

Evidence for a surviving population of Miss Waldron's red colobus

Miss Waldron's red colobus *Procolobus badius waldroni* is a monkey with a distribution restricted to eastern Ivory Coast and western Ghana. This area of West Africa has suffered from particularly devastating forest loss and intensive hunting for the bushmeat trade. As early as the 1950s the biologist Angus Booth warned that unless sufficient protective measures were taken, this monkey would become extinct in the near future (Booth, A.H., 1956, The distribution of primates in the Gold Coast, *Journal of the West African Science Association*, 2, 122–133). Considerable efforts have been made over the last 10 years to locate surviving populations of this primate. We and our colleagues have carried out extensive surveys in all remaining forested areas believed suitable for this large high-canopy monkey (McGraw, W.S., 1998, Three monkeys nearing extinction in the forest reserves of eastern Côte d'Ivoire, *Oryx*, 32, 233–236; Oates, J.F. *et al.*, 2000, Extinction of a West African red colobus monkey, *Conservation Biology*, 14, 1526–1532). Despite these efforts, no living red colobus have been found since the last confirmed sighting in 1978.

In May 1997 hunters informed a member of our survey team, Michael Abedi-Lartey of the Ghana Wildlife Department, that a forest area of approximately 300 km² in the extreme south-east corner of Ivory Coast harbored a population of Miss Waldron's red colobus. This block of low-lying forest is between the Tano River (forming the border between Ghana and Ivory Coast) and the Ehi Lagoon. Abedi-Lartey visited the area, where local people reported to him that these monkeys, although rare, could still be found in the swamps, where they were hunted for sale in Ghana. However, Abedi-Lartey did not observe any individuals of Miss Waldron's red colobus. To follow up on these reports Isaac Monah and WSM visited this area in 1999, 2001 and 2002. No living red colobus monkeys were seen, but groups of *Colobus vellerosus*, *Cercopithecus diana roloway*, *Cercocebus atys lunulatus* and other cercopithecids were encountered. In February 2001 a black monkey tail was obtained from a hunter and, although it was not possible to confirm the location where the tail had been collected or its age, DNA analysis confirmed that it was from a colobine

monkey. Two months later Monah accompanied this same hunter into the forest for three days, during which vocalizations believed to be from red colobus monkeys were heard. Monah and WSM returned to this forest in January 2002 and, upon arriving at a nearby village, met a hunter with a skin from an adult Miss Waldron's red colobus monkey, estimated to be no more than 3 months old. This skin had the red outer thighs and red forehead characteristic of *P. b. waldroni*. The next 3 weeks were spent in and around the forest searching for monkeys, but no living red colobus were encountered.

The skin from the Ehi swamps is evidence that at least one individual red colobus was alive at least as recently as last year. Though there have been no confirmed sightings in over 25 years, it is evident that very small populations of this monkey may still exist, despite the fact that our attempts to find them have failed. But, as we indicated in our 2000 publication, even if populations do survive they may no longer be viable.

Conservation in the Ehi Lagoon area will be difficult. Unlike the reserves in eastern Ivory Coast or western Ghana, this swamp forest has no protection of any kind. Hunters easily and regularly pass into the forest, particularly from across the Ghanaian border. The difficulty in penetrating such a swampy habitat has until recently provided the resident fauna with some protection, but this is changing. Expanding palm plantations and increasing logging operations are opening up even remote areas of the forest, and older residents claim that the swamp is drying out. In any event, despite the apparent presence of a monkey we had thought probably extinct, the prospects for its survival – at least in this forest – are bleak unless immediate action is taken. Among the most important conservation actions that could be taken would be to prevent hunters from entering this region of Ivory Coast from Ghana.

The 2002 survey was supported by a grant from Conservation International's Primate Action Fund.

