

# IMPERIAL COLLEGE CAMEROON EXPEDITION



## PATRONS

Sir Ranulph Fiennes

Dr Mike Stroud

---

# IMPERIAL COLLEGE CAMEROON EXPEDITION 1993

---



## MEMBERS

**David Edwards (LEADER)**  
Biology/Management UG2

**Piers Rathbone (EQUIPMENT OFFICER)**  
Geology UG1

**Reg Cook (TREASURER)**  
Mechanical Eng. UG4

**Steve Pearce-Higgins (MEDICAL OFFICER)**  
Mechanical Eng. UG4

**HOME AGENT**  
Col. J.D.E. Edwards

" Over the years the Imperial College Exploration Board has supported many expeditions but none more interesting or successful than the Cameroon expedition undertaken in the summer of 1993. In navigating almost four hundred kilometres of remote rainforest river, the team faced and overcame many challenges. It is a credit to their determination and resourcefulness that all their objectives were achieved. This report highlights the importance of thorough planning for all aspects of an expedition and exemplifies what can be achieved with a relatively small budget by a group with commitment and a sense of adventure"

A handwritten signature in black ink, appearing to read "Ranulph Fiennes". The signature is fluid and cursive, with a long horizontal stroke at the end.

**Sir Ranulph Fiennes**

"The ecological complexity of rainforest habitats have made them a popular choice with University expeditions in the past. The Imperial College Cameroon Expedition did well in carrying out useful data collection in a difficult and remote area. Congratulations and the best of luck with future ventures"

A handwritten signature in black ink, appearing to read "Mike Stroud". The signature is cursive and somewhat stylized, with a long horizontal stroke at the end.

**Dr. Mike Stroud**

*We are indebted to the following institutions, companies and individuals for supporting the expedition so generously:*

## **THE SPONSORS**

IMPERIAL COLLEGE EXPLORATION BOARD  
UNIVERSITY OF LONDON CONVOCATION  
PRINCESS OF WALES ROYAL REGIMENT  
ELEANOR RATHBONE CHARITABLE TRUST  
ERNST AND YOUNG  
EPSOM COLLEGE COMBINED CADET FORCE  
FREDERICK GREGORY FUND  
MRS K. LOCH  
MR. R. WORRALL  
IMPERIAL COLLEGE GEOLOGY DEPARTMENT  
IMPERIAL COLLEGE MECHANICAL ENGINEERING DEPARTMENT

## **THE 'SHAREHOLDERS'**

JAMES SLAUGHTER  
SIMON GOODALL  
NICK BROWN  
MIKE HADWIN  
DR. JAN BRADLEY  
COLIN LALLY  
SARAH PARKINSON  
DANIEL LEE  
LIS BRUN  
TIM TREE  
HEDDWEN BROOKS  
ROB FROHNSDORFF

SARAH TAYLOR  
LUCY HOBBS  
SAM ALSFORD  
MO AL MEHEIRBI  
BRENDA COOK  
NORMAN COOK  
PETER MARTIN  
PETER BROOKES  
PHIL COOK  
PHIL CABLE  
VICKY FERRARI  
RICHARD LONG



# THE STORY

## JOURNEY TO THE RIVER

Nine months of frantic planning, fund-raising and organisation came together as we finished packing in the small hours of the morning of our departure for Cameroon. Our two inflatable canoes and three weeks worth of dehydrated food had been air freighted a week before and we had watched it go with some trepidation, stories of the notorious difficulties of negotiating customs had been related to us on numerous occasions in gruesome detail.

Having managed to convince the check-in desk that our cabin baggage was the statutory five kilograms rather than the fifteen it actually was, we

boarded the Aeroflot flight to Moscow along with the annual exodus of students on connecting flights to India and Thailand. After a depressing wait in the confines of Moscow airport, we boarded our flight to Douala, the largest city in Cameroon. A drunken

looking bits of equipment to the customs officials. In actual fact we escaped lightly thanks to the help of a German missionary whom we met on the flight, a letter from the British Embassy flourished as an 'important' document and 5,000 CFA (about £12) which we had 'stored' in the middle of one of the passports. There are two ways to deal with bribery in countries where it is accepted as the norm. Either one takes the moral high ground, refusing to act in any way that could increase corruption, in which case the red tape takes four times longer to cut; or one accepts a system that ensures supplementary funds for government officials who are often not paid for months on end and slips the odd 'cadeau' here and there. Generally we chose the latter.

We travelled to Yaounde by bus, and set up camp in a small hotel from which we joined battle with the various government offices which issued research, travel and photography permits. Yaounde was not the most aesthetically pleasing of towns with vast



The team (from left to right): Steve, Reg, David, Piers and mascots

paratrooper made life miserable for the entire plane for the first half hour and then mercifully passed out for the rest of the flight, snoring loudly. As a puppy scampered around under our seats and a gentleman peeled off approximately ten pairs of trousers (avoiding excess baggage fees) we reflected that nowhere could such entertainment be found at such a reasonable price.

Our little plane winged its way over the Sahara and Lake Chad at dawn, and coming down over the rain forest that would be our home for the next two months we mentally prepared for explaining away our four foot long snake sticks and various other weird

mounds of rotting refuse marking cross-roads and there was a feeling of dilapidated grandeur about the place. The yellow taxis that careered from one end of town to the other were excellent value, a journey, no matter what length, costing the equivalent of 25 pence. They were hailed by shouting a destination into the open window at which point we would either be stonily ignored if the driver didn't feel like going that way or he would screech suddenly to a halt, putting the lives of those in the following taxi at con-

siderable risk.

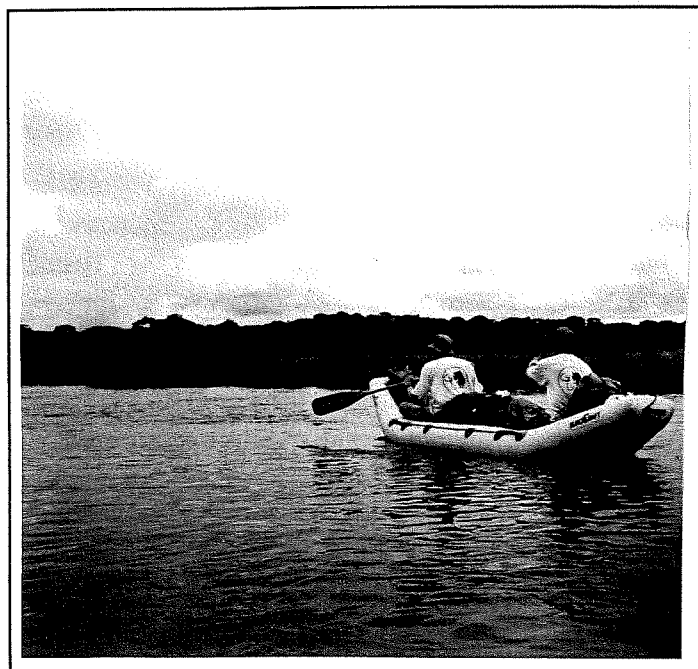
We saw little evidence of crime and in general the town felt quite safe. This may have been due to the self-policing nature of the town's inhabitants. During lunch with the Ambassador and his wife we were told of a thief, who having stolen some food from a stall in the town market, was pursued and torn to pieces by a large crowd, an effective, if rather extreme deterrent.

Retrieving the boats from customs proved to be as difficult as we had been warned. Financial negotiation formed a large part of the four day process but eventually we were ready to travel to the source of the Nyong. The Ambassador's driver had arranged for a

pick-up to take us and our equipment to Abong Mbang where we would be left to start the journey down river. We were stopped constantly by gendarmes manning checkpoints which due to their semi-permanence had become a focus for traders who no doubt encouraged the gendarmes to stop as many potential customers as possible. The stalls sold fruit, bread and bush meat such as monkey and snake. The monkeys were mostly still alive when sold as they attract a higher price when sold this way, due to the meat being fresher. These unfortunate creatures were held up by their tails for us to inspect and they made a sorrowful sight, wriggling and whimpering piteously.

We passed numerous small villages where, outside rectangular beige mud houses, elderly men and women sat staring with interest as we drove by. Small children ran alongside the pick-up waving and shouting and it was obvious little traffic passed this way as the route was punctuated with naked toddlers sitting playing in the centre of the track, their skin smeared with mud making them difficult to spot. Jeremy, our driver, would screech to a halt in front of the child and loudly enquire whose baby it was, roundly castigating a shame-faced mother before jumping back in and roaring off.

Reaching Abong Mbang, we enquired as to the whereabouts of the river Nyong. The reason for the vague replies became clear as we viewed the river from a small wooden bridge. This close to its source the river was little more than a muddy stream, choked with weeds and utterly unnavigable. There is a dearth of geographical information about this remote area and our maps whilst the best available, were often inaccurate and large blank spaces bore the legend 'relief data incomplete'.



Setting off from the bridge at Ayos

We decided to return to the bridge at Ayos (approximately 20 km. downriver) where we had crossed the Nyong on the journey in. Once in Ayos we set about unpacking and inflating the canoes while an interested group of villagers watched in amazement. They asked us what we were doing and when told that we intended canoeing the length of the river insisted that the journey was impossible. The reason they said, was that five days travel down the river there lived a terrible monster called 'caiman', half-crocodile and half-man.

The repeated comments about white men having great courage and bravery in attempting the journey were not exactly confidence-inspiring. Our hopes of making a quick getaway were dashed by two gendarmes wandering along the road who insisted we register in the village as tourists with the commandant of the gendarmerie. Although this took about an hour and cost us a not inconsiderable sum of money, it was to prove a fortuitous move later in the expedition.

## THE FLOODPLAIN

We had decided to try and find villages to stay in for the first few nights on the river. This was to gauge the reaction of the locals to the expedition and to find our forest 'feet' before starting to camp. We were lucky the first evening in meeting a fisherman punting along the river in his dugout canoe or pirogue as they were locally known. We established with rudimentary French that his village was close and that we were invited to stay the night. The village nestled in a forest clearing about half a kilometre from the river. As we walked towards the village with our friend a number of children ran off screaming and curious faces appeared from windows and doorways. The fisherman thought that the children's fright was hilarious and dragged one unfortunate boy closer to where we were standing. When eventually released, the child fled in terror to stare at us from behind his mother's skirts. When we asked about this one of the villagers explained that the last white man to visit them had come many years ago and consequently many of the children had not seen one before.

