purchased in Shenzhen on arrival) from Shenzhen to Kunming.
- Six flew from London to Kunming with international carriers.
- One was already based in China, and travelled overland to Kunming.

Transport between Kunming and Zhongdian was by overnight sleeper bus (10 hours).

Local transport between base camp and the mountains was undertaken by local bus, hitchhike or (on the rare occasions on which a big group was going to the same place) chartered minivan. All of these options incur approximately the same cost: RMB 5 (approximately 40p) per person for a 10-mile journey.

Equipment from the UK was carried to China with expedition members. This stretched our standard international personal baggage allowances to, but not quite beyond, their limits. This was possible only because the expedition had access to the existing Hong Meigui tackle stores based in Guilin, Guangxi province. A vast quantity of equipment was transferred (with some difficulty!) between Guilin and Zhongdian on trains and buses accompanied by expedition members. (The Hong Meigui Cave Exploration Society is reluctant to permit equipment shipping, due to the risk of losing equipment in the process.)

On one occasion, horses were hired from a mountain village to assist with the return to Zhongdian following an equipment-intensive camp.

Food and accommodation

In Zhongdian, the expedition set up a base at the Milk River Guesthouse, a Tibetan-run guesthouse in the north of the town. Here we paid RMB 20 per person-night spent at base; the expedition had free use of a small room for equipment storage for the duration of the expedition. When in town, the expedition ate traditional Chinese or Tibetan food at local street cafes: typically RMB 4 per person for breakfast, RMB 10 per person for a full meal. Both cheap accommodation and cheap food are abundant in the town.

In the mountains, the expedition carried 2-man tents and, for the most part, camped, eating standard camping food (supplemented by a few fresh vegetables) bought in Zhongdian. On occasion we ate and (once or twice) slept in wooden huts at the invitation of the local yak herding families.

Permission and permits

Travel in China requires a tourist visa. This is obtainable (in the UK) from the Chinese Embassy in London, or Consulate in Manchester, for a £30 fee.

No further official permission was required for this expedition.

Insurance

The four expedition members supported by Oxford University were insured under the University's block travel insurance policy. Otherwise, each individual was responsible for purchasing his or her own insurance policy.

Insurance companies used were:

- Royal and Sun Alliance (4 members); policy type: group travel insurance; premium: £13 per person per month, paid to Oxford University.
- STA (1 member); policy type: premier worldwide; premium: £47.00.
- Endsleigh (3 members); policy type: activity—essential cover; premium: £52.50.
- Jardine Lloyd Thompson Leisure (via the British Cave Research Association) (1 member); policy type: worldwide; premium: £87.78.

One successful claim was made for lost baggage (Royal and Sun Alliance). No other claims were made.

In arranging insurance for this expedition, the following concern came to light. A possible calamity for which caving expeditions seek insurance is serious underground injury requiring stretcher evacuation from a cave. On the face of it, standard expedition insurance policies appear to cover this eventuality: “search and rescue” in the context of a caving expedition must be understood as referring primarily to such events. However, a recurring theme is for insurance companies to state that their policy covers the expense of calling out a “recognised rescue service” in such cases; no commitment is made to covering expenses *other* than fees of such recognised rescue services. This is a serious concern because in a significant proportion of cave expedition locations, including China, *no such recognised cave rescue services exist*. Cave rescue — in particular, vertical cave rescue — is a manpower-intensive, technical and extremely difficult exercise, requiring extensive experience and highly specialist skills. Local emergency services cannot be expected to cover such scenarios; a rescue would inevitably require calling out significant numbers of experienced cavers and cave rescue workers from overseas. It is far from clear whether the expenses of such an operation would be covered by insurance; this point was repeatedly raised during telephone conversations with insurance companies prior to the Yunnan 2003 expedition, but no specific written statements on the matter were offered, and the situation remains unclear.

Vertical caving

Exploration of vertical caves used single rope technique (SRT). All UK expedition members were experienced cavers already well versed in this technique. Details of both equipment and technique are given in, for example, *Caving Practice and Equipment* by David Judson [Jud84].

Documentation

Recording of entrance locations

Whenever possible, entrance locations were recorded by means of GPS (Global Positioning System). Readings were recorded as UTM grid coordinates, using the WGS84 datum parameters. The UTM zone is 47R.

Cave surveying

Significant caves explored by the expedition were surveyed to the highest reasonable standard. In the majority of cases, this meant surveying to British Cave Research Association Grade 5b. Copies of all surveys produced by the expedition are included in this report (see Section 4).

Photography, sound-recordings, video and film

The expedition carried simple cave photography equipment (SLR, small flashguns and slave units). In the event, this equipment was little used; most photography was on the surface.

Expedition photos have been collected and placed online at: see <<http://www.hongmeigui.net>>.

One expedition member, Richard Gerrish, took video footage of the expedition. The camera used was a Sony DCR PC101, with external microphone. Footage was recorded on Mini Digital Video tapes. From this footage, one ten-minute promotional film has been made, and a longer documentary (approximately one hour duration) is in progress.

For copies of the videos and/or further information, contact Richard Gerrish <rich@indiekid.org>.

Communications

During the first few mountain forays of the expedition, teams carried 2-way Binatone MR300 radios. These were intended to have a dual purpose: to facilitate communication between the members of a reconnaissance team while splitting up to search the ground, and to aid in search and rescue in the event of a missed

callout. In the event, the technology was not up to the task: although advertised as capable of communication over distances of up to 5km, communication over distances in excess of 1km, in the absence of a direct line of sight, proved impossible.

Frequently, especially in the early weeks of expedition, the expedition split into smaller teams of two to five to simultaneously investigate different areas. The teams carried mobile phones (with UK SIM cards), and kept each other updated by means of text messages. This was a good arrangement all round: it facilitated updating plans and meeting arrangements, increased safety and bolstered morale.

Research materials and information sources

The Yunnan 2003 expedition relied heavily on first-hand knowledge of the local infrastructure, culture, etc., gained during the HMG Yunnan 2001 and 2002 expeditions. (Each of these prior expeditions shared a high proportion of their membership with the planning committee of the 2003 expedition.)

Aside from this, information sources used during the planning phase included:

- advice from Liu Hong, the expedition's Field Agent;
- scientific papers from previous geological research concerning the area.

Published sources are listed in the Bibliography.

4 Cave locations and descriptions

This section records the location, description and current exploration status of all caves worked on during the 2003 expedition.

GPS readings are recorded as UTM grid coordinates, using the WGS84 datum. The UTM zone is 47R.

C3-1 Shǔi Lián Dòng (水帘洞; Water Curtain Cave)

(Entry updated from 2002.)

Location: Nearest road point is at 0551649 3056206, alt. 1963m. The entrance is located approximately 30m above the road level, and is reached by a series of flights of steps to the right hand side of the water.

Description: Resurgence cave, with an estimated water outflow of four cubic metres per second. The cave has two entrances, one carrying the water, the other fossil, located close together. The active entrance was too dangerous to enter under the water conditions of August 2003 (which were reported to be typical for August). The fossil passage is 10m wide by 6m high, with large boulders at the entrance, and continues as a tube of roughly the same size with an uphill incline, in a south-easterly direction. After 200m the fossil passage rejoins the streamway. Safe progress can be made for a further 15m by following the right

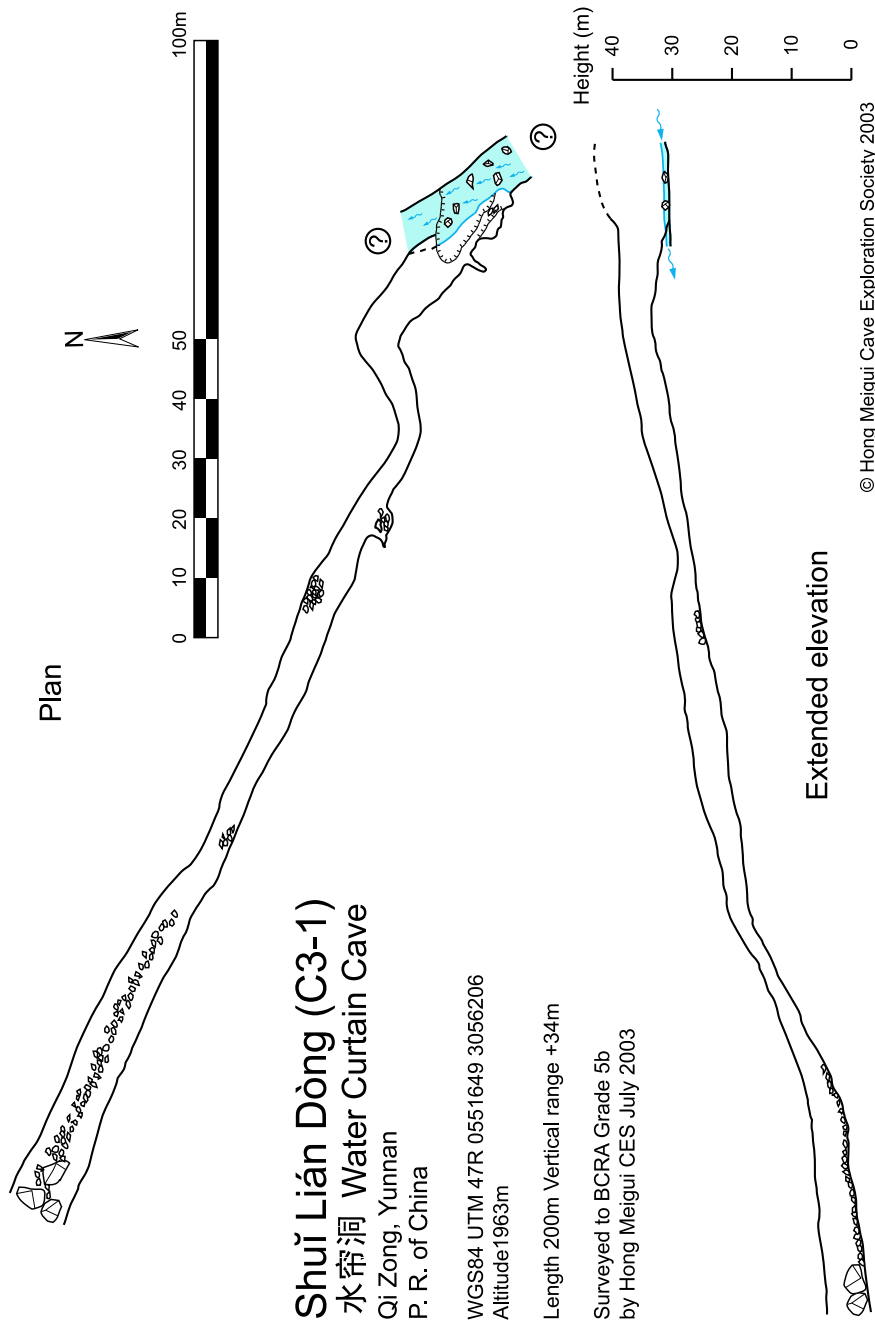


Figure 4: Shuǐ Lián Dòng

hand wall at varying heights. Beyond this, fast flowing water meant that further safe progress at this time of year would require bolt traversing. Water levels are reported to be significantly lower in January and February.

C3-26

Location: In bowl near 0558343 3067308 alt. 3913m.

Description: Stream sink.

C3-27

Location: 0558372 3066504 alt. 4031m.

Description: Stream sink at bottom of 7m cliff.

C3-28

Location: 0558685 3066758 alt. 4048m.

Description: Stream sink, draining from a lake.

C3-29

Number not assigned.

C3-30 and C3-31 are located at the mouth of a gorge. When facing up the gorge, the caves are on the left-hand side of the gorge. Their locations were recorded only approximately this year.

C3-30

Location: 0570200 3054400 alt. 3200m (approximate location).

Description: Large fossil cave blocked almost immediately.

C3-31

Location: 0570200 3054400 alt. 3200m (approximate location.)

Description: Large fossil entrance at the top of a high and unstable-looking wall.

C3-32

Location: 0570420 3052579 alt. 3427m.

Description: Short vertical cave in a small doline. Terminates at 5–10m depth.

C3-33: Gú Gě Dòng (骨骼洞; Bone Cave).

Location: 0568677 3053111 alt. 3688m. Cave is located at the base of a shallow doline, 10m from a significant path.

Description: A stooping entrance leads to a chamber, 5m diameter and 3m high. From the far right-hand corner of the chamber, a narrow passage leads downhill for 7m to a sharp left-hand bend and the head of a 15m pitch. (The pitch is just free-climbable, but rope is advisable.) From the bottom of the pitch, a climb up on the right gains a large upward-trending rift passage that closes down after 7m. Bones are littered throughout the cave.

