

Swara

East AFRICAN WILD LIFE Society

Volume 25:3 September-December 2002





To sleep or not to sleep?

That will be your dilemma the next time you fly Premier World, our unrivalled new Business Class. On our state-of-the-art Boeing 767, you'll find a seat that becomes a flat bed at the touch of a button. It comes with a surround that allows you to relax in total privacy, a personal Video Display Unit and a laptop connection. If you find first class travel at Business Class fares a bit overwhelming, go ahead and have a lie down. Nothing else measures up to Premier World.

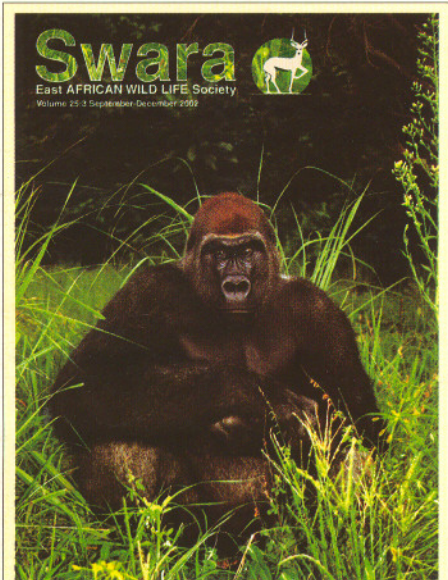
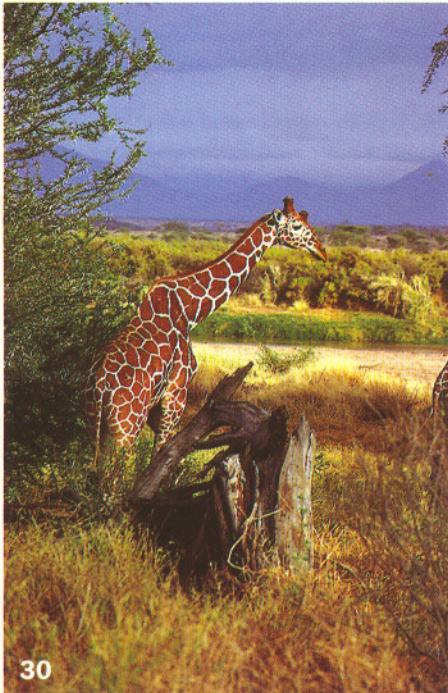
 Premier World

Kenya Airways

The Best of Africa

Swara

The Magazine of the East African Wildlife Society



COVER

New lease of life: 'Kola', one of the western lowland gorillas rescued as a youngster and raised by the Projet Protection des Gorilles in Congo-Brazzaville, is now the Lésio Louna Reserve's dominant male.

Photo: John Watkin / ICCE 2001

U P F R O N T

3 CHAIRMAN'S MESSAGE

4 **CITES 2002** CHECKS AND BALANCES

The compromise on elephants notwithstanding, there were unexpected gains in Santiago that will have pleased wildlife conservation groups.

A LENGTHENING LIST. The new IUCN Red List reveals that 11,167 of the world's animal and plant species face extinction.

5 **A THREE-WAY SPLIT.** Africa may harbour three elephant species and not just two, according to a new study based on DNA extracted from dung.

DELTA BLOW. Elephant numbers in Kenya's Tana Delta area may be down to fewer than 15 animals, says **Rupi Mangat**.

6 **JOLTED IN LAGOS.** An international hotel chain's complicity in the trade in wildlife trophies.

8 **FORUM** READERS LETTERS

F E A T U R E S

10 **COMMENT** WHAT NEXT?

Michael Asher examines the state of the world's ivory markets at a time when the CITES international ivory trade ban is set to be partially relaxed.

12 **ON FILM** MZIMA REVISITED

Filmmakers **Mark Deeble** and **Victoria Stone** on the making of their award-winning wildlife documentary, *Mzima: Haunt of the Riverhorse*.

14 **COMMENT** INSECTS AND CITES

The massive international trade in insect species is still not getting anything like the attention it deserves, argues **Dino J Martins**.

17 **SIGHTINGS** VIOLET OR GREEN?