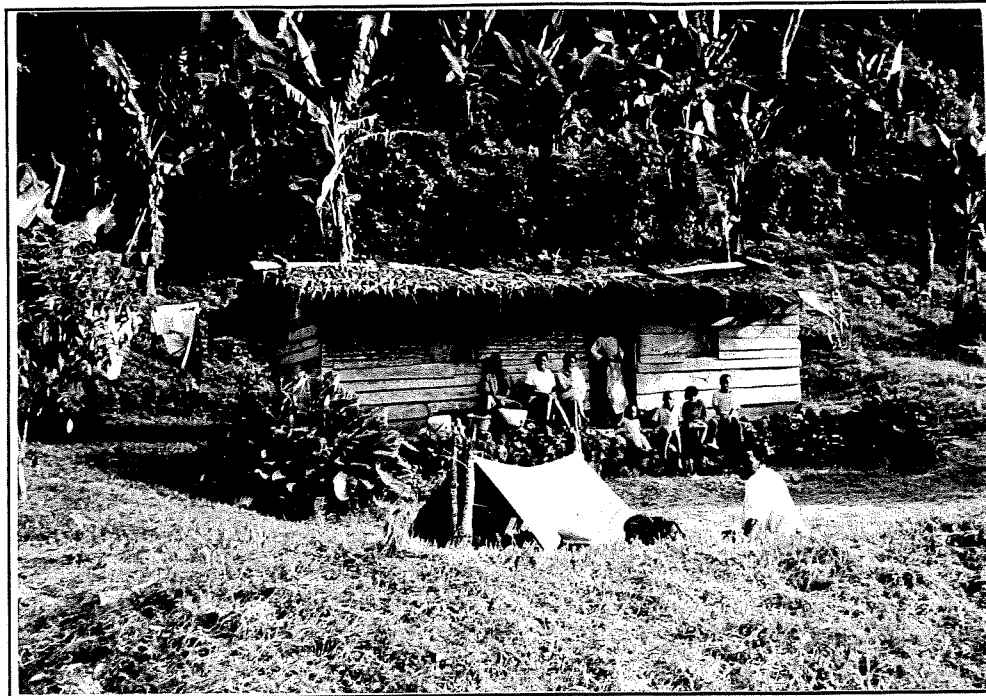
Whilst all the villages we stayed in were friendly, this village was the one that we most enjoyed visiting. The people were hospitable, constantly smiling and a feeling of well-being pervaded the place despite the obvious poverty. Strong family ties were much in evidence here and care of the children was undertaken as the responsibility of the entire village. Elders were treated with special respect on account of their wisdom and experience.

We talked as the sun went down and paraffin lanterns were lit, breaking the gloom in the chief's

hut. The entire male population of the village was there, arranged in seniority according to age with the chief and the council sitting next to us and various teenagers reclining in the windows and doorway listening intently to the conversation. We discussed

against the flow of the river, meant that Lucien was the last guide we hired on the expedition.

Just outside Akonolinga we stopped and made camp for three days to familiarise ourselves with the basics of living in the dense forest and to start the fieldwork. We used the rather grandly named 'jungle sleeping units' to sleep in and these consisted of a cloth hammock suspended between two trees covered with a mosquito net and flysheet. The first time we erected these it took us two hours and the effort hardly justified the results as we all ended up either sleeping in an uncomfortably curved position, or on the floor due to the whole lot collapsing. Once the technique was perfected these proved their worth, being very easy to pitch on slopes and immune from the more voracious wildlife on the forest floor. A liberal dose of Permethrin on the hammock strings also ensured against any invasion by tree-living



Villagers at Landa

our objectives with the chief and his son but were given the feeling that our desire to travel and more importantly to study the animals, was incomprehensible to them. The concept of the forest being anything more than a source of food and income was a difficult one for the villagers to grasp.

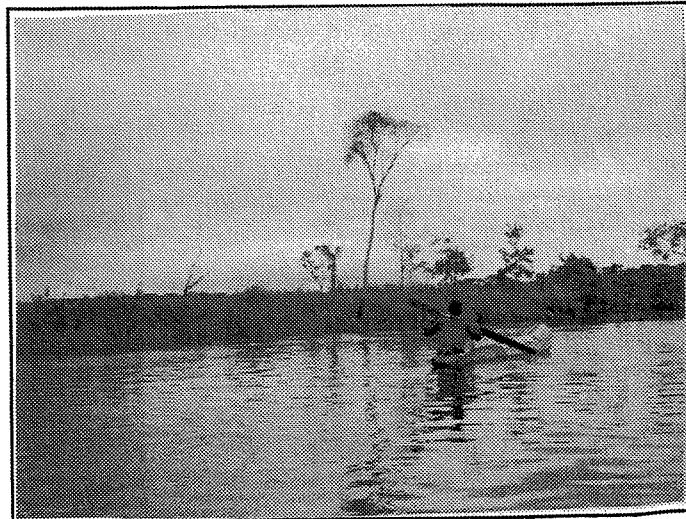
As eventually we escaped to bed, we managed to end the day in true style as one of us stood in a cesspit and another in an ant-trail. The village men disappeared off to their huts rocking with mirth.

The next day a villager called Lucien, whom we had hired as a guide left with us in his pirogue carrying three drums which he had made and was hoping to sell in Akonolinga, a town about 50 kilometres down river. Here he would leave us and make the return journey against the current. Before we left, Lucien was playing the drums on the riverbank of the river and he explained he was informing the neighbouring villages of the 'honoured white guests' and so the fishermen were out in large numbers to greet us on the first section of the river.

We settled into the paddling which, due to the flow rate of the river and its exposure to the wind, was hard work. The flood plain was approximately two kilometres wide and consisted of a thick mat of half-submerged reeds stretching from one bank of forest to the other through which the river meandered lethargically. The logistics of hiring guides and the problem of their returning to their villages

insects. An unfortunate incident arose one night when having fallen from his hammock grazing his face on a tree root, a team member unknowingly paused with his foot on an ant-trail. Surprisingly large numbers of beasts are transferred from ground to body in a very short space of time in this situation, and it was only after he had crawled back into his hammock that they all started biting.

Provisions, consisting mainly of rice, pasta and tins of sardines had been bought in Yaounde to supplement the supply of dehydrated food. Our evening meal was either cooked on a paraffin stove, or if the supply of dry deadwood allowed it, on an open fire.



Lucien paddling his pirogue

We settled into a routine of eating just before dusk and then having a cup of coffee and some chocolate while listening to the World Service, if reception was



The 'jungle sleeping unit'

adequate. This part of the day became an important morale booster towards the end of the seven week journey as the experience of living in isolation for such an extended period of time began to produce mental wear and tear. After coffee we would head off for two or three hours with head torches to search for the frogs whose staccato calls began soon after dusk.

While in camp we invariably received visits from the fishermen and hunters of the isolated forest villages. They were always friendly and willing to answer questions about the local area and its wildlife. Often we received gifts of bananas, nuts, or sugar-cane and were once brought fresh catfish which we cleaned and cooked over the fire. On only one occasion did a problem arise with the locals when a group of fishermen, worried by our presence in the forest, presumed us to be mercenaries and were about to send a report to the gendarmes at the nearest town. Luckily we managed to explain who we were before this happened, and when someone in the village recognised us as having registered in Ayos at the beginning of the journey, the matter was resolved. A long history of instability in this part of Africa has made locals wary of white people in the forest and they are often assumed to be involved in a coup or revolution attempt.

After five weeks we reached the only part of our journey that could not be undertaken by canoe or portaged round. The Mpoume Falls form part of a rapid

system that extends over twenty-five kilometres and, from beginning to end, the river drops 350 metres. Talking to the owner of a pirogue ferry, we gathered that two Frenchmen, the only other white people ever seen on this section of river had, ten years before, attempted to descend the falls. Although they escaped unscathed they lost all their equipment and their canoe, the wreckage of which was still visible on the riverbank. In the light of this we decided to opt for a lift round this section and set about finding transport. There was a dirt road from the start of the rapids which followed the river to its north, passing through the town of Makak, rejoining the river just after the falls. We hired a Lada estate, the only vehicle around, and managed to squeeze in the four of us, all our equipment including the boats, and a friend of the driver who came along for the ride. As we drove onto the bridge at Manguengues where we were to recommence the journey, an awesome sight greeted us. Our placid meandering river had become a raging torrent, roaring down between boulders the size of large houses. Luckily, having reconnoitred down river, we identified a calmer channel from which we were confident we could continue and waved good-bye to the Lada, our last link with civilisation for some time.

## WHITEWATER

During a series of increasingly fast-flowing and technical rapid systems one of the canoes capsized. This was a traumatic experience all round as the occupants of the canoe which had negotiated the rapid successfully saw the capsize but not the subsequent swim to shore and only after ten minutes of frantically searching the water for bodies did they realise that all was well. While searching the river for a missing bag shortly after this, we discovered a human corpse



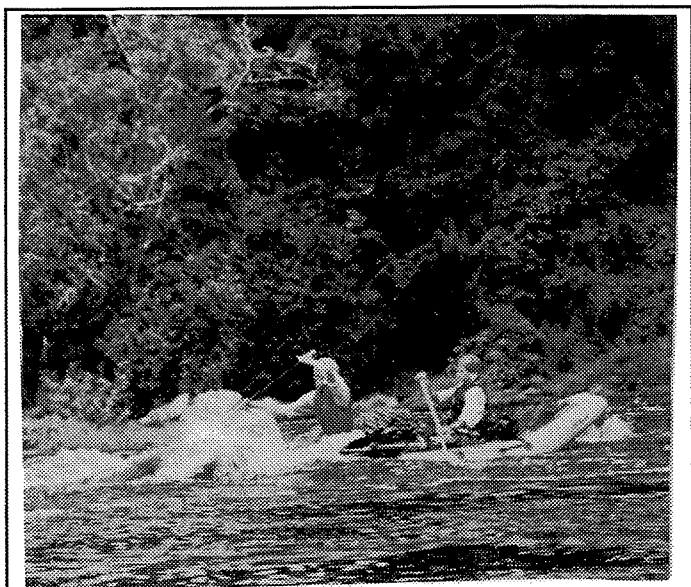
Round Mpoume Falls....



washed up in an eddy which had evidently been there for some days. Two of us went up to the nearest village in order to inform the chief, soon returning with the news that as the village was not missing anyone they were not prepared to do anything about it. It is difficult to know whether this seemingly rather casual attitude stems from a general ambivalence towards death or whether it is promoted by the high mortality rate in these often savage living conditions. We could do nothing but paddle on. This was not a good day overall and a nasty machete wound exposing shinbone which occurred while clearing vegetation to make camp provided the finishing touch to the lowest point of the expedition.

It was on this section of the river that we made our most exciting scientific discovery. While talking to a fisherman we enquired, as we always did, about the local frog population. We were thrilled when in response to a question about the Goliath toad, the fisherman said there was one basking on the bank just a hundred yards upstream. Indeed there was, the largest species of amphibian in the world sitting with its eyes closed, just one hop away from the water. This species grows to the size and weight of a human baby and we very much wanted to catch one to photograph and study it in more detail. With painstaking quietness we managed to manoeuvre into a position just behind it on the bank hoping to throw a net over it from behind. The fisherman unfortunately chose this moment to storm past in his pirogue with the wonderful news that he had found another one. This was all too much for the toad, already disturbed by our movements behind it, and with one bound of its enormous legs it dived noisily into the river. We made many attempts to catch this specimen and the other one which was even larger, but had to be content in the end with note-taking and photographs from afar.