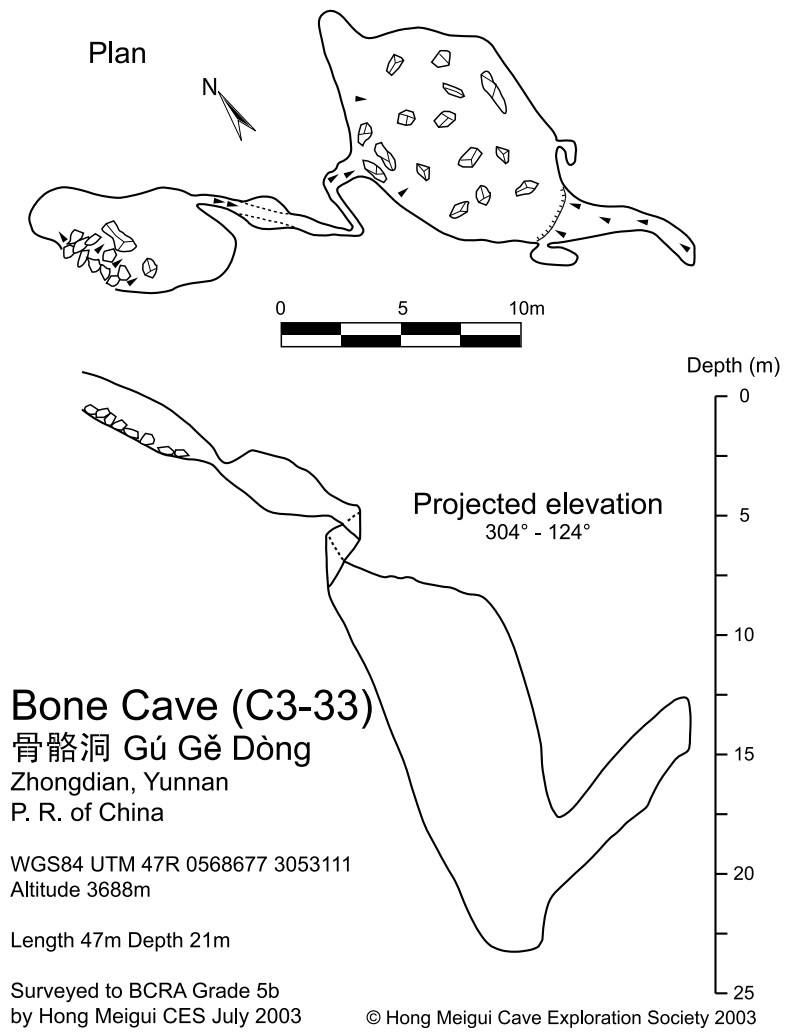


Figure 5: Bone Cave

C3-34 Yá Qiān Dòng (牙签洞; Toothpick Cave)

Location: 0563827 3063867 alt. 3843m. The cave is located in a small shakehole, the entrance partially obstructed with logs.

Description: A 25m pitch drops to a chamber, containing more logs and yak bones. [Some potential ways down through the boulder floor of this chamber have not been dug.] [Looking down the cave, a short climb down on the right hand wall has not been investigated.] The way on is through either of two windows (the higher of the two is slightly larger and easier). Beyond the windows, [a climb up has not been investigated;] the way on is down a 6m climb, slightly constricted at the bottom, which leads to a second chamber. [A muddy climb up on the right hand wall of this second chamber leads to a rift which closes down almost immediately.] A 5m climb up on the left (handline useful) leads to a rift passage which at one point widens to become a small chamber. Following the rift beyond this chamber gains the head of a 15m pitch. [5m above the bottom of the pitch, it is possible to leave the rope and proceed in either of two directions: to the southwest, it is possible to reach the base of an aven, which is at least 10m high; to the southeast, a rift is gained, and closes down after 5m.] At the bottom of the pitch, the base of the southeast-heading rift has been dug out for 5m, and leads to a body-sized vertical tube that heads downwards for 2m. At the bottom of the tube, space beneath a low undercut can be felt with the feet, but has not been pushed further.

C3-35

Location: 0563461 3063408 alt. 3855m.

Description: Dig at the bottom of a shakehole.

C3-36

Location: Approximately 20–30m above GPS point 0560709 3064829 alt. 3838m. The cave is at the base of an outcrop of limestone Cliffs, approximately 100m to the northeast of the path from Xià Liè (下列) to Dá Wàn Lā Zàng (达万拉藏).

Description: Body-sized horizontal tube. Visible length 2-3m, may go further.

C3-37

Location: Near C3-36. Entrance is located 3m up a slippery climb.

Description: The climb has not been attempted.

C3-38

Location: 0563800 3064000 alt. 3830m.

Description: Stream sink at bottom of a steep-sided, 10m deep doline.

C3-39 (“One kilometre deep”)

Location: 0556013 3064789 alt. 3727m.

Description: 25m deep blind pit at the base of a smallish limestone outcrop. Entrance protected with large logs.

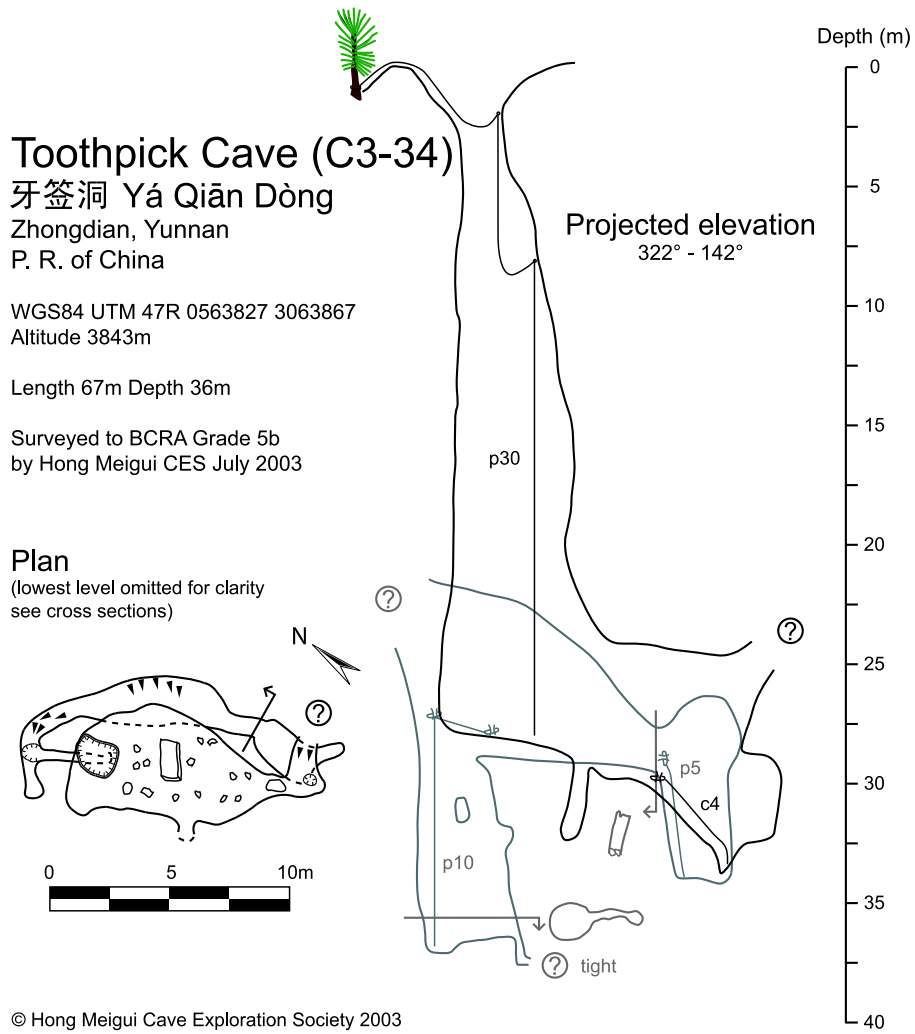


Figure 6: Toothpick Cave

C3-40

Location: 20m away from C3-39.

Description: A short climb down a small, vegetated doline, half choked with logs, reveals a crawl just beneath the lip. This crawl ends almost immediately in a very awkward pitch head best belayed from a thread on the left below the edge. The pitch is about ten metres in depth and ends in a small drippy chamber with a mud choked outlet. Prospects for further exploration look thin.

C3-41

Location: 0555877 3065588 alt. 3824m.

Description: A 10m shaft lands in a chamber, 5m in diameter, with a sloping boulder floor. Up to the right, a free climb leads to a second entrance. Down to the left, a walking passage leads downhill and round a right hand bend, terminating after approximately 15m in a steeply sloping downhill tube, almost fully blocked with soft mud. The tube draughts outwards very slightly.

C3-42 (Seven Second Rattle)

Location: 0555574 3065680 alt. 3970m.

Description: A 60cm diameter hole on a grassy slope. Stones rattle for 6–7 seconds. This cave cannot be rigged safely from nearby trees due to the looseness of mud and rock at the lip of the hole: a beam is required. Undescended.

C3-43

Location: 0556233 3064897 alt. 3759m.

Description: Stream sink with no air space.

C3-44

Location: 0556337 3064897 alt. 3771m.

Description: Stream sink with no air space.

C3-45 Resurgence

Location: 0551538 3058900 alt. 2060. This feature is located a 2km walk up the large tributary just to the north of C3-1.

Description: Resurgence. Water outflow estimated at two cubic metres per second. No dry passage (at this time of year). The water rising here is noticeably cloudy.

C3-46 Resurgence

Location: Located by the east bank of the Jinsha Jiang, approximately 200m upstream from C3-1.

Description: Resurgence in the bed of the Jinsha Jiang, invisible at this time of year. Locals report that the issuance of clear water is noticeable in drier months.

C3-47 Lán Yīng Sù Dòng (藍罌粟洞; Blue Poppy Cave)

Location: 0556689 3066126 alt. 4059m.

Description: A 30m entrance pitch drops to a ledge. From here, a further descent of 20m lands in a chamber with a lot of breakdown and boulders. A way on down a pitch/climb gives access to a final pitch of 6m. From here a hammered squeeze leads to an immature stream rift and another squeeze. [Space is visible beyond an echoing hole in the ceiling: the hole is too tight, but might be widenable.] Beyond the squeeze, a tube in the roof leads up for 3m before U-bending down to an impenetrable slot, while at floor level, very awkward, catchy rift leads to yet another impenetrable continuation with a very slight draught.

C3-48 Fairy cave

Location: 0555800 3066100 alt. 4080m (approx.). Hole in a cliff. Can be reached by a scramble.

Description: Unentered.

C3-49

Location: 0555560 3067305 alt. 4096m.

Description: 10m deep, 5m diameter, blind pit to a snow/boulder floor.

C3-50

Location: 0555566 3067247 alt. 4081m.

Description: 1m diameter, steeply inclined tube leads to pitch of approximately 30m. At the base of the pitch a short climb up and then down leads to a choked boulder floor. No way on.

C3-51

Location: 0555710 3067587 alt. 4107m.

Description: Stream sink. Large pool sinks into boulders. Flood overflow tube 5m higher, and to left, chokes 2m in. Water apparently does not reappear on the far side of the hill (contrary to our map information). The sink was dug for a few hours, until the pool started backing up, making further digging an aqueous prospect.

C3-52

Location: 0554982 3067995 alt. 4090m.

Description: Scramble up to a chamber, from where it is possible to climb 8m up and left. The climb continues but becomes too dangerous without protection, and has not been pushed further.

C3-53

Location: 0555538 3067722 alt. 4123m.

Description: Small cave at lowest point on cliff. Body-sized tube leads downward for 5m into a low chamber, which is choked.

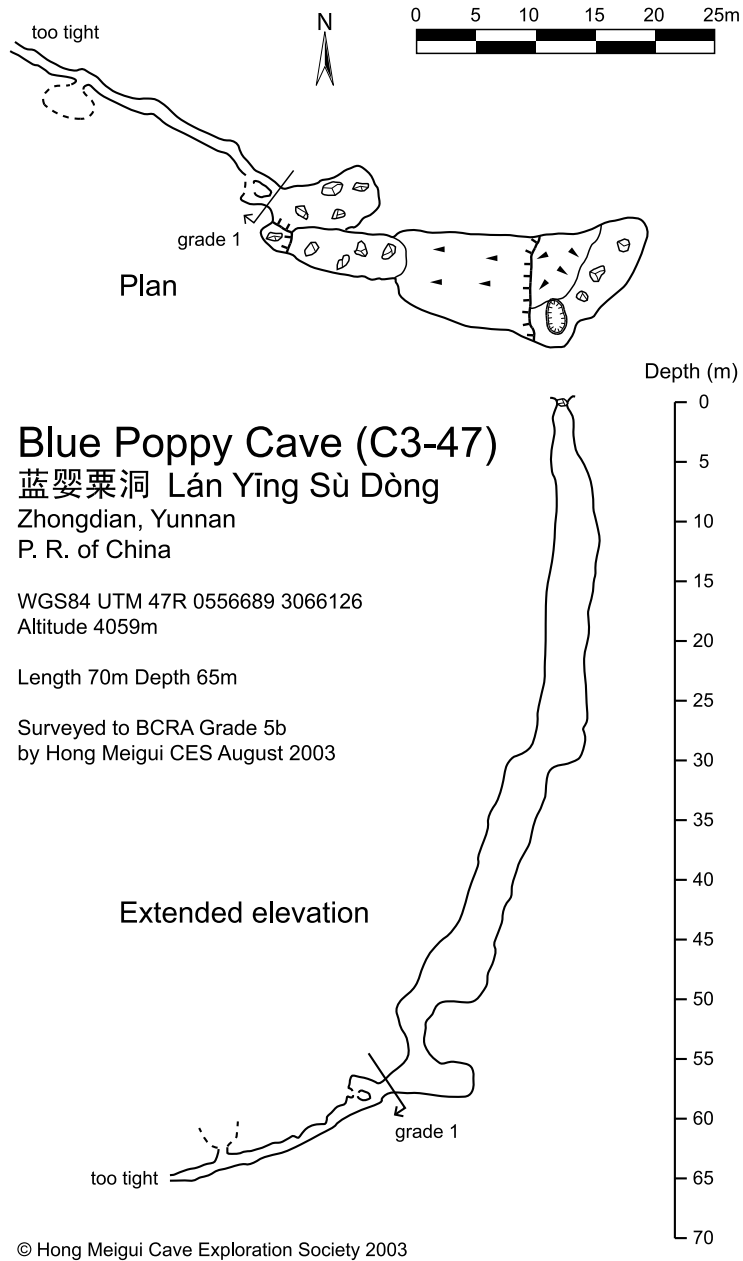


Figure 7: Lán Yīng Sù Dòng (Blue Poppy Cave)

C3-54

Location: 0556224 3066892 alt. 4049m.

