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The deadline for the next issue of Primate Eye is 15th May 1999. Items (manuscript or electronic in any standard format) for future issues should be sent to:

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PSGB correspondence unrelated to Primate Eye should be addressed to the Hon Secretary. Notification of change of address should be sent to the Hon Treasurer.
EDITORIAL

It is customary for the editorial in the first Primate Eye of each year to thank the departing members of Council and to welcome in the new ones. This year is no exception, except that I find myself in the slightly unusual situation of having to wave goodbye to myself! However, that slight incongruity is no reason to buck tradition! I would still like to thank the retiring members of Council, David Hill, Robert Hubrecht and myself, although all of us will still be in evidence as co-opted members. The replacement council members are Guy Cowlishaw, Deborah Custance, Nicola Koyama and Miranda Stevenson and I would like to welcome them all. Deborah Custance will also be taking over as Convenor of the Marketing Working Party and I would like to thank Marie Jaques for her hard work previously in that position.

The beginning of a new year is always a time for change and the word on the primatological grapevine is that there may be some changes afoot among the primate academic journals. There are many of us, especially those with papers waiting for publication, who believe that there would be a market for another, quality primate journal. There are others who would wish to see current journals expanding or branching into different directions. There are even a few of us who believe that the traditional paper-based journal is rapidly becoming a thing of the past. I notice that Nature, one of the foremost, traditional paper-based journals is a major proponent of this latter point of view.

Before everyone writes to me in disgust, I hasten to add that there is no danger of Primate Eye becoming electronic in the near future, but the question of how academic information is disseminated is important. Many of us require a publication record in established peer-reviewed journals not merely to improve our chances for the next promotion or job application, but also to survive the vagaries of the various research assessment exercises. However we also want our work to be widely available, and for those of us working in areas such as conservation and ecology, this includes being read by people in primate host countries. It is therefore important, before we propose the artificial barrier that only those with an internet connection and email are entitled access to our work, to ensure that the people who would really benefit from what we are trying to do are not excluded.

Paradoxically, it is also possible that electronic distribution, with its low cost and independence from difficulties with local postal services, could allow a much greater access to material. There are many University libraries around the world that have extremely poor holdings, and these can often suffer during times of political upheaval. It is almost impossible to rebuild a collection, and very costly to subscribe to the many academic journals available. With the likely changes that are happening to academic publishing, we, the unpaid authors of much of the scientific output, have a unique opportunity to change the way we habitually do things. Most of us already do our own typesetting with a word-processor and produce our own illustrations so that the value added by a publishing company is getting progressively less. It is possible to reduce the costs of publishing without sacrificing scientific integrity, and the advent of electronic publishing should allow us to produce free or low cost material for world dissemination. This would allow academic institutions in all countries to have access to the best and most up-to-date material which would be of enormous benefit to both educators and students everywhere.

BILL SELLERS
PSGB Winter Meeting 1998 Report

‘Contributions of Zoos to Primate Biology and Conservation’
Meeting Rooms, Zoological Society of London

The role of zoos in primate conservation and understanding primate biology has become increasingly vital and it is timely to meet and discuss the developments and the future. The presentations at the PSGB Winter 1998 Meeting highlighted many aspects of zoos’ involvement, including coordinating in and ex situ research, reintroduction, species programme management, understanding primate biology and husbandry needs, and understanding how to meet those needs. The meeting, organised by Miranda Stevenson, Hannah Buchanan-Smith and Bryan Carroll, was very well attended. The 11 papers and 3 posters presented were interesting and well presented.

REVIEW

Anna Feistner began the meeting with a review of the contributions zoos can and do make to primate biology and conservation. Feistner made the point that an interdisciplinary approach was necessary to cope with the crisis in conservation. She outlined the role of zoos, explaining the World Zoo Conservation Strategy for conservation in and ex situ. Increasing public awareness through conservation, research and education were key to the strategy. Many primates are of conservation concern and are restricted to tropical forests in 90% of the circa 250 primate species, in countries with severe economic problems. Of these species, 50% are of particular conservation concern, and biological and anthropogenic aspects of the problems need to be addressed through species recovery programmes. Zoos must continue to build links with other zoos, universities, NGOs and schemes such as adopt-a-park. In situ programmes involve field research, habitat management, wild population management and reintroduction programmes. Ex situ, zoos participate in captive breeding programmes and a wide spectrum of research areas including behaviour, genetics, reproduction and nutrition. In both in and ex situ, education, community support, professional training, partnership and fund raising are key elements. Feistner gave some examples of how the zoo message of education and fund raising to target conservation has been approached, pointing out that zoos contribute funds for research in captivity and in the wild. One example is the reintroduction programme for the golden lion tamarin, Leontopithecus rosalia. The success with the programme has led to developing one for the black lion tamarin, Leontopithecus chrysopygus, which has only 3% of their natural forest habitat left in fragmented patches near to San Paolo, Brazil.

Zoos have a species survival programme (SSP) for this species, with an endangered species programme (EEP) planned. As it is, 10% of the population is held in zoos. Feistner then described a very successful programme for the Alaotran gentle lemur, Hapalemur griseus alaotrensis, which lives in reed beds of Lac Alaotra in Madagascar. The lake system is very distressed and the lemur population is extremely threatened. There is now an EEP in place to help manage the situation. Research in zoos on this endangered species involves infant development, nutrition and husbandry methods, and in the wild their conservation status and species biology is being studied. Feistner emphasised the importance of community partnership through festivals raising the awareness of the problem and reed bed management for the benefit of the community and the lemurs.

HUSBANDRY AND ENVIRONMENTAL ENRICHMENT

Alison Ames then described the development and work at Monkey World, which concentrates on rescuing chimpanzees from human exploitation. Chimpanzees are still being smuggled from the West African area, largely for the illegal pet trade. Many of the chimpanzees at Monkey World came from the Spanish beach photography trade. The chimpanzees are divided into large groups and individuals are introduced to groups thought to match their needs. Each group has a large outdoor area, indoor gym and individual back sleeping rooms. The outdoor habitat has water, shelter, climbing frames, ropes and even the possibility to hunt occasionally. Ames described introducing two groups to stimulate a group with an elderly male that was no longer able to dominate the females. Through a video presentation, Ames showed the behaviour of individuals at different stages of the introduction and how female choice was a major factor in the outcome. Despite the broad range of behaviour shown by the chimpanzees at Monkey World, Ames emphasised that the development of chimps was a long and complex process and that reintroduction of chimps to the wild should not be contemplated at present.

A poster presented by the monkey sanctuary described a project aimed at introducing woolly monkeys, Lagothrix sp., into a reserve in the Amazon Rainforest. This would involve transporting the woolly monkeys at Monkey World and introducing confiscated individuals to the reserve. The project is said to have Brazilian government support and it is proposed that precautions and safeguards against effects on natural populations would be taken into account.

Introduction was also described on a poster by Nathalie Abbeloos. An adult male langur, Trachypithecus auratus auratus, was introduced to a group of five adult females and their offspring. This occurred with aggression but without the infanticide expected. It is not understood why
infanticide did not occur and clues would be very helpful for husbandry and research purposes.

Graham Catlow presented work providing more complex habitats for captive primates. He used several species and a video presentation to show how enrichment works in practice. Social stimulation was encouraged to allow a wide range of the social repertoire to be tapped, as in neighbouring groups of Diana monkeys, Cercopithecus diana, interacting. On the contrary, visual barriers provide some privacy and complexity of habitat. Semi-free-ranging ring-tailed lemurs, Lemur catta, and free-ranging Geoffroy's marmosets, Callithrix geoffroyi, showed contact and alarm calls in their enclosure in response to perceived natural threats, as well as the physical co-ordination needed to negotiate the trees. Similarly, mimicking the reed habitat of the Alouatta gentle lemur, Hapalemur griseus aaloensis, allows specific locomotor behaviour patterns to develop. Novel objects introduced occasionally to primate groups enhance the environment and are used for complex play and balance. Fine co-ordination can be encouraged through foraging. He described hidden food in foraging devices, deep substrate litter, tubes with insects, overhead foraging on swinging substrates, termite mounds, as well as 70-100 different food items provided to induce different hand to eye co-ordination and stimulation of foraging and handling techniques.

A poster presentation by Jersey Wildlife Preservation Trust also described free ranging in small, New World monkeys. These primates were released into woods in JWPT grounds and provided training for both the primates and observers. Primates learnt to locomote and forage in a complex habitat, while observers were able to develop techniques for observing and collecting samples.

Robert Young reported on how zoos lead the way in environmental enrichment. He noted that environmental enrichment is not a panacea for abnormal behaviour and it should not create an environment where problems do not arise. It needs to be a proactive step for animal welfare. Welfare should consider the visitor effect, the substrate used, socialisation and compliance for husbandry and veterinary techniques; considerations for conservation must involve potential reintroduction and reproduction. He made the important point that zoos are open to public scrutiny unlike other captive situations and have enormous educational potential because of their popularity. Primates, in particular, have a high visitor pulling power. He then discussed enclosure design and noted that what looks like a naturalistic exhibit for the visitor need not be suitable for the animals. He felt that exhibit design is important, however, for public awareness of animal needs and conservation issues. He proposed that design should combine natural and functional aspects.

RESEARCH

Sonya Hill described a part of the Chimpanzee Project, which is a programme for research, enrichment and education developed by the Jane Goodall Institute. The programme was designed to allow interested students to work with chimpanzees in zoos as in situ positions were very limited. Students could join the programme to further their interest in studying chimpanzees and to provide information on chimpanzees to the Institute and its members. Members are largely in the US, but also in Australia and should soon include Germany. The programme provides training in observational techniques that can be applied across other taxa. Inter-observer reliability is a part of the training and the programme provides for those participants that are not able to meet these criteria. Suggested benefits for zoos were an established research programme, access to data on their chimpanzees, information that might be used for fund raising, trained observers and providing more attention in all for chimpanzees.

Scott Hardie presented a study carried out at Belfast Zoo on mixed species groups of saddle backed, Saguinus fuscicolis, emperor, Saguinus imperator, moustached, Saguinus mystax, and red bellied, Saguinus labiatus, tamarins. The study investigated specific questions arising from earlier field work, including stratification in mixed species groups, whether increased foraging efficiency and/or increased predation might occur, as well as changes in behaviour patterns. The study suggested that mixed groups were able to decrease vigilance in comparison with single species groups. Mixed species learnt foraging methods from each other. The study showed the complementary nature of work in the field and in captivity, and how the zoo environment can provide excellent possibilities for research.