Iridescent hues can be fiendishly deceptive, birder **Bernd de Bruijn** discovers.

18 **DISCOVERY** A NAIROBI PIPIT

My eight-year hunch that an enigmatic pipit in Nairobi National Park is of a species new to science may very soon be vindicated, says ornithologist **Brian Finch**.

20 **FINDINGS** ELEPHANTS, BUZZ OFF!

Our latest experiments reveal that bees may provide a simple, practical answer to elephant control, say **Fritz Vollrath** and **Iain Douglas-Hamilton**.

23 **BACK FROM THE BRINK.** Angola's national animal icon, the giant sable antelope, is rediscovered several years after being pronounced 'presumed extinct.'

24 **COVER STORY** GOING APE

John Watkin on how, and where, Africa's beleaguered western lowland gorillas are going — and they're going fast — and on what steps can, and should be taken to prevent their departure.

- 30** **BEHAVIOUR** **A CONUNDRUM OF HIDE AND SEEK?**
Such a piece of work is the giraffe, argues **Antoni V Milewski**, from a study of its 'flags' – markings that appear to advertise, rather than to hide, its presence.
- 36** **FINDINGS** **A 'LIVING MUSEUM'**
For botanist **Quentin Luke**, the Ngaia Forest near Kenya's Meru National Park is the finest example left of an otherwise 'vanished' indigenous habitat.
- 40** **CONSERVATION** **MKOMAZI – A CAUSE CELEBRE?**
Tanzania's Mkomazi Game Reserve, again the subject of conflicting views, has never been entirely free of controversy, says **Ian Parker**.
- 41** **GLACIAL MELTDOWN.** Fears that Kilimanjaro's fabled ice-cap may vanish altogether within the next 20 years are corroborated by yet another study.
- 44** **LIFE IN THE WILD.** **'AN INORDINATE FONDNESS FOR BEETLES'**
Such a bias – once laid at a creator's door – reflects the reality that beetles, in terms of sheer numbers, are by far the most evolutionary diverse and successful order of terrestrial life forms. **Dino J Martins** takes stock.
- 49** **UPDATE** **THE FATE OF THE FORESTS**
... is the fate of the nation, and – as far as Kenya is concerned – both are in dire straits, writes **Dan Stiles**.
- 56** SOCIETY NOTES
- 60** **BACK WINDOW** **UP IN THE AIR**
A case of being a little too close to the centre of the action in Kenya's Maasai Mara National Reserve.

REVIEWS

- 52** **NEVER SAY DIE.** **Nigel Hunter** finds plenty to enthuse about in **An Impossible Dream**, the new book featuring the recollections of 17 of Kenya's pioneering game wardens, edited by Ian Parker and Stan Bleazard.
- 53** **A PRIME MOVER'S MEMOIR.** **Ian Parker** on **Wrestling With Rhinos: The Adventures of a Glasgow Vet in Kenya**, by Jerry Haigh.



60

Swara

East AFRICAN WILD LIFE Society

Editor

Gordon Boy

Editorial Committee

Esmond Bradley Martin

Simon Ball

Paula Kahumbu

Fleur Ng'weno

David Simpson

Daniel Stiles

Elaine Mwangi

Advertising Executive

Maggie Maina

Design and Layout

Linda Gakuru

Circulation and Subscriptions

Rose Chemweno

Colour Separation

InCA Repro

Printing

Colourprint Limited

Swara Offices

Riara Road, off Ngong Road,
Kilimani, NAIROBI

Swara Magazine

P O Box 20110

NAIROBI, Kenya

Tel: + 254 (2) 574145

Fax: + 254 (2) 570335

E-mail: eawls@kenyaweb.com

Website: www.eawildlife.org

Swara is a quarterly magazine owned and published by the East African Wild Life Society. The Society is a non-profit making organisation formed in 1961 following the amalgamation of the Wildlife Societies of Kenya and Tanzania (themselves both founded in 1956). It is the Society's policy to conserve wildlife and its habitat in all its forms as a national and international resource.

Copyright © 2002 East African Wild Life Society. No part of this publication may be reproduced by any means whatsoever without the written consent of the editor. Opinions expressed by contributors are not necessarily the official view of the Society. Swara accepts the information given by contributors as correct.