Progress down the river became slower as we encountered more rapids and waterfalls. We had



Negotiating an exciting bit

entered uncharted territory in terms of canoeing the river and so had no idea what to expect, making our pace necessarily cautious. The weight of our equipment and our isolated circumstances placed constraints on the risks we could take and if possible we would scout ahead, struggling through the undergrowth on the bank to check for possible hazards and find the best line down the river. On a number of occasions the river's pace swept us round bends in the river and this was something we had to be particularly careful about when we heard the thunder of a large waterfall in the distance.

The tactics we employed to negotiate the stretches that were not within our capability to paddle were varied. It was sometimes possible to lower the canoes down with a length of rope but most of the time the strength of the current prevented us from doing this and we had to resort to a portage. Four portages were necessary in total and they were the most taxing operations of the expedition both physically and mentally. Once we had established the fact that an unnavigable stretch of water lay ahead, we trekked along the bank to find where the rapids ended. Having found a suitable launching spot we marked out the route from beginning to end through the thick understorey of the forest. A narrow trail now had to be cleared, and on the longer portages, this could take up to two days. The equipment was now ferried down to the launching site, and three or four trips were normally needed with the canoes deflated and rolled over poles to facilitate carrying. The first time this task was carried out, due to not properly marking the route, two members were unable to find their way back to camp for two hours. The lush vegetation could be confusingly featureless at times and we prevented further scares by carefully marking routes and carrying compasses even if only a few yards away from camp.

## HOMeward BOUND

The lengthy delays we encountered meant that we had to finish the journey 50 kilometres short of where we had intended. The possibility of encountering further obstacles downstream was high and the trip could have become hazardous as our food supplies were running out. However our sense of achievement was undimmed. Over seven weeks we had carried out some useful fieldwork and canoed just under five hundred kilometres, much of it navigated for the first time. Despite the curtailed ending to the expedition we were premature in thinking that the excitement was over.



Equipment carrying on a portage

The track at which we ended the journey near the village of Song Mbong, marked on the map as a route 'motorable in all seasons' was in actual fact a narrow dirt track in extremely poor condition. Questioning some hunters living in the village it became clear that this road was rarely used. Apparently a pick-up passed along every few weeks in the middle of the night to transport anyone who needed to get to the town of Eseka to the north-east.

We befriended Joseph, the pastor of the village, who invited us to stay while we were waiting for a lift. We were lucky; after two days the pick-up arrived at dead of night coughing and spluttering to a halt in the centre of the village. This was obviously quite an event as the whole village turned out to say good-bye to friends and family travelling into town. Two of us secured a place in the back and agreed to hire a suitable vehicle to return and pick up the other two members and the rest of the equipment in the next few days.

We set off in the truck with ten other travellers, a dog and a duck, and were soon reduced to sitting perched on the tailgate. The vehicle frequently became stuck as the road was heavily eroded by rain and it ground slowly up the hills belching smoke out of the back. Our worries about the structural integrity of the pick-up were compounded when we began to stop in more villages along the way picking up more passengers and belongings. By the time we finished, twenty-seven people stood in the back of the truck swaying perilously from side to side as we bounced

up and down ruts in the road. We finished the 60 km. journey in six hours and marvelled at the hardship that these people endure as part of everyday life.

The return journey to pick up the rest of the equipment and the other team members was completed without too much drama apart from a few hairy moments crossing the bridge over the Nyong in the hired Landrover. The bridge had been used extensively by logging companies although since their concessions had expired in this area no maintenance work had been done and the bridge was in bad repair. It was necessary to carefully position the flimsy wooden planks twenty metres above the river so that the vehicle could cross, wildly accelerating when one of the planks threatened to slip and send us flying off the bridge.

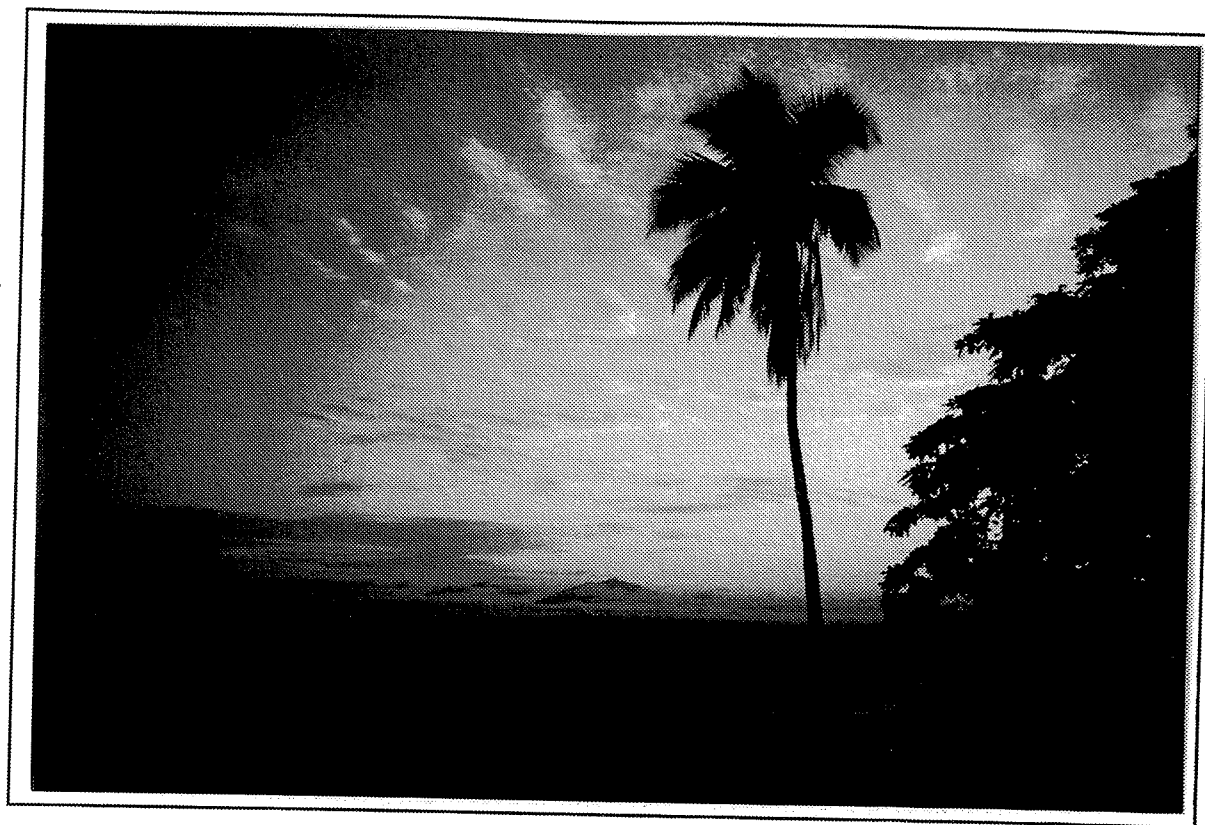
We sank back into civilised life with a certain relief and immensely enjoyed having a more varied diet once again, however we were slightly embarrassed when walking down the street in Eseka with a Cameroonian friend, a slightly inebriated young man shot a passing comment at us which was greeted with much hilarity. Asking our friend what had been said, he replied that the young man had told him to take us for a bath as we were so dirty. This unsatisfactory state of affairs was quickly remedied thanks to the showers at the Catholic Mission in Douala where we stayed for a last few days. The mission was an oasis of peace, cleanliness and white sheets and was a mecca for all the 'overlanders', people travelling down through Africa on anything from motorbikes to four tonne lorries, all with a wealth of exciting experiences.



Relaxing at the end of the journey

It would be a blatant untruth to say we left Cameroon with regret. We were all looking forward to seeing family and friends again and the rainy season had just started, bringing miserable weather to the

wettest place on earth. We did, however, leave the people we met in Cameroon with regret. The level of assistance we received from the British contingent in Cameroon was overwhelming and was instrumental in the success of the expedition. As for the Cameroonian people, they were without doubt some of the most genuine, hospitable and helpful people one could meet anywhere. Almost three months after arriving in Cameroon we flew out of Douala, looking down at a brightly moonlit river meandering through the forest below.



# SCIENTIFIC REPORT

## HERPETOLOGICAL SURVEY

### INTRODUCTION

The fieldwork was carried out over an altitude of 800m and at 15 sites along the river in both flood plain and faster-flowing areas. The searches covered an area extending up to one kilometre into the forest and two kilometres up and downstream. Most of the areas of study were in primary rainforest but searches were also carried out in secondary forest and village plantations.

### METHODOLOGY

Most searches were in the form of wide patrols carried out by day, or with headtorches by night. Intensive microhabitat searches were also carried out of tree-stumps, fallen logs and leaf-litter. It was often possible to zero-in on calling specimens and then establish exact position from reflected eye-shine in the torch beam. This is a technique which requires practice to perfect and all members improved on this throughout the expedition. The specimens were caught using hand-nets for the frogs and holding-sticks and probes for the few snakes found. If caught at night the animals were transferred to holding-nets overnight and then examined, photographed and recorded the following morning.

Data sheets were used to provide continuity in data collection and an example of these is given below:

STANDARD HERPETOFAUNAL FIELD DATA SHEET (CHRIS WILD 1993)					
COLLECTOR/S	PIERS	TAXA	LEPTOFELIS CALCARATUS	DATE	7/8/93
FIELD LOG REF	1716	FILM RE.	6/22-28	GRID RE.	11°24'E/5°23'N
PROVINCE	CENTRAL	AREA	NKOLONG	ALTIT.	632 m
TIME	8:25 a.m.	SEX		SN-Vmm	52-46 mm
MACROHABITAT	PRIMARY RIPARIAN FOREST			MACOD	
MICROHABITAT	LEAVES AND STEMS			MICODE	4N3
ACTIVITY STATE	CALLING (SEJENTARY)				
POLY/CON. ASSOC	40-50 same spp. in 50m <sup>2</sup>				
REMARKS	Found at variety of heights (1-15ft) on leaves and stems of woody plants and saplings. Large red-tinged eyes. Thine white line along outside of legs and vent.				

