

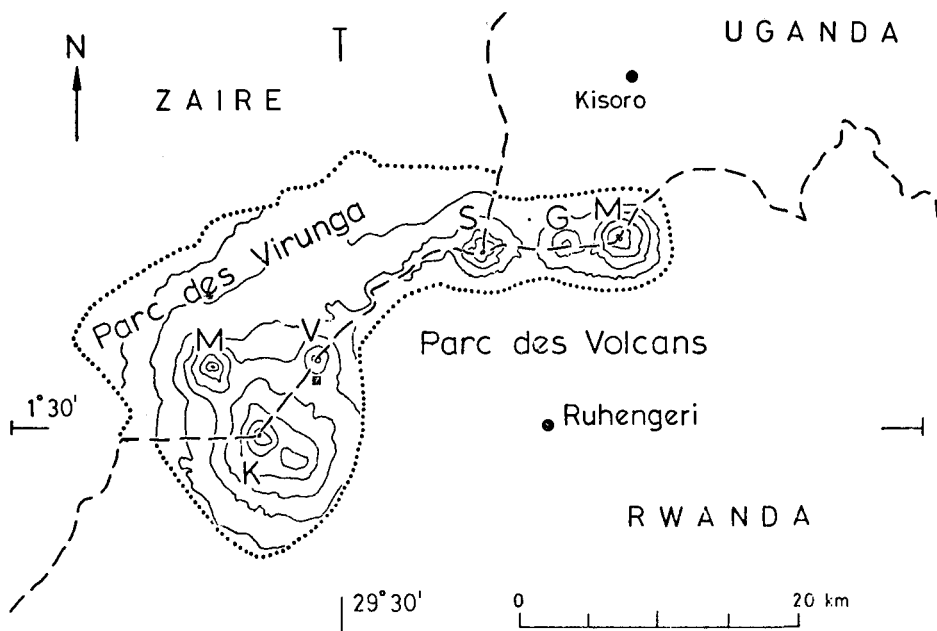
The FPS Mountain Gorilla Project— a Report from Rwanda

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In February 1978 the story broke in Europe and America of the killing of Digit, a wild mountain gorilla known by millions outside Rwanda through his appearance on television with Dr Dian Fossey, the American zoologist who has been studying gorillas in the Virunga Volcanoes for eleven years. FPS immediately set up an appeal for funds, to protect the gorillas. This was promoted by the *Sunday Times* and collected nearly £8000, some from school conservation clubs sending all their savings. Encouraged by this splendid response FPS decided to launch a major Mountain Gorilla Project to help Rwanda to guard the gorillas and the Parc National des Volcans. The goal is £50,000.

But before this could be launched, FPS, working in close association with WWF, needed up-to-date information on the situation in Rwanda and decided to send a small mission to report. The members were Professor Kai Curry-Lindahl, FPS Vice President, world-renowned scientist and conservationist who has worked in the Virungas at intervals since 1952 and knows the problems, especially on the Zaire side; Dr A.H. Harcourt, Coordinator of the Mountain Gorilla Project, who studied gorillas for two years in the Virungas and knew Digit well, and Brian Jackman, whose story in the *Sunday Times* on the death of Digit was mainly responsible for the money so far donated. They arrived in Rwanda in early August to be greeted with the news that two more gorillas of Dian Fossey's study groups, including 'Uncle Bert', had been killed. They spent a week on their mission, and extracts from their report to FPS are printed below. Since Sabena Airlines very generously backed the mission, travel expenses were minimal and none came out of the Mountain Gorilla Fund. The following are extracts from the Mission's report.

The main aims of our FPS mission to Rwanda were to assess the state of conservation in the Parc National des Volcans and to discuss with the Rwandan authorities, particularly the Office of Tourism and National Parks (ORTPN), which reports directly to the President, what needs to be done. Only then could we provide informed recommendations for conservation of the area and establish priorities for funding. Finally, we wanted to publicise the project, the mission, the state of conservation in the Virunga Volcanoes, the plight of the gorillas, and Rwanda's efforts to save them. Thanks to the backing of Sabena and the cooperation of all the officials in Rwanda, particularly ORTPN, the first two goals were achieved. We came away with a clear knowledge of what was being done and with firm ideas on what needed doing, and we ac-



The eastern Virunga Volcanoes. The six main peaks are indicated by initials: from west to east, Mikeno, Karisimbi, Visoke (with the Karisoke Research Centre at its south base), Sabinio, Gahinga, and Muhavura. Contours are in 300-m intervals, culminating at 4500m on the peak of Karisimbi.

completed a great deal that would have been impossible to achieve from England.