Pam Citrynell discussed her work on cognitive enrichment with white-bellied spider monkeys, Ateles belzebuth belzebuth, at Bristol Zoo. She explained that flexibility of response was important in the wild and her efforts to create opportunities for spider monkeys to practise in captivity. Citrynell used food puzzles for cognitive challenge. The puzzles increased in difficulty when viewing changed from transparent to opaque. Aside from finger dexterity, the spider monkeys had to solve a problem and remember sequences to gain a small food reward. Citrynell suggested that a cognitive strategy rather than instinct was involved, albeit by the females who solved the puzzle and not the male.

Josep Call analysed publications on cognitive studies conducted in the wild, the laboratory and the zoo on prosimians, Old World and New World monkeys and apes. He found that the number of cognitive studies on primates carried out in zoos is increasing on topics such as tool use, social learning and communication. Chimpanzees were the species mainly studied, followed by macaques, gorillas and cebids. The highest diversity of species
per study he found was in zoo studies. Call pointed out that zoos are a bridge between the laboratory and the wild and provide a good environment for cognitive studies.

ZOO MANAGEMENT PROGRAMMES FOR SPECIES

Comprehensive talks were given on the work of zoos in the management of conservation species by Linda van Elsacker and Kristin Leus of Antwerp Zoo. Van Elsacker summarised the World Conservation Strategy and showed how a project at Antwerp Zoo fulfils the aims of the strategy. She described the ex and in situ aspects of the project. Firstly, she reported on the presence of a research team in Congo and its relation to wildlife protection. A survey along the Yekokara River in Congo involved bonobos, Pan paniscus, flora and evidence of bush meat trade. The agricultural project set up met local needs and local authorities were engaged to provide increasing political awareness for future generations. She described the research and education on, as well as public enjoyment of, bonobos at Antwerp and in situ in Congo. As a result, an increased awareness of the species and their needs was provided in a number of ways.

Kristin Leus continued to discuss contributions to conservation that zoos make. As mentioned by speakers throughout the day, the number of zoos involved in in and ex situ conservation is increasing, adding to scientific knowledge and public awareness. She described the role of the multi-disciplinary semi-autonomous International Recovery and Management Committees (IRMC) in the conservation activity for lion tamarins (Leontopithecus). The coastal rain forest habitat for lion tamarins is now fragmented through logging, increased human population and cultivation of the area. The golden lion tamarin, Leontopithecus rosalia, is used as a flagship species for conservation through community participation in education, entertainment, economy and politics. The IRMC includes members from the species' country of origin, zoo community and scientific institutes. As a result, IRMC gives zoos a voice on field issues, allowing direct dialogue with the stakeholders and provides a forum for exchange of information and for goals to be refined.

MAUVIS A. GORE
Edinburgh Zoo, Edinburgh

FUTURE MEETINGS

PSGB Spring 1999 Meeting
12-13 April 1999
University of Liverpool

The 1999 Easter meeting of the Primate Society will be held at Liverpool University on 12-13 April 1999. The Monday will be a half day programme (starting at 2pm) devoted to the topic of "Social Complexity" and will consist mainly of invited speakers; there will be an informal social evening at a local venue. Tuesday (an all-day meeting ending at 4 pm) will be an open meeting for presentations by members of the Society; following conventional practice, a special emphasis will be given to presentations by postgraduate students and primate keepers. Offers of papers for the Tuesday sessions should be sent directly to Russell Hill (R.A.Hill@liv.ac.uk).

For up-to-date details, please see our web page at:

Programme

All lectures will be held in the Nicholson Lecture Theatre, Ground Floor, Nicholson Building, Brownlow St, Liverpool.

Monday 12 April

1300 Registration: foyer of Nicholson Building
1400 Start of meeting (chair: Phyllis Lee)
1400 Robin Dunbar (Liverpool University) & Hiroko Kudo (Kyoto University):

Neocortex size and the size of grooming cliques
1430 Juan-Carlos Gomez (St Andrews University):

Complex communication in primates: the role of attending and intending
1500 Filippo Aureli (Emory University, USA):

Valuable relationships, anxiety and conflict resolution
1530 TEA
1600 Tracy Joffe (University College London):

Bringing up baby: fetal and infant brain size ontogeny
Colleen Schaffner (St John's University, Collegeville, USA):
Clever decisions: male and female marmosets' responses to reproductive competitors

Andrew Whiten (St Andrews University):
Mind-reading and social complexity in chimpanzees

END OF SESSION

Everyman Bistro, Everyman Theatre, Hope St
The back room of this well known local eating house and bar (as featured recently in The Observer's list of national places to eat) will be booked for our use. The Everyman serves a range of cheap but cheerful food from all around the world and runs a well stocked bar with very reasonable prices.

Tuesday 13 April

0900 Coffee and registration
0930-1230 Morning session (chair: Josep Call)
1100-1130 Coffee
1230-1400 Lunch
1400-1600 Afternoon session (chair: Robin Dunbar)
1600 TEA and END OF MEETING

The Tuesday session is an open meeting and will consist of 20-30 minute papers. These currently include presentations on measuring social complexity, primate vocalisations and primate paleoecology. Details of talks will be posted on our web page as they become available, but the final programme will not be available until the meeting. Offers of papers should be made as soon as possible to Russell Hill (R.A.Hill@liv.ac.uk).

Registration fee: £3 for PSGB members (non-members £5);
£1 for PSGB taught course students (non-members £2)

Posters

There will be space for the display of posters: anyone wishing to offer a poster should contact Russell Hill.

Accommodation

B&B accommodation at local hotels is only slightly more expensive than a room in the University Halls of Residence; however, it has the considerable advantage of being within the University area (whereas the halls are a 10-15 minute bus/taxi ride away). We would recommend staying at one of the following hotels, all of which are within 5 minutes’ walk of the lecture and social venues. Please make your own reservations directly with the hotel of your choice.

AACHEN Hotel
89-91 Mount Pleasant, Liverpool L3 5TB. Tel: 0151-709 3477; Fax: 0151-709 1126. Single room: £24.00, Double room: £38.00 (includes buffet breakfast), Late bar.

ANTRIM Hotel
73 Mount Pleasant, Liverpool L3 5TB. Tel: 0151-709 5239; Fax: 0151-709 7169. Single room: £25.00, Double room: £38.00 B&B.

FEATHERS Hotel
117-125 Mount Pleasant, Liverpool L3 5TF. Tel: 0151-709 9655; Fax: 0151-709 3838. Single room: £25.00, Double room: £40.00 (including buffet breakfast).

BRITANNIA ADELPHI Hotel
Ranelagh Place, Liverpool L3 5UL. Tel: 0151-709 7200; Fax: 0151-708 0743. Single room: £49.50 (room only), Double room: £67.00 (room only).

PSGB Winter 1999 Meeting
Wednesday 1 December 1999

The Institute of Zoology, London

The theme will be "Mating and social systems of Old World monkeys".

Offers of papers - oral or posters - are very welcome.

Please contact:

Dr Caroline Ross or Mairi Macleod
School of Life Sciences
Roehampton Institute London
West Hill
London SW15 3SN
UK

email: c.ross@roehampton.ac.uk or m.macleod@roehampton.ac.uk
Millenium Meeting

The title of the meeting is "Primates: our past, their future". It will be a public understanding of science/primatology event, and will be associated with the Natural History Museum's two-week millennium celebration. Officially, the meeting is being run by the PSGB in conjunction with the NHM. The meeting will take place on 1 April 2000, and will be held in the Fleet Lecture Theatre at the NHM. Speakers will include Mike Brutford (Institute of Zoology), Robin Dunbar (University of Liverpool), John Fleagle (SUNY at Stony Brook), Phyllis Lee (University of Cambridge) and Steve Mithen (University of Reading). The contact address is:

Dr Mark Collard
Department of Anthropology
University College London
Gower Street
London WC1E 6BT
UK

Tel: 0171-380-7842
Fax: 0171-380-7728
E-mail: m.collard@ucl.ac.uk

SCOTTISH UNIVERSITIES’ PRIMATE DAY
SATURDAY, 13 MARCH 1999, 10.00 a.m. – 4.00 p.m.

Programme:
Talks in the morning by speakers including Richard Byrne and Mauvis Gore, lunch in the Penguin's Pantry, followed by guided tour of the primate collection.

Numbers: 200 maximum.

Please confirm attendance and approximate numbers at least one week in advance with Tom Sambrook, Dept of Psychology, Stirling University, Stirling, FK 9 4LA, tel 01786 467679, email t.d.sambrook@stir.ac.uk

Napier Memorial Medal 1999

The Napier Memorial Medal was instituted by the Society in memory of its founding President, Professor John Napier, following a bequest to the Society. The Medal is offered every two years to a young primatologist in order to provide encouragement through the public recognition of their work. The fourth Napier Medal was awarded to Nicola Koyama in 1997 for her PhD on reconciliation behaviour in wild Japanese macaques.

Nominations for the fifth Napier Memorial Medal (to be awarded at the 1999 Winter Meeting and AGM) are invited on behalf of recent postgraduate students. As in previous years, nominations are considered by a committee of three members appointed by Council (one of whom is an officer of the Society); the committee will present their final choice to Council for ratification at its September meeting in 1999.

To be eligible for consideration, candidates must: (1) be either a British subject or a foreign national who has completed a PhD at a UK institution of higher education; (2) normally be under the age of 30 years on 1 December 1999 (although in exceptional circumstances older applicants will be considered); and (3) have submitted their PhD thesis after June 1997.

Candidates should normally be nominated by a member of the Society, but they may be nominated by their PhD supervisor even if he/she is not a member. The nomination should consist of a CV (including an Abstract of the PhD thesis and full list of publications) and two letters of reference (one of which should normally be from an external examiner of the PhD). These should be sent to:

Dr P.C. Lee
Department of Biological Anthropology
Downing Street
Cambridge CB2 3DZ

The closing date for receipt of nominations is 1 August 1999, and candidates may be asked to provide a copy of their PhD or published work for the committee.
European News

This is the first of a regular feature that will appear in Primates Eye. The aim is to present information about the European Federation of Primatology and other independent news items of interest to members of the PSGAB.

First, some information about the EFP. It was founded in 1993 to encourage communication and collaborative activities among the European groups of primatologists. At present, ten countries are represented, namely, Belgium, the Czech Republic, France, Germany, Italy, Russia, Spain, Switzerland, The Netherlands and Great Britain.