SN-Vmm=snout to vent measurement

MACODE/MICODE=SPECIALIZED HERPETOLOGICAL HABITAT CODES

1st. no.=horizontal position (above example-4=on bank of permanent stream)

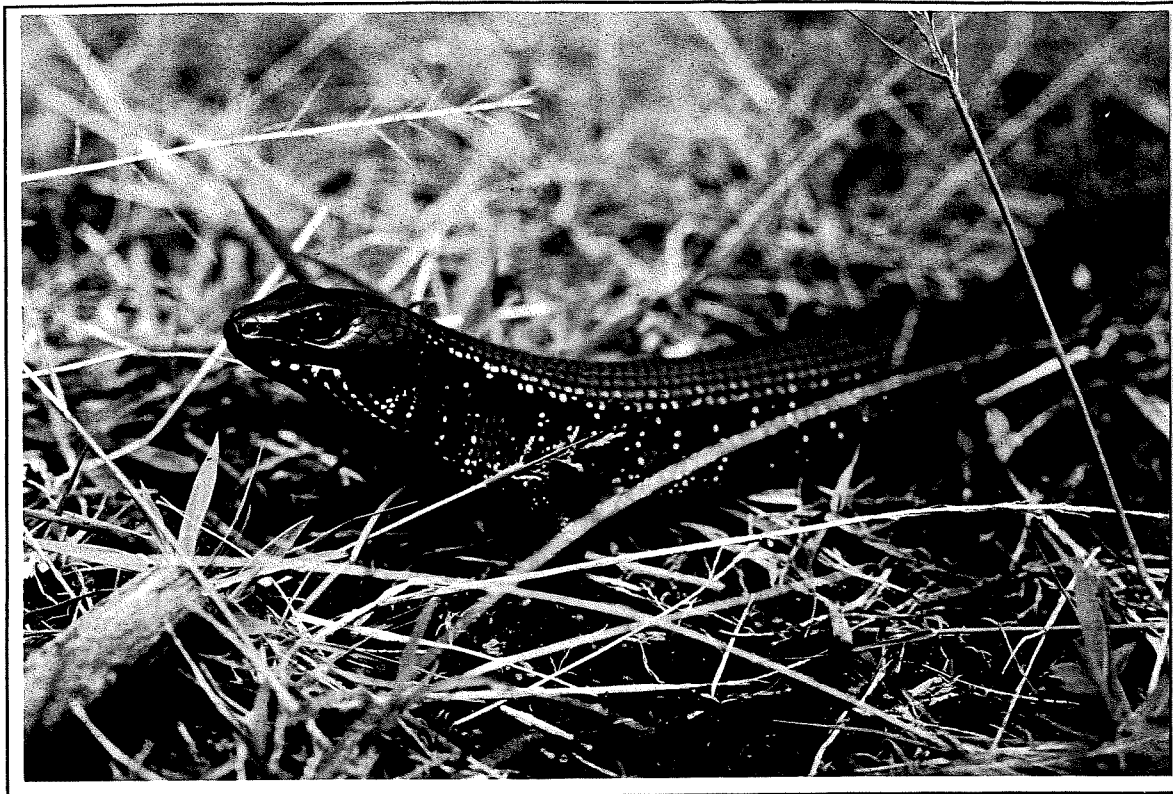
2nd.letter=vertical position (above example-N=on tree or large vine >7m)

As well as the forest searches, the boats were used to search the overhanging riparian vegetation and the banks especially with respect to *Conraua goliath* mentioned in the narrative. Attempts were also made to survey the crocodile population at night from the boats using the eye-shine technique.

### RESULTS

A list of species found is given in Appendix 1. This is not a complete list as identification is still on-going with the assistance of Dr Barry Hughes and Chris Wild. The diversity of some of the tree-frogs (*Hyperolius* spp.) meant that identification of these could only be made at the generic level. Taxonomic identification in these species is often only possible through examination of sonograms of recorded calls.





Agama agama

### Conraua goliath

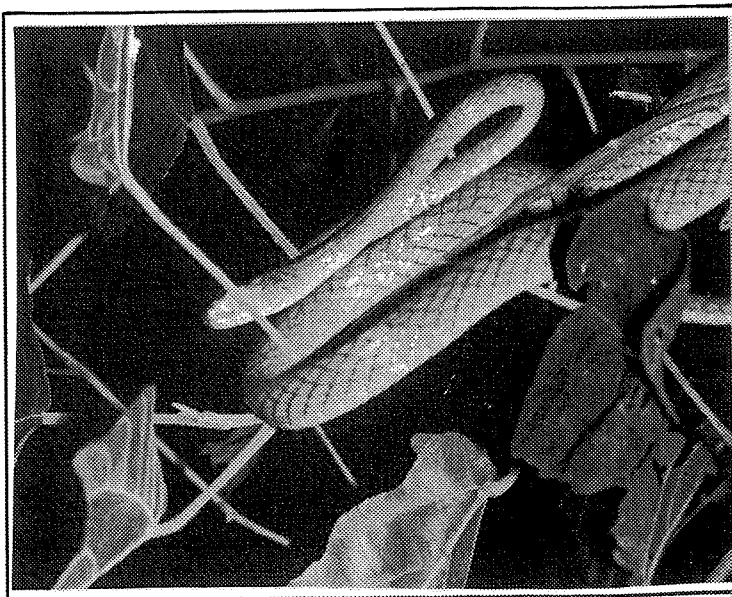
The Goliath frog is hunted extensively by the locals in Cameroon for food, generally by walking along small tributaries at night with paraffin lanterns nets and spears. It is interesting to note that in the flood plain region where the frog is rare, the villagers were almost offended by the suggestion that anyone would eat frogs. In the lower sections of the river where this amphibian is found more commonly, it is regarded as a delicacy and prized for its nutritional value.

The distribution of *C. goliath* was restricted to a 50 km. stretch of river between Mbalmayo and Manguengues and evidence suggest we may have extended the official distribution further south-west than previously reported.

*C. goliath* was found exclusively basking 1-2ft. up steeply sloping river banks. A 'scrape' or shallow depression often under a tree root is created in which the frog sits with the snout resting on the ground pointing towards the river. When disturbed, one movement is required for the frog to reach the sanctuary of the river and re-emergence occurs up to an hour later, with the specimen hopping up to its scrape position and shuffling around to the original orientation. The mottled brown colour and shady positioning of this species gives it exceptional camouflage against water-borne predators such as the crocodile.

### Crocodylus spp.:

Two species of crocodile were encountered during the expedition and these seemed to be confined to distinct distribution bands along the river. This assumption is supported by anecdotal evidence provided by the villagers. In the region of *Crocodylus cataphractus* (slender-snouted crocodile) which is a fish-eater the crocodile was regarded as being a harmless



Philothamnus spp.

animal that would not attack humans. In the region of *C.niloticus* (the infamous Nile crocodile) we were warned that the crocodile was a very dangerous animal which had often attacked locals bathing or washing clothes.

Moving down to the water's edge at night to wash-up or during the amphibian searches an explosion of splashing water would often indicate a crocodile that we had startled. The hunting technique described to us by hunters and fishermen was basic but effective. A wooden cage is set up on a shallow sandy bank with a small antelope or monkey as live bait. Once the crocodile rushes the unfortunate victim a noose on a long pole is placed around its jaws and pulled tight. This is surprisingly effective since the muscles used to separate the jaw are considerably weaker than those used in closure. The wooden cage is now removed and clubs are used to kill the animal.

The large Nile crocodile were found basking on large rocks or small sandy islands in slow-moving areas of the more remote sections of river. The evidence of these two species and *Osteolaemus tetraspis* (Dwarf or Forest crocodile) was especially pleasing as we had been told that the crocodile population had been almost eradicated by hunting. It appears that where the rapids and waterfalls prevent human habitation of the bordering forest, pockets of healthy-sized populations of crocodile survive.

## ***ORNITHOLOGICAL SURVEY***

Much help was given by the Ambassador and his wife in setting up an impromptu bird survey which was carried out from the boats. This was a useful study for us to carry out as a river-based expedition since once under the canopy of the forest, little birdlife could be seen and identified. The general habitat and in most cases abundance of each species was recorded. Very abundant birds such as the brown and white Lily-trotter (*Actophilornis africana*) which nested in the reeds of the flood plain, were recorded by distribution only.

Having recorded the Goliath frog we were pleased also to observe the giant of West African birdlife, the Goliath Heron which has predominantly white plumage and a wingspan of approximately three metres. A number of raptor (bird of prey) species including the West African River Eagle and Long Crested Hawk Eagle were also recorded.

## ***OTHER WILDLIFE***

Monkeys were observed on a number of occasions crossing the tree-tops above the camp to get down to the river to drink. These were never close enough to identify, as they passed over at dawn and dusk appearing about 20 metres up in the canopy silhouetted against the gaps in the trees. De Brazza's monkeys (*Cercapithecus neglectus*) were observed from the boats on trees overhanging the river. The hunters refer to these as 'Magistrars' on account of their crown of white fur and matching goatee beard.

In camp at night the sounds of the forest were incredibly varied and until one got used to them were noisy enough to prevent sleep. Crickets, frogs, bats and monkeys were heard regularly but the loudest was without doubt the shrill screams of the forest boar or bush-pig. This bad tempered short-sighted animal, responsible for deaths among the locals every year, visited us on a number of occasions. Its call was a crescendo beginning with short low grunts, gradually building in length and pitch to full-blown blood-curdling screams. A few metres away from a hammock this could be an unnerving experience.

### **ANTS**

Twice ant-trails about 20cm in width and lasting up to 24 hours marched through camp drawn by the scent of food. They varied in size from a couple of millimetres to two centimetres in length and inflicted a painful bite. An effective way of preventing invasion, demonstrated by a fisherman we met and often described in 'jungle survival' books is to sprinkle ash from the fire around the camp perimeter and around the base of the trees to which the hammocks were attached.

## CATERPILLARS

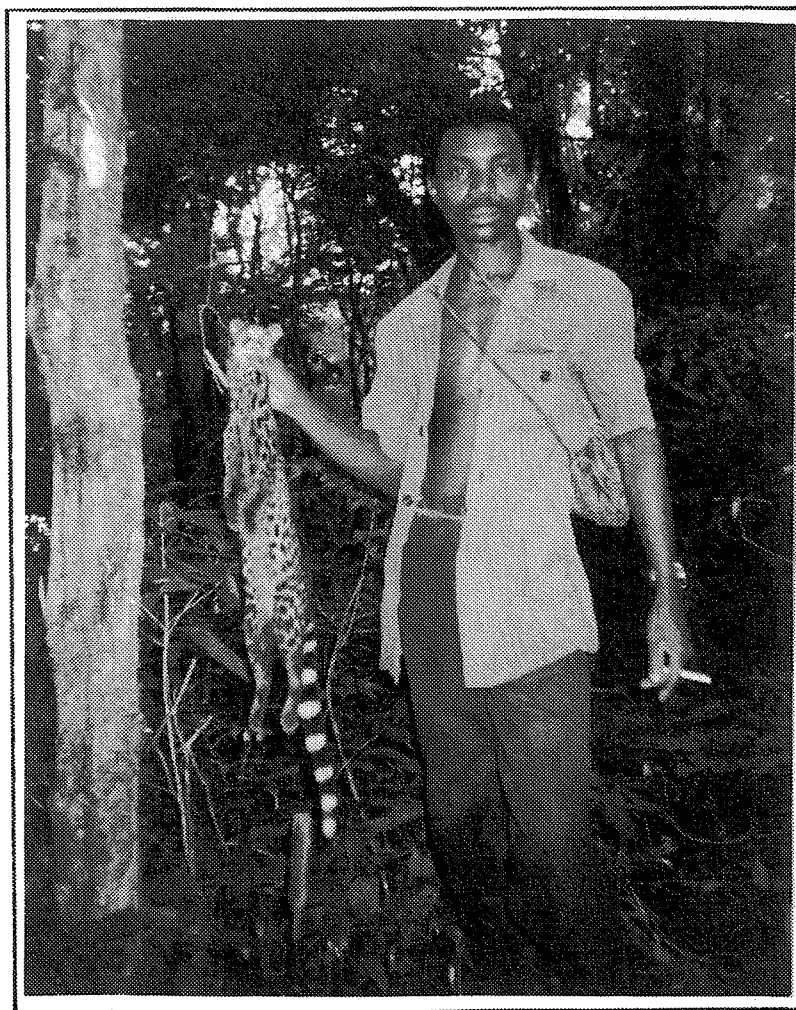
These came in a wide variety of weird and wonderful colours and shapes, from bright orange with thick black spines to jet black with a green tuft of hair at either end. The spines on many of them were capable of leaving an itchy red weal on skin if disturbed too vigorously.