Description: Stream sink.

C3-55

Location: 0557222 3066456 alt. 4055m.

Description: Dig in doline.

C3-56

Location: 0557399 3066268 alt. 4077m.

Description: Dig in doline.

C3-57

Location: 0555701 3067543 alt. 4104m.

Description: Rift, 1m high by 0.3m wide. Unentered.

C3-58

Location: 0555791 3067222 alt. 4135m.

Description: Vertical shaft, 5m by 1m in cross-section. Rocks rattle for 5 seconds. Undescended. No obvious natural belays.

C3-59

Location: 0555972 3067517 alt. 4161m.

Description: Scrotty slot, slightly descending. Too tight but mud floor may be diggable. Unpromising.

C3-60

Location: 0556056 3067449 alt. 4168m.

Description: 4m diameter shaft, 10m deep to a rubble floor. A passage in one corner of the shaft chokes almost immediately. The shaft is free-climbable on belay.

C3-61

Location: 0556027 3067509 alt. 4171m.

Description: 12m narrow shaft, choked at the bottom.

C3-62

Location: 0556069 3067298 alt. 4143m.

Description: 65m blind pit, 6m in diameter. A partial snowplug at the bottom appears to be sitting on a choke.

Rigging: The top hang is easily rigged from rhododendron bushes. 15m down, it is possible to swing under an overhang and gain a spike and bolt Y-hang rebelay. A second rebelay can be rigged from naturals after a further 20m, and a deviation a further 20m down can be gained on the opposite wall.

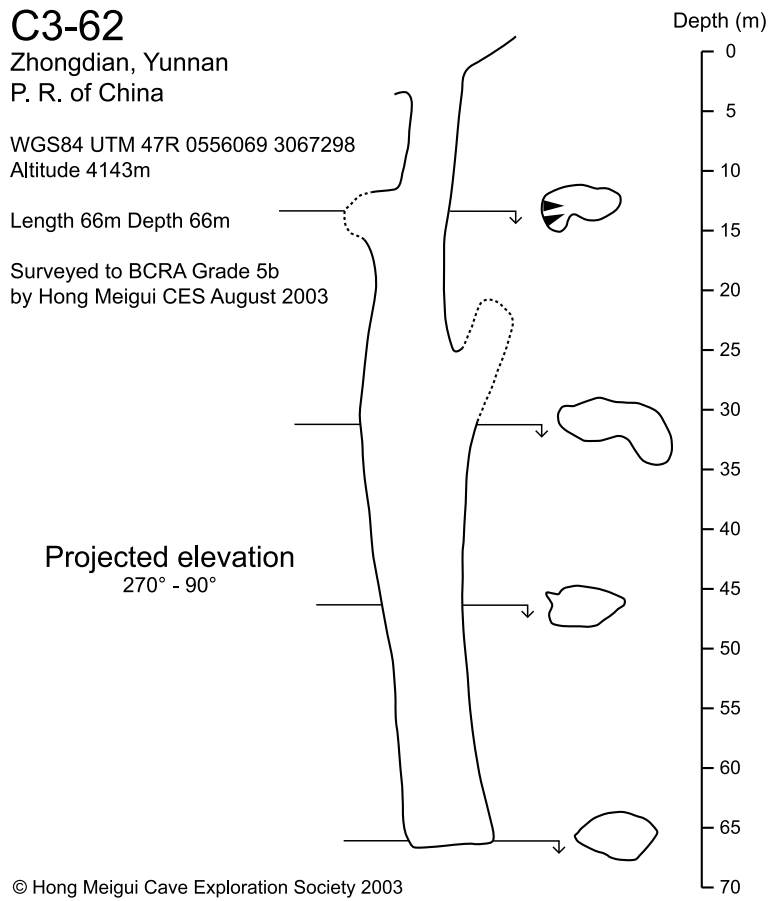


Figure 8: C3-62

C3-63

Location: 0555268 3070232 alt. 4075m.

Description: 3m high, walk-in entrance on left, and 1m by 1m entrance on right, at base of a small cliff. From the left-hand entrance, climbing 2m up on the left hand side gains the start of a low draughting crawl. [This crawl may continue, but requires an oversuit.] To the right of the crawl, scrambling downwards for 3m gains a small chamber with two ways on. The first is a climb down in a rift which has not been fully investigated. The second leads back out to the right-hand entrance.

C3-64

Location: On a bearing of 236° from 0555299 3070515 4069m. From the obvious peak, visually follow the line of ridge down to the left; entrance is visible as a small diagonal slot at the base of a small section of bare cliff, surrounded by vegetation. It is likely that the best approach is from the peak.

Description: Unentered.

Caves numbered C3-65 to C3-80 are in the vicinity of Yě Kāng (也扛) village.

C3-65

Location: 0555476 3073214 alt. 4214m.

Description: 2m diameter shaft on the side of the hill, near path. Rocks rattle for 4–5 seconds. Estimated depth 15m.

C3-66

Location: 0555926 3072909 alt. 4227m. Approximately 200m southeast of village, 20m left of the path.

Description: Entrance is 1m diameter hole on grassy slope. Tube descends at approx 60°. Rocks rattle for 5–6 seconds. No apparent draught.

C3-67

Location: 0555474 3073443 alt. 4280m.

Description: 15m by 10m entrance on spur, approximately 80m above village. 8m wide passage with boulder floor descends steeply to the right for about 20m. Pit in floor needs rigging; rocks rattle for 2–3 seconds. Outwards draught noticeable.

C3-68

Location: 0554990 3072320 alt. 4125m.

Description: 10m diameter doline with 4m diameter tube beginning 6m down. Steeply descending, 4m diameter tube, visible for approximately 10m, to snow. Passage appears to continue beyond snow.

C3-69

Location: 0554939 3072376 alt. 4206m.

Description: 2m diameter vertical shaft. Stones freefall for 3 seconds, then rattle for a further 6 seconds.

C3-70

Location: 0554931 3072412 alt. 4194m.

Description: 0.5m diameter vertical hole, surrounded by a few isolated rhododendron bushes. Stones rattle for 5 seconds. No apparent draught.

C3-71

Location: 0554911 3072406 alt. 4213m.

Description: Body-sized hole under cliff at base of small doline. Appears to choke 4m in. No draught. Oversuit required to confirm lack of going passage.

C3-72

Location: 0555004 3072697 alt. 4250m.

Description: Body sized tube descends at 30° to the horizontal, for 6m. Ends at a choke in the floor. Draughting outwards slightly.

C3-73

Location: Near C3-72. Located at base of a rocky doline, just beneath knoll with flattish cairn on opposite side of bowl to C3-72.

Description: Narrow rift. Draughts well. Holes visible through boulder floor.

C3-74

Location: 0555105 3072991 alt. 4256m.

Description: Choked dry stream sink.

C3-75

Location: 0555314 3072944 alt. 4255m.

Description: Rock shelter. 2m long, 1m wide, 1.5m high.

C3-76

Location: 0554951 3074056 alt. 4305m.

Description: 3m deep choked rift with skylight.

C3-77

Location: 0556003 3073294 alt. 4203m.

Description: Vertical tube on grassy knoll, covered with branches. Locals report the hole is 2m deep.

C3-78

Location: 0556129 3073756 alt. 4283m.

Description: 4m diameter vertical shaft visible in 8m diameter doline. Rocks freefall for 2 seconds, followed by a 6 second stone rattle.

C3-79

Location: 0556212 3074084 alt. 4283m.

Description: Slot, 3m wide by 0.5m high, under small outcrop, descends for 2m and then ascends for a further 3m. Choked at end. Entrance appears to be breakdown but passage further in is solutional.

C3-80

Location: 0556414 3074190 alt. 4257m.

Description: 15m deep shaft with 45° snowplug, leading to a choke with no draught. A roof tube at the bottom is also blind.

C3-81

Location: 0563797 3053446 alt. 3902m.

Description: Small entrance at the base of a 5m cliff leads down a steep boulder slope, underneath a showerbath, to walking sized passage with many small inlets. Active stream passage continues downstream for 100m, to the head of a 5m pitch which has not been descended.

C3-82

Location: 0556355 3055561 alt. 3010m.

Description: Alcove, 10m wide, 10m high, 4.5m deep, containing many solution pockets. A waterfall, apparently from a surface stream, falls from above the alcove.

C3-83

Location: On bearing 293° from Yě Kāng (也扛) village.

Description: Entrance visible on cliff.

C3-84

Location: On bearing 315° from Yě Kāng village.

Description: Entrance visible on cliff.

C3-85: Xiān Rén Dòng (仙人洞; Hermit Cave)

Location: 0563930 3071934 alt. 3418m. 50m up path on north slope of valley, beneath a string of prayer flags.

Description: Small triangular entrance leads to a chamber with lots of top-shaped stone offerings, plus the odd joss stick and a torn 1 Yuan note.

C3-86

Location: 0563830 3071960 alt. 3430m. Beneath string of prayer flags, approximately 100m west and a bit north of C3-85.

Description: Not visited.

C3-87

Location: 0563730 3071960 alt. 3418m. Prominent entrance just round first left hand bend into gorge, reached from path by a short scramble.

Description: 15m high 10m long phreatic remnant.

C3-88

Location: 0562500 3072300 alt. 3418m. Prominent entrance overlooking flat area.

Description: 2m high 2m long shelter, with branches for sleeping on.

C3-89

Location: 0561780 3072600 alt. 3418m. Prominent entrance on north side of gorge, reached from path by a short scramble.

Description: 20m high, 10m long, phreatic remnant.

C4-2: Xiǎo Mǎ Chǎng Yī Dòng (小马厂一洞; Guli 1)

(Entry updated from 2002.)

Location: 0585506 3036122 alt. 3145m. Entrance is a 15m pit, 5m diameter, where a small stream sinks. The stream approaches from the northeast side of the pit; this side of the pit is an earth slope, too steep to climb.

Description: The 15m entrance pitch is rigged from a large tree on the northwest side of the pit, and lands on a ledge. The 10m second pitch follows immediately, and is rigged from a natural and bolt Y-hang, with a deviation 3m down. From the bottom of the second pitch, a short sloping passage drops down into a chamber where the stream sinks among boulders. An obscure tube bypasses the blockage, and gains the start of a rift, where the water reappears. The rift passage continues (quite narrow and awkward) for 75m to the head of the 6m third pitch, which can be rigged from a spike backup and spike belay, with a thread rebelay 2m down. The third pitch lands in a small chamber which leads immediately to the fourth pitch, estimated as 20m, which has not been descended.

C4-3: Xiǎo Mǎ Chǎng Èr Dòng (小马厂二洞; Guli 2)

(Entry updated from 2002.)

Location: 0585041 3036281 alt. 3185m. Entrance is located in a vegetated doline.

Description: Two rock arches side by side each lead to a 4m climb down (the right hand climb is marginally easier) to a vegetated floor, with a chamber beyond the drip-line to the right. From the chamber, a sloping shaft drops 25m to a second chamber, 5m across with a sloping boulder floor. At the uphill end of the