In addition to the circulation of information, the aims of the EFP include meetings of national societies, specialist groups and workshops, and to encourage scientific activities in research and educational projects. It also considers issues related to the management of captive primates. An important activity in this context is the participation through the Council of Europe on decisions relevant to primate trade and captive breeding. Moreover, the protection and wellbeing of captive primates is a major concern of the federation. Overall, however, the aims of the EFP are as those of the International Primatological Society.

1. On-going activities:

Since 1994 the EFP has participated as an observer in the Multilateral Consultation of Parties to the European Convention for the Protection of Vertebrate Animals Used for Experimental and Other Scientific Purposes (ETS 123).

Bertrand Depute co-ordinates an expert-group on non-human primates. This committee, together with three others on different animal groups, will make proposals for amendments to Appendix A of the Convention (Guidelines for the accommodation and care of animals).

2. Workshops:

So far, there have been two meetings - both very successful. The one in Madrid in October 1996 was organised by Fernando Colmenares. The other was in Palma de Mallorca in April 1998, and organised by Bertrand Depute.

The Madrid meeting was funded by the EU and brought together students and academics from many countries including some in Eastern Europe.

There was no overall theme for the meeting, but an excellent diversity of primate papers was presented.

The Palma meeting addressed the topic "Diet, Foraging Behaviour and Time-Budgets in Nonhuman Primates: How field studies may help in improving the welfare of captive primates". Substantive research papers were presented and participants drafted a Resolution of relevance to the work of the Federation in European legislation on animal welfare, which was subsequently endorsed by membership groups of the EFP. Other workshops are planned for 1999 and 2000. Details will be given as soon as they are finalised.

3. The European Certificate of Primatology is organised intermittently in different European institutions. It presents taught and examined courses over a period of some weeks in a wide range of topics. Lectures and students are drawn from many countries. It is potentially an important means of improving contacts and information among primatologists from Eastern and Western countries for example. Various aspects of the funding and administration of the course are currently under review, and information should be available later in the year.

Matters other than the EFP

Despite the growing number of institutional web pages, this feature provides good opportunities for people to draw attention to possibilities for research experience and collaboration among European countries. As a first step in this direction the General Curator of the Apenheul Primate Park in The Netherlands, Dr Ken Gold, wishes to encourage students and research workers to contact him if they wish to work at Apenheul. His address is:

Apenheul Primate Park
P O Box 97
7300 AB Apenheu
The Netherlands.
Tel: (+31) (0) 55 35 75 700
Fax: (+31) (0) 55 35 75 701
Email: office@apenheul.nl

We shall gradually develop the scope of European News. Do please send me information that you think might be useful to our members.

I look forward to hearing from you! With best wishes,

HILARY O. BOX (PSGB representative to the EFP)
Dept Psychology, University of Reading, 3 Earley Gate, Reading RG6 6AL
Osman Hill Medal
awarded to Professor Chris Stringer

Chris did his PhD at Bristol, studying the morphological patterns in middle Pleistocene Europeans, which started the trend towards new ideas on the evolution of Neanderthals and modern humans.

Since the early 1980's Chris has been the architect of the palaeontological approach to the African origins of modern humans. Independently of the mitochondrial DNA evidence, he developed the ideas of "out of Africa", and since then has done more than anyone else to substantiate, document and defend this view, which is now, with perhaps one or two notable exceptions, generally accepted. He has been in particular committed to using the morphological evidence to show recent human evolutionary patterns, and has had a difficult time coping with the defenders of multiregionalism. It is to his credit and through his efforts that this latter theory is no longer seen as defensible. Chris has been instrumental in establishing a sound chronology for recent human evolution, and has created and stimulated a major programme of dating of key fossils. He has worked on Gibraltar for many years, attempting to find more hard evidence, and organised a number of stimulating conferences to set the scene for recent human evolution.

Apart from numerous scientific papers, Chris has published two books - In Search of the Neanderthals with Clive Gamble, and the best selling African Exodus with Robin McKee.

Chris has spent his career at the Natural History Museum where he has always maintained and encouraged a very friendly, open and international environment for all those interested in human evolution (and a source of gossip!). He has been an active member of the Primate Society for many years.

We are delighted to recognise Chris Stringer's many contributions to primatology (including, in this case, humans) with the presentation of the Primate Society of Great Britain's Osman Hill Medal.

P.C. LEE
President
2 December 1998

Chris Stringer being awarded the Osman Hill Medal
by Phyllis Lee, President of PSGB
International Workshop on Primate Conservation in Vietnam

Last autumn with funding from Conservation International, I attended a workshop on the conservation of Vietnam's immensely important, but seriously endangered, primate fauna. The workshop, held on 4-6 November 1998 in Hanoi, the capital of Vietnam, was organised by Dr Nguyen Ba Thu (Director of the Forestry Protection Department) and Dr Le Xuan Canh (Deputy Director of the Institute of Ecology and Biological Resources), with assistance from Dr Ardith Eudey (Vice-Chair for Asia, IUCN/SSC Primate Specialist Group), David Hulse (WWF Indochina) and Joe Walston (Fauna and Flora International, Vietnam). Karen Killmar, Helena Flitch-Snyder and Mabel Lam represented the San Diego Zoological Society and Noel Rowe represented Primate Conservation Inc., two of the organisations sponsoring the workshop. The main objective was to develop and formulate a Vietnamese Primate Action Plan. Unfortunately, despite several years' gestation, the workshop was eventually organised with little notice, and some of the protagonists in the field were unable to attend.

The workshop was inaugurated by the Deputy Minister of Agriculture and Rural Development, Mr Nguyen Van Dang. Contributions ranged from the announcement by Dr Vu The Long (Vietnam Institute of Archaeology) of the discovery in a cave 30 km SW of Hanoi of a 10,000-year-old near-complete adult female orang-utan skeleton with that of a youngster, to the re-discovery in central Vietnam in July 1998 of the ebony leaf monkey. This monkey, previously known only from a skull and skull preserved in Washington D.C. since 1924, was first re-discovered immediately across the frontier in Laos, simultaneously with my description of it as a new subspecies in 1995. It brings to six the number of closely related, but unusually distinct (if they are subspecies), predominantly glossy black leaf monkeys inhabiting this part of north-east Indochina and southern China. All of them except Semnopithecus francoisi, are now represented at the Endangered Primate Rescue Centre (EPRC) at Cuc Phuong National Park, NW of Hanoi, which we visited on 7 November. Having known them for so long only from museum specimens, it was wonderful to see living examples, albeit in captivity, along with the grey leaf monkey, gibbons, lorises and all three types of douc, including the grey-shanked douc, endemic to Vietnam and scientifically named as recently as 1997.

Perhaps most exciting, however, was the opportunity on 8 November to accompany Tilo Nadler, head of the EPRC, to Cat Ba, a beautiful limestone island off Haiphong, and world distribution of the Tonkin hooded black leaf monkey. This monkey and the Nilgiri leaf monkey have more external characters in common than either do with any of the other Indochinese leaf monkeys, and appear to be subspecies split by the disappearance of the central Indian rainforest which connected them before the drought of the last two glacial periods. During the workshop we had heard that the Cat Ba population has halved in about two years to probably less than a hundred, through smuggling to China as food or medicine. Their regrettable night-time habit of sheltering in caves means that sometimes whole troops are netted. Restaurants on the island boast that they can supply wildlife meat, so tourists are colluding in their demise. I was therefore very lucky to be present when Tilo collected a juvenile confiscated in the Cat Ba National Park from hunters. It presented an astonishing spectacle, being in mid-transition from the bright orange infant colour to the black, grey and yellow-white adult colour. It was very tame, preferring human company to solitary confinement, and had fortunately been allowed out and about to satisfy its own requirements for fresh young leaves, and was therefore in surprisingly good condition. It seemed to have been spared an excess of the normal captive diet of rice and bananas.

The plight of the hooded leaf monkey was only one tragic tale to emerge from the reports to the workshop by representatives of many of Vietnam's National Parks. Bach Ma N.P. in central Vietnam has yet to fully recover from the defoliants sprayed during the war. Many Vietnamese seem to take the word "park" too literally, regarding it as a place of recreation. One national recreation is hunting and most natural habitat has disappeared elsewhere so National Parks are treated as areas preserved by the government for the national recreation. One participant even suggested that the most effective way of assessing loris conservation status was to count them in the local markets (where they are sold as food or pets). The endemic snub-nosed monkey has no National Park to protect it and relies on the local goodwill which created a nature reserve.

A major outcome of the workshop was that, although their taxonomic level in some cases is debatable, Vietnam sustains a staggering 25 distinct primate species and subspecies (though not all in any one area). Few countries can emulate this extraordinary richness. Urgent action is required to alert both the Vietnamese people and the world to its scientific and historic value. It includes some of the earth's most arresting organisms, notably the douc. It is hard to conceive that anyone could bear to kill such an animal yet they are killed and eaten. Vietnam's heritage is so exceptional that even a lake in the commercial centre of Hanoi has an endemic (fortunately sacred) 2 metre terrapin. Since 1992 the Vu Quang Forest has yielded three ungulates new to science, one of them as remarkable as the okapi. The biology of much of the country is in its infancy and its progress is hampered even by well-intentioned actions such as the release of confiscated animals outside their natural range. The Vietnamese Primate Action Plan is the first one drafted specifically for one country. It deserves every encouragement and it is essential that the momentum established at the workshop is maintained. One of the world's most important primate faunas must survive.

DOUG BRANDON-JONES
London
What a GREAT Ape Conference!

More than 150 of the world's top primatologists, conservationists and philosophers travelled to Malaysia in July for the 3rd Great Apes of the World Conference (GAWCIII). The theme was 'Securing Great Ape Survival into the Next Millennium'.

Question: How many nature-lovers could visit Sarawak - land of rainforests and tropical beaches - and barely venture outside an air-conditioned hotel for four days?
Answer: All 150 dedicated delegates at GAWCIII.

When the Malaysian Minister for Tourism, Dr James Masing, closed the conference, he smilingly chided the audience for ignoring his invitation to enjoy the delights of this north-west corner of Borneo. But he well understood the importance of the task which kept delegates from 16 countries shivering in the meeting rooms instead of basking on the palm-fringed beaches. Seventy sessions and poster-papers presented the latest findings from great ape researchers and practical workshops encouraged positive action to tackle the problems facing the great apes. Subjects covered included field research and conservation, captive studies and environmental enrichment, veterinary work, and ethics.