The impala is the symbol of the East African Wild Life Society. 'Swara' is the Swahili word for antelope.

The 'elephant dilemma'

The focus of the Society's activities shifted in recent months from forests to elephants. This was inevitable, in the run-up to the twelfth Meeting in Santiago, Chile, of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), where – again – the African elephant was in the dock.

At the meeting, Kenya argued – along with India – for a continuation of the international ban on the ivory trade. The Society's own stand was formally spelt out in a *EAWLS Statement on Elephants and the Trade in Ivory*, disseminated on 17 October (Text reproduced below).

The outcome of the CITES meeting, for both elephants and other species, is widely reported elsewhere in this issue of SWARA, not least by the Society's own Executive Director, Ali Kaka (*From the Director's Desk*, p. 56), who represented the Society in faraway Chile over the meeting's entire eleven-day duration.

The Society's *Statement* bears witness to the measured views held by the EAWLS Council. The nature and extent of the

'elephant dilemma' was explained most succinctly and yet with great authority by Iain Douglas-Hamilton, who delivered the Society's monthly lecture for October.

In essence, Africa's 600,000 elephants are distributed among the 29 range states in such an unequal manner that, while in some states elephants have become scarce and continue to be vulnerable to poaching and related perils, in others they are abundant and their numbers are increasing. Hence management, of a kind that can combine intensive protection in one area with control of population numbers in another, has become a necessity.

The 'elephant dilemma' is just one manifestation of environmental dislocation created by the historical process of diffusion of technological innovation. Of all continents, the effects of this dislocation are most dramatic in Africa's human population, whose almost tenfold increase in the past one hundred years is another manifestation of rapid technology transfer.

As one species, in this case *Homo*, invades all available niches, and does so with technology at its disposal, technology

that can create as well as destroy, the consequences for the environment are immense. Deforestation, desertification and the decimation of other species are obvious, startling examples. The ivory trade, legal and illegal, and the cropping and/or culling, or poaching, of elephants are further complications in a generally unstable situation.

Many supporters of the so-called conservation movement have for decades been preoccupied with problems such as crooked game scouts, vile middlemen, corrupt governments, 'ignorant' people not interested in biodiversity (neither its beauty nor its importance for human welfare). Yet they have failed to see the relentless process of destruction visited upon the fragile tropics by robust technology evolved in the northern hemisphere – technology arising from that northern culture's aggressiveness.

History is unidirectional. The damage is the result of humankind's trying to better its survival chances and increase its wealth. The remedies, for saving what there is and perhaps restoring a little here and there, call for management: intensive management. It may seem paradoxical that the effects of deleterious management of one kind should call for yet *more* management, but in many ways 'nature' has become a mere appendage to culture.

Conservation is a cultural activity, and the notion that it should entail non-interference has been found wanting. The 'elephant dilemma' is but one aspect of an immense conservation conundrum that we can hope to attack only if we overcome emotion and adopt rationality.

Matters are a little quieter, meanwhile, on the forests front. At the High Court hearing of the excision case on 25 September 2002, the Kenya Government requested an adjournment. The judge was not pleased and directed that the case be attended to expeditiously. What will happen next, we do not know. But the Government is now preoccupied with the succession struggle in Kenya. So it probably does not wish to contend with any more scandals just yet.

EAWLS STATEMENT ON ELEPHANTS AND THE TRADE IN IVORY

The East African Wild Life Society (EAWLS) wishes to state its position on the international ivory trade.

Although the Society is not opposed to the husbanding and utilisation of wildlife, it believes that, under the prevailing circumstances, a legalisation of the international trade in ivory would greatly endanger the elephant herds in most range states.

Notwithstanding this opinion, the Society recognises that the management of elephant numbers may be necessary from place to place and from time to time, both in order to diminish human-animal conflicts and to halt habitat destruction.

The Society is aware of the fact that a few countries have husbanded their national elephant herds well in recent years, and that for these countries a ban on ivory sales may seem to be an injustice, depriving them of considerable honestly accrued income.