W. Scott McGraw
Department of Anthropology, The Ohio State University
1680 University Drive, Mansfield, OH 44906, USA
E-mail: mcgraw.43@osu.edu

John F. Oates
Department of Anthropology, Hunter College CUNY
695 Park Avenue, New York, NY 1002, USA

Tanzania's new national park to protect orchids

The Tanzanian government, working with the Wildlife Conservation Society (WCS) of New York, has announced plans to create a new 135 km² national park on the Kitulo Plateau, part of Tanzania's Southern Highlands. Straddling the Kipengere Range and the Uporoto and Livingstone mountains between 2,600 and 2,960 m altitude, the plateau is the most important Afrotropical and Afroalpine grassland community in the country. It is also an important area for biodiversity and regional endemism. Breeding colonies of blue swallow *Hirundo atrocaerulea* and Denham's bustard *Neotis denhami*, as well as lesser kestrel *Falco naumanni*, pallid harrier *Circus macrourus*, Njombe cisticola *Cisticola njombe*, and Kipengere seedeater *Serinus melanochrous* all contribute to the plateau's avian significance. Other restricted-range taxa include reptiles such as the Ukinga montane skink *Mabuya brauni* and the Ukinga hornless chameleon *Chameleo incornutus*, amphibians such as the variable reed frog *Hyperolius pictus*, and the satyrid butterfly *Neocoenyrus petersi*, found only on Matamba Ridge at the northern end of the plateau.

Kitulo is floristically rich, with 350 species of vascular plants, including 45 species of terrestrial orchid, so far documented. Many species are of restricted distribution, including 31 Tanzanian endemics, 16 endemic to Kitulo/Kipengere and 10 restricted to Kitulo/Uporoto. At least five species are endemic to the proposed park. Many terrestrial orchids across the Southern Highlands, however, are under considerable threat. In 2001 WCS released a report documenting how the region's orchids are being exported into neighbouring Zambia, where they are eaten as a delicacy. Up to 85 species of orchid from the genera *Disa*, *Habenaria* and *Satyrium* are being harvested for use in *chikanda* or *kinaka*, a delicacy in which the root or tuber is the key ingredient in a type of meatless sausage. The recent growth in the popularity of *chikanda* in Zambia, especially in urban centres, has caused a boom in the trade.

All orchid species are protected by the Convention on International Trade in Endangered Species (CITES), which requires certification of plants crossing international borders. But scant knowledge of the trade's existence has led to over 2 million uncertified plants entering Zambia each year. The warning that some orchid species could be wiped out within a few years was an impetus for the park's designation. Whilst the trade continues throughout the Southern Highlands, the gazetting and management of Kitulo Plateau will make a very important contribution to the conservation of

a number of rare species, including many terrestrial orchids.

T.R.B. Davenport
Wildlife Conservation Society
PO Box 1475, Mbeya, Tanzania
E-mail: trbd@twiga.com

Bristol Zoo Gardens fund great ape conservation in Cameroon

Bristol Zoo Gardens has received funding from the UK Government towards the establishment of an education programme for the conservation of great apes in Cameroon, West Africa. The Department for Environment, Food and Rural Affairs and the Foreign and Commonwealth Office of the United Kingdom are helping to fund the United Nations Environment Programme's Great Ape Survival Project. This project aims to bring world-wide attention to the conservation crisis facing great apes, to raise funds for conservation, and to develop a global conservation strategy for all ape populations. Bristol Zoo Gardens has been given £15,000 towards setting up and running a Conservation Education Programme in the eastern provinces of Cameroon, that will be directed at gathering, sharing and disseminating local knowledge, and encouraging positive attitudes to sustainable use and conservation of the forest and its wildlife. The initiative aims to reduce the impact of poaching and unsustainable commercial hunting and will complement other work already taking place. An outreach programme will be developed with local people so that long-term change can be achieved by those most closely involved. Bristol Zoo Gardens has been working in conjunction with the Cameroon Wildlife Aid Fund and the Cameroonian Government for over 4 years and has created two centres for the care of animals confiscated from the illegal commercial bushmeat trade, including orphaned lowland gorillas and chimpanzees. Further details can be found on the conservation section of the Bristol Zoo's web page at <http://www.bristolzoo.org.uk/conservation>

The BP Conservation Programme: Award Winners 2002

The BP Conservation Programme, now in its 17th year, aims to support and encourage long term conservation projects that address global conservation priorities at a local level. This initiative is the result of a collaboration between BirdLife International, Fauna & Flora International, and BP. The Programme has supported a total of 175 projects in 55 countries, and works towards its

aim by the provision of advice, training and financial awards, primarily targeting university students.