Professor Peter Singer (author of Animal Liberation) led the workshop on ethics which concluded that we have a moral responsibility to admit great apes into 'the community of equals' currently occupied by humans alone. He outlined the progress made in the Great Ape Project which seeks to grant life, liberty, and freedom from torture to all apes. In particular he praised the recent British government ruling which bans experiments on great apes on moral grounds; the first time any government anywhere has acknowledged that any non-human animal has a different ethical status on account of its awareness of suffering.

The workshop on bushmeat heard new reports from Karl Ammann and others in the field - including that compiled by the Ape Alliance (see Wildlife Times, Summer 1998) - and came up with some imaginative new ways to tackle the problem, complementing the Ape Alliance work already underway. For example, because many of the bushmeat traders in Africa are women, it was suggested that international women's groups might be able to have some influence; because of the risk to human health from viruses, the World Health Organisation should be approached to put resources into discouraging the eating of monkeys and apes; and because most major religions teach compassion for other creatures, religious leaders should be encouraged to exert their influence.

The conference called for greater liaison between conservation organisations, governments and international development agencies - especially in response to the bushmeat problem in Africa and the forest fires in Borneo. Fears were expressed about the International Monetary Fund's plan to rescue Indonesia's collapsed economy. "If implemented in its current form, the proposed IMF bailout package for Indonesia will have devastating consequences for the orangutan and what is left of its habitat," said Ashley Leiman, director of the Orangutan Foundation UK and one of the conference organisers. "The IMF proposals call for the conversion of primary forest into permanent agriculture (in the form of high export value palm oil plantations) - one of the main causes of the recent fires - and for an increase in the annual timber cut." This would exacerbate the very problems caused by the previous government's policy of squandering a potentially renewable resource for short-term economic gain. To express these fears, a letter was written to James D. Wolfensohn, President of the World Bank, and signed by more than 100 delegates - a clear demonstration of the conference's desire for action not words.

There was a clear consensus that we have an ethical obligation to protect our primate relatives and their forest home. But however dedicated we are, it is impossible for conservation groups and under-funded wildlife departments to save apes (and other endangered species) in their natural habitats if we are working against international economic forces. There must be a new synergy between economists and ecologists if we are to find the political will necessary for conservation to succeed and personal actions are the only way to make this happen.

This was the message of one of the most dynamic individuals present: Dr Tony Rose, Executive Director of the Biosynergy Institute in California. Despite time limitations and scheduling problems, he urged, cajoled and even bullied delegates into identifying what they could personally do to benefit apes and to make a firm commitment to do those things. It is an approach we should all adopt - for example by signing a Timber Pledge, promising to buy timber and timber products ONLY from environmentally responsible sources, or by writing letters to key individuals. The fact is that in conservation, to quote the old maxim, if we are not part of the solution we are part of the problem.

IAN REDMOND
Bristol
Hurricane disaster relief for the Caribbean Primate Research Center

The passage of hurricane Georges across Puerto Rico last summer caused hundreds of thousands of dollars of damage to both the Cayo Santiago and Sabana Seca field stations of the Caribbean Primate Research Center. To assist rebuilding and restoration of research at the sites, we are soliciting financial donations. For a minimum donation of $12.00 US, you will receive a copy of the CAYO SANTIAGO MACAQUES 1999 (8.5 X 11) wall calendar by mail. This item will become a collector’s item and is a limited edition run containing beautiful 8 X 10 photos of the Cayo rhesus in action. It is printed on high quality stock and the photos are suitable for framing. Multiple copies of the calendar are also available should you desire them for holiday gift giving. All donations will be used to rebuild the Caribbean Primate Research Center and the donations are tax deductible as well.

To donate:
Send cheque or money order made out to: Caribbean Primate Research Center - University of Puerto Rico, RCM.

Mail to:
Caribbean Primate Research Center
Hurricane Relief
Box 1053
Sabana Seca, PR 00952-1083

Tel: 787-795-4035
Fax: 787-795-8700

TV Programmes and the Shaping of Public Attitudes to Non-human Primates:

Quite fortuitously, but most welcomingly, in the run-up to PSGB’s Winter Conference, several programmes relating to non-human primates have been screened on British TV. Following the lead set by the Editorial in the October 1998 issue of Primate Eye, some observations on such programmes may not be out of place.

Starting with the series The Zoo Keepers on BBC1 - this has been something of a “Blockbuster” series. Set in the (currently fashionable) “Docusoap” format, the programmes have, in a series of half-hour episodes, traced the lives and loves of the keepers at Paignton Zoo, Devon, England. I do not think this series has been wholly successful, as it has suffered from a jokey, not to say arch, commentary voiced over by Richard Wilson (Victor Meldrew of One Foot in the Grave fame). We have been shown gorillas and baboons among other animals, but my overriding impression has been of the great difficulties the zoo keepers have had to face (not always successfully, it has to be said).

Next, Monkey Business (oh dear!) on Channel 4 - a documentary series featuring the work of the Monkey World (Ape Rescue) Sanctuary near Wareham, Dorset, England. While set in the half-hour documentary format, this series has, in my opinion, been much more successful. More matter-of-fact in their approach, the programmes have conveyed, I think, a considerable impression of the valuable work done by Jim and Alison Cronin and their staff in rescuing and rehabilitating chimpanzees. I have come away from the series with a lasting impression of the almost unbelievable way the chimpanzees in the care of Monkey World have been able to establish a proper chimpanzee lifestyle despite the traumas those chimpanzees have undergone before their arrival at Monkey World.

In the Wildlife on One slot (BBC1), we were shown a repeat of a half-hour programme on bonobos. This documentary, in some dramatic footage, showed insights into bonobo behaviour patterns; the sequences were helped by the magisterial commentary given by David Attenborough. As a presentation of bonobo behaviour, the programme’s effectiveness was, I feel, somewhat blunted by concentrating on the fortunes and misfortunes of a young bonobo orphan. This particular emphasis probably arose from the need to inject “Rating Appeal” into the programme.

Channel 5 (not to be outdone perhaps?) screened a half-hour documentary on the life of the African, forest-dwelling mandrill. This, again, was an
effective, straightforward presentation of the life of these fascinating, though less well known, primates. My chief criticism of this programme - as of so many natural history programmes on Channel 5 - is that no date was readily visible to give some notion as to when the film was made.

The children’s magazine programme Blue Peter screened a film outlining the visit made by the presenter, Stuart Miles, to lowland gorillas on an organised safari travel trip. I have to say I enjoyed this 30-minute film as it simply showed Stuart Miles in the forest and made an informative account of his encounter with the gorillas. The Blue Peter film contrasted well with an account of a similar jaunt as published in the travel section of a Sunday newspaper, where of course the emphasis was rather on the gorilla safari as a travel experience - thereby raising the question of the ethics of gorilla exploitation.

Lastly in this catalogue, some comments on a programme shown on BBC2 about orang-utans - a co-production by the BBC and the Discovery Channel, this documentary was something of a TV spectacular. It featured some skilful photography of the forest in which the orang-utans lived together with remarkable footage of the primates among the trees. Once again, the commentary was marred by misplaced anthropomorphisms as typified by the title of the programme High Society - a reference to the ape’s habitat and resonances with a film title and upper class social values. The lasting impression of the programme is, however, the hitherto unseen sight of orang-utans making and using tools - modified sticks to obtain honey - a remarkable tribute to the scientists studying the apes and the photographers recording the behaviour.

This programme was supported by a back-up article in the BBC’s magazine Wildlife November 1998. The article is interesting in that it talks at some length on the phenomenon of tool-using among orang-utans, but I should like to make a comment about the photos accompanying the article. I notice that some of the photos also appear in an article on orang-utans in an issue of National Geographic. As the latter describes a study of these apes carried out in a different location, I admit to feeling uneasy about the use of the same photos to illustrate two different articles.

While the above review covers the programmes I have seen so far, I have to say, as in the best TV manner, “still to come!” (chiefly on Channel 5) are: a programme on the island of Tiwai - with “the highest density of primates in the world”; a programme on orang-utan rehabilitation; another on the Woolly Monkey Sanctuary in Loe, from Channel 4, a re-assessment of the life of the late Dian Fossey; and as if that were not enough, looming on the media horizon is a remake of the 1940’s science-fiction film classic (and would-be rival to King Kong), the epic Mighty Joe Young.

In conclusion, it is perhaps worth tentatively asking what can be learnt from this wealth of primate documentary material. Undoubtedly for the interested and concerned viewer many facts about primates can be gleaned. There is, however, the danger of overkill typified by the remark, "not another monkey film? - surely!". Equally there is still the danger that comparisons between human- and non-human primates will either emphasise the cuteness of the non-human primates or their failure to measure up to human (self-acknowledged) cleverness.

On balance, however, despite the risks outlined in the previous paragraph, viewers are likely to have acquired some greater appreciation of primates and their varying lifestyles together with a greater awareness of the dangers which non-human primates are facing. If this greater knowledge and awareness is indeed a fact then the screening of so many primate documentaries will have achieved something well worthwhile!

JOHN E. RAMM
Brentwood
The African Bushmeat Trade
— A Recipe for Extinction
Published by the Ape Alliance, 1998

Preface

The Ape Alliance
During 1997, organisations which fund ape conservation and welfare work began meeting periodically in London to discuss areas of common interest and concern. The Ape Alliance, as this coalition became known, quickly grew into an international forum for debate and collaborative action on behalf of apes, both in captivity and in their natural habitat. Ape Alliance meetings are open to representatives of any organisation with an interest in ape issues. Individual specialists such as fieldworkers, consultants, and officials from ape range states are also welcome to participate by arrangement with the Secretariat.

The aims and objectives of the Ape Alliance are:

- To provide a forum for discussion on issues relating to apes.
- To develop position papers on key issues.
- To lobby collectively for enactment and/or enforcement of legislation to improve the welfare and/or conservation of apes.
- To campaign for greater public awareness of ape issues and increased respect for apes.
- To facilitate information exchange between member groups and, where appropriate, co-ordinate activities to maximise their beneficial effects.

The Bushmeat Initiative
From the outset of the Ape Alliance it was clear that many organisations considered commercial hunting for bushmeat - the meat of wild animals - to be a major threat to lowland gorillas, chimpanzees and bonobos. Was it, however, a more pressing threat than habitat loss, and if so, how best could it be reduced?