## FIREFLIES AND LUMINESCENT FUNGI

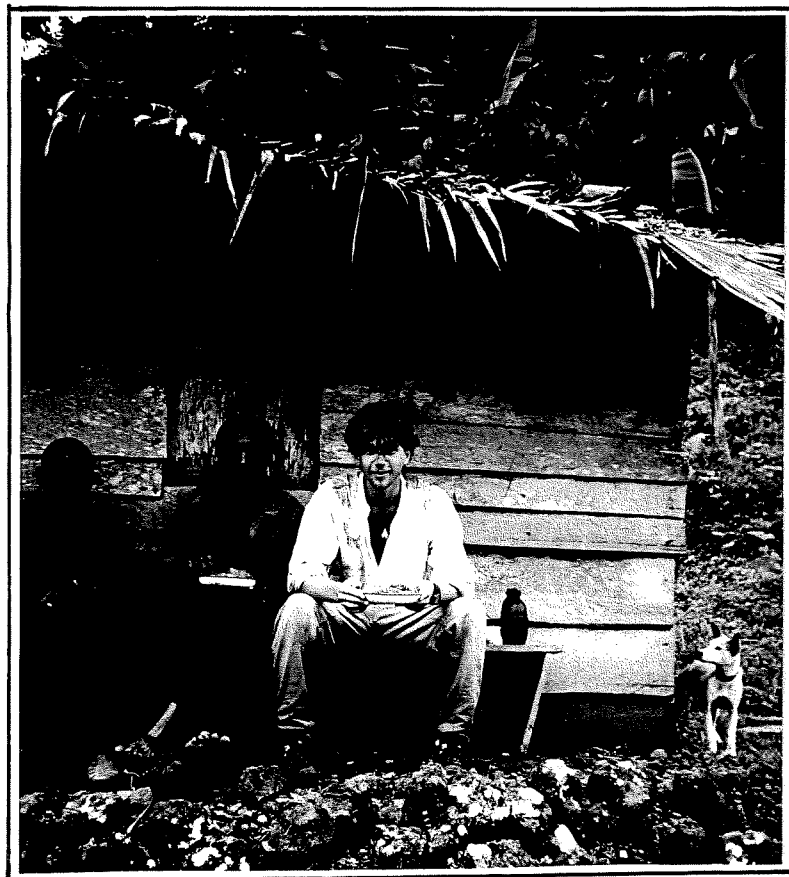
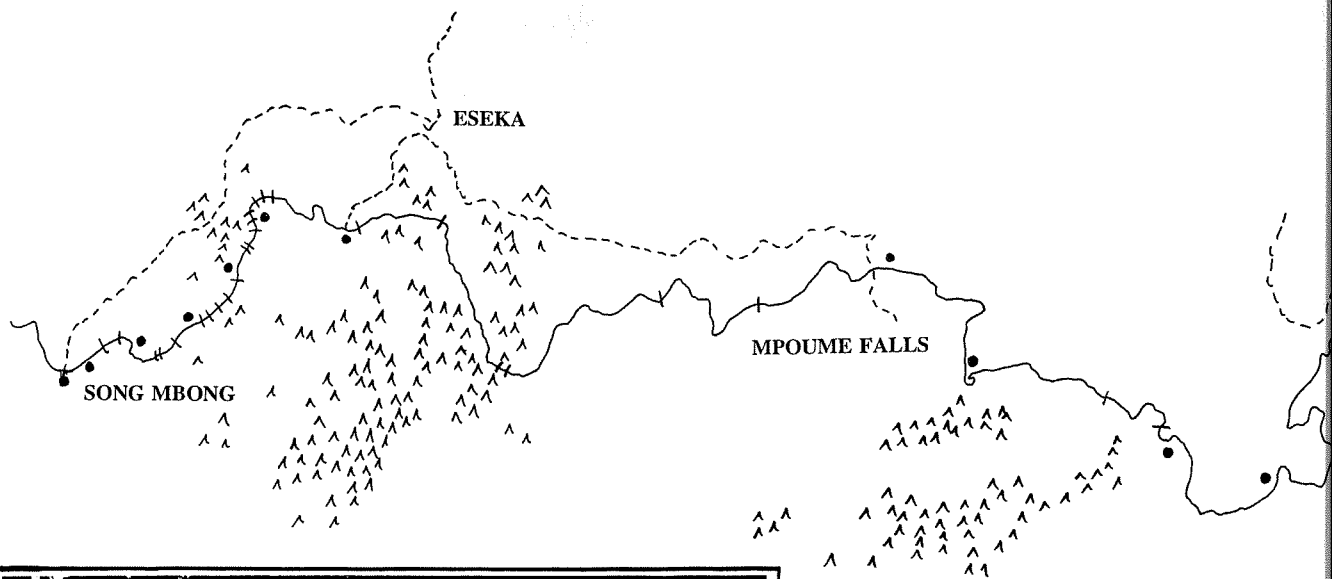
In many of the camps we saw small insects flying at about head height flashing bright green light intermittently. These flashes act as a discrete signal which is recognised by an insect of the same species for mating purposes and provided a stunning display against the blackness of the forest at night. A species of fungi was observed in one campsite which grew predominantly on the leaf litter. As darkness fell we noticed that this species emitted a pale green light and appeared as a glowing patchwork across the forest floor.

## MAMMALS

Rats, squirrels and otters were all observed at various locations and we often saw other small and medium sized mammals in the game bags and dugout canoes of the locals. These were caught using traps involving a sapling bent under pressure with a suitable trigger. An obvious draw back of setting many traps is having to check them all regularly and in many cases a few days delay meant the meat was rather gamey by the time it reached the cooking pot. Monkeys, porcupines, ('porky-pigs' as they are known by the villagers) forest duikers, mongoose and snakes are regularly trapped, providing an important protein source for the villagers.

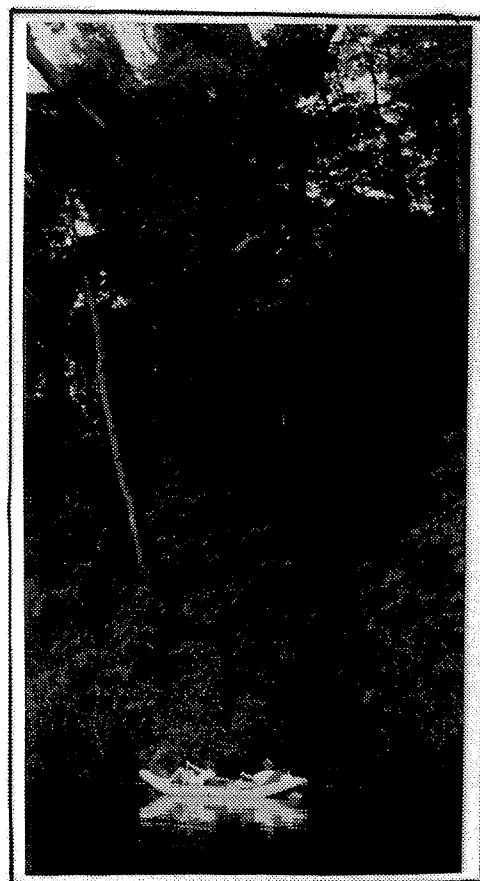
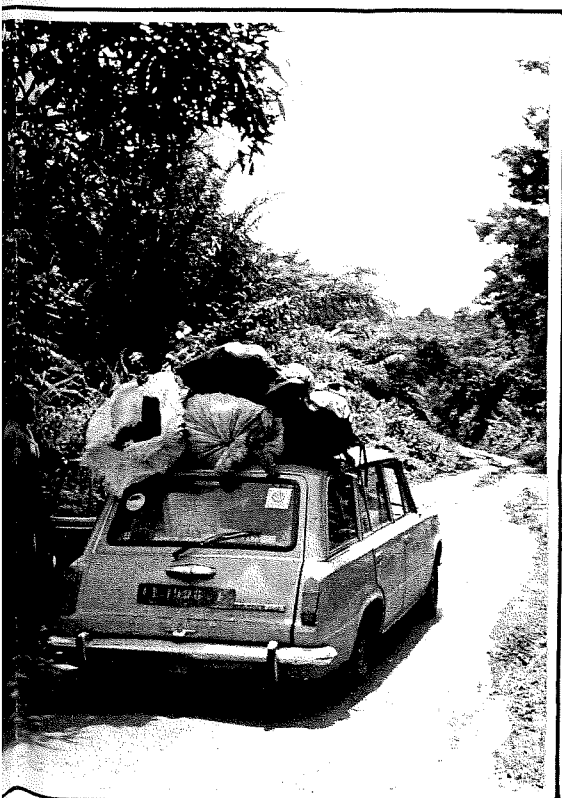
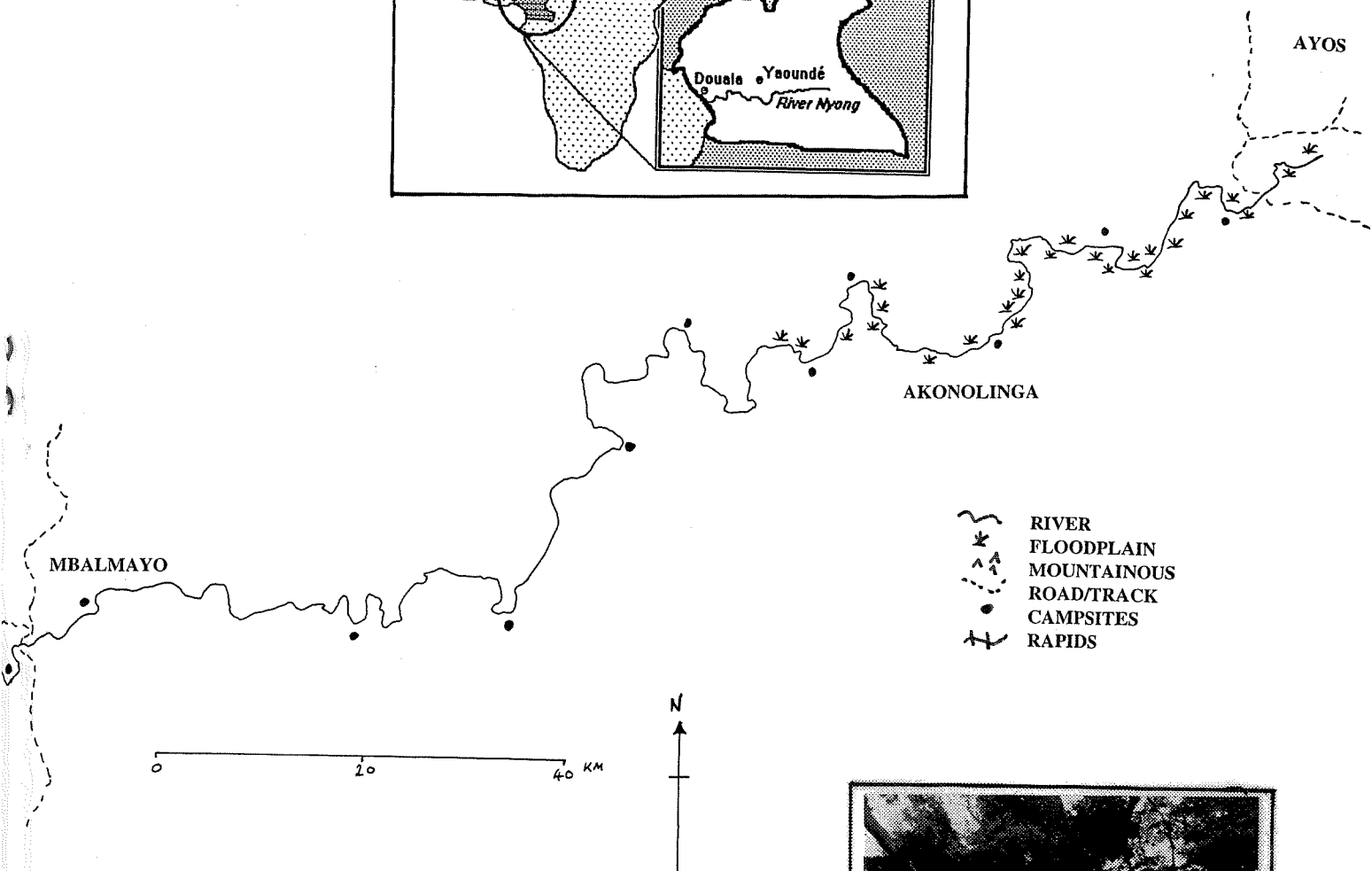
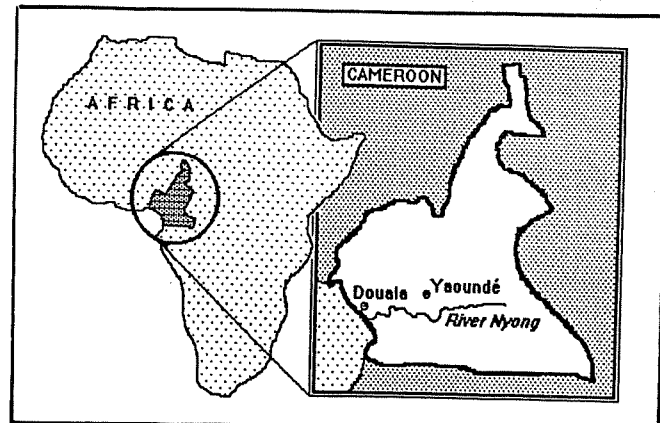