The first news that greeted us as we came off the Sabena flight from Brussels was that two more members of Digit's group had been slain—Uncle Bert, the leader of the group, and Macho, a female with a three-year-old son. Like Digit, they were killed in Zaire by Rwandan poachers for their heads. However, a truly awful escalation of the killings has occurred. For the first time ever, guns were used: single shots from high-velocity rifles despatched both animals. The poachers had time only to cut off Uncle Bert's head before they fled, probably at the approach of one of the scientists from the Karisoke Research Centre.

These latest deaths, along with Digit's, epitomise the desperate need of the Virunga Volcanoes and their gorillas for adequate protection, especially in Rwanda but also in Zaire.

Trade in Gorilla Heads

The trade in gorilla heads (and hands) is a very recent phenomenon: it started probably only in 1976. Before then the occasional adult male had been killed for witchcraft purposes, but never had the killings been so numerous as they are now. Unhappily, very little is known about how the trade works, even though a number of the poachers involved have been caught. From the little that has been gathered, it seems that the business might partly be an individual affair: an African middleman offers the poachers a small sum of money for a gorilla head (the equivalent of £10 in the case of Digit) and himself tries to sell the head or the skull to white residents and tourists, who apparently want them merely as 'souvenirs' of their stay in Rwanda. However, the advent of guns indicates that

the market is increasing and perhaps becoming more centralised. In fact, we heard from officials in Rwanda that American and European museums might be involved. It is absolutely vital that more is found out about this and that it be stopped. Since some of the European buyers claimed, when questioned, that they had no idea that the gorillas were endangered or that trade in their parts was illegal, perhaps a simple way of stopping the trade would be to place large posters all over the country stating that trade in live or dead gorillas, or in any part of their body, is illegal and a punishable offence.

The Virunga Volcanoes

The Zairois, Rwandan and Ugandan sections of the legally protected area of the Virungas together cover about 400 sq km, the bulk of it in Zaire. Rwanda's portion, the Parc National des Volcans, comprises 120 sq km, and though it and the Zaire sector, the Parc National des Virungas, are very inadequately protected, they are at least better than Uganda's so-called Gorilla Sanctuary, where everything but cultivation and building is allowed. With an altitudinal range of nearly 2400 m (8000 ft)—from about 2100 m to 4507 m at the peak of Karisimbi—there is a wide variety of vegetational zones and of animals, of which the mountain gorillas are the most famous, and which thrive, when left in peace, on the dense, lush montane vegetation. This particular race, *Gorilla g. beringei*, is the rarest of the three subspecies, and the Virunga Volcanoes could literally be their last refuge.

Virunga Population

The first reliable estimate of gorilla numbers in the Virunga Volcanoes was that of Schaller for the 1960 population. He arrived at a figure of 400–500 animals. Since then, not only have political troubles left their mark on the area, but since 1968, 10,000 ha (100 sq km) have been appropriated from the Rwandan side by an OECD-financed pyrethrum scheme. Thus by 1973, after three seasons of census work organised by Dr Dian Fossey, we knew that there were no more than 290 gorillas left, and maybe as few as 260. With the recent spate of killings—at least 13 gorillas are known to have been killed since 1976—the numbers must now be far lower, perhaps below 250, most of them in the west around the volcanoes Mikeno (M), Karisimbi (K), and Visoke (V); only about a quarter in the eastern section, on Sabinio (S), Gahinga (G) and Muhavura (M). This contrast between the east and west parts of the park, not only in the gorillas' biomass, but in their reproductive performance as well, needs to be thoroughly investigated.

Protection

The Parc National des Volcans costs over three times as much to run as it receives in revenue, yet, as ORTPN's own report on nature conservation in Rwanda says, the country is one of the most densely populated and poorest in Africa. Thus the protection the park receives is totally inadequate to its needs. Nevertheless, Rwanda is doing all it can: the President himself, Major-General Juvenal Habyarimana, is taking a personal interest in gorilla conservation in the Parc National des Volcans, and all poachers so far con-

Pyrethrum cultivation extends right up to the park boundary, marked by the trees on the horizon. *R.S.R. Fitter*



victed of the killings are in prison. Therefore, when reading the following sections, the country's other pressing needs and the efforts it is nevertheless making to redress the shortcomings, should constantly be borne in mind. ORTPN knows what is needed but lacks the means to implement it.