To answer these questions the Ape Alliance commissioned a review into the state of knowledge of the bushmeat trade. This work and the resulting publication was funded by contributions from the following Ape Alliance members (whose logos appear on the cover):

African Ele-Fund
Born Free Foundation

Bristol Zoo Gardens
Care for the Wild (Europe)
Dian Fossey Gorilla Fund
Fauna & Flora International
Friends of Conservation
Humane Society of the United States / Humane Society International
International Primatologists Protection League
Jane Goodall Institute
Orangutan Foundation
Pangolin Zoo Environmental Park
People Against Chimpanzee Experiments (PACE)
Primate Society of Great Britain
Royal Society for the Prevention of Cruelty to Animals
Tusk Force
Tusk Trust
World Society for the Protection of Animals
WWF (World Wide Fund for Nature / World Wildlife Fund)

The review was carried out by Evan Bowen-Jones, a Cambridge-based zoologist, with support from Fauna & Flora International and the Ape Alliance Bushmeat Working Group, and with input from many organisations and individuals in Europe, North America and Africa. After numerous revisions to add new data and ideas, the Executive Summary and Recommendations which form the first part of this document were presented at a press conference in London on 26 February 1998 with Karl Ammann and Dr Jane Goodall. As a result numerous organisations and individuals around the world wrote in support of the Ape Alliance including eminent people from all walks of life from politics and the arts as well as science. The 150 scientists, philosophers and conservationists attending the third Great Apes of the World Conference in Kuching, Sarawak, strongly supported the initiative and incorporated its goals in the Kuching Statement which is reproduced on page 48 of this report.

At the time of going to press, a total of 42 organisations have indicated their support for the Ape Alliance’s bushmeat initiative. In addition to the funding organisations listed above, these are:

Amis des Animaux du Congo
Animal Defenders
Berggorilla & Regenwald Direktive e.V.
Bioenergy Institute Bushmeat Project
Bonobo Protection Foundation-Language Research Center
Budongo Forest Project
Cameroon Wildlife Aid Fund
David Shepherd Conservation Foundation
Defenders of Wildlife
Earthkind
East African Wild Life Society
Environmental Investigation Agency
Friends of the Earth
Great Ape Project
Humane Society of Canada
International Fund for Animal Welfare
Jersey Wildlife Preservation Trust
Limbe Wildlife Centre
Monkey World and Ape Rescue Centre
Mount N'Galiema Bonobo Sanctuary
National Council of SPCAs of South Africa
Pandrillus
Tierhuiswerk Austria
Wildlife Conservation Society

As well as the many general expressions of support, the following quotes are noteworthy:

- Dr Phyllis Lee, President of the Primate Society of Great Britain, wrote, "As PSCG members we need to support the Ape Alliance in their attempt to get action on the bushmeat threat to primates... primates in particular are targeted by the bushmeat trade: individual members can actively lobby to ensure the trade is halted."

- David Pearson, after discussion with leaders of the Great Ape Project, wrote, "The Great Ape Project believes that all apes should have the rights to life, liberty and protection from torture. Following this ethical position, we are totally opposed to the hunting of great apes and believe it must be stopped by means consistent with respect for the interests of all animals."

- Dr Tony Rose, Director of the Biosynergy Institute, cites figures that raise concerns for all African primates: "Even in areas with no logging intrusion, growing demand for chimpanzee and gorilla meat can be substantial. Kano and Asato (1994) compared ape density and hunting pressure around 29 Aka and Bantu villages along the Motobu River area of northeastern Congo (Brazzaville). They concluded that, given the ape populations measured and kills recorded, the survival of gorillas and chimpanzees is at serious risk in this territory. Further east, the bonobo faces a similar fate 'unless a strong system can be established which combines effective protection with the provision of attractive substitutes for ape meat to the local people.' He adds, ominously, 'Even village hunting of apes is unsustainable when guns are used and so we must be concerned about the organised commercial bushmeat trade - supported by timber industry infrastructure - that is feeding and fostering consumer preferences in towns and cities. If the taste for bushmeat continues to spread across equatorial Africa at its current pace, all non-human primates in Africa may soon be threatened by extinction.'

- Dr John Robinson, Vice President and Director of International Conservation, at the Wildlife Conservation Society in New York, wrote, "I increasingly feel that hunting of wildlife in forests is probably more of an immediate threat than the more traditional villain of habitat destruction... we agree absolutely on the core issues: The bushmeat trade is a major conservation challenge and it is increasing in volume; the timber industry is, indirectly or directly, largely responsible for the trade (at least in Africa)... I think what you are doing is appropriate and necessary. And I am pleased that a large percentage of the information collected in Evan Bowen-Jones' report came from WCS researchers and WCS-supported studies. Good luck as you move forward."

The results of this review and the reaction to its launch are indisputable. There is a broad-based consensus of expert opinion, backed by a rising groundswell of public opinion, that the bushmeat trade is out of control. Urgent action must follow and the publication and distribution of this document is only the first step. The fact that you are reading it indicates that you have an important role to play in the next step - and if Africa's apes are to survive, we must take our collective steps sooner rather than later.

IAN REDMOND
Chairman, Ape Alliance
Biological Survey Techniques Workshop

The workshop covers the surveying techniques suitable for large mammal and primate species. A series of lectures will take participants through the study process from planning, survey design and risk-assessment to observationally-based censusing methods as well as telemetry, remote sensing, and rural appraisal. Group activities will focus on developing participants' ideas whilst retaining flexibility, and networking. Using the model of designing an ideal project for specific hypothetical goals, the delegates will discuss, build and present their own plans.

The workshop will be co-ordinated by Dr Amar Inamdar and Dr Phylis Lee.

**Amar Inamdar** spent two years in Tsavo National Park, Kenya, working for the Kenya Wildlife Service and WWF-International as part of his doctoral research on large herbivore biodiversity. Prior to this he worked for the European Commission's African Elephant Survey and Conservation Programme in eastern Africa. Amar now co-ordinates the Biodiversity Programme of the Environment and Development Group in Oxford.

**Phylis Lee** works in the Biological Anthropology Department of Cambridge University where she lectures on primate biology, behaviour and conservation. She has carried out extensive fieldwork on African primates and elephants, and worked on behavioural, social and physical development among mammals. Her research group now includes work on interactions between humans and primates in the context of conservation issues. She compiled the *IUCN Red Data Book* on endangered African primate species and has published several books on primatology.

The 'Large Mammals and Primates' workshop is one of eleven 'biological survey techniques' workshops organised by the BP Conservation Programme and the Royal Geographical Society's Expedition Advisory Centre. The workshops are aimed at undergraduate teams but all are welcome to attend. They take place in central London from Monday 19 April to Saturday 24 April 1999. Each workshop costs £25 (£15 for students) with a discount of £5 for each additional workshop.

For a booking form:

telephone 0171 591 3030

e-mail: eac@rgs.org

For more information, please contact:

Robin Mitchell, BP Conservation Programme, BirdLife International, Wellbrook Court, Girton Road, Cambridge CB3 0NA
tel: +44 (0) 1223 277 318
e-mail: bp-conservation-programme@birdlife.org.uk
web-site: http://www.bp.com/conservation/

Louise Every, Expedition Advisory Centre, Royal Geographical Society, (with the Institute of British Geographers)
1 Kensington Gore, London SW7 2AR
tel: +44 (0) 171 591 3030
e-mail: eac@rgs.org
web-site: http://www.rgs.org/eac
Ape Alliance Bushmeat Working Group Report

The African Bushmeat Trade - A Recipe For Extinction?

Ape Alliance, February 1998

Executive Summary

An alarming new threat to the great apes of Africa has come to light during the past decade: the commercial bushmeat trade.

Bushmeat - the meat of wild animals - has long been a part of the staple diet of forest-dwelling peoples. Increasingly, as the population of Africa in particular becomes urbanised, the demand for this traditional item is met by commercial hunters and traders. The trade in bushmeat - much of it illegal - has become a business in which opportunists can make large profits.

Although ape meat represents only a small proportion of the enormous bushmeat trade, it is the greatest threat facing chimpanzees, gorillas and bonobos. The trade also threatens the survival of many other protected species throughout Africa from giant pangolins to forest elephants.

Mammals most at risk from the bushmeat trade:

- Chimpanzee
- Bonobo (pygmy chimpanzee)
- Gorilla
- Red colobus spp.
- Black colobus
- Geoffrey’s pied colobus
- Drill
- Mandrill
- Preuss’ monkey
- Sun tailed guenon
- Owl faced monkey
- Sceater’s monkey
- Diana monkey
- Red-eared monkey
- White-throated monkey
- Giant pangolin
- Forest elephant
- Water chevrotain
- Zebra duiker

- Pan troglodytes
- Pan paniscus
- Gorilla gorilla
- Procolobus badius, preussii, pennantii
- Colobus satanus
- C. vellerosus
- Mandrillus leucophaeus
- M. sphinx
- Cercopithecus preussii
- C. solatus
- C. haleyi
- C. sclateri
- C. diama
- C. erythrotis
- C. erythrogaster
- Smutsia (ex Manis) gigantea
- Loxodonta africana
- Hyemoschus aquaticus
- Cephalophus zebra

- C. ogilbyi
- C. niger
- C. jentinki
- C. sylvicultor
- C. leucogaster
- Panthera pardus
- Proelus auratus

The major limitations on this market in the past were the difficulty in gaining access to forests and the subsequent transportation of meat to urban markets. These factors have been overridden as the forested regions of West and Central Africa are opened to exploitation and settlement. With general improvements in infrastructure this has meant that the increasing demand from insatiable and growing urban markets can be met.

The rapidly growing timber industry has been a major factor in fuelling and facilitating this trade. This industry has been dominated by European-owned companies but the number of Asian timber firms is now increasing thereby accelerating pressures on the environment in the following ways:

- forestry employees hunt to provide for their own needs
- commercial hunters operate in the forest to supply the needs of forestry workers and to trade outside the forested region
- forestry infrastructure, including roads, vehicles and camps, are used by hunters to gain access to new areas and to export bushmeat from the forest to urban centres.

The consequences of an unregulated bushmeat trade include:

- vulnerable and endangered species facing total extinction, for example giant pangolin, and all three African great apes.
- common species becoming rare and in some cases locally extinct, for example crowned monkeys and dwarf crocodiles
- the perpetuation of an illegal trade in orphaned apes with its attendant welfare problems
- the destruction of subsistence-based indigenous communities living in the forest
- an increased risk of the transmission of dangerous diseases to humans, for example the ebola virus.