The Society particularly notes the consequences of the ban for Botswana, Namibia and South Africa, where elephant numbers have increased considerably in the last twenty years.

The Society does not condemn those countries for their utilisation policies, but wishes to point out that the situation in those countries is exceptional.

Understanding how difficult it is to arbitrate between the various interests – human as well as animal – the Society, true to its central role, namely to provide a focal point, a clearing house for all discussions concerning the environment, is in support of the continuation of the international ban on the ivory trade.

The Society believes that poverty alleviation, a slowing down of human population growth, improved education and the disappearance of the postcolonial authoritarian state will, however slowly, re-establish law and order, and that the day will come when legal trade in ivory can be reopened.

The Society recognises that most range states hold valuable ivory stocks and, that holding this ivory may be a costly burden. At the same time, the Society is not prepared to recommend that ivory stocks be destroyed under prevailing circumstances.

Thursday, 17 October 2002
East African Wild Life Society

Dr Imre Loeffler
Chairman
East African Wild Life Society



IMPACT MANAGEMENT CONSULTANTS, LTD.

The combined skills, expertise and experience of the **IMPACT** team create a Consultancy Resource unique in Eastern and Central Africa. Invest in your corporate future today.

Let us Show you How!!

- ⊙ Financial Management
- ⊙ Strategic Planning
- ⊙ Supply Chain Management
- ⊙ Corporate Turn Around
- ⊙ New Business Development
- ⊙ Marketing
- ⊙ Project Management
- ⊙ Procurement
- ⊙ Distribution & Sales
- ⊙ Training

With our entrepreneurial, integrated and multi-disciplined approach we'll optimise your investment and positively **IMPACT** the bottom line.

IMPACT MANAGEMENT CONSULTANTS
for all your Consulting and Procurement needs
P.O. Box 14431, Nairobi, Kenya.
Tel / Fax: 254 2 504175 or 072 520834

Checks and balances

*The compromise on elephants notwithstanding, there were some unexpected gains at **CITES 2002** that will have pleased most wildlife conservation groups.*

Tighter controls governing the trade in mahogany, sharks, seahorses, turtles, and parrots were among the conservation measures adopted in the Chilean capital Santiago during the twelfth meeting of the Conference of the Parties to CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora), whose 11-day deliberations ended there on 15 November.

The African elephant, meanwhile, was the subject of a compromise conditionally allowing one-off sales by three southern African countries – South Africa, Namibia and Botswana – of a total of 60 tonnes of ivory from existing legal stockpiles. The sales are to take place after May 2004, once improved systems for the monitoring of poaching have been instituted.

The decision to accord Latin American mahogany, which produces some of the world's most valuable timber, a listing on CITES Appendix II for the first time was welcomed by conservationists. Such a listing requires mahogany range states to ensure that all their exports are sustainable and covered by CITES export permits.

The CITES Secretary-General Willem Wijnstekers declared this to be a "highly significant" step, marking the culmination of ten years of dialogue. "Proven control

measures developed under CITES will be invaluable in discouraging illegal trade," he said, adding: "This decision will benefit indigenous communities that in the past have been losing out to the illegal traders."

In another agreement, thrashed out in the final hours of the meeting, both the whale shark and the basking shark were also listed on Appendix II. This was greeted as a landmark decision in that CITES has traditionally not played a prescriptive role in global fisheries.

The whale shark is the world's largest fish, reaching lengths of 20 metres and weighing as much as 34 tonnes. The listing proposal pointed to its falling numbers in the face of continued international trade in the whale shark's meat, fins, and liver oil. Basking sharks, hunted for their meat and fins, are highly migratory, with many killed accidentally as by-catch.

No fewer than 26 Asian turtle species were added to Appendix II. Such turtles are heavily traded on regional food markets, or sold for use in Asian traditional medicines. Some are sold on international pet markets. Their populations have been dwindling, and all the newly listed species are either vulnerable or endangered throughout their ranges. Habitat loss is another major threat to their survival.

A lengthening List

The latest *IUCN Red List* reveals that 11,167 of the world's animal and plant species face extinction. Another 121 species have been added to the *List* since it last appeared in 2000.