The Awards for 2002 were announced by Baroness Barbara Young, Chair of the UK's Environment Agency, at a ceremony held in London on 19 April 2002. The 19 winning projects received a total of £125,000, divided between three Follow-up awards, three Gold, three Silver and nine Bronze winners. Of the winning projects eight will study birds, three will investigate rare plants, reptiles and invertebrates, and a further six will focus on declining populations of amphibians, bats and marine life. Each team has more than one nationality involved, and Monitor 2002, a Follow-up Award winner focusing on amphibian monitoring in Eastern Europe, has five different nationalities involved in setting up a grass-roots training scheme.

Some teams will map their research areas, highlighting key areas for protection and restoration, while others will be working in regions already identified as being of high priority for conservation. Teams in Kenya, Cuba and Bolivia, for example, will carry out research in Important Bird Areas. Teams in Southern Chile, Argentina and Colombia will be focusing on species such as the Chilean dolphin, Colombian parrots, earthworms, and land snails. Teams in Hungary, Indonesia, Sierra Leone and South-west China will carry out pilot projects where research techniques will be put in place for further conservation projects within each country. All the research teams will make management recommendations and suggest conservation action plans to minimise the threats to the species being studied and to ensure their long-term conservation.

Full details of the BP Conservation Programme, recent and past award winners, and information for applicants is available at the programme's web site <http://conservation.bp.com>

The Third Student Conference on Conservation Science

Building on the two successful conferences held in 2000 and 2001, the Third Student Conference on Conservation Science was held in March 2002 in the Department of Zoology, University of Cambridge, UK. Over 200 people participated in the conference, mostly postgraduate students carrying out research in conservation science. Student delegates came from 34 countries. The proportion of student delegates contributing talks who came from Eastern European and developing countries has increased from 24% in 2000 and 44% in 2001 to 54% in 2002. Staff from 23 conservation organisations and applied conservation research institutes, from the African Conservation Foundation to the Zoological Society of London, also took part in the conference. A poster

session 'Who's who in conservation?' enabled students to meet staff from these organisations.

Plenary lectures were given by Professor Lord May of the University of Oxford, UK, Professor William Bond of the University of Cape Town, South Africa, Professor William Sutherland of the University of East Anglia, UK, and Dr Tony Whitten of the World Bank. The main part of the conference consisted of 35 talks by research students. Students also contributed 60 posters describing their work, which they discussed with other delegates during the poster sessions.

The conference has always attempted to achieve even coverage of taxa and topics, even though a preponderance of research is carried out on birds and mammals. In the Third Conference the proportion of students presenting talks about things other than birds and mammals has increased from 46% in 2000 and 53% in 2001 to 63% in 2002. There were eight workshops organized by conservation organisations, on a variety of topics that included scientific writing, GIS methods, and the problem of converting research findings into conservation practice. The fourth conference in the series will be held on 26–28 March 2003. Details of the conference will be available later in 2002 at <http://www.zoo.cam.ac.uk/sccs>

Two mountain gorillas shot by poachers and a baby gorilla missing in Rwanda

On the evening of 9 May gunshots were heard from inside the Parc National des Volcans (PNV) in Rwanda. The following morning, trackers of the ORTPN (the government agency responsible for the management of Rwanda's national parks) located the bodies of two adult females, approximately 11 and 25 years old, killed by gunshots. One young male was found to be wounded but seemed to be managing to feed and keep up with the group. However, Kwihangana, a 2 year old baby, was missing. Vets from the Mountain Gorilla Veterinary Project reunited a 13 month old baby, found huddled against her mother's dead body, with the group. As gorilla babies are typically not weaned until they are 3 years old her survival will depend on whether there is a nursing mother in the group. It is unlikely that the missing Kwihangana will survive for more than a few days.