1. There are only 31 guards to patrol the whole of the Parc National des Volcans. Given that all patrolling has to be done on foot, and that at any one time a number of the guards will be on leave or sick, this is too small a number for the present system of patrolling, although with more effective management, 30 guards would probably be enough.
2. The system of patrolling the park is inadequate and inappropriate, although at the moment no other may be feasible. The guards live in ten two-man huts distributed around the park boundary, and themselves organise their own patrols into the forest each day. With well paid, well equipped, highly trained and motivated men, such a system would probably be ideal, but it is quite unrealistic when the discomforts and supposed dangers of the forest, and the guards' own lack of motivation are taken into account. What is needed are small, mobile, overnight patrols of about four men led by a senior guard. But two factors make this difficult. First, lack of equipment. For example, all we saw in the way of gear at the post we visited was boots, World War I rifles, and knapsacks; otherwise the guards' dress was indistinguishable from that of the local people. Waterproof clothing and, especially, facilities for overnight patrols, such as tents, are necessary; second, the siting of the National Park Headquarters, which has no radio link with any of the huts, far towards the eastern end of the park, near Sabinio. This makes effective central control of guard movements nearly impossible. A substation near the park border between Karisimbi and Visoke is needed, and ORTPN has this high on their list of priorities, along with equipping and training of the guards.
3. Cultivation reaches right up to the national park boundary, and between the park and the local peoples and their livestock there is no barrier whatsoever: no ditch, no fence, no boundary posts or notices, and no entrance gates. Provided the eyes of the guards can be avoided, people can come and go into the park at will. The only existing demarcation is a line of planted conifers that not only merges into the backdrop of the forest, but can easily be moved and replanted. Shortly before we arrived a further 400 ha of the park had been taken by a high official in the area, and the conifers merely replanted along the new edge of this man's fields, scores of metres further into the park.

4. The Rwandan Ministry of Agriculture is planning to excise a further 3000–4000 ha from the western end of the Parc National des Volcans to provide pasture for cattle, in addition to the 10,000 ha already appropriated for pyrethrum.

Tourism

The whole organisation for tourists is very inadequate. Information on the park is difficult to find even in Gisenyi, the main centre serving it, and tourist facilities are almost non-existent. The reception buildings can so easily be bypassed that more tourists may enter the park illegally than legally, resulting in a large loss of revenue. Moreover, the Park HQ is the only official reception point for tourists. As the car draws up, a milling crowd of the local inhabitants gather round to compete for attention, and the tourist himself has to choose his guide and porters as best he can.

Like the guards, the guides are ill-equipped and poorly trained, and tourists are given no guidance as to how to behave in the park, or when near gorillas. On the day we arrived at the park, a French tourist was bitten in the leg by a gorilla, and it was abundantly clear from the guide's account that they had been severely antagonising the animals. To put this incident in perspective, it should be remembered that during all the years the gorillas were being censused by Dr Fossey and her assistants, mostly undergraduates from American and European universities, who worked with totally unhabituated animals *after training at the Karisoke Research Centre*, not one person was ever harmed by any gorilla. With gorillas it is always the victim's fault, not the animal's, if someone is hurt. In addition, tourists are turning one of the main tourist attractions in the park, the crater lake at the top of Mt Visoke, into a rubbish dump, instead of being one of the most beautiful sights anywhere in Africa.

The international boundary with Zaire runs right through the middle of the Virunga Volcanoes, yet at the moment neither country has a working agreement that will allow tourists from the other to cross this boundary. Two members of the mission had one day on which to try to see gorillas. After a hard hour's climb in pouring rain we came upon a disconsolate party of seven tourists returning down the mountain, having had to leave the gorilla trail that they were following when it led on into Zaire. We too had to turn back. Two tripartite conferences involving Rwanda, Zaire and Uganda agreed in principle that cooperation was necessary, but the practicalities of such cooperation have so far not been worked out.

Finally, not only is the Parc des Volcans poorly known in Rwanda, but Rwanda itself, with its sometimes breathtaking scenery and its superb savanna park in the north-east, the Akagera National Park, is almost unheard of outside, perhaps, Belgium. As M. de Tervarent (economist to Belgian Technical Assistance in Rwanda) says in his report on tourism in the country, 'One of the main handicaps from which Rwanda suffers is that it is so little known by European and North American tourists who, under the influence of Kenya's dynamic publicity drive, prefer to visit East Africa.'

Recommendations

The following list of recommendations is not the FPS mission's alone. ORTPN is aware of many of the Parc des Volcans' shortcomings and has written most of them into their own list of priorities. The Belgians are already planning to finance some of the actions suggested below.

1. **Extra buildings:** Administrative offices, lodgings for guards, a small lodging house near the park for tourists, a reception office and information centre, shops, and a substation near the western end of the park are all needed. Belgium plans to finance most of these, however, leaving only the substation for FPS and WWF funding. Although ORTPN, for strategic reasons, wants this deep inside the park, high up on Karisimbi, we strongly advise that it be built outside. The park is already very small with heavy pressures on it and it would



be a great shame to reduce it more. At about 3600 m, the proposed site would be difficult of access, and it might even be necessary to build an approach road within the park, a cost not so far included in the budget; this would further reduce the park area. The actual building would seriously disturb the area, and the continual run of supplies would prolong the disturbance. Ferrying of supplies to that height would also add enormously to the building and maintenance costs. Finally, at a height of 3500 m, most days and all nights are bitterly cold, and we question whether the guards would be prepared to live and work from a substation at that altitude. ORTPN favours the site because it would be central and close to the Zaire border, and so in the best position from which to organise patrols and safeguard the border area. While we agree with this we believe that the drawbacks far outweigh these strategic considerations, and we strongly advise ORTPN and any funding bodies against the site and suggest that although a substation is necessary it would be better to do without than have it there.

2. **Other material additions needed:** Entry gates, boundary notices, improvement of the approach roads, large, obvious signs pointing to the park and its headquarters, and check-points along the approach roads are all

necessary, the last two vital. Only the first two are presently planned under Belgian aid.

3. **Equipment for guards and guides:** This is essential. Although ORTPN has this down as to be financed by Belgium, it was not on the Belgians' list of projects for technical assistance.

4. **Increase in the number of guards:** ORTPN wants to increase the number of guards from the present 31 to 41 and under the present system this is probably necessary. But the 30 guards if more effectively used could well be sufficient, although more guides would be needed if there were any increase in tourism. The Belgians have no plans to finance this project.

5. **Training of guards and guides:** This is one of the most important recommendations, but the park system does not yet have within it the expertise necessary for such training, and, at least initially, it will probably have to be done either in cooperation with persons working out of the Karisoke Research Centre or with the help of experts from outside. The Belgians have no plans for financing this project.

6. **Habituation of more gorilla groups to tourists:** Not only are there sometimes not enough gorilla groups for the number of tourists presently visiting the park, but too frequently tourists are taken to the Karisoke Research Centre main study group (see section 8). Other groups need, therefore, to be habituated, as the ORTPN list of priorities says, *in sectors allotted for tourists*. Again there is probably nobody in Rwanda, except those who have worked at the Karisoke Research Centre, who have the expertise necessary to train guides in habituating gorilla groups to tourists.

7. **Publicity material:** Two audiences need to be reached, the international tourist and the local inhabitant. The tourist needs to be told about Rwanda and its manifold attractions; the local man, who undoubtedly sees the park as land he could use profitably but to which he is denied access, must be informed of the benefits the park can bring to him. Posters, pamphlets and radio broadcasts within the country are needed, as well as courses in the University and schools. No funds have been allocated by Belgium for such a project.

8. **Research within the park:** Only through a detailed knowledge of the behaviour of the wildlife and ecology of the area can workable long-term management plans for conservation be formulated. The only research station working in the Virunga Volcanoes is the Karisoke Research Centre at the south base of Visoke. It is, for example, *solely* due to the work carried out from there that we even know how many gorillas there are in the park. The Research Centre is gaining an international reputation as a source of knowledge on the mountain gorilla and the Virunga Volcanoes, and it would be a tragedy, both for science and the Virunga Volcanoes, if this research were to be stopped. For example, there are two scientists now at the Centre, Amy Vedder and David Watts, doing detailed research into the gorillas' use of their habitat, and a third, Bill Weber, not only investigating the local people's use of the Virungas, but also instituting education programmes in secondary schools through the country and, along with Amy Vedder, giving seminars at the University of Butare on the Virunga Volcanoes and their conservation as the Parc des

Volcans. If the work of the Karisoke Research Centre can be integrated with the University of Butare and ORTPN it could be of immense value to Rwanda and, more especially, to conservation of the Parc des Volcans. In fact, provided such integration can take place in the near future, it is difficult to conceive of long-term management of the park being successful without the Research Centre.

Priorities

During a long and productive meeting with ORTPN officials, including the Director, M. Nsabimana, after our visit to the Parc National des Volcans, conservation priorities were discussed, and the following list drawn up:

- Creation of a substation at Karisimbi;
- Supply of equipment for guards;
- Completion of publicity material aimed mainly at the inhabitants and school-children of the communities immediately adjacent to the Park;
- Training of guards to enable them better to protect the heritage of Rwanda and mankind;
- Training of guides for tourists;
- Habituation of gorillas *in sectors to be allotted to tourists* (author's italics).

Preliminaries

- Check poaching in all its forms;
- Obtain enough guards of sufficient quality;
- Provide adequate lodging facilities;
- Achieve a healthy tourist flow;
- Launch a publicity campaign based on the gorilla;
- Get through to the consciousness of the people neighbouring the Parc National des Volcans;
- Have at one's disposal guides experienced in approaching the animals.

It was agreed that the first four priorities should be funded first, but that the actual order in which they were financed would depend on the availability of funds. In particular it was agreed that although the substation was of utmost importance, FPS and WWF financing of this expensive project should wait; it would be unfortunate if all the funds went on it and nothing was left for the other projects, and it is just possible that the substation may be financed by the Belgians. Furthermore, while it was being built, more gorillas might be killed, tourists not given their full opportunity to see the animals, revenue from tourists lost because of insufficient checkpoints on the approach roads, and tourists lost due to lack of publicity.

Allocation of the Mountain Gorilla Fund

Training the guards and immediate protection of the park seemed to everyone to be the most vital and urgent project. £500 has been sent to Dr Dian Fossey for immediate protection, and it was agreed that a further £4000 should be sent to ORTPN, half of which would be channelled to the Karisoke Research Centre so that the expertise of the workers there can be combined with the manpower

of ORTPN. In addition, £620 has been used to pay for two graduates from England to go to the Parc National des Volcans to help in patrolling and census work there.

Conclusion

Rwanda is a poor, densely populated country and the people feel they need all the land they can get for cultivation. We cannot end, therefore, without a few words on how the park can benefit Rwanda and, particularly, the peoples living around it.

The most important benefit and, in fact, one without which the local peoples cannot survive, is the regulation of water supply in the region. The forest acts as a giant sponge, storing water in the wet season and slowly releasing it through the dry season. Cutting down the forest cuts off this dry-season water supply. But already this regulatory function is being jeopardised. The mission was there at the end of the dry season and no water whatsoever was flowing in the main river out of the park. Only ten years ago, when the forest extended 5 km and more further down the mountain, even minor rivers flowed throughout the year. By destroying their forest the Rwandans are severing their lifeline. Secondly, if tourism could be developed, there is no reason why the Parc des Volcans, along with the Akagera National Park, should not be as important to the Rwandan economy as the Kenyan parks are to Kenya's.

Acknowledgments

Many people helped us in our mission, first and foremost of whom were the Office Rwandais du Tourisme et des Parcs Nationaux, and Sabena Airlines. ORTPN organised very efficient arrangements for the visit, including last-minute alterations to travel plans, and we would particularly like to thank the Director of ORTPN, M. Dismas Nsabimana, and the Chief of Conservation, M. Atanaz Nyamutshumu, for their help. Sabena backed the mission by very generously providing return flights to Kigali; without their support, the mission would probably have been impossible. The American Ambassador, Mr Frank Crigler, M. Eugene Boelens, Deputy Resident Representative of UNDP in Rwanda, and M. Yvan de Tervarent, Belgian economist in Rwanda, were all very generous with their time and advice. In addition, Dr Kai Curry-Lindahl would like to thank Dr Dian Fossey for her hospitality to him and for valuable information, while all the mission thank Drs Alain and Nicole Montfort, Belgian Technical Advisors to the Parc National des Volcans, and Bill Weber, Amy Vedder and David Watts, all of the Karisoke Research Centre, for so generously placing their time at our disposal. Finally, it is difficult to thank Rwanda itself for what it gave us, but its countryside, the people, the animals and the plants, their beauty and their variety, particularly in the Volcanoes and Akagera National Parks, made the mission, although a business one, a very enjoyable experience.

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