The new *List* also contains more than 400 updated assessments on species listed previously. Based on the new assessments, 124 species have been placed for the first time in one of the threatened categories: Critically Endangered, Endangered, or Vulnerable. Species now on the Critically Endangered list include the Iberian lynx, *L. pardi*, the saiga, *S. tatarica*, and the Black-browed albatross, *Thalassarche melanophrys*.

The saiga, a central Asian antelope, had previously been assessed as Conservation Dependent. Its remaining populations have

declined very steeply over the past decade through relentless poaching of the animals for their meat and horns, which are used in some traditional medicines.

World Conservation Union (IUCN) estimates for 1993 put the saiga's overall population then at more than one-million. By 2000, its numbers were found to have fallen below the 200,000-mark, according to the new assessment. "And the 2001-2002 surveys," it continues, "show that fewer than 50,000 saigas may now remain in the wild."

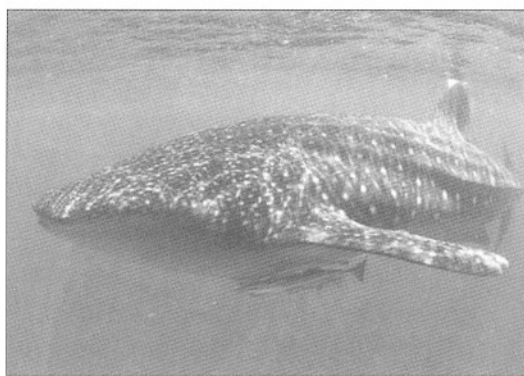
The outlook for the Iberian lynx, which is found in Mediterranean woodland and maquis thickets, appears especially dire. Starvation is identified as one of the main reasons for this species' decline. "Since the

The trade in seahorses will for the first time also be regulated. Seahorse populations have been greatly reduced by commercial trade, or through by-catch in fisheries, coastal development, destructive fishing practices, and pollution. To meet the growing demand for them in traditional medicines, or as aquarium pets, or curios and souvenirs, at least 20-million seahorses were being taken annually from the wild in the early 1990s. The trade is now thought to be growing by between 8 % and 10 % a year. All 32 species of seahorse are now listed on Appendix II.

Three rare bird species from Central and South America – the yellow-naped parrot, the yellow-headed parrot and the blue-headed macaw – have been up-listed from Appendix II to Appendix I. This means that no commercial trade will be permitted. The stricter regulation reflects concerns that their numbers are continuing to decline due to trade and habitat loss.

Stronger protection has likewise been accorded to several threatened species in Madagascar, one of the world's most species-rich countries. Newly up-listed species include the flat-tailed tortoise, various chameleons, a burrowing frog, and the Madagascan orchid.

The meeting also agreed to set a zero quota on commercial trade in the Black Sea population of bottlenose dolphins, listed previously on Appendix II. Continued hunting, pollution and other stresses have



EAWLS File picture

'Watershed': The world's largest fish, the whale shark, made it this time on to CITES Appendix II, after concerns over its plight were vetoed at the 2000 meeting.

caused numbers of these dolphins to fall dramatically in recent years.

Building on an earlier consensus among most of the African elephant range states, CITES also agreed on a rigorous regime for controlling any eventual trade in stockpiled ivory. It conditionally accepted proposals from Botswana, Namibia and South Africa that they be allowed to make one-off sales – of 20, 10 and 30 tonnes, respectively – of ivory. The ivory is held in existing legal stocks of tusks collected from elephants that died either of natural causes or as the result of government-regulated problem-animal control.

The agreement requires all such one-off sales to be supervised under a strict control system. No sales can be made before May 2004, so as to allow time for baseline data to be gathered on elephant populations and poaching levels. The CITES Secretariat will then have to be satisfied that potential importing countries can regulate their

domestic ivory markets effectively, if they are to become eligible to import the ivory. The aim of these controls is to stop illegal ivory from getting on to legal markets and so to discourage any upsurge in poaching.

The system further provides for a suspension of this trade if the CITES Secretariat and Standing Committee finds any exporting or importing country to be in breach, or if such trade is shown to be having a negative impact on elephant populations elsewhere in Africa.