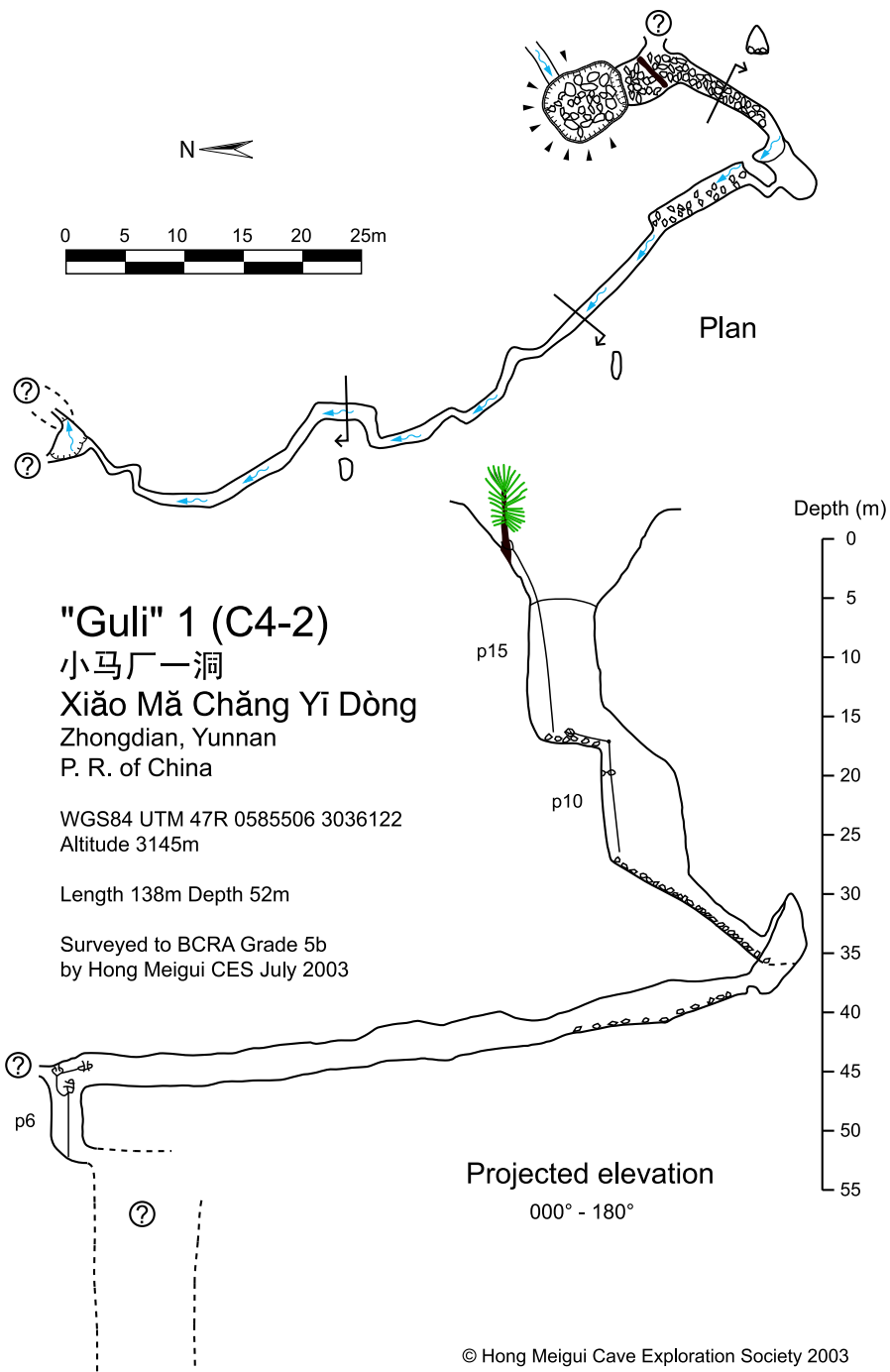


Figure 9: Xiǎo Mǎ Chǎng Yī Dòng (Guli 1)

chamber, a rift/alcove appears to be choked. At the downhill end, a crawling passage leads round a 90° right hand bend to a squeeze where the passage is partially blocked by a boulder. The passage appears to continue, round a 90° left hand bend, beyond the squeeze, but has not been pushed.

"Guli" 2 (C4-3)

Xiǎo Mǎ Chǎng Èr Dòng
 Zhongdian, Yunnan
 P. R. of China

WGS84 UTM 0585041 3036281
 Altitude 3185m

Length 33m Depth 25m

Surveyed to BCRA Grade 5b
 by Hong Meigui CES July 2003

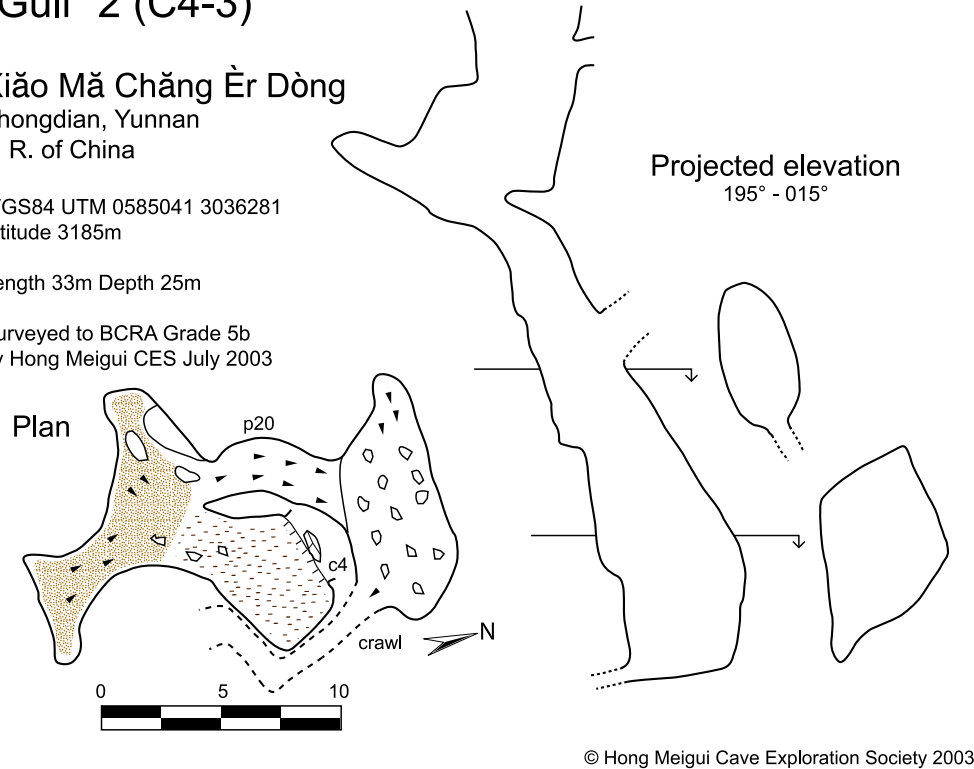


Figure 10: Xiǎo Mǎ Chǎng Èr Dòng (Guli 2)

5 Personal stories

The entries in this section attempt to capture the human side and day-to-day flavour of the expedition. No apology is offered for strong language, political incorrectness, or semi-comprehensible cavers' slang.

Diary extracts are taken from e-mail updates posted online during the expedition. Other entries were written retrospectively for this report.

Diary extract, 26th July

Rich Gerrish

We are now into our second week in China. Getting to Yunnan province

proved its usual gear transporting mission with far too much kit and not enough people to carry it all. On top of that both myself and Hils have been quite ill with a vicious cold/flu type thing that has had both of us run down and exhausted. On top of the heat, travel, mosquitoes and hassle with the organisation that goes with being the advanced party it has been quite a hectic time.

Hilary and I along with Dr Huang from the geography department of Yunnan University spent a couple of days visiting our old friends in Guli (小马厂) village. Last year we were the first westerners ever to have visited this village in



Rich sketching surveys for the Guli villagers (2002). (Photo: HG.)

the remote mountains south of Zhongdian. The reason why so few people actually go here came to light when we visited Xiao Gang in Kunming before setting off. It turns out that the village is an old leper colony. This explained many of the things that we had seen last year but had put down to nothing more than a small genetic pool and inbreeding. Despite receiving treatment for the leprosy and the younger generations being free from the disease and

the accompanying loss of fingers and facial deformities the village still suffers from the ignorance and suspicion of other Chinese and as such remains isolated.

Having little time we immediately set about exploring the caves we were shown last year. The first, a fossil pitch (vertical drop) of 30m is still going but was the least exciting out of the two.

The second, a stream sink dropped down two pitches and entered a long section of awkward rifts that were great fun and reminded us both of the caves in Yorkshire. At the end of the rift a third pitch was descended to the head of a fourth which looks to be about 20m in depth. Due to time constraints a halt was called here and we surveyed out of the cave leaving the rest of the exploration for later in the expedition. The total length is roughly 150m with about 50m of depth.

Looking at the maps of this area it is clear that there is huge potential for much more cave exploration here with a large resurgence (cave entrance where the water reappears) indicating the possibility of a much grander system with the hope of a large and impressive master cave too.

The people of Guli Village were, like last year, unbelievably friendly and helpful to us providing us with food and accommodation. When we left both myself and Hils were sad to leave. We have both become very fond of the village, its beautiful setting, wonderful people and of course fantastic caving.

Dr Huang headed back to Kunming on urgent business whilst myself and Hils caught a bus north to Zhongdian where we met up with the rest of the team.

With nine members so far and a tenth joining us shortly we have far more

manpower than last year and this has become evident in the amount we can get done. This year we are also in possession of some fantastic maps which have enabled us to pick the sites we want to look at with much greater success.

Last night Martin Hicks and Peter Talling returned from a recce trip to report that an area of shakeholes pinpointed on the map also contains a possible 50m entrance pitch and many other possibilities. More recces today are expected to have similar success. I, meanwhile, have been trying to shake off the remnants of my cold and have been kept busy with organising the group equipment into something resembling order so that future caving trips will be more efficient.

The film is coming along very well indeed and I am starting to worry less about selling it to Creative Touch and National Geographic. Even if they do not want it I am sure that it will be excellent given the quality of the footage that I have taken so far.

Tomorrow, myself, Martin and Pete are off into the hills for a day's recce to yet another exciting spot and I have my fingers and toes tightly crossed that our current success will continue and that I will be feeling fitter in the near future.

Happy Campers, 23rd-25th July

Helen Blyth

After my first experience of camping, Chinese style, I was beginning to learn a thing or two: transport your loo paper and sleeping bag inside something waterproof (even if the day does promise to be hot and sunny); don't protest too loudly when Gavin offers to carry the "heavy stuff"; remember that forestry tracks can be rather fast-flowing; finally, beware of cooking oil packaged in "handy" small bottles, as you may get more of a kick than you bargained for.

And so it was that Gavin and I made our third foray into the forest and mountains, south of Zhongdian. After a bit of shopping for essential items, we soon found ourselves at the start of the plain, a deceptively long area of sporadic Tibetan villages, leading to the start of the forest. We were keen for an efficient walk, so as to avoid having to put up our tents in the rain (it tended to rain more during the afternoons). Soon we were collecting the tent and spare food from where we'd stashed it, and we began the ascent through the forest. It was fairly awkward walking, as the track consisted of very gloopy, ankle deep mud and deep puddles. In places where the track was very poor, there would be logs and fallen trees to use as a pavement. However, as these were sodden and covered in moss and lichen, progress was rather tricky, and I slipped over several times (something that I tried not to think about as we negotiated the slippery log bridges over the river).

Before long, we had puffed and panted our way up the hill, and arrived at a cleared area of depressions, stream sink and a yak herder village (complete with barking dogs). It was here that Gavin and I set up camp, in a depression out of

sight from the main village area. We were in good spirits, as there had been no rain all afternoon, and we had fun pottering about in shakeholes and generally getting to know our new home. After a tasty tea we settled down for an early night, looking forward to a nice day out walking. Unfortunately, the night was not overly peaceful, as we were sharing a corner with a herd of yaks, complete with snufflings, munchings and the clanking of their bells. Added to this was the all too familiar sound of rain hitting the tent, which didn't help on the sleep front.

The following morning we set off for a day of recceing. It was raining and the cloud was down. I'm sure that the views were spectacular, but they were not particularly evident in such conditions. We trudged on and on, with Gavin in front with the GPS, and me attempting to keep up.

Eventually we spied a village in the next dip. In order to follow our path, we would have to walk through or round it. This was actually more intimidating than it sounds, as the resident dogs had spotted us, and they were barking menacingly. We pressed on, feigning nonchalance, although we both felt rising panic as we noticed that the dogs were not tied up. Then, from out of the huts, some men appeared. They beckoned to us and began to round up the dogs.

With some trepidation, we decided that it would be polite to go and say hello, and we soon found ourselves sitting around a fire inside one of the huts. We were both cold and wet, and it was pleasant to be near a warm fire. However, as a pair of thoroughly bedraggled foreigners, we must have made rather unusual houseguests.

All was going well, and we managed to make polite "conversation" with the aid of a phrasebook. Then things went downhill, as a hefty lump of yak cheese was passed round. I had been in China long enough to realise that anything yakky was definitely yukky, and I wasn't looking forward to eating some with an avid audience. I held my breath and put some of the cheese into my mouth, and quickly swallowed before the sour taste became overpowering. Then I twisted my mouth into something of a smile and hoped that my watering eyes would be put down to the smoke from the fire. What I needed now was a nice cup of tea to wash it down with. The water began to boil and was transferred to a large enamel mug, some dried tea was added from a sort of "tea brickette". The mug was placed in the fire until it boiled, and from here it was transferred into a large piece of bamboo, where a dollop of yak butter was added. I watched as the man began to prod the tea, accompanied by the sound of slow, rhythmic sloshing. I felt as though I was witnessing an ancient ritual. Then came the moment of truth, I was handed a very full bowl of yak butter tea.

I took a small sip. It tasted like extremely greasy, milky tea, only it was salty and rancid tasting at the same time. Utterly, butterly disgusting. Somehow, Gavin the Hero managed to drink a full bowl, and still had room to polish off some of mine. I was very grateful.

After our small adventure, we were soon back on track, trudging once more

through the rain. We puffed our way to the top of another hill, where we consulted the map and admired the “view”. We decided that we would follow the stream until we reached a place where the map appeared to show it sinking. Our journey took us along a valley, where we passed through several clusters of huts, each with a full compliment of angry dogs. Luckily, all of the dogs appeared to be tethered, but I was wary nonetheless.

As we reached the final village, the main track continued on uphill. However, we were keen to follow the river and we took a smaller path heading in that direction. We heard the familiar sound of someone shouting “Hello”. We responded with a cheery “Nǐ hǎo”, then determinedly strode on; it was getting pretty late, and neither of us felt too keen to indulge in another cup of tea. The shouting continued and we quickened our pace. However, it soon became apparent that an elderly looking gentleman was running after us, and we decided that we should stop for a chat, but no tea!

The man began to chatter animatedly, gesticulating towards the main track. He then began to point at the hoof-prints in the mud, and to perform a relatively convincing yak impression. Time for the phrasebook. The section on yak herding appeared to be missing from the book, so we had to settle for “getting around by taxi”. The man soon found the phrase he wanted, “you took a circuitous route”, and we gathered that he felt we were going the wrong way. He did a few more yak impressions and we thanked him very much. I think he thought that we were clearly bonkers (maybe he had a point) and he reluctantly left us to our fate.