Individually a number of conservation organisations have raised the alarm over these issues but effective action to combat the problem has been slow. The Ape Alliance is an international coalition of 34 organisations and consultants working for the conservation and welfare of apes. Recognising the serious impact of bushmeat trade on great apes as well as other species, the Ape Alliance commissioned a review of recent studies of the trade in
countries with great apes. The review collates, for the first time, information from 80 disparate reports and technical papers. Concentrating on studies from nine countries in Africa the trend is clear - illegal hunting for bushmeat is a serious threat to many populations of animals including the African apes.

Fact Box
One study in northern Congo (Brazzaville) showed 5-7% of chimpanzee and gorilla populations were killed each year.

In Equatorial Guinea, one monkey - the crowned goose - is being hunted at 28 times the sustainable level.

A 12-month study in Brazzaville counted 15,000 animal carcasses at bushmeat markets, including 293 chimpanzees.

Some estimates suggest that several thousand apes are killed every year across West and Central Africa.

The bushmeat trade is a global problem affecting primates and other protected species in Asia and South/Central America as well as Africa.

A conservationist in Yaounde, Cameroon estimated that 1 metric tonne of smoked bushmeat was unloaded at the railway station every day to supply the bushmeat markets.

From this review the Ape Alliance has assessed the scale of the problem and has drawn up a series of proposals to address it. If Africa's great apes are to survive, the following steps must be taken.

1) Retailers and consumers should only buy timber and timber products from sources independently certified as environmentally responsible (including strict controls on hunting), for example Forest Stewardship Council (FSC) products. The FSC is the only independent global body that guarantees that its certified timber comes from forests managed in such a way that wildlife and indigenous peoples are not adversely affected.

2) The European Union should use its influence to encourage all European-owned companies engaged in timber extraction in West and Central Africa to adopt this code of conduct. (The resolution passed at the ACP-EU joint assembly in March 1996 calls for the EU to require that EU companies involved in logging follow a code of conduct which ensures their activities do not assist or facilitate hunting, killing or trade in protected species.)

3) Timber companies operating in these countries should implement a code of conduct to ensure that ecological processes are maintained. In particular the hunting of protected species such as apes must be stopped.

The code must include:
- the provision of legitimate sources of nutrition for the work force.
- strict adherence to national and local wildlife protection laws.
- ensuring that logging vehicles and private roads are not used to facilitate illegal hunting and trade.
- the provision of resources for law enforcement pertaining to wildlife.
- a requirement to respect protected areas.
- in addition, timber companies should seek certification by an independent body such as the FSC.

4) All concerned conservation and development organisations are encouraged to work together to:
- document incidences and evaluate trends in commercial bushmeat hunting.
- campaign for greater controls of hunting and forestry activities.
- provide resources for practical conservation and education projects in this region.
- develop alternative sources of revenue for those currently dependent on the bushmeat trade for their livelihood.
- develop alternative sources of protein to reduce dependency on bushmeat.

5) All the above agencies are encouraged to work with governments in the range states of bonobos and gorillas to:
- enforce existing laws designed to protect wildlife and habitat.
- reassess and where necessary strengthen wildlife protection legislation to take account of increased development in forested regions.
- increase resources for the implementation of wildlife protection laws.
- ensure contracts for timber concessions are conditional upon adherence to a code of conduct which maintains ecological processes and protects biodiversity.

The Ape Alliance has proposed a code of conduct and has solicited the opinions of 61 timber companies. The response to this enquiry suggests that the timber industry has failed to recognise its role in facilitating the trade in bushmeat or to implement measures to control it.

For copies of the full report, please contact:
Re-stocking of *Varecia variegata variegata:*
the first six months

A. BRITT, C. WELCH and A. KATZ
Madagascar Fauna Group

On 10 November 1997 five captive-bred black-and-white ruffed lemurs were released into the Betampona Reserve in Eastern Madagascar, the culmination of seven years of research and planning (e.g. Britt, 1996; Welch and Katz, 1992). Betampona was first proposed as a potential site to attempt an experimental re-stocking of *Varecia* by the Madagascar Fauna Group in 1992. Surveys of the existing population of *Varecia* in 1990 and 1991 indicated that a maximum of 35 individuals survived in Betampona (Welch and Katz, 1992). The reserve covers 2228 ha of which 70% (1569 ha) is undisturbed low altitude rain forest and suitable habitat for *Varecia*. The density of *Varecia* in Betampona (1.5 - 2.2/ km²) is lower than that recorded at other sites, e.g. 16.2 animals/km² at Valohoa in Ranomafana National Park (White *et al.*, 1995) and 20-30 animals/km² on the island of Nosy Mangabe (Morland, 1991). It is presumed that hunting within the reserve in the recent past is one cause of the low *Varecia* population that exists today. Further justification for the re-stocking attempt is provided by the likelihood that the *Varecia* in Betampona have been isolated from other populations since the 1950s if not before. Inbreeding depression may already be acting upon the population and the current population size (~35) falls below the figure suggested by population biologists as the minimum population size for the long-term maintenance of genetic diversity in mammals (Franklin, 1980).

The release of captive-bred *Varecia* into Betampona is a case study to determine the viability of releasing captive-bred lemurs as a conservation strategy to reinforce small, isolated populations. However this is only one of the objectives of the project. The primary aim is to increase direct protection of the reserve and its other rare and endangered species through the presence and activities of project personnel. Indirect protection of the reserve is being facilitated by public awareness and conservation education programmes in conjunction with ongoing programmes at nearby Parc Ivoloina. A further objective is to develop Betampona as a site for scientific research and to encourage the involvement of Malagasy scientists and local people in project activities.

The sub-species breeds well in captivity and the population has a history of good management (Porton, 1992). There exists a sufficiently large and healthy captive population from which individuals can be selected for return to the wild without compromising the viability of the captive breeding programme. Selection of release candidates was undertaken by the SSP Coordinator based upon a number of criteria. Candidates for release are given complete health screening prior to selection (including blood chemistry profiles, faecal cultures, parasite checks, radiographs, TB tests and viral screens). The final selection of releasees was a group of five (three males and two females) all born in multi-acre natural habitat enclosures at the Duke University Primate Center. Ages ranged from 1.5 to 12.5 years at the time of release.

In October 1997 a habituation cage was constructed just to the east of the main trail, 1.4 km from the reserve entrance. The first release site was chosen for several reasons. The area was unoccupied by *Varecia*. Botanical surveys indicated a similar abundance of food source tree species compared to areas occupied by the indigenous population. The release site was also close enough to the base camp at Rendirendry to allow easy monitoring of the group post-release. The release was scheduled for November as resource availability is good at this time; the weather is relatively dry, improving our ability to locate and follow the releasees; and the animals would have several months to adapt before facing the potential threat of cyclones. The group arrived at Rendirendry on 20 October and were held overnight in a small cage. After a thorough veterinary examination of each animal the group were transferred to the habituation cage at the release site where they were allowed to acclimatise for three weeks prior to release. Forest fruits, young leaves and flowers, in small quantities, were provided four times a day. The group were also provisioned with commercial monkey chow twice a day. During this period the group were physically examined each week and their weight monitored. Each individual was fitted with a radio-collars (Teleonics) prior to release to enable project personnel to locate and track their movements.

A focal animal, instantaneous, time-sampling method is employed to collect behavioural and habitat use data from both the releasees and the indigenous population. This will allow detailed comparison of the behaviour of the releasees with that of the indigenous *Varecia* and will provide a quantitative evaluation of the releasees’ adaptation to life in the wild. The group were monitored intensely for the first month post-release. During this period project personnel attempted to establish visual contact with each individual daily. The intensity of monitoring was reduced during the second month but visual contact is attempted with each individual at least twice a week. During the first eight weeks post-release the group were provisioned daily
with commercial monkey chow. The chow was presented in wire baskets suspended from branches 10-15m above the ground. Three such baskets were sited in the release area. After eight weeks the group were ignoring the chow and so provisioning was stopped.

During the first week post-release several incidents gave us cause for concern. Three individuals returned to Rendirendry and had to be captured and transported back into the reserve. On several occasions all the releasees exhibited signs of heat stress and exhaustion. One female was located in cultivated land several kilometres outside the reserve and all the releasees were frequently observed travelling along the ground. After the first week the group became more settled and showed rapid adaptation to their new environment. There are no apparent problems with food location, navigation and orientation, locomotion in the canopy, and the selection of suitable sleeping sites. Travel on the ground is now rarely observed.

In December the first contact between the releasees and the indigenous Varecia was observed. One of the females was observed interacting affiliatively with a young wild male throughout December and January. The same female fought several fierce battles with two of the wild females. The two mature males were both observed with leg wounds during this month and it is assumed that these resulted from agonistic encounters with the indigenous population (both healed well). This situation has calmed and since March no interaction between the releasees and the wild group have been observed. Both the females came into oestrus in December, the time when mating occurs in the Northern Hemisphere. Mating in Betampona takes place in June/July. No births resulted and for the second release it is proposed to give females contraceptive injections to prevent oestrus immediately post-release. At the beginning of March the project suffered a major setback when one of the females was killed and eaten by a fossa (Cryptoprocta ferox). It is impossible to know whether naivety on the part of the female caused her to fall victim to predation. It is likely that fossa do prey upon wild V. variegata and it is difficult to envisage how release candidates can be prepared to deal with this threat.

Despite the loss of one of the releasees, we feel that the project has demonstrated that captive-bred Varecia can adapt to a free-living existence. The remaining four releasees are exhibiting the same behaviour patterns and responses to seasonal climatic changes as the indigenous population and are in good health. Ultimately the project will be judged a success if released animals reproduce successfully and integrate with the indigenous population. The second release of four individuals is scheduled for November 1998. A third release will take place in 1999. The Betampona project would like to acknowledge the support and co-operation of the

Association Nationale pour la Gestion des Aires Protégées and the Ministère des Eaux et Forêts. Many thanks also to Duke University Primate Center for holding the releasees and arranging their transportation to Madagascar and to all the member institutions of the Madagascar Fauna Group.

References


PhD ABSTRACTS

The behavioural ecology of black spider monkeys in north-eastern Bolivia

This study investigates the behavioural ecology of the black spider monkey, *Ateles chamek*, at a pristine research site within Noel Kempff Mercado National Park, north-eastern Departamento Santa Cruz, Bolivia. This location is close to the southern distributional limits of this primate genus, and represents an ecotonal position in neotropical biogeography. It is also characterised by marked seasonality, especially in terms of precipitation. Spider monkeys live in fusion-fission societies: a community of animals is able to split into subgroups of varying size and membership depending on local ecological conditions.