# The River





# Nyong



# ***MEDICAL REPORT***

---

## **PRE-EXPEDITION PREPARATION**

Pre-expedition medical preparation was undertaken in conjunction with Dr Sarah Freedman of the Imperial College Health Centre, who organised the acquisition of the various necessary medicines and medical equipment. The majority of the medicines needed were donated free of charge by various pharmaceutical companies or by the health centre. In addition a course of vaccinations were also provided to each member of the expedition, free of charge by the health centre in order to inoculate against the following conditions:

- typhoid,
- cholera,
- hepatitis A,
- yellow fever,
- meningitis,
- rabies.

Due to the very high risk of contracting malaria along the West Coast of Africa, in particular the potentially lethal falciparum strain, anti-malarial prophylactics were also provided. These consisted of 'mefloquine', taken two weeks before the start of the expedition and continued throughout the course of stay (1 tablet weekly) the treatment changing to Paludrine on the return to England for a further three weeks;

First aid and medical training was undertaken in conjunction with the college, consisting of a first aid course for two members of the expedition. Supplementary instruction in the use of the various medicines provided by the health centre and other medical techniques was also given by Dr Sarah Freedman. Further instruction in the treatment of various tropical ailments and illnesses likely to be encountered during the expedition was gleaned from the book "Where There Is No Doctor" by David Werner, which was taken to Cameroon as an essential part of the medical equipment.

## **WATER AND HYGIENE**

Most of the water used for drinking and for food preparation was taken from the River Nyong, although heavy and frequent tropical storms provided a much more pleasant source. The river water collected required filtration using a 'Milbank' bag - a lengthy process performed in order to remove noxious microbes and organisms present in the Nyong, along

with a surfeit of reddish-brown sediment. The water was then either treated with tincture of iodine, and left for half an hour, or boiled for five minutes when the prospect of treating our taste-buds to yet more iodine flavoured water became unbearable.

Personal hygiene was made relatively simple with the proximity of the river affording frequent opportunities to cleanse both our clothes and bodies. Latrines were dug on arrival at each site, well away from the camp in order to minimise the health risk.

## **PROBLEMS DURING THE EXPEDITION**

At the beginning of the expedition, sunburn presented the main source of problems. However, in only one case was over exposure to the sun severe enough to cause marked blistering of the skin (around the back and neck) and notable discomfort. This was simply and effectively treated by covering up the exposed area and applying hydrocortisone cream. Other minor problems which arose at the start of the expedition included slight dehydration, for which an electrolyte solution (Rehidrat) was administered.

Whilst stomach upsets were expected to be a fairly major cause of problems during the expedition the rigorous treatment of water, as described previously, coupled with precautionary measures taken over the selection and preparation of food meant that very few stomach disorders were encountered. Those stomach disorders that did occur, notably a bout of severe diahorrea that all four members of the expedition suffered from at the end of the river journey were treated by resorting to a twenty-four hour starvation diet whilst maintaining the level of water in the body by drinking electrolyte solution. Codeine phosphate was resorted to, if necessary, to produce temporary relief from the symptoms of diahorrea.

With the exception of a suspected outbreak of malaria no major medical problems were encountered during the expedition. The suspected bout of malaria, affecting one member of the party towards the end of the stay in Cameroon, was treated with a course of 'Halfan' which brought about a very rapid recovery from the symptoms of diahorrea, fever and lethargy and thus required no further treatment in Cameroon.

The most common complaints encountered during the expedition were lacerations, blisters and insect bites. Of these there were numerous minor lacerations requiring nothing more than treatment with 'Betadine', in order to prevent infection, and a plas-

ter, the same treatment being applied to burst blisters. There were also three more major cuts, one of which required the use of steristrips; to pull the wound together after a self inflicted injury with a machete to a leg resulted in the exposure of shinbone.

Insect bites were also a particularly annoying problem which came in one of four main forms. Despite the use of long sleeved evening wear, mosquito head nets, Deet and Permethrin in order to minimise the occurrence, the most common form of insect bite was from mosquitoes, with the serious implications that this had with respect to the high risk of falciparum malaria. Despite this very real malaria risk, of more immediate concern was the sometimes, very severe itching and discomfort that these bites caused for a number of the party which could only be relieved using a generous application of Eurax - often cited as the most important medicine taken on the expedition and a godsend cure for all itches, stings and bites.

Ants provided yet another particularly annoying form of bite, more immediate, less itchy but, depending on the size and number of ants, equally unpleasant. Of the other insidious creatures found lurking in the rain forest, 'Linford Christie' caterpillars (all Cameroonian caterpillars being able to transport themselves at great speeds when pain is on the agenda) and 'superglue' black flies deserve special mentions. The former for their amazing ability to be able to enter into clothing without notice, only manifesting themselves when reaching the point of maximum inconvenience. The latter for their amazing ability to hold onto their prey, us, regardless of our efforts to dissuade them. Simularium, the black flies that cause river blindness (onchocerciasis), were also a particular nuisance because of their sheer numbers on the later, faster stretches of the Nyong.

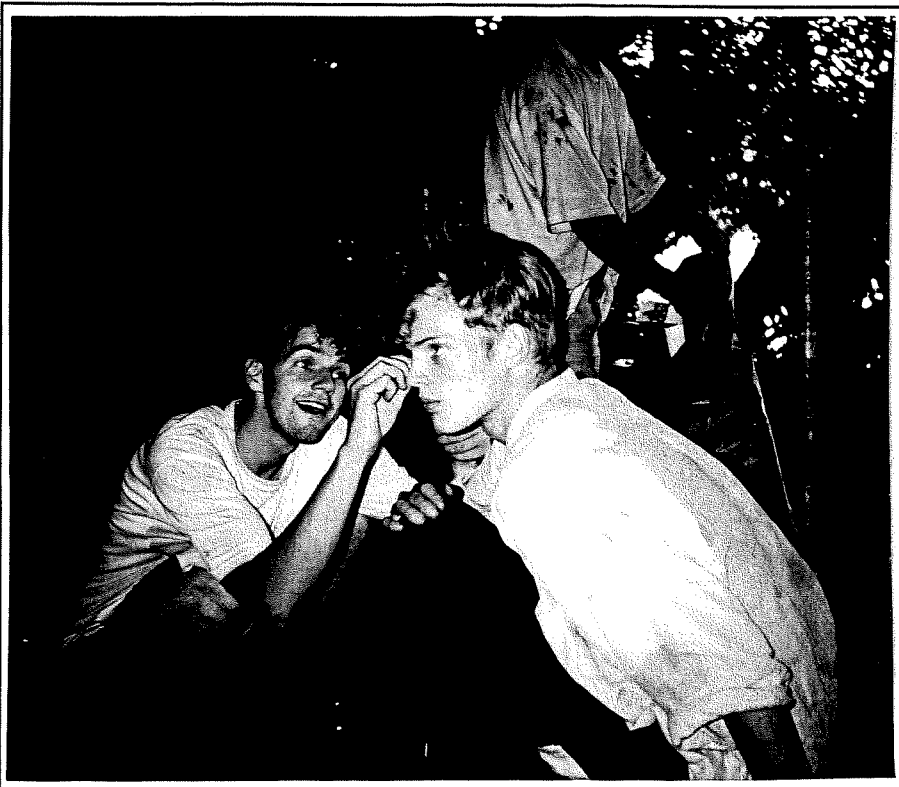
Other noticeable medical incidents that arose during the expedition included a mild form of pericoronitis at the beginning of the expedition - an inflammation of the gum around an emerging wisdom tooth which was treated by swilling around the affected area with a dilute hydrogen peroxide solution. A suspected case of Impetigo was also diagnosed during the expedition - a fungal infection which spread rapidly from beside the ear up around the hairline and down towards the chin. This was treated with regular washing, twice daily, of the affected area using a fairly strong Dettol and water solution.