The yak track was not the best path in the world, and our spirits lowered. Eventually we caught sight of the river again, and made our way towards it. However, the sides of the river became more gorge-like, and we decided that this could be the place to have our picnic. The extra calories cheered us up a bit, but there is a limit to the amount of fun that can be had whilst sitting in the pouring rain. Time was getting on, and we felt that we were pushing it slightly to reach camp before dark. We decided to head for home.

If anything, it rained even harder during the afternoon. We resigned ourselves to the fact that it was going to be grim, and we didn’t even bother to pretend that we were enjoying ourselves. We passed the home of Mr Wrong Way, where I’m sure we got a look that said “I told you so”.

The journey passed without incident, until we returned to the vicinity of the untethered dogs. Neither of us were very keen to walk through the village, but it had to be done. Both of us adopted the quiet yet confident approach. I sincerely hoped that the dogs would fail to notice us, and my heart was pounding. All was quiet, when suddenly the angry barking began. Then, led by a mean looking yellow dog, they gave chase. It was time for us to walk rather more purposefully up the hill, which is not as easy as it sounds when you are at about 4000m. I didn’t dare look at where the dogs were, I just kept on walking, hoping that the effects of adrenaline would override the effects of altitude for long enough. Thankfully, we both made it safely over the hill, where we could breathe a sigh

of relief. I was shaking like a leaf and gasping for breath.

After what seemed like a very cold and damp eternity, our village loomed into view (ten hours or so after we had left it). We negotiated the last set of dogs, and made it back to the tent just about in time for tea. Then came the familiar ritual of scattering two sopping wet bodies and associated soggy socks around a very small tent, in the hope that something might eventually dry.

The weather did not appear to improve overnight, and the following day arrived with more rain and low cloud. Apathy appeared to dominate the proceedings, and even Gavin, probably the most enthusiastic man on the planet, seemed reluctant to get out of his sleeping bag. After considerable prevarication and endless cups of tea, our full bladders forced us to come up with a plan. We each left the tent to “check the weather conditions”. As there were no signs of improvement, it was decided to call it a day. We packed up our things and squelched for home.

Of caves and karaoke

Duncan Collis

As the bus steadily descended the road towards the Yangtze the views were spectacular, particularly to the right, where just beyond the edge of the road there was a steep drop down several hundred metres to a small river. Eventually the tributary we were following met the Yangtze, huge and brown even this far upstream, and the road gradually dropped to within a few tens of metres of the river, following its west bank.

Now the situation was reversed, and we were at the bottom of a steep-sided valley with sides rising up very steeply, often higher than could be seen without leaning close to the bus window. Although we all had our eyes peeled, mostly there was little sign of limestone in the valley walls, so we had no clue as to whether we were getting close to the resurgence or not; none of us had been there last year, and the directions we’d been given were for an approach from the south.

Suddenly, on the left side of the road, partly obscured by trees, we saw something large and white moving. Water, and lots of it! However, as we passed, although it looked promising, we weren’t sure whether or not it actually was the resurgence, so we stayed on the bus. About 6km later, the bus turned to cross the river at a large bridge. The town on the other side was Qizong, and we knew



*Looking down on the Yangtze.
(Photo: ML.)*

that what we'd seen must have been the resurgence so we got off and quickly flagged down a bus heading north.

First order of the day was for everyone to gawp at the huge resurgence stream. The water flowed very clear and cold, and the air nearby was noticeably colder than elsewhere. Then we needed to find accommodation. This was very easy, as there turned out to be a small hotel about 20 metres along the road from the bridge over the resurgence stream. Soon we had cheap rooms sorted out, and were tucking into a decent lunch.

In the afternoon, we walked up to the entrance. It looks like some time



River crossing en route to C3-45.

On bridge: RG. (Photo: ML.)

ago, Shǔi Lián Dòng [C3-1] was developed as a showcave, as there were dodgy concrete walkways and iron staircases above 50m drops, with missing steps, up to the fossil entrance of the cave, a short distance from where the stream resurges. Rich, Liu Hong and I surveyed into the cave, which was illuminated very feebly by a fifteen watt bulb every eighty metres or so, until we met the stream. “Awesome” is probably the word which should have sprung to mind, but it was more likely something unprintable. We stood at the edge of a three metre drop down to a thundering torrent of white water. We had to shout to be heard above it. The climb down to the water's edge looked extremely dicey, but fortunately there was also a traverse along a small ledge, which was merely nerve-wracking, to reach a gentle slope down to the water's edge.

The lighting cable disappeared round the corner upstream, taunting us; we could go no further, as the water was far too violent to contemplate getting into, and there were no ledges. Liu Hong was all for using a dodgy old bamboo ladder as a bridge to get us to a boulder a couple of metres away, but it was obvious that we would then be stymied again. With mixed reluctance and relief, we retreated to the restaurant for a beer.

Liu Hong spent quite a long time chatting with a large crowd of local men, who told him about several caves two thousand metres above us up the mountain (a six hour walk, they reckoned — looking at the closeness of the contours on our map, we didn't fancy trying it), a couple more resurgences, and about Shǔi Lián Dòng. Apparently, a kilometre and a half of lighting cable was installed in the streamway, and one man claimed to have been some way beyond the end of

it, to where the stream comes from two tributaries, neither of which he explored.

After a good dinner and a few beers, we discovered that the small showcave complex, little more than a row of sheds, had a karaoke bar. We went in and sat down, beers kept appearing on our table, and before too long Rich and I were dancing with a handful of locals to the pumping beat of Tibetan Techno music. The evening ended with Rich and I standing unsteadily on the bridge over the resurgence stream, toasting the cave in Dali Red beer, making wild predictions about where the water might come from, and singing drunkenly.

The next day we were taken for a walk up a large tributary to the Yangtze, just to the north of Shǔi Lián Dòng. After a couple of kilometres, we reached a large spring welling up from beneath a cliff on the southeast side of the valley and flowing straight into the tributary. The flow was about half that of Shǔi Lián Dòng, but still very impressive. Unlike Shǔi Lián Dòng, this water was somewhat cloudy, but again very cold. At this resurgence, there did not appear to be any passage above the water, so we could not explore the cave.



We were told by the people who live near Shǔi Lián Dòng that the water levels are much lower in January and February, and that that is the only time of year when it is possible to safely go up the streamway. Immediately we began to make plans for an expedition in January 2004, when we should hopefully be able to get a better idea of where all that water is coming from.

*From left: a local villager, LH,
RG, PT. (Photo: ML.)*

Diary extract, 4th August

Hilary Greaves

Well we are now 3 weeks into expedition, and it has been something of a roller coaster for our hopes. . . .

After meeting up in Zhongdian on 22nd July, the 9 of us spent a week or so doing a series of short 2–3 man recces up into the mountains west of the town, to 4000m altitude and beyond. During this time we found a few small caves but nothing to write home in any detail about. After a couple of delays, Liu Hong, our man from the Yunnan Institute of Geography, arrived on the 28th. Then we split up for a few days: Liu Hong, Rich, Dunks, Martin L and Lenik went round to check out the resurgence cave we found last year; Pete, Martin H and I went up into the hills with some caving kit to check out an area of shakeholes and

shafts found on a day recce; Helen and Gavin went on a recce camp further north in the mountains.

Rich is writing a separate report from the resurgence trip, so here is my side of the story. Martin, Pete and I slogged up a rather brutal hill and established camp in a hidden clearing. The next day Pete and I explored one shaft up on the plateau, to a depth of around 40m, but it ended in an uninspiring dig. We emerged to find a rather wet Martin, who had spent the day checking out the area immediately surrounding the shakeholes, but found nothing in particular. As Pete derigged I dropped a second shaft, 8m to a chamber with no way on. With no more shafts, the third day the 3 of us had planned to split up and surface-recce 3 separate routes, but as we set off, villagers reported caves on Pete's route and sweet FA on Martin's and mine. We both jumped ship (being, in any case, not overly enthused by the prospect of wandering around in the rain on our own) and joined the glory team. This involved walking along a good track up a gentle valley northwest of our camp. We walked for several hours, but closer to the area where the caves should have been, no-one seemed to know of them. Pete (feeling shit) turned round at a point where the limestone appeared to be crapping out and turning to impermeable shite, while Martin and I continued on up the valley to yet another village, where a woman carrying buckets of milk also denied any knowledge of caves. Coupled with this, the bedrock still looked uninspiring, so we returned to camp by crashing through trees over the top of a mountain and following the next valley down, which also looked crap.



HG at Camp 8. (Photo: MH.)

Feeling not overly inspired by the area, the next day we derigged camp and returned to Zhongdian. We had been in touch with the others by text message, so we knew something of how the other teams were getting on. Helen and Gavin had cut their camp a day short as the weather was so grim, and were already back in Zhongdian, waiting to meet up with us. The resurgence team had written: "Resurgence surveyed for 200m, lots of water, way on too dangerous. Will tie up loose ends and get back to you." That wasn't good news; for sure, the cave hadn't ended, but we couldn't explore it this expedition, and it wasn't telling us much about where its water came from, by way of clues as to where to look up top. At this point I for one was quietly feeling not particularly great about the way things were going, having constantly to swallow pessimism and keep trying lead after lead, faced with disappointment after disappointment. But we were used to this, and the hope was still there. . . .

Back in Zhongdian, the 5 of us on the mountain teams went out for dinner. Pete had his mobile on the table and it buzzed twice. One was a message

from some lady friend of his, and one was from Rich. “Resurgence estimated at 4 cumecs. 2nd resurgence up northern tributary 2 cumecs. 3rd resurg under Yangtze ?? cumecs. Locals report many vertical shafts up on plateau. TDCITW is here 4 sure!!”

The next day the resurgence gang returned to town and elaborated on their story. Liu Hong had spent hours



Leaving base; from left: LH, HG, DC, RG. (Photo: MH.)

talking to the manager of the showcave part of the resurgence, and they had pinpointed two areas, pretty close to each other, reported to contain many caves. One shaft was reported to be so deep that the locals had built a protective wall around it and were scared to go near it, “rocks rattle for one hour” [hmm]. Somewhat ironically, the first area was close to where Pete, Martin and I had just been camping, only a couple of km beyond the point where

Martin and I had turned back a couple of days before. Arse!!

By this point we had our eye on three areas of the mountains: this one, a ridge further south that was pretty much directly above the resurgence, and a limestone peak further north that Gavin was very enthused about from his previous recce. We discussed splitting into 2 teams again, but by this point Pete, Martin, Martin and Lenik had only a few days left on expedition, and it was pretty clear that everyone would want to go to the area of reported caves, rather than off for yet another probably fruitless surface recce. So, crossing our fingers that we would be able to use our full manpower in this one area, we set off en masse.



Piling in to a charter minivan, Zhongdian bus station. From left: LS, DC, LH. (Photo: MH.)

Once more up the brutal hill, with bastard heavy sacks containing food and camping kit for 10 people for four days plus a load of caving kit. This time the weather alternated between scorchingly hot and pissing wet, as we struggled up the logging track, alternately taking our waterproofs on and off and making pathetic attempts to sing songs against the exertion and altitude. I do not want to think about what that walk in would have been like if we hadn't been fuelled by morale and high hopes. Seven hours from the road dropoff, at 6.30pm, we reached the village where Martin and I had turned back, still several kilometres from our intended campsite. By this point however we were all knackered, dark

was only two hours away, and we decided to cut the walk short and camp here, at least for one night. Gavin had long since disappeared into the distance, but mercifully he had somehow had the same idea, and as we turned a corner we saw Gavin's and my tents already pitched (Gavin had been carrying mine), bonus!

Liu Hong had installed himself in one of the farmers' huts, so while the others pitched their tents and cooked dinner, I headed up to see how the local liaison was getting on. It turned out his host family included the milk woman from a few days previously, who recognised me instantly. They forced rice and potato on me (shucks) while Liu Hong filled me in on the cave story. The man of the



Liu Hong discussing plans with the locals. (Photo: MH.)

house, an old guy who looked at least 60, knew of the deep scary cave the locals at the resurgence had described; it was about two hours' walk away. The woman hadn't known about it because in these parts the women tended not to venture far from the house. However one of the kids was a boy, so I asked whether he also knew of any other caves. He did, lots, half an hour away. I went to fetch my map and to drag Rich up from his dinner at the camp, and from the family's information, the map

and Liu Hong's translation services, we came up with a plan: some of us would go to the scary cave with the old guy, Liu Hong would start out that way but then go on with A. N. Other or two to quiz more locals at other villages, and some of us would go off with the kid to GPS the nearby caves, maybe coming back to camp for caving kit if any looked promising.

Back at camp we relayed the plan to the others and figured out who wanted to go where. The next day Rich, Helen and I were off to drop the scary shaft; Martin L and Lenik would go with Liu Hong to recce villages; Pete, Martin H and Dunks would go with the kid to check out the nearby caves; Gavin was off up north to try to reach his plateau.

At 10am we set off, laden with 180m of rope plus caving and rigging kit, survey kit, the works, struggling up yet another steep hill with not enough oxygen. After a while we came to a col and the view took my breath away. A ridge of Picos-like limestone stretched off to the right and we could see for miles, several steep high peaks also appearing to be pure limestone. Right in front of



Untangling rope, Camp 9; from left: DC, HG, PT. (Photo: MH.)

us however the ground dropped down to a lake and there was some debate (Liu Hong and Martin unable to agree) on whether the rock in the immediate vicinity was limestone.

After another hour or two we finally arrived at the cave, a shaft with no wall, but a load of tree trunks lain across the entrance. Locals claimed it was a kilometre deep and recoiled in alarm as we approached the pit. Excitedly we collected



*Duncan and Pete prepare to go cave-hunting with the village lad.
(Photo: MH.)*

some rocks and dropped them down. Zero, one, two, crash. Bollocks! With altitude-impaired machinations [that's my story and I'm sticking to it] we eventually managed to figure out that this meant 20m. Best use our 60m rope not the 120 then. Rich dropped the pit and emerged soon after reporting a blind pit that we measured as being 25m deep. Another pit round the corner was 10m deep and also blind. After a quick feed we were shown to another cave, half an hour up the route back, a

10m deep blind pit. A local boy showed Martin and I a fourth cave up on a col, where rocks rattled for seven seconds but we couldn't see what happened in the darkness, the entrance too small to let in any decent amount of light.

We returned to camp and collected stories from the others. Gavin hadn't seen much and was knackered, having walked for about 12 hours. Team Kid had seen a number of caves but nothing looked massive.

At this point it was hard to know what to think of the area. After the others had crashed out Rich and I sat round the campfire and shared our thoughts. We were both deeply disappointed that the scary shaft, one kilometre deep and famous for miles around, had turned out to be a complete load of toss. We had more cave entrances in this part of the plateau than any recceing work this year or last had turned up elsewhere, but none seemed to be going. We could look elsewhere on the plateau, but experience from 2002 had taught us that big limestone peaks didn't mean cave entrances; too many times we had wandered the hills finding no surface drainage but no holes either. Rich in particular was despondent, saying that until and unless a cave yielded two or three pitches he wasn't holding out much hope, and that entrances in themselves, that would probably choke 10m in, weren't enough to get him excited when the truth be told. On the other hand Pete had returned from his trip today enthused about the area, and he was, after all, one of our Men Who Knew About Rocks. Nevertheless, we started to talk about what we'd each do next year in the absence of a Yunnan 2004, and to tell Rich's video camera how we'd feel about "failure".

But we had one more working day up here, and we'd use it. The next day Dunks and Helen went off to Seven Second Rattle and to check out a cave that

had been spied on a cliff nearby; Rich and Martin H went to drop the most interesting of the caves the kid had shown us the previous day; Martin and Lenik went dowsing; Pete and I were off to two others of the caves the kid had shown Pete's team. Liu Hong was ill and going down the hill, and Gavin was still knackered. As Pete and I left the camp Rich shot me a glance and said loadedly, "Come back with good news."

Mine and Pete's area looked much better than the stuff we'd seen the previous day — much more like proper limestone, the kind I had learned to love in the Picos, poking out from the ground all over the place. Soon we reached the first cave. Pete dropped it. Blind pit. Second cave, a small near-vertical tube. Pete already had kit on so he dropped that one too. He disappeared for a good half hour and I could hear him moving rocks. I took a quick look around but didn't want to venture too far from the kit; mostly I sat by the entrance half dozing. After a while I



*Cave reconnaissance.
(Photo: MH.)*

heard a couple of yak herders on the path below me. I shouted down to them, did they know of any caves around here? Yes, they said, three up on that hill to the right, one up to the left, plus the one we'd just dropped. Pete came up the rope and I went to check out his dig while he went off with the herders. I shifted rocks. I couldn't feel any draught to speak of. An hour or so later I heard Pete's voice booming down the shaft. "Lots - of - shafts — very - big!!" "Shall - I - come - up?" "YES!"

I prussiked out and Pete informed me that he was going to buy me the biggest chocolate cake in the world because he thought the expedition had just gone big time. Three big shafts that all looked really good, and in the third one rocks rattled for eleven seconds, and he very seriously thought he might just have been shown the entrance to an extremely deep cave, especially as the limestone round here appeared to stretch pretty much all the way down to the Yangtze 2100m lower. I caught my breath and tried with limited success to balance provisional exuberation and caution. We derigged the miserable dig and set off to GPS/drop the shafts. Never mind the first two (and we found a fourth en route by accident when we took a wrong turning), the last was fucking huge, although I made it only a nine second stone drop/rattle. We were both pretty knackered by this point and it was 7.45pm, starting to get dark, but it was our last full day on the hill, and Pete's last proper day on expedition, and as far as I was concerned I didn't care if we didn't get back to camp till 7.59am.

I was kind of hoping that Pete would drop the shaft so I could pass out for an hour or two and wake up to hear the story, but he said he was equally happy either to bail at this point or to sit round while I went caving. I ate 90% of the

trail food in sight, got into the kit, found some suitable rhododendron bushes to rig off and abseiled towards the darkness. About 20m down I swung under an overhang and put in a rebelay (painfully slowly as I hadn't used through bolts before). I abseiled down another 20m to the end of the first rope. I had a 12m and a 15m rope left. I picked some small stones off the wall and dropped them. Each one free fell for a full three seconds and then rattled for another two or three. I peered downwards. There was no way my light was up to the task. It also seemed pretty unlikely that a mere 27m of rope was going to get me anywhere more interesting than 27m further into the middle of black space. Besides which, I could really do with another rebelay (not entirely happy about the previous one), and judging by my track record with through bolts that would take ages. This one would have to wait for a return visit, which was going to have to happen, and also I might have to kill anyone who tried to stop me from being next down this hole. "Coming - up!" I yelled upwards, and started prussiking. Prussiking at high altitude was easier than I expected, easier than I remembered. When I got out it was dark; 8.45pm. And quickly becoming misty. Pete said I'd missed a good sunset.

We quickly packed up the kit and set off for camp. After some route finding hassles (thanks to some friendly villagers for seeing us back onto the path!) we staggered into camp at 10.50pm. Most people had crashed out, but Rich and



The locals look on politely at our cooking efforts; foreground, from left:

DC, GL. (Photo: MH.)

Dunks were still up, and they sorted us out with food while we gibbered at the camera. We heard that Rich and Martin's shaft led to a second pitch which they hadn't been able to drop because they'd run out of rope (our extra supply back at camp having been pessimistically sent down the hill on a horse with Liu Hong that morning). Meanwhile Dunks and Helen had been unable to find a safe way to rig Seven Second Rattle but the cave in the cliff looked interesting, plus locals had seemed very excited about it, worth a return. Still I felt a string of caution pulling me back, but it was getting increasingly difficult not to be excited. The four of us giggled like schoolgirls. Rich and I thought back to the previous night and rolled our eyes.

That was two days ago. Now we are all down the hill and Pete, Martin, Martin and Lenik have just left by bus: off to Kunming tonight, flying home tomorrow. We are gutted that they're leaving just as things are getting exciting and just as we could really use the manpower, the timing is a bit of a joke. Liu Hong is also off back to Kunming tomorrow night. That leaves 5 of us to head back down south, back across the plain, up the hill, along the valley, over the col

and to set up a camp closer to the caves. We have dumped the majority of the kit we had up the hill last time, wrapped up in a tarp in some rhody bushes, so this time we can carry all the caving gear we sent downhill on the horse, plus a whole load more, plus food for a week, longer if we manage to scav some meals off the local farmers. Speaking for myself, I am terrified that all our caves will choke just round the corner and dead excited that maybe one or more will go big time. I don't know when we will next be back down the hill, but I hope to God that whenever it is it will be with more good news!

Another Picos, 10th–11th August 2003

Hilary Greaves

As we sat munching on Oreos and dried fruit, I stared in awe at the mountains Rich and I hoped to reach by lunchtime. They were nicely framed. The wide valley we were walking down gave a splash of green in the foreground and to the left and right. Above, the sky was cloudless. Off to the left in the distance, a deep valley dropped out of sight, on its way to the Yangtze 2200m below. Centre stage was limestone, steep bare limestone rising to 4300m, and from yesterday's recce trip I knew it plateaued off up top to form a vast table of bare rock, just south of where we'd been pushing Gavin's Dong [C3-4] last year. Except here I knew there were plenty of entrances. I couldn't help recalling Martin's reported comment on seeing the resurgences: "I think we have another Picos here, only twice the size." I ached for that to be true. This was the third damn year I'd been here.

I swung my pack onto my back for the nth time. This time it was lighter than usual — we were only off for one night, and, crossing our fingers that we could rely on the usual hospitality from the local Tibetan yak herders, we planned to stay in a village hut instead of camping. The lightness was extremely welcome; I, like everyone else, still definitely noticed the altitude, especially on uphills.

By 1.30pm we reached the village Helen and I had visited the day before [Yě Kāng, 也扛]. We soon found the herding family, and communicated that we'd like to stay the night: no problem.

They knew what we were here for, and immediately took us to a big cave entrance up on a spur overlooking the village. We struggled as usual, the kids running on ahead, but this time the old man who was leading us seemed to find the going almost as difficult as we did. The entrance itself was huge: a steeply descending passage 10m wide by 10m high, with a loose boulder floor. Rich and I gingerly picked our way down the passage until we were stopped by a pitch; we couldn't see, but guessed 10m. We hadn't brought rope up to the cave with us, so this one would have to wait; we headed back up the passage. Airy though. . . . I grabbed the notebook and started logging a cave description while Rich breathed into the passage and watched the steam intently. It was moving

towards the entrance. Just hot air rising? I licked my hand front and back and held it up; the back instantly felt cold, same verdict, this passage was noticeably draughting outwards, and it was 10m wide!!

Excitedly we logged the entrance location and headed back down to the village, gibbering about our find. I made a pathetic attempt to explain in Chinese why draught in a cave entrance was a good sign. (If have wind, cave very big, if no have wind, probably cave quite small....) After a quick bowl of butter tea, we were off again with the two 14-year-olds and 7-year-old, who showed us another 4 shafts southwest of the village, up to 50m deep. We circled back to the village across a fresh section of the plateau, logging another 15 entrances and cave features, while they went off to bring their yaks in from the hills.

As evening drew in, Rich was outside, taking video footage of the women of the family milking yaks, and I was drying off by the fire inside one of the huts. By way of passing the time and practising the language, I started writing a diary of the day in Chinese script, relying heavily on my pocket dictionary. Within minutes I had an audience, and was delighted to find that the kids could read what I was writing!! They watched intently, reading out each character as I completed it and making exclamations of understanding as I completed sentences. They didn't seem bored by my painful speed, so I turned my piece into an explanation of who we were, why we were looking for caves up here, why we were looking for caves at all, what we thought of the area and its people and how much we appreciated their help. It was all going fine until I started working myself into a mildly comical corner. "If water goes into the mountain here, it goes underground to the Jinsha Jiang, and there must be a very deep cave..." damn, if I say that they'll think we're only interested in entrances that take streams and they won't keep showing us the fossil ones... "millions of years ago, the water dissolves the rock, now there is dry cave...". At around this point Rich sauntered in and expressed mild scepticism about the ambitiousness of trying to give a geology lesson in Chinese to Tibetans who anyway probably had a fairly rudimentary education. I could see his point.

The next morning we hung around for a while trying to figure out what the plan was supposed to be, eventually going off for another quick "solo" recce as the family seemed to be busy. We toyed with the idea of dropping some of the shafts we'd been shown the day before. Of course we were dying to know whether they went anywhere, but this was a delicate one. Either way, there was enough here to bring us back to this area next year, so it wasn't as if the information was going to be particularly crucial to any planning decision. Of course if the shafts led to further shafts and we were stopped by lack of rope, bonus, checking them out now would generate the best case scenario. But if they were blind, and they might well be, we'd definitely be better off not knowing till next year. The prospect of upwards of ten open shafts waiting to be dropped would be a much more enticing one than the mere knowledge that there was more plateau to check out, and above all, we had to get more people back to this area. We decided to

devote the little time we had left to logging as many entrances as possible, and set off northwest to check out an area we'd not yet seen.

In the afternoon the menfolk again seemed keen to take us shaft-bashing again, urging us this time to take our vertical gear. They told us of a Fairy Cave one hour away. We mustn't throw stones in this one, for fear of angering the spirit of the cave. For a while we were getting the impression that they intended us to ride bare-back horses to get to the cave — one hour on horses, too far to walk?? I was excited and terrified by the prospect, but eventually they seemed to decide against the idea, probably for the best.

Fairy Cave proved elusive, and we spent the afternoon logging further shafts, this time out northeast of the village. We dropped the last shaft, just for entertainment's sake; the teenagers were understandably keen to see action, and probably thought we were all mouth and no rope, from the number of entrances we'd looked at and walked away from.

As we walked, the 14-year-olds made my standard shortness of breath significantly worse, by firing a barrage of questions at me and expecting answers. They wanted me to teach them some English; they already knew "hello", "goodbye", "good morning", "thank you" and "fuck me". I started with "I don't understand" (well, of the Chinese phrases I knew, this was certainly the most useful). We worked on pronunciation for a while, until they seemed to have got the hang of it, and ran off to impress Rich. They shouted out something vaguely resembling what I'd tried to teach them; Rich gave them a quizzical look and replied, "Wǒ bú dòng." Then they wanted translations of "chī fàn" and "wǒ bao? le", so I told them, and they ran off ahead, alternately shouting "Eat!" "I'm full!" "Eat!" "I'm full!"

When we got back to the village, evening was getting close, and we still had a good 2 hours' walk back to the camp where we'd said we'd meet Gavin and Helen that night. With regret we bade our hosts farewell, thanking them for everything, wishing them a good winter and saying we hoped to see them here again next summer.