A detailed vegetational analysis revealed the presence of five structurally and floristically distinct habitats within the 500 ha study plot at 'Lago Caiman': tall forest, Sarteneja (swamp) forest, low vine forest, pied mont (hilside) forest, and Cerrado (scrub) forest. These habitats were found on an altitudinal strip running from the Huanacaca escarpment, the dominant geographical feature of the region. Monthly phenological sampling of 1732 plants within randomly distributed 0.1 ha plots revealed that these habitats were also distinct in terms of flowering and fruiting patterns. Habitats peaked in abundance of ripe fruit at differing times of the year, with fruit resources only scarce across the entire study plot during the mid dry season.

Spider monkeys were highly frugivorous, concentrating foraging efforts on ripe fleshy fruit resources, all of which were patchily distributed across the community home range. During periods of fruit scarcity the focal community switched to a more folivorous diet and adjusted their activity budget accordingly. Variation in spider monkey subgroup size was also related to fruit resource abundance. Larger subgroups tended to forage in larger fruit resource patches, but sociality was constrained if resources were generally scarce. Furthermore, spider monkey ranging behaviour was influenced by patterns of resource availability. The focal community home range was a linear strip covering 2.34 km² and sampling all of the local habitats. Seasonal variations in habitat use were linked to relative differences in fruit resource abundance and range use concentrated around local abundances of fleshy fruit resources.

The study demonstrates that the unusually large number of adult males present within the focal community is a response to the elongated shape of the home range and the resulting extensive boundary. Spider monkeys are territorial and philopatric males co-operate to defend several females whose spatial distribution varies according to resource availability. The study's findings are also interpreted in terms of male mating strategies. Finally, the conservation implications of the findings are discussed with particular reference to selective logging. Keystone fruit resources and local habitat diversity are critical to the long-term future of frugivores in this region and should be considered in sustainable forestry management plans.

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The history, taxonomy and ecology of the bonobo (*Pan paniscus*, Schwarz), with a first description of a wild population living in a forest/savannah mosaic habitat

The bonobo (*Pan paniscus*) is the only ape species found south of the Congo River. Prior to this study bonobos were only known to inhabit blocks of lowland moist forest restricted to a small geographic area. Museum specimens, live animal captures and field research on bonobos had largely been restricted to the Equateur Province corresponding to the unvaried terrain of the central Congo basin. The small founder sample of captive bonobos is derived from individuals whose kinship may be closer than previously acknowledged and whose capture location corresponds to that of free-ranging bonobos studied earlier. This study contributes to the understanding of differences and similarities across a wider environmental range.

This thesis brings together widely scattered material pertaining to the history and taxonomy of the bonobo, elucidates bonobo ecology with particular emphasis on the feeding ecology of a hitherto unstudied, wild, unprovisioned and non-subpopulated subpopulation living in a dry forest/savannah mosaic habitat at the southern periphery of the species' distribution and puts these data into the context of previous research providing intraspecies ecological comparisons and extending our knowledge of the adaptability of the species.

Evidence of the existence of a distinct ape type south of the semitranscontinental Congo/Lualaba/Lukuga River system water barrier since 1881 is discussed. Due to a series of oversights, this ape, first scientifically described in 1887 and known until 1913 from several locations as the *Marungensis* ape, was rediscovered in 1929 and renamed *Pan paniscus*. According to current International Commission on Zoological Nomenclature rules, the name *marungensis* is recommended for suppression.

Field data which challenge the descriptions of the bonobo as an exclusively forest living ape were collected at a research site of hilly, mosaic terrain where the topography climbs out of the *cuvette centrale* toward the Southern Highland Plateau, farther south than bonobos had previously been studied. Short-term survey expeditions confirmed that bonobos currently live as far south as latitude 4° south. The mosaic habitat studied here may resemble the archaic environment...
where the common ape/human ancestor (*Australopithecus ramidus*) evolved. Bonobos within the study region experience semi-annual wet and dry seasons with a wider range of temperature variation than at the other sites where bonobos have been studied. These sites have bimodal peaks of higher rainfall with moist, less variable temperature. These findings change the perception of the species' ecological limits.

Although it is clear that bonobos require access to forest vegetation, this study demonstrates that they also occupy and utilise a drier and more open habitat. The presence of grassland at the southern vegetation transition from the lowland basin has been considered the limit of the species' dispersal. Available food resources within the grassland vegetation had not been considered. This study presents evidence for food availability in the grassland, although of a lower nutritional quality than in the forest. Of particular interest is the use of the fruit of *Anthonopylea guangensis* (Rhizophoraceae), a geophytic suffrutexes characteristic of the southern savannah region south of the equatorial forest belt. This fruit may have been a food resource eaten by ancestral bonobos living at an even more southern location.

Within the study area climax forest is the predominant vegetation cover although blocks of secondary forest, riparian forest and grassland occur. In order to make an initial estimate of the presence, abundance and distribution of ground-level plant foods used by the study group, using the random plot site method the density of rooted stems from 10 species of plants were analysed across vegetation types. No plant species was found to occur across all vegetation types. Plant stem density was ranked highest in secondary forest and lowest in grassland vegetation. Differences were found between climax forest and secondary forest, climax forest and grassland, secondary forest and grassland, and riparian forest and grassland. Stems were most clumped in the grassland vegetation and most evenly distributed in the climax forest.

Data from subject encounters and censusing night nests were used to estimate a subpopulation density of 0.83 and 1.04 individuals per kilometre respectively within the study block. Bonobo density estimates across research sites are compared. Critical examination of past population estimates (methods and results) are presented together with a current population estimate based on this study. It is hoped that this thesis will be a contribution to bonobo conservation as well as to our knowledge of the ecological adaptability and distribution of the species.

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**BOOK REVIEWS**

**THE MULTIMEDIA GUIDE TO THE NON-HUMAN PRIMATES (1995).**  
Frances Burton and Matthew Eaton  
Prentice Hall Canada Inc., Ontario. £56.95  
ISBN 0132071681

This CD-ROM with manual set (published in 1995, but not available until 1997) is a high-tech version of Napier's *Guide to Living Primates*. Burton and Eaton propose *The Multimedia Guide to the Non-Human Primates* as a primary instruction tool or a reference for instructors and students of primatology. As lecturers who teach undergraduate primatology courses we have evaluated this package from the point of view of both teachers and students. There are both Windows and Macintosh versions available. The Macintosh version recommends at least 8Mb ram, operating system 7.x and a 13" colour monitor. The Windows version requires at least a 386 processor and 4Mb ram, with an SVGA monitor, capable of 256 colours at a 640 by 480 resolution. Installation (on our Windows version) is simply a matter of "point and click" and can be run either from the CD or directly from the hard drive. The manual is a 70-page, soft back document, primarily containing screen shots, with simple operating instructions, one per page. It also includes a three-page instructor's guide, and at the back of the manual there is a rather uninspiring list of possible assignments for students.

On loading the CD the user is presented with a title page which transforms into a contents page with a click of the mouse button. The contents are divided predictably into four subheadings: apes, New World monkeys, Old World monkeys and prosimians. Clicking on any of these headings takes one to a further contents page listing family groupings. The facility to quit, return to previous page, and go to the index, is available from all contents pages. When one has chosen the desired primate family a click on the family name opens a page depicting the species heading the family list where all members of the family are listed alphabetically rather than taxonomically. The alphabetical species list can also be accessed directly by clicking on the Order name from the contents page. When a particular species has been selected a multi-frame "species" screen opens revealing an image of the selected species, a map of its world-wide, rather than local, distribution, Latin and common names, and a menu leading to further information on the species' "attributes", "behaviour", and "ecology". By clicking on the photo one can obtain a full-screen image and if more than one photograph of a given species is available an icon allows you to scroll through the images.
While recognising that the images are not the work of professional photographers, given the aims of the guide we found the quality of some of the images to be disappointing. Many shots depicted primates in the far distance with less than adequate focus and resolution which disappointed some of our students hoping to use the guide to familiarise themselves with species' differences. As researchers who have also tried to photograph primates in the wild (and have our own collections of pictures of small blobs up trees!) we realise good quality images are expensive and difficult to come by; however, our students were expecting pictures of the quality found in Napiers classic volume.

Returning to the menu of further information on the chosen species, "attributes" provides the options of exploring "taxonomy", "fossils", and the vaguely titled "features"; while "behaviour" provides a choice of further information on "lifecycle", "communication", and "social dynamics"; and "ecology" leads to summaries of "habitat", "foods and diet", and "conservation". The amount of detail of information provided in any of these sub-sections is highly variable. By way of a demonstration we detail the information provided on the two species we are most familiar with; Cercopithecus diana (Hill) and Macaca mulatta (Ball).

Diana Monkeys - one rather dark photograph of a captive animal is available. We acknowledge that there is relatively little published literature available pertaining to this species. However, certain aspects of the material provided seemed particularly thin, namely information about appearance, vocal communication and dietary ecology.

Rhesus Macaques - two reasonable photographs of animals that appear to be from provisioned colonies. Information about aspects of behaviour is very generalised. With the wealth of literature available on rhesus monkeys it is surprising that no mention is made of the variability of aspects of social life (such as group size) and ecology, given that adaptability is one of their fundamental attributes.

It is possible to click on a button and view the bibliography from which information about each species was sourced, although it is irritating that sources are not cited in the information text (or links provided). The information relies upon a preponderance of review chapters and articles, and very little use of primary research literature. The authors also seem to have relied heavily on several general primate text books and edited volumes as the sources for their materials. In our view this would have been a prime opportunity to introduce students to some of the engaging debates and issues and stimulate them to research further.

Few pedagogic principles have been applied in the design of this guide. Initially we were very excited at the idea of this package when we first saw it demonstrated at the American Physical Anthropology annual meeting in Oakland California, four years ago. Unfortunately after lengthy production delays we finally got our hands on a copy only to be disappointed by the final product. The quiz facility which asks students to type in Latin names of species displayed on the screen is of little value for teaching or self-learning - a more useful quiz facility would have included questions about ecology, behaviour, taxonomy etc. There is a limited "search" facility that allows the user to identify species that display a particular attribute, e.g. animals that include fruit in their diet, but it is a laborious process to identify all fruit eaters across all species rather than just fruit-eating species within a particular family. The guide has been available in our library for a year yet students appear to have made little use of it when searching for information for their essays and project work, reportedly because of the lack of detailed information contained within it, thus it is of little use to them.

This package might be useful for students who have no prior knowledge of primate distribution, ecology or behaviour, and who wish to learn to recognise various species and acquire basic information about how and where they live. However, they would probably learn more by looking at any one of the various introductory text books available. It is certainly unlikely to be of use or value to anyone who is already familiar with this basic level information. Sadly this package did not live up to our expectations.