## POST-EXPEDITION

Since returning to England in October 1993 two of the four members of the expedition have been diagnosed with malaria (the milder Plasmodium vivax strain) or have exhibited symptoms of malaria that have been undiagnosable, in spite of the anti-malarial precaution taken. In addition one member of the expedition was diagnosed as suffering from Giardia which has subsequently been successfully treated. No other illnesses have been diagnosed or reported.

## LOCAL MEDICAL FACILITIES

In stark contrast to the civilisation of the capital city of Yaounde, home to the expedition for its first seven days, were the living conditions experienced in the villages and small towns we visited during the journey along the river. Conditions varied markedly from village to village along the river, however medical facilities were mostly non-existent. There were a few exceptions however one village had on its outskirts a disbanded medical hut - a symbol of the all too familiar economic crisis spoken of by the villagers encountered. This economic decline was felt by many Cameroonian villages along the Nyong as they complained that health programmes that had previously been made available to them, such as programmes to spray villages with insecticides to rid them of mosquitoes and thus malaria, had been cancelled along with the distribution of medicines that had also previously been freely available. This latter

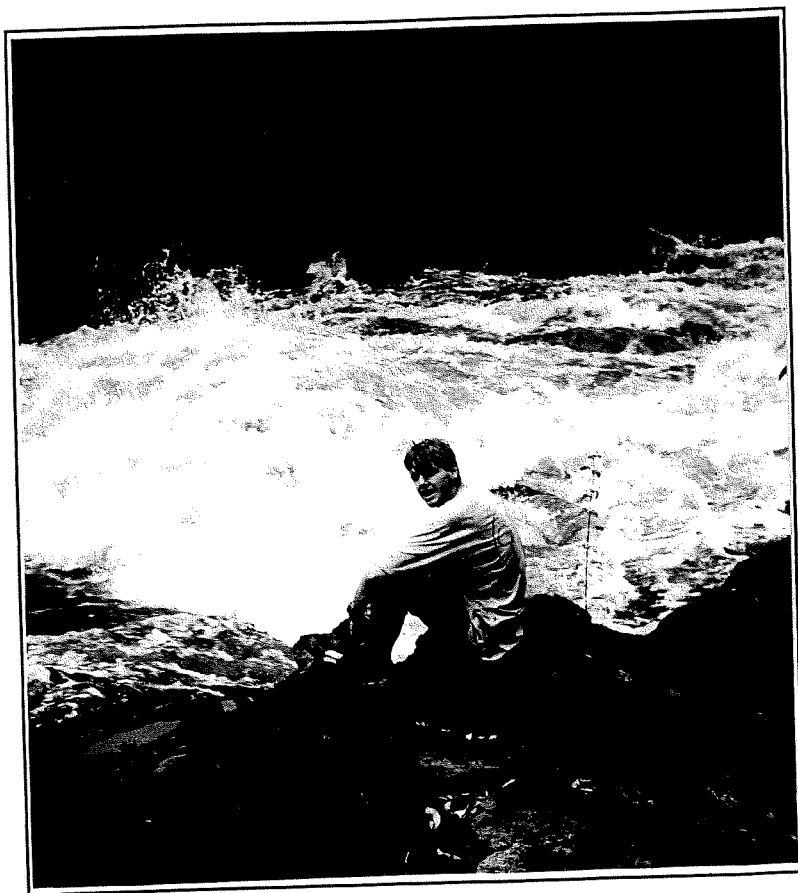


Treatment for a skin infection

problem resulted in numerous requests from villagers for preparations to treat stomach problems - mainly worms, as well as malarial prophylactics.

Slightly more disturbing, from our perspective, even than the lack of medical facilities was the widespread ignorance of basic medical techniques. This was best demonstrated to us by our first guide on the river, Lucien, who expressed amazement at our medical guide 'Where there is no doctor' by David Werner with its very simple treatments for illnesses

along with practical advice on arranging hygienic village facilities such as latrines. One such example of the lack of information on simple preventative treatment was for dehydration, a serious side effect of diarrhoea. This is a major and often fatal problem in young children which unknown to Lucien and his village is easily countered with a solution of salt and sugar.



Onchocerciasis was particularly prevalent in the villages near fast-flowing water



# FINANCIAL REPORT

## INTRODUCTION

This section includes a general overview of expedition income and expenditure. A full breakdown is given in Appendix 1. The accounts cover finances until the official end of the expedition. Three of the expedition members remained in Cameroon for an extra three weeks and this was funded personally.

Cameroon is part of a monetary system with Gabon, Equatorial Guinea, Chad, Congo and C.A.R. The currency used is the CFA and its value is fixed against the French Franc, 1 Franc = 50CFA. Whilst we were in Cameroon, one pound was worth about 416CFA. An interesting point to note is that the CFA has now been devalued, so if we had gone this summer we would have had twice the money.

The cost of living in Cameroon is relatively high, with the price of many basic foodstuffs being comparable to those found in the UK. Because of the general level of poverty experienced by most Cameroonians (average wage in Yaounde approximately £50 per month), westerners are considered to be wealthy. As a consequence we were often charged relatively high prices for goods (known affectionately within Cameroon as 'white mans prices'). We soon became aware of this and a good natured bartering process usually preceded the purchase of most goods before a realistic price was achieved.

## INCOME

The majority of expedition income (53%) came from grants given by trust funds and from private donations. In addition to this an initial standard contribution of £500 was made by each expedition member, with an additional £24 (10,000 CFA) given during the expedition.

A considerable amount was raised from fund raising activities. We had expedition T-shirts printed which although not providing a large net profit served to publicise the expedition. A proportion of these were also taken to Cameroon to be handed out as gifts. The most successful fund raising event was a sponsored canoe trip along the Thames. People were given the option when donating sponsorship to purchase a share in the expedition for a fixed sum. This ensured that they received a copy of the final report and were mentioned therein as having supported the expedition.

Further contributions were also made by the Imperial College Exploration Board who covered our

insurance costs and a significant proportion of the report printing costs.

## EXPENDITURE

The three columns given in our accounts refer to budgeted expenditure, actual expenditure and the estimated actual cost of the goods and services we received. Administration costs were considerably higher than we initially budgeted for. General administration costs included petrol/transport costs, telephone costs, mailing costs, printing costs, the cost of maps, training courses, and other small expenses. Administration within Cameroon included telephone costs, research permits, stationery etc.

Local transport costs were more than twice what we budgeted for. This was principally due to the cost of hiring 4WD vehicles (e.g. Yaounde to source of river cost £146.00). Basic taxi rides were cheap (around 25p per person anywhere in the city) but the costs increased rapidly with luggage and for extended journeys. Subsistence and accommodation was considerably less than we had allowed for. Once we were out of Yaounde, cooking for ourselves and without accommodation to pay for, our costs reduced considerably.

Equipment was 60% less than budgeted for and the estimated true cost was over four times what we paid. This is due to equipment donations, the loan of equipment and price reductions (average of around 15% reduction). In particular the army expedition stores lent us around £2500 worth of equipment and Eurocraft lent us two inflatable canoes worth £1200 each plus equipment for less than £600. In addition to this virtually all our medical supplies were donated and we borrowed much of the photographic equipment.

## SUMMARY

We actually raised more money than we initially expected due to the generosity of the donations given to us. A study of the accounts shows that we spent less than estimated in the budget, and that the estimated actual cost of the expedition was over £5000 more than we paid. This was due to the generous help and support of those individuals and organisations who lent and donated equipment.

# FOOD REPORT

## INTRODUCTION

We realised, during the early planning stages, that our simple logistics would without doubt prevent us from being wholly self-sufficient whilst we made our river descent. Current literature states that the average adult male under tropical conditions requires between 3500 and 4500 kcal a day. Four men over a period of eight weeks will eat a lot of food! We decided then that two to three weeks of food would be the most that we could hope to take out with us. Three main types of specialist expedition foods are currently on the market. Dehydrated foods, accelerated freeze-dried food and boil-in-the-bag meals. Each of these have their own advantages and disadvantages, and our final choice was based on consideration of our needs and limitations in terms of space and weight.

B.C.B.'s 'Peak' range of dehydrated foods were lightweight and compact, easy to store and use and surprisingly proved to be quite tasty. We also managed to obtain a discount which swayed the choice somewhat.\* There are ten dinner choices and four breakfast and dessert choice and these ranged from scrambled egg to steak rossini. Apart from a supply that was set aside in case of emergency, we enjoyed these meals regularly as they provided a certain variety in our diet. They were carefully alternated with the fresh food as other expeditions have reported problems with the dehydrated food passing straight through the system undigested if used for prolonged periods. Our only problem with them occurred towards the end of our journey, when it was discovered that about fifteen of the dehydrated sachets had become damaged. As they had been in a rucksack that was constantly getting wet and being moved this was not really surprising.

The following table details one person's food for one day:

### BREAKFAST

Porridge oats (40g)  
Condensed milk  
Tea/Coffee/Chocolate

### LUNCH

Groundnuts (40g)  
Chocolate bar x2 (50g)  
Bananas x2-3

### DINNER

Sardines (50g)  
Tomato-tinned (20g)  
Spaghetti (125g)

Dinner alternatives included rice and tinned meat, and bread for breakfast when it was available. The days food cost approximately £1.00/person. Although the choice of food was limited we managed to obtain a balanced diet throughout the river descent and no one lost significant amounts of weight.

## SUPPLIES FROM THE VILLAGES

We were able to obtain food from two sources as we travelled down the river. The two towns that we passed through provided long term supplies such as tinned fish and rice. The smaller isolated villages had fruit, nuts and eggs, the last being somewhat of a luxury. Often such villages made gifts of the food and we always tried to make some form of payment, although to do so without causing embarrassment was sometimes difficult. Amongst other things the villagers grew groundnuts, sugar-cane, avocado, bananas, plantains and cocoa. They also fished and kept small pigs, goats and chickens. We found that only a very limited number of things were available in any shop and often when purchasing food for the next leg of the journey we would have to visit several shops to be able to buy even a weeks food. While not eating or buying bushmeat regularly we were given it from time to time to by villagers. Monkey stew was produced on one occasion and any 'stew' generally contains everything except the head and intestines. One of the team members was fortunate enough to be given a testicle, which is considered a delicacy and specially chosen from the pot for the 'guests'.

\*One days food for one person weighed approximately 150g and cost £1.50

# ACKNOWLEDGEMENTS

## GENERAL ADVICE/SUPPORT

SHANE WINSER )	
DAVID EDWARDS )	Expedition Advisory Centre, (R.G.S.)
FAY HERCOD)	
W.E. QUANTRILL	H.M. Ambassador to Cameroon
MME. EKIMA MBANGO	Cameroon Embassy, London
JOE WATTS	Overseas Development Agency, Cameroon
DAVID KUKAH	National Geographic Centre, Cameroon
DR. SARAH FREEDMAN	Imperial College Health Centre
PETER MARTIN	Links International
DR. JAN BRADLEY	Imperial College Biology Department
TIM TREE	Imperial College Biology Department

## SCIENTIFIC ADVICE/SUPPORT

CHRIS WILD	
DR. BARRY CLARKE	Natural History Museum
DR. BARRY HUGHES	
PROFESSOR T. NJINE	Ministry of Scientific Research, Cameroon
DR. DOROTHY NJEUMA	Buea University Centre, Cameroon
DR. J. GALLEY	Imperial College Biology Department

## EQUIPMENT ADVICE/SUPPORT

EUROCRAFT G.B. LTD.	Chris and Jenny Burrows	Canoes
CLOTHTEC LTD.	Brian Sheen	Jungle Sleeping Units
NOMAD	Paul Goodyear	General
BASE ORDNANCE DEPOT		
THATCHAM	Lt.Col. J. Regan	General
3 FIELD WORKSHOP, R.E.M.E.	Maj. S. Andrews	General
3 DENTAL GP., R.A.D.C.	Col. J.D.E. Edwards	Medical
AGFA-GEVEART LTD.	P.I. Muller	Photographic
B.C.B. INTERNATIONAL		Dehyd. food
LIMELIGHTS PHOTOGRAPHY	Ian Courtier	Photographic
CHRIS WILD		Scientific

## APPENDIX 1

## HERPETOLOGICAL SPECIES LIST

<p>ANURA</p> <p>Hylarana albolabris  Hyperolius ocellus guttatus  Hylarana lepus  Bufo regularis  Cardioglossa leucomystax  Cardioglossa melangaster  Arthroleptis variabilis  Hyperolius sylvaticus  Leptopelis calcaratus  Conraua goliath  Pertopedetes newtoni</p>	<p>RANIDAE  HYPEROLIDAE  RANIDAE  BUFONIDAE  ARHTROLEPTIDAE  ARTHROLEPTIDAE  ARHTROLEPTIDAE  HYPEROLIDAE  HYPEROLIDAE  RANIDAE  RANIDAE</p>	<p>GOLIATH FROG</p>
<p>SERPENTES</p> <p>Dipsadoboa unicolor  Dipsadoboa duchesnii  Bitis gabonica  Philothalmus spp.</p>		<p>GUNTHER'S GREEN TREE SNAKE  EASTERN GABOON VIPER  BUSH SNAKE</p>
<p>SAURIA</p> <p>Hemidactylus spp.  Agama agama  Mabuya spp.</p>		<p>RAINBOW LIZARD</p>
<p>CROCODILIA</p> <p>Crocodylus niloticus  Crocodylus cataphractus  (Osteolaemus tetraspis)</p>		<p>NILE CROCODILE  SLENDER-SNOURED CROCODILE  DWARF/FOREST CROCODILE</p>



## APPENDIX 2

## ORNITHOLOGICAL SPECIES LIST

LILY TROTTER	<i>Actophilornis africana</i>	FP
GOLIATH HERON	<i>Ardea goliath</i>	FP
PURPLE HERON	<i>Ardea purpurea</i>	FR
WEST AFRICAN RIVER EAGLE	<i>Haliaetus vocifer</i>	FP
LONG CRESTED HAWK EAGLE	<i>Lophaelus occipitalis</i>	FP
MARSH HARRIER	<i>Circus aeruginosus</i>	FP
LIZARD BUZZARD	<i>Kaupifalco monogrammicus</i>	FO
PALM NUT VULTURE	<i>Gypohierax angolensis</i>	FO
PIED KINGFISHER	<i>Ceryle rudis</i>	FP
MOORHEN	<i>Gallinula chloropus</i>	FP
GREAT WHITE EGRET	<i>Egretta alba</i>	FP
GREY PARROT	<i>Psittacus erithacus</i>	FO
BLUE PLANTAIN EATER	<i>Corythaeola cristata</i>	FO
PIN-TAILED HYDAH	<i>Vidua macroura</i>	FV
PIPING HORNBILL	<i>Bycanistes fistulator</i>	FO
BLACK AND WHITE CASQUED HORNBILL	<i>Bycanistes subindricus</i>	FO
BLACK CASQUED HORNBILL	<i>Ceratgymna atrata</i>	FO
RED BILLED DWARF HORNBILL	<i>Tockus camurus</i>	FO
PYGMY GOOSE	<i>Nettapus auritas</i>	FR
HARTLAUBS DUCK	<i>Pteronetta hartlaubii</i>	FR
LITTLE AFRICAN SWIFT	<i>Apus affinis</i>	FV
CASSINS SPINE TAILED SWIFT	<i>Chaetura cassini</i>	FV
ORANGE CHEEKED WAXBILL	<i>Estrilda melpoda</i>	FV
BLACK CROWNED WAXBILL	<i>Estrilda nonnula</i>	FV
WHITE THROATED BLUE SWALLOW	<i>Hirundo nigrita</i>	FR
LESSER STRIPED SWALLOW	<i>Hirundo abyssinica</i>	FR
BRONZE MANNEKIN	<i>Lonchura cucullata</i>	FV
PIED CROW	<i>Corvus albus</i>	FV
AFRICAN DARTER	<i>Anhinga rufa</i>	FR
HADADA IBIS	<i>Bostrychia hagedash</i>	FR
COLLARED PRATINCOLE	<i>Glareola pratincola</i>	FR
BLUE CUCKOO SHRIKE	<i>Coracina azurea</i>	FO
VILLAGE WEAVER	<i>Ploceus cucullatus</i>	FV
RED BILLED WOOD DOVE	<i>Turur afer</i>	FV
BLACK THROATED COUCAL	<i>Cuco espolado</i>	FO
WHITE BREASTED AKALAT	<i>Malococincla rufipennis</i>	FO

FP=FLOODPLAIN

FO=FOREST

FV=VILLAGE

FR=RIVER

APPENDIX 3		Expedition Accounts		
Expenditure		Budget	Actual	Estimated True Cost
<b>Administration</b>				
General Admin		£130.00	£232.00	£232.00
Admin within Cameroon			£91.20	£91.20
Insurance		£700.00	£700.00	£700.00
Entry Visas		£120.00	£120.00	£120.00
Report		£200.00	£635.00	£635.00
Sub total		£1,150.00	£1,778.20	£1,778.20
<b>International Transport</b>				
Flights		£2,000.00	£1,880.00	£1,880.00
Airport Tax			£48.00	£48.00
Airfreight (canoes/dehydrated food)		£360.00	£300.00	£300.00
Local airfreight expenses			£182.00	£182.00
Sub total		£2,360.00	£2,410.00	£2,410.00
<b>Local Transport</b>				
4WD vehicles driver			£270.27	£270.27
Bush Taxis/Coaches			£51.91	£51.91
Train - 4 people+equipment			£29.10	£29.10
Taxis			£54.08	£54.08
Local Guides			£24.00	£24.00
Sub total		£200.00	£429.36	£429.36
<b>Subsistence</b>				
Dehydrated Rations			£185.00	£185.00
Subsistence			£403.10	£304.12
Local cuisine			£144.88	£144.88
Sub total		£1,100.00	£732.98	£489.12
<b>Accomodation</b>				
Hotels			£313.00	
Camping			£7.20	
Sub total		£400.00	£320.20	
<b>Equipment</b>				
General Equipment		£2,400.00	£873.76	£4,000.00
Medical			£40.00	£600.00
Canoes			£587.50	£2,400.00
Photographic		£550.00	£332.00	£650.00
Sub total		£2,950.00	£1,833.26	£7,650.00
Equipment Theft			£125.00	£125.00
Contingency		£690.00	£0.00	£0.00
Sub total		£690.00	£125.00	£125.00
<b>Total</b>		<b>£8,850.00</b>	<b>£7,629.00</b>	<b>£12,881.68</b>



## Cameroon Expedition Equipment List

### Cooking

	No.	Supplier
M/F Stove	2	Army Exp
Fuel Cans (1 Gal.)	4	Army Exp
Cooksets	2	Army Exp
Tin Plates	2	Army Exp
Tin Mugs	4	Army Exp
Cutlery	4	Army Exp
Sharp Knife	1	Army Exp
Emergency Rations-24hrs	4	Nomad
Scourers (packs)	2	Kwik save
Knife sharpener	2	Army
Plastic measuring jug	1	Woolworth
Water Container	1	Cotswold
Folding PVC bucket	2	F&T
Water Bottle (personal)	4	Army

### Water Purification

	No.	Supplier
Millbanks Bag (5 Gal.)	1	Nomad
Iodine Tinct	10	Nomad

### General Equipment

	No.	Supplier
Paraffin Lamp	2	Army exp
Longlife Candles (x2)	4	F&T
Lifeboat Matches (50)	2	Cotswold
Zippo	2	F&T
lighter fuel	1	Nomad
Folding Entrench. Tool	1	Army Exp
Books	1	Nomad
Machete+sheath	2	Army Exp
w/proof notebooks	1	Nomad
Wire Saw	2	F&T
Compass	2	Army exp
Gaffer Tape (50m)	6	Cotswold
Repair tape (50m)	1	Cotswold
Paracord (metres)	50	Nomad
Binoculars	2	Army exp
Assorted Plastic Bags	1	Army exp
Tarpaulins (3mx3.6m)	2	Army exp
Sundries	1	General
Unbreakable Mirror	2	Nomad
Games (assorted)	1	Airport
Map Cases	2	Army exp
Maps	0	Have
Padlocks/chains	1	Army exp
Angling box	1	Do it all
SW/LW radio	1	Argos





Head Torch	2	Army Exp
Spare Bulbs	2	F&T

<b>Food</b>	<b>No.</b>	<b>Supplier</b>
Dehydrated	1	BCB
Miscellaneous	1	Sainsbury

### **Personal (to buy self)**

Clothes (1 pair trousers, 1 pair shorts, 1 pair Tracksuit trousers  
2 T shirts, 2 Long sleeve shirts, light trainers)

Jungle Boots	4	Army Exp
Poncho	4	Army Exp
Jungle Hat	4	
Swiss army Knife	4	
Money Belt	4	
Whistle	4	Army Exp
Small Torch	4	Army Exp
Can opener	4	
Rucksack	4	Army Exp
Canvas Belt	4	Army Exp

<b>Photography</b>	<b>No.</b>	<b>Supplier</b>
Slide Film (+processing)	40	Agfa (24)
35mm body	1	L.Lights
Telephoto/Macro lens	1	L.Lights
Flash service	1	D leung
Camera equip (general)	1	Simmonds
Camera service	1	D Leung
Scilica Gel	0	IC
Camera bag and filter	1	Col.



SUPPORTED AND APPROVED BY  
**IMPERIAL COLLEGE EXPLORATION BOARD**