The findings of the two established monitoring systems – Monitoring of Illegal Killing of Elephants (MIKE) and Elephant Trade Information System (ETIS) – will be decisive in ensuring that countries reliant on tourism are not harmed by ivory sales from the trading countries.

Other decisions saw a strengthening of existing regulations on the protection and domestic conservation of threatened, or endangered, species including the tiger, the sturgeon, various bear species, and the Tibetan antelope.

The November meeting was attended by 1,200 registered representatives from 141 governments and many observer bodies. The thirteenth meeting of the Conference of the Parties (COP 13) is due to be held in Thailand early in 2005.

– based on a report by Patricia L Jacobs, Associate Information Officer, UNEP.

1950s, Europe's rabbit population – the Lynx's main food source – has twice been hit by debilitating diseases," observers told *Time* magazine in October.

"The Iberian lynx is close to becoming the first species of wild cat to go extinct for at least 2,000 years," concludes the IUCN assessment, adding that its numbers are now down to fewer than half of the 1,200 individuals recorded in the early 1990s.

Not all of the information in the 2002 *Red List* is depressing, however. The Bavarian pine vole, a species previously declared extinct, has since turned up alive – although not in Bavaria (as its name might lead one to expect), but across the border in Austria's Northern Tyrol region. Prior to 2000, when the sightings in Austria were confirmed, no Bavarian pine voles had been recorded since 1962. Historically, however,

no European species once classified as Endangered has ever been able to recover sufficiently in numbers for its threatened status to be down-listed.

The IUCN issued its 2002 *Red List* on 8 October, coinciding with the run-up to November's meeting in Santiago, Chile, of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Updated regularly, the *Red List* is widely recognised as an accurate account of the status, at any time, of the world's most threatened plants and animals.

"There continues to be an alarming and unacceptable increase in the numbers of species that are listed as Endangered," says Dr Susan Lieberman, Director of the Species Programme of the World Wildlife Fund (WWF), which called on the CITES delegates in Chile to "take the findings of the *Red List* seriously."

At November's CITES meeting, the WWF used the findings of its own *Living Planet Report* for 2002 to push for urgent action, most especially, in reducing threats posed by unregulated, unsustainable, or illegal international trade in global marine environments. The *Report* incorporates data reflecting an average decline of 35 % in 217 marine species over the past 30 years.

In the event, controls governing the international trade in some of the marine species highlighted in the *Living Planet Report* and the *IUCN Red List* as having been worst affected were tightened at the CITES meeting – most notably, those affecting whale sharks, basking sharks, and seahorses.

– reported by Trupti Shah and Gichuki Kabukuru

A three-way split?

Africa may harbour three species of elephant and not just two, according to a new study based on DNA extracted from dung.

DNA profiles have led biologists at the University of California to affirm the existence of the well known savanna elephant and of the recently recognised forest elephant of Central Africa. But the findings – published in the 7 October 2002 issue of the *Proceedings of the Royal Society, Series B* – also suggest that the elephants of West Africa (which inhabit both forests and savannas) represent a third, genetically distinct population that has been diverging from the other two groups for at least the past 2.4-million years.

“This could turn out to be an important discovery in that the West African elephants are threatened with extinction as the result of human activities,” says David S Woodruff, a professor of biology who also chairs the Ecology, Behaviour



Genetically distinct: ‘Forest’ elephant in Central Africa

and Evolution section of the San Diego-based university’s Division of Biological Sciences.

“If these latest findings are confirmed,” Woodruff goes on, “then zoologists and wildlife conservationists will need to recognise three different species of the African elephant, each requiring protection in the face of declining numbers.”

Lori S Eggert, the new study’s first author and a post-

doctoral research scientist at the Smithsonian Institution’s Museum of Natural History in Washington, cautions that an overpopulation of elephants in some southern African savanna parks should not be taken as grounds for relaxing measures to protect elephants elsewhere, especially in the forests. “For the populations are simply not interchangeable,” she says “– either in an ecological or a

genetic sense.”

The UCSD laboratory specialises in non-invasive techniques of collecting and assessing genetic data from wildlife populations that are either dangerous or difficult to observe. This is true of forest elephants, which in their native forest habitats are almost impossible to see