Southern transect, 14th–15th August 2003

Rich Gerrish

After a spectacularly late start due to over-indulgence the night before and umpteen little tasks that needed to be completed before we set off, we were lucky to get easy lifts in a van and a tractor to speed our way to the start of the ascent. The steady plod up steep high altitude mountains was becoming all too familiar to us, but after weeks of hard exercise and acclimatisation it was, at least, becoming a little easier. We made good progress up a known path to an area of shakeholes that Martin Hicks, Pete Talling and I had reced on a previous occasion. From here we walked on into the unknown. After taking the wrong

track we spent about an hour wandering along logging tracks through a forest. Twisting one way and then another, we resolutely kept to our compass bearing as best we could until we finally stumbled out onto the correct road. Back on track again we passed through a yak herders' village, fending off the ubiquitous dogs with trekking poles and the threat of throwing stones. Once safely past this the going became much easier as we followed a jeep track towards another forest.

As we walked on auto-pilot, our brains shut down to the primary functions of walking and chatting, we barely noticed the surrounding land except for the regular sediment and water filled depressions that characterise this part of the mountains. By chance I glanced up at an irregular feature that broke the monotony of the scenery. I stopped dead in my tracks, staring at a V shaped cleft of limestone with a very small cave entrance at its base. . . .

The cave lay about 20m off the track, and we ditched our packs to examine it properly and take a GPS fix of its location. Crouching down, I peered inside; drips seemed to rain down from the entire ceiling and the boulder slope floor was reminiscent of so many other entrances that choked within the first ten metres. To say I was uninspired would be putting it mildly; exploration would likely be brief and extremely unpleasant. With thoughts of leaving it logged for next year's expedition to explore, I dug out my head torch and zipped up my fleece for extra warmth. Bidding Hils a quick farewell, I ducked through the entrance and hurriedly passed underneath the showerbath. To my surprise the passage height rapidly increased to walking size and at the bottom of the boulder slope a left turn was accompanied with an inlet entering from the right. Intrigued, I set off slowly down the large passage, the dim light from my run-down head torch and my unaccustomed eyes barely allowing me to see where I was putting my feet.

Relying on my hearing instead I followed the sound of water to reach a blank wall. My confusion didn't last long, though, as I realised I had walked into another inlet. Back tracking the way I had come, I located the way on and was becoming increasingly excited by the size of the growing stream. Thoughts of returning to the surface to report a going lead were rapidly diminishing with the onset of exploration fever. My eyes were adjusting to the dark now and my pace increased to match my heart rate. Sideways now through a narrow section, then duck down under a low ceiling, back upright and onwards to the sound of falling water ahead. Just as I was starting to have fun the passage floor dropped from beneath me leaving a black void into which the small stream fell. . . .

Standing on the edge I could make out the floor not far below, and quickly assessed my chances of getting down to it: zero. Thinking of Hils on the surface, I quickly turned about and set off for daylight, taking care to count my paces on the return to estimate the length of the cave so far. As I breached the showerbath and crawled out onto the grass I deliberately avoided eye contact with Hils.

"How goes it?" came the obvious enquiry.

"It craps out." I mumbled despondently.

"Oh well."

Silence. . .

“Not really, we got 100m of streamway ending in a 5m pitch!”

“Piss off!”

“Nope, dead on mate, it’s a goer.”

“Woooohoooo!!!!”

We checked the GPS, it read 3902m above sea level. With all the depressions in the area it was obvious there was cave underneath. It had just seemed so unlikely that we might find a way of getting into it with the all covering sediment blocking everything up. We hugged jubilantly and devoured a pack of Oreo mint biscuits to celebrate. After, we both set off to explore the cave together and take some video footage of our find.

By the time we regained the surface it was starting to get dark and we still had another two kilometres to go before we reached the village we hoped to camp near. As we packed our bags, I couldn’t resist the urge to shout and scream with delight. Out of everything I had seen so far, this cave gave me vibes like no other. At that moment in time I was convinced we had found a second entrance to the resurgence approximately 2000m below. . . .

After successfully following the right track though the woods we came out into a large yak meadow wreathed in mist and greying with the onset of night. After a short and semi-incomprehensible chat with the herder, we were ushered into a dark hut lit only by the embers of the cooking fire. After dining on noodles and pork fat we showed the two men and one woman the video of our days exploration. They seemed delighted by the technology and our adventure, despite the language barriers, and before long we crashed out on the floor of the hut, cavers, herders, dogs and all.

Morning dawned foggy and overcast. We watched them milk yaks for a bit before having a breakfast of unleavened bread, cheese and butter tea. After ascertaining that they knew of no other caves in the area, we decided to push on west instead of spending the day recceing the area further. At 10.30 we finally bid farewell to our hosts, and once again entered woods, where we soon lost the track and ended up contouring steep heavily forested mountainsides. We relied totally on the faith in our map, compass and GPS. Eventually gaining the top of the southern ridge, we hacked on along a vague path, long overgrown since the 1970s maps were drawn up but occasionally blessed with stunning views of the Yangtze river far, far below. As the path petered out totally, we dropped down to some huts on the side of the ridge, where we were met with more negative responses regarding the presence of cave entrances. Continuing down, the answer was the same at every group of huts we came across, and we decided to abandon the recce and head straight for the resurgence instead. We were already cutting it fine regarding the transport of kit across China in time to make our flight, and felt a few days to relax would be a far better way to end the expedition than a load of stress and sleep deprivation.

Down, down, down we walked, dropping the 2000m from summit to valley

floor. Darkness drew in and we passed by endless villages, hounded by dogs the entire way. At 9.15pm we staggered out onto the welcome tarmac of the road after an epic 11 hours of almost relentless walking and hacking through rhododendron bushes. Removing our boots at the resurgence guesthouse was an exercise in olfactory torture, but the welcome taste of beer and rice offset our disgust with our own stench!

Impressions from the expedition

Martin Laverty

Dawn came just before our sleeper bus reached the brown Yangtze, not at this time the Golden Sands river signified by its local name of Jinsha Jiang. This was where the expedition began, although the busy streets of Kunming, its street cafes and markets, had been a pleasant interlude for acclimatisation and adjustment, last minute gear gathering, and savouring a fine array of tropical fruits. We crossed the bridge and soon turned off up a whitewater tributary. The road became a dirt track, but there were tarmac remains higher up the valley side — probably due to floods, but not helped by the geological faults running through this region to accommodate the collision of India with North and East Asia. The valley reminded me of Northern Spain: lush, green and scrubby. The road twisted its way up, and the forests gave more of the wild appearance of Transylvania. After a couple of hours we abruptly came out onto a good level road (like reaching the Vercors plateau in France), the Tibetan national anthem boomed from the bus's loudspeakers, and solid, brightly decorated houses with prayer flags afflutter spread over closed depressions (reminiscent of the classic karst poljes of what was Yugoslavia). However, distinctive drying racks like giant, skeletal benches gave every view a distinctive signature. After an hour or two, a huge white chorten showed that Chinese Zhongdian, Tibetan Gyelthang, or the town now to be known as Xiangelila (Shangrila, geddit?) was near. We rolled in to the new, brightly painted main street and turned into the utilitarian bus station. Gear was unloaded, and we gasped in the thin air —



Entrance to the Milk River Guesthouse, and two of its owners. (Photo: ML.)

we were almost as high as Lhasa after all — as we ferried a huge pile across the road to await the number 3 bus. This took us on a short drive, past more new imposing banks and hotels to smaller shops and eating places, and then to our Tibetan guest house, just beyond another which advertised itself as the “home of living Buddha”. Two yak heads and a mass of ornately carved wood and paintings lightened the atmosphere against the grey sky, and tiny calves wandered around the courtyard while a small furry dog patrolled the turf-topped wall.

In the first few days of expedition [24 July], one of our exploratory walks was up a replica of Cheddar gorge as it must once have been, with a stream purling down. We approached across the plain, heading for the cliffs framing the gorges mouth, and were periodically approached from what seemed empty space by people on an assortment of vehicles — bikes, motorbikes, tractors, and even the odd car. Near the mouth of the gorge, red, blue, yellow and green prayer flags fluttered above a cave entrance. The cave was approached by a steep zig-zag path up scree and seemed of little speleological interest, but the bright flags were only the most obvious signs of long human devotion marked by carved inscriptions, lots of top-like devotional “tsa tsa” statues, some incense sticks, and a torn yuan note. We left the tropical ambiance of the valley as the path at one point climbed through tangled vegetation above a rocky torrent, through a grassy plain grazed by yaks, to a well-vegetated limestone-paved area like the woods around Morecambe Bay, and then to a pine forest with moss dripping from the branches. We climbed out up a logging path onto a plateau of impenetrable scrub, came to a veritable logging highway and crossed a pasture to a village of log cabins where men were saddling a horse. Above, a rhododendron- and pine-clad hillside rose to a bare whaleback ridge. Far below, the Zhongdian “pasture” spread out, flat as a green pancake, with silvery threads of water crossing it; in spring it is apparently nowadays a multicoloured patchwork of tulips.

Leaving town by the road to the north [29 July], the Napa Hai lake, where the Zhongdian drainage disappears, glittered, and the airport stood out as an alien angular strip. The drying racks disappeared to be replaced by open sided barns and the distinctive women’s red headwraps were no more to be seen. After passing villages that seemingly grew out of the hillside, and crunching over a fresh landslide, the road came out high on the side of the Yangtze valley. We descended to a narrow valley where odd patches of flood plain even supported some bright green padi shoots, making the scene more typical of South East Asia. The show cave was marked by brightly coloured bunting over the road, had its own a prayer mill powered by the resurgence, and its own shrine to complement the guest house, shop, and night club. On the far bank of the river some men camped. The water from the cave was cold enough to condense your breath and the roar of the torrent cascading from the hillside was awesome. I have only seen photos of resurgences in the Picos like this in the wet season. The terraced hills and farms perched amid them again took me back to Spain, and reminded me of a book which described the village of Sotres in the early 1930’s

as reminiscent itself of a Tibetan village — right down to the (lack of) sanitary arrangements. At the show cave we were told of bears in the mountains, but the night club revealed a karaoke-world of high pastures and horsemen somewhere else again, or cosy dark corners for escape through copious beers and fierce baijiu spirit.

Back at base [2 August], everyone prepared for a joint trek to the plateau. We left the taxis for the first stage across the plain in bright sunshine, and then sweated up steep, rutted, corrugated logging tracks, making hurried lunges to the sides when yaks, yoked to their loads of logs, lumbered down. There were snatched views of jagged peaks to the east and splashes of colour from flowers, but the day turned grey and damp as we came to a col and the first of several log-cabinned settlements, each occupied house guarded by a mastiff tied to a tall sapling. All were glad to camp amidst rhododendrons, besides what had been a roaring stream a few days before but was now just a pebbly dry streambed. Water came from more permanent sources which the nearby village had channelled into a wooden spout for ease of use. Next day, young boys and old men led us around the hills and lakes — resembling the Rhinog Mountains of Wales at one point — to holes they knew, but showed only restrained interest in what they might lead to. In the dark log cabins we were given warming butter tea to accompany the sugared, smoky, cheese which squeaked as it was sliced and the fresh yoghurt milk. Some of us sampled the ‘weatabixy’ texture of tea-soaked tsampa as well. We saw sinking streams and shafts as evidence of the present underworld, thick speleothem deposits, and a fine glacial erratic on a limestone pedestal as evidence of past processes.

Just before leaving [6 August], we piled into bus number 3 again, and took a ride to its touristy terminus below the Ganden Sumtseling lamasery. This was



Monks at the lamasery. (Photo: ML.)

two revelations in one, the tourist shops where we didn't linger, and the other world of large and exquisitely ornate temples hung with brightly coloured fabrics and frescoed with bright curvy figures or semi-realistic diagrams, mingled with modest stone-built houses separated by dusty village paths. The red-robed monks stood around, sat and chanted, stood and trumpeted, or dispensed tea from buckets with brass ladles, while construction workers got on unhurriedly with repairing past degradations and tourists photographed each other. One picture in particular seemed to symbolise the reason for our trip — beside one of the Heavenly Kings (the blue Guardian of the South of Tibetan iconography), a white torrent cascaded from a cave in a hillside beneath jagged snow-capped peaks. Just as the meaning of

the picture was hidden, so are the caves which must feed the resurgence with the disappearing waters of the heights. The caves won't be found by contemplation but, given time, the strictures and postures of caving should yield their own enlightenment, as more conventional pilgrims seek theirs by prostrating their way to devotional sites. (Echos of Covadonga. . .)

Before the trip I had looked at the photos of a cave entrance found last year and tried to place the location — the short grass and small limestone fragments were not unfamiliar but neither did they bring any particular place to mind. This area is distinctive for its variety; it is alternately familiar, exotic, worldly, and ethereal; it may be sun-soaked or fog-shrouded; it is a great place which has much more to reveal.

Tipping points and Tesco's: Thoughts of an expedition novice

Pete Talling

Tesco's was scary. It is a mostly horizontal system developed in Eastville, Bristol. It has several obvious entrances near a large car park. No resurgence and no disco. I was in the car park an hour after getting back from Yunnan, negotiating the entrance series with a large shopping trolley. Tesco's was full of fat people, didn't see many of those in China, and most of them looked fundamentally unhealthy. Many pushed prams with small screaming objects. Welcome back Talling — this is the normal world. Is it?

This Yunnan expedition was to be a tipping point, either a last hurrah or a step into a new world of cave exploration. In my former life, I'd been a rock climber. We had spent weeks in the Alps, climbing in British style (slowly and with lots of bivvies). During university years I'd done big routes on the Badile in the Bregaglia. This was great. Even watching my single peg belay flex after my mate Kev lobbed 30 feet. We had planned to go to Mount Hood in British Columbia. Kev was in the army and was posted to Germany. We never went. Later trips to the Alps were crap, and mainly involved surviving the marital tiffs of other members of the group. I moved to Los Angeles to do a PhD, hated it, and got dragged into the US work ethic, only once escaping to Yosemite with a geologist called Steve. That was the sum of my expedition experience — not much, and I'm not sure why. The joys of climbing started to fade. Standards dropped. All the good routes had been done. At least those within a day's drive. The unconventional heart of climbing was lost to the hordes of boring Nazis that flocked to climbing walls (oops. . . steady now. . . no ranting).

Then I joined the University of Bristol Speleological Society. The first meets always had a Designated Leader, and freshers were carefully stacked behind the Leader, but I could see the potential. A series of solo trips, eventually culminating in the utterly glorious round-trip of Lionel's Hole in Burrington, confirmed the

attraction. Caving was it. Big exploratory trips in South Wales. Without leaders, or any idea of where to go. Fishing Si Flower out of holes I'd persuaded him to look into, with tied together belts and oversuits. A few forays to Yorkshire. Red Bull at every service station on the way back. But now caving might start to fade — work commitments threatened to annex weekends. There were few big trips left in South Wales. Based on a large amount of empirical scientific data, the view that caving birds were mad was formulated. Wandering around alone on the top of Welsh hills looking under stones for entrances was bad for your social skills. You might even grow a beard. Best try to re-engage with the normal world. Just before the Yunnan expedition I joined the Avon Outdoor Adventure Club in Bristol. This club, bless it, involves lots of extreme gossip and scandal but very little Adventure — certainly none that was out of doors.

The stage was set for the Yunnan expedition to be a tipping point. There were (and indeed are) two paths. This is tricky to explain (or is it?), so bear with me. Normal people, such as the colony that were roosting in Tesco's that evening, have shiny cars and houses that are clean and tidy. A busy job means that they only have time for their family or spouse. Hobbies are things that they remember from years ago, and are talked about fondly at weddings. In the past tense. It really doesn't matter because they now have Children. Relationships work because of Compromises, which remove any lingering chance of a hobby. For those without offspring, the latest TV drama or a new purchase from Cribbs Causeway is sufficient to provide excitement. Some of my climbing friends seem to have gone happily down this route, Kev for one. Although he gets out for an occasional game of cricket. They are good and well-adjusted people that have joined the normal herd, and probably the Avon Outdoor Adventure Club too.

The second path will make you feel detached from the herd. Precious weekends away lead to a chaotic and untidy house, and indeed life. Your car isn't shiny and you may not have a TV. Work sits in the office undone, and promotion is delayed. The quest to explore continues and increases. New and odd plans are hatched. These produce extreme experience that will linger always in the memory. You can talk about them in the present tense. You are still a deep player. Still Playing. For me, expedition caving represents this latter path. It too can split. There is always the long-term danger of being left an interesting but single old man, in a small cottage, with a large Draenen survey on your wall. Bottles of whiskey on the shelf, and a beard.

Anyway, back to the Yunnan expedition. It gave me many skills. I can estimate vertical drops more accurately from dropping stones. I understand how the strap system works on the back of my Karrimor rucksack, and the weight at which the buckles fail. My vocabulary is expanded — comedy carry, biscuit carrier, mission — are being unthinkingly sprinkled into conversations in Bristol. Usually to the bewilderment of the others taking part. They just don't Understand. I can also eat noodles-in-cum. This may be difficult for the seasoned expedition veterans to understand, they seem frustrated that we didn't find the

World's Deepest Cave (with a Disco at the end). But I thought that dropping even 30 metre vertical shafts was awesome. Especially in a beautiful and remote location like those in Yunnan. The perfect sloping tube, descended after having snuff from a local villager. The gaping 70m shaft that I persuaded Hilary to go down. Bone cave — and even the yak carcass infested Toothpick Cave. I'd never seen any new passage before. Lord knows how good a trip will be that does break through into a deep system. That is the next stage to savour. Can't wait.

The most important thing about the expedition, for me, was that we did not meet any 100-foot high inflatable gateways with rabbits. Those who have seen presentations on old-style expeditions to China will understand. Surprise ambushes by Communist Party chiefs, TV crews, and exotically robed nymphlets. . . . Even if you are led to measureless caverns, that doesn't seem to be the way. How you find the World's Deepest Cave is more important than finding the damn thing. Yunnan 2003 had very good style for me.

Sitting round the campfire on the Plateau, knackered after a big day out (and occasionally below), was the place I've felt most at home. Points were Tipped. The expedition provided Clarity.

6 Medical and accident report

Hilary Greaves, Medical Officer

Training

The expedition commissioned a comprehensive 3-day expedition medical course, specifically tailored to the needs of caving expeditions to relatively remote locations. The course was designed and instructed by Marlin Training (<http://www.marlin-net.co.uk/training/>) in consultation with a qualified medical doctor.

Four expedition members attended the course. This provided a good strength of medical expertise, and enabled us to ensure that every camping trip during the expedition (with the exception of one non-caving single-night camp) included at least one trained member. The training is valid for three years.

Medical equipment

The expedition carried prescription antibiotics and painkillers (including injectable painkillers), in addition to the usual expedition medical supplies. Supplies were divided between one base camp kit and four roaming kits. The roaming kits were lightweight enough to carry on daytrips and light camps, as well as being comprehensive enough to suffice for larger camps. This way of organising the

supplies seemed effective, and largely ensured that whenever expedition members left base camp for significant trips, appropriate medical kit went too.

The expedition did not have ready access to a caving stretcher. Such access would have been essential in the event of a serious incident any significant distance underground. As the expedition did not, in the event, go deeper than 75m underground, and went to that depth only twice, this did not turn out to be a serious omission. However, as HMG expeditions, in Yunnan and elsewhere, go deeper underground with increasing frequency, it will become increasingly imprudent to continue without a stretcher. We will seek to remedy this situation in 2004.

Illness and incident report

The expedition passed without major medical incident. Minor incidents and ongoing concerns are listed below.

Acute Mountain Sickness

The expedition spent the largest part of its time working at altitudes of around 4000m; mild altitude problems were therefore expected, and were duly experienced. Each expedition member undertook several daytrips, sleeping at base (3200m), before camping in the mountains. Minor headaches, shortness of breath while walking, dizziness and lightheadedness were experienced by several members of the expedition. No more severe symptoms were experienced. In the later parts of the expedition, the altitude was evident in shortness of breath, but without further symptoms.

The decision as to whether to acquire and use acclimatisation drugs (e.g. Diamox) was left to individual expedition members; none were included in the expedition medical supplies. No member elected to use such drugs.

This level of acclimatisation difficulty is regarded as unavoidable. It is expected that the 2004 expedition will follow the same acclimatisation procedures.

Sunburn and sunstroke

One case of sunburn combined with sunstroke after a day on the hill. This incident could have been averted with suitable clothing, sunscreen and sufficient fluid intake. Treated with fluids and rest.

One case of mild sunburn. This could have been prevented with suitable headgear. No treatment given.

Gum infection

One case of suspected gum infection (recurrence of an old problem). Treated with a course of erythromycin (penicillin-allergic patient), and painkillers.

Diarrhoea

Several cases, as is typical for Westerners in the East. Treated with fluids, and on some occasions with rehydration salts. Treated with loperamide only in cases involving impending long distance bus journeys.

Illness of this variety is regarded as to some extent inevitable, although high standards of expedition hygiene were (and will continue to be) encouraged.

Flu

Two cases of suspected influenza. Treated with over-the-counter cold remedies and rest.

Yak incident

One expedition member was head-butted to the floor by a female yak with calves, but was unhurt. He had been standing one metre in front of the yak.

On another occasion, while walking uphill on a logging track, a party of three expedition members encountered a yak, accompanied by three locals, which was carrying a load of wood downhill. On encountering the first expedition member, the yak became scared and ran, bucking and out of control, down the track. The second party member dived for cover. The yak continued at high speed towards the third expedition member, who dived behind a bush. The yak passed by and was caught several hundred metres further downhill. No-one was hurt.

7 Summary of accounts

Gavin Lowe, Treasurer

All figures are in UK pounds.

Income

The expedition was well supported by external grants. Most other income took the form of contributions from expedition members.

Grant income		
Oxford University	1000.00	
Royal Geographic Society	750.00	
UK Sport Fund	500.00	
David Hood	500.00	
Mount Everest Foundation	475.00	
Subtotal		3225.00
Personal contributions ¹		7560.00
Bank interest (approx.)		5.00
TOTAL		10790.00

Expenditure

Expedition expenditure This section covers all expenditure that was deemed to be the responsibility of the expedition as a whole, and that was independent of the number of man days spent in the field.

Gear		
Rope	153.00	
Rigging gear	85.26	
Surveying gear	137.45	
Stoves, fuel bottles	129.74	
Radios, etc	80.00	
Misc	6.45	
Subtotal		591.90
Maps		118.46
Prospectus & interviews		43.84
Photography		68.00
Medical		139.47
First aid training		400.00
Publications (estimate)		150.00
Misc		8.87
TOTAL		1511.67

¹The personal contributions of the eight members travelling from the UK were £900 each; the personal contribution of the member based in China (DC) was £360.

Kitty expenditure This section covers all costs incurred in the field that were shared between expedition members.

Food, drinks, etc	318.10
Accommodation	121.91
Local transport	40.08
Inter-town transport	93.51
Equipment	59.87
Equipment shipping	61.68
Guides, porters, etc	16.28
Misc	11.42
TOTAL	<u>723.06</u>

Personal expenditure This section covers costs incurred by individuals as part of the expedition.

Flights	5600.00
Buses etc. in UK	200.00
Travel subtotal	5800.00
Personal gear ²	1800.00
Insurance	310.00
Visas	240.00
First aid training	400.00
TOTAL	<u>8550.00</u>

Summary of expenditure

Expedition expenditure	1511.67
Kitty expenditure	723.06
Personal expenditure	8550.00
	<u>10784.73</u>

Summary

Total expedition income	10790.00
Total expenditure	10784.73
Surplus	<u>5.27</u>

(Surplus passed to Hong Meigui Yunnan 2004 Expedition.)

²The figure for personal equipment is intended to cover only the cost of *sustaining* a set of personal expedition equipment through an expedition, i.e. wear and tear; it therefore significantly understates the amount spent by individuals on building up personal equipment stores, estimated at £1,000 each.

8 Expedition song

On the first day of expo, my leader gave to me
The bullshit geology.

On the second day of expo, my leader gave to me
Two trekking poles,
And the bullshit geology.

...

On the twelfth day of expo, my leader gave to me
Twelve baijiu ganbeis,
Eleven dirty curtains,
Ten “sleeper” buses,
Nine bumpy tractors,
Eight bowls of noodles,
Seven mushroom baozi,
Six roads to nowhere,
Five going leads,
Four top secret maps,
Three Vango tents,
Two trekking poles,
And the bullshit geology.

9 Acknowledgements

Thanks are due to: the David Hood Award, the UK Sport Fund, the Mount Everest Foundation and the Royal Geographical Society (with the Institute of British Geographers), for financial support; to Dragon Caving Gear, Vango and AMG Outdoor, for discounts on equipment; to Steve Roberts, for acting as Home Agent; to Erin Lynch, for hours of tedious work helping to organise an expedition she wasn't even going on, and for joining us on a sweaty journey across south-west China with 22 bags; to Paul Swire (Beardy), for putting in a similar number of tedious hours when he didn't even sweat his way outside the UK (come back next year!); to Ben George, for floor space in Hong Kong; to Jingjing Sun, for translating the abstract of this report into Chinese; to the tens of Tibetan farming families, who provided us variously with food, yak butter tea, cigarettes, accommodation, horses, and cave entrances, without whom the expedition would have been neither so productive nor so enjoyable; to the owners and staff of the Milk River Guesthouse in Zhongdian, for their friendship, tolerance and cupboard space; and, once again, to Liu Hong of Yunnan University, for everything.

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A Camp locations

The camps are numbered in continuation from the 2002 camps.

Location	East	North	Altitude
Camp 5	0560811	3067722	3639m
Camp 6	0573359	3045116	3713m
Camp 7	0561183	3072802	3616m
Camp 8	0564824	3063521	3827m
Camp 9, Dá Wàn Lā Zàng	0558604	3065580	3905m
Camp 10	0555900	3067500	4100m
Camp 11, Yě Kāng	0555668	3073240	4194m
Camp 12, Hēi Sī Niú Cháng	0562200	3053200	4000m

B Report distribution list

Copies of this report will be placed with the following institutions:

- The Royal Geographical Society (with the Institute of British Geographers);
- The Alpine Club;
- The British Mountaineering Council;
- The Alan Rouse Memorial Collection;
- The Ghar Parau Foundation;
- Oxford University Cave Club;
- The Bodleian Library, Oxford (John Johnson Collection).

Further copies are available, on payment of printing and postage costs, from the Expedition Leader (contact details on inside front cover).

This report is available online in .pdf format from <<http://milos2.zoo.ox.ac.uk/~hilary/yunnan2003/report.pdf>>.