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THE PSYCHOLOGICAL WELL-BEING OF NONHUMAN PRIMATES:
A REPORT OF THE COMMITTEE ON WELL-BEING OF
NONHUMAN PRIMATES.
National Research Council, 1998
National Academy Press, Washington, D.C. $24.95

The Psychological Well-Being of Nonhuman Primates is a reference manual providing guidelines on the captive management of primates. As the title suggests, the report aims to promote an understanding of the psychological welfare needs of primates and as such it will be of interest to anyone working with captive primates, be it in a laboratory, a zoological park or any other setting. Surprisingly, scientific interest in the well-being of nonhuman primates is a recent area of research; with an increase in knowledge and
understanding of primate behaviour, there is a growing obligation to provide adequate physical environments for those in captivity.

The report discusses a number of different strategies to address the issue of psychological well-being in primates and by doing so it recognises that well-being can be achieved by a variety of different techniques. It is not, therefore, intended to be a “recipe book” and the authors, members of the Committee on Well-Being of Nonhuman Primates, stress that professional judgement should be used when interpreting and applying any of their report’s recommendations. A continuous message throughout the report is that any programme aimed at improving the psychological well-being of primates should be based on a thorough understanding of the natural history of the various species and their traits, and should ideally account for the life histories of individual animals. The authors also emphasise that this report is not the “final word” on psychological well-being and that it will be revised every few years so as to keep up to date with current knowledge of the issue.

The document is divided into 10 main chapters. Chapter 1 explains the unintentional misuse of the term “psychological well-being” and instead offers a more relevant definition and criteria to be used in assessing it. The authors highlight the need to combine assessments of physical health with psychological health – good physical health not being synonymous with good mental health – and they provide suggestions as to the sorts of behavioural indicators that are useful in assessing psychological well-being.

Chapter 2 discusses the essential elements of any programme aimed at maximising the psychological health of nonhuman primates in captivity. Such elements should include appropriate social companionship, opportunities to engage in species-typical behaviours (appropriate to the age and sex of the animals), housing that allows suitable posture and locomotion, positive interactions with care-givers and other relevant staff, and freedom from unnecessary pain and stress. These points may seem obvious to anyone who has worked with captive primates, but it should be remembered that this document was written to fill an important gap in the literature in this field.

Chapter 3 gives details of general considerations of captive primate care, including such issues as daily care, sanitation, veterinary involvement, and housing; focussing of course on the aspects of care that are important in psychological well-being. This chapter offers a review of basic institutional procedures and routines and their impact on psychological health. Chapter 4 more specifically deals with the well-being of nonhuman primates involved in laboratory research, and highlights the problem that stems from the fact that sometimes the conditions that impair psychological well-being are the subject of research themselves. This report, however, clearly states that even where this is the case, each institution should be obliged to design its protocol such that the negative effects are reduced to the greatest extent possible. Recommendations are given for the care of primates involved in research including infectious diseases, atypical rearing environments, physical restraint and painful procedures.

Chapters 5 through 9 are split into specific taxonomic groupings of primates, namely prosimians, callithricids, cebids, cercopithecids and hominoids. Each of these chapters provides a summary of published data regarding housing, nutrition, social behaviour, reproduction and development, cognition, personnel, veterinary care, and any special considerations. Physical and behavioural characteristics of each primate group are also given, based on both wild and captive data, and these provide useful background information on various species. These chapters refer the reader to many other texts for further information about the species covered in the report. In addition, the committee of authors of this report provides recommendations on the ways to maintain these various groups of primates in captivity to maximise their general well-being.

The final chapter details some of the research needs in this relatively new field of psychological well-being in nonhuman primates. Research of this kind is needed both to evaluate measures of psychological health and to develop suitable techniques to promote it. Various topics are put forward as suggested areas of research, such as the role of caregivers, environmental enrichment and characteristics of individual animals in influencing the well-being of nonhuman primates.

In summary, this report is well worth having if you work with captive primates. Although many people will already have their own experiences of what works and what doesn’t work in terms of primate welfare, the document lays out a variety of techniques that can help to improve psychological well-being, thus providing a good basis for further efforts to improve captive situations. As a reference manual, it should prove to be very useful.

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THE NATURAL HISTORY OF THE DOUCS AND SNUB-NOSED MONKEYS
Edited by N.G. Jablonski
ISBN 981-02-3131-8

This volume of papers is primarily the outcome of a full-day symposium entitled "The biology of the snub-nosed langurs of China and Vietnam", held at the Bali IPS Congress on 7 August 1994, and to my knowledge, regrettably, the only published proceedings from that Congress. The book contains especially invited additional chapters, mainly on doucs. It is divided into four parts - "Evolution and systematics", "Anatomy", "Ecology and Behaviour" (the largest section), and "Conservation". The authors include established Asian primatologists such as Nina Jablonski, Lois Lippold and William Bleisch, and newcomers such as Craig Kirkpatrick, Rameesh Boonratana and Le Xuan Canh. Chinese researchers constitute more than two-thirds of the 35 authors. Two new Pygathrix roxellana subspecies, regrettably first scientifically named in the IPS Congress Abstracts, receive a fuller description from Wang, Jang and Li.

Like geladas, the doucs and snub-nosed monkeys are remnants of a once more dominant adaptive radiation and no understanding of the natural history of the Old World monkeys is complete without an appreciation of the significance of this now highly endangered group. Not only has their distribution contracted but they also inhabit one of the most biologically and climatologically instructive, albeit scientifically neglected, areas of the world. As high-profile animals they can supply much information about the ecology and physical history of their fascinating but rapidly disappearing environment more readily than sympatric organisms whose scientific study has barely commenced. This book should therefore attract a much wider readership than the normal primate work.

This is not to say that the study of these monkeys is well advanced. Until now knowledge of them was fragmentary and scattered, demanding diligent research in order to create even the most meagre impression of their ecology. This book should be seen as an attempt to assimilate that knowledge: presenting the results of much-needed recent research but barely bringing their study to the starting blocks rather than forming a definitive overview. The sparsity of our knowledge is demonstrated by the description in 1997 of a new grey-shanked douc subspecies (arguably a new species) which is figured, but incorrectly identified, in the colour photograph on p.195.

Perhaps in an attempt to endow her taxonomic arrangement with more authority than it merits, Jablonski assumes the role of ringmaster as well as editor. However her own papers are a triumph of form over content. Despite the huge table of unwieldy cladistic data she presents at the end of the chapter (an unfortunate characteristic of many of her papers) there is very little in them to support some of her taxonomic conclusions which underpin her biogeographic interpretations. Jablonski is at pains to emphasise her conversion, since 1994, from the view that the doucs and snub-nosed monkeys are monophyletic, almost apologising for the inclusion of the doucs in this book. The basis for this rejection, however, which follows the principle of total evidence, is unconvincing. At first sight, an analysis of 455 characters (we later learn that 130 of these are duplications owing to sexual dimorphism) from 540 specimens of 36 species appears impressive, but closer inspection dissipates this illusion. In one fell swoop a heady mixture of skull, postcranial, skin and pelage characters are combined in an analysis with minimal attempt at weighting. This approach is analogous to planning an itinerary by map without appreciating the distinctions between footpaths, bridleways, roads, railways and flightpaths. Jablonski's methodology has all the disadvantages, but probably none of the advantages, of numerical taxonomy. In order to obtain a statistically valid sample size, potential inapspecific geographic variation is obscured by grouping specimens into preconceived demes. Important, but geographically restricted and therefore scientifically poorly represented, populations are often ignored or rashly merged with other populations. Pre-established taxonomic groupings are reinforced and unsuspected differences go undetected. The unwieldy diversity of characters analysed en masse leaves one suspecting that, were the specimens analysed in any random arrangement of groupings, one would conclude they were distinct taxa.

In her paper on the evolution of the doucs and snub-nosed monkeys, Jablonski's species sample size is not presented and the possibility of misidentification ignored. The rationale behind the coding of skin coloration is incomprehensible and appears arbitrary. That her analysis suggests sister-taxa relationships between S. entellus and T. pileatus demonstrates its inability to discriminate between phylectic relationship and parallelism as these species clearly represent the end-products of two independent stems of northward colobine dispersal from Sri Lanka and Java respectively and are as widely separated as any species in the genus Semnopithecus (sensu lato).

From the taxonomic viewpoint, another disappointment is the rather poorly written chapter by Wang, Jang and Li. Not only does it achieve a particularly low standard of description and detail for what was intended to be the instigation of two new subspecies but it also directly contradicts the brief, but unfortunately valid, description which established these species in the IPS congress abstract. We were told in 1994 that the dorsal pelage of Pygathrix roxellana hubeiensis is grey brown but in this book we are assured that it has pale golden-redish dorsal pelage with dull-brown limbs. I know that Nina Jablonski tried during the editing process to resolve this
discrepancy but is it acceptable to publish so flawed a paper rather than delay until the authors produce an adequate description? Such a paper leads to confusion and a lowering of confidence in the scientific merit of the entire book which reflects somewhat unfairly on the other authors. Also unfortunate are the large number of typographical errors, particularly in evidence in Judith Caton's paper (whose otherwise intriguing analysis of stomach characters links Pygathrix with Nasalis and Rhinopithecus with Procolobus). These errors undermine confidence in the editor's own chapter with its long and uncheckable numerical data sets.

I do not wish to be entirely negative and there are many good points to mention. The book contains a valuable synthesis by Craig Kirkpatrick on the ecology of Rhinopithecus and Pygathrix which includes a very useful appendix of weights and measures. Lois Lippold presents a much needed and overdue overview of douc ecology. Boonratana and Canh's chapter includes three wonderful colour photographs of their critically endangered study animal, P. avunculus. This short paper reflects the unfortunate scarcity of knowledge about this beautiful primate. William Bleisch contributes to three chapters, including a nutrient analysis of the leaves, both eaten and un eaten, by P. brelichi. The chapter on social organisation in P. roxellana shows that large aggregations, such as one of 350 individuals, are actually comprised of one male troops, averaging twelve individuals, and all male bands with four to seven individuals which come together in temporary associations.

My overall impression of the book is that it is less than the sum of its parts and, at £44, I personally want more from it than it delivers. If the snub-nosed monkeys are your specialist area then this is probably a "must have". However the definitive book on this group still remains to be written - whether the monkeys concerned can survive for the time it will take to gather the research is another, and urgent, question.

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