The dead females were part of Susa group, the largest of the gorilla groups in the PNV, with 39 individuals. This group was habituated for tourism in 1983, and since then the family has been monitored daily, and visited by tourists for almost 20 years. Susa is the most popular gorilla group in Rwanda, due to its large size and the calm and trust displayed by the individuals in the family.

All the evidence seems to indicate that the gorillas were killed in order to obtain a baby for sale on the

illegal market. There has been no such incident in Rwanda since 1985, and the most recent incidents of poaching baby gorillas were in 1995, in Bwindi Impenetrable Forest in Uganda and the Parc National des Virunga in the Democratic Republic of Congo (DRC). No legal zoo, private collection or captive breeding centre worldwide has any captive mountain gorillas or would obtain a mountain gorilla in this way. Any person purchasing a mountain gorilla in this manner is breaking the law and will not be able to display the animal in public. The demand for mountain gorillas may be driven by people who are speculating on the value of such a rare animal without knowledge of the fact that, due to its protected status, it will be almost impossible to sell.

The population of mountain gorillas has increased by over 10% in the Virunga Volcanoes over the past 10 years, despite the civil unrest and conflict in the region. The total population is now estimated at approximately 660 individuals, all of whom live in two forest blocks along the borders of Rwanda, DRC and Uganda. The fact that these gorillas have survived despite all the difficulties in the region is primarily due to the very difficult but valuable work of the protected area authorities in Rwanda, DRC and Uganda. Their work has been supported by a number of conservation organizations over the years, including the International Gorilla Conservation Programme (a coalition of the African Wildlife Foundation, WWF and FFI), WWF, the Wildlife Conservation Society, Diane Fossey Gorilla Fund, Mountain Gorilla Veterinary Project, the Institute of Tropical Forest Conservation and others.

People suspected of being involved in the incident have been apprehended and are being questioned in order to locate the missing infant and to determine who either bought or intended to buy the baby gorilla. It is important that both the poachers and the buyer are identified and dealt with by the legal system in Rwanda.

Hazel White

Africa Programmes Assistant, Fauna & Flora International

Tenison Road, Cambridge CB1 2TT, UK

Annette Lanjouw, Director

International Gorilla Conservation Programme

New & improved internet resources

Antbase, the Social Insects internet ant pages (http://research.amnh.org/entomology/social_insects), now offers expanded resources, including an updated Integrated Taxonomic Information System, access to a full-text database of primary systematics publications; and a link to FORMIS 2001, a composite of several ant literature databases. *Antbase* is a collaborative effort between scientists from around the world to provide access to the wealth of information on ants, to fulfil the conservation needs of the International Union for the Study of Social Insects, and of the Social Insects Specialist Group of the Species Survival Commission of IUCN.

Mammalian Species, published regularly by the American Society of Mammalogists (<http://www.mammalsociety.org>), with 25–30 new accounts issued each year, is now online. Each account summarizes the current understanding of the biology of a single species, including systematics, distribution, fossil history, genetics, anatomy, physiology, behavior, ecology and conservation. Accounts for 631 species are now freely available at <http://www.science.smith.edu/departments/Biology/VHAYSEN/msi>

Early Classics in Biogeography, Distribution, and Diversity Studies has recently been launched at <http://www.wku.edu/~smithch/biogeog>. This service consists of an 'enhanced' bibliography, with links to the full-text of many of the entries and biographical information on the authors involved. The subjects involved touch on fields ranging from ecology, conservation, systematics and physical geography, to evolutionary biology, cultural biogeography, paleobiology, and bioclimatology, but all have in common a relevance to the study of geographical distribution and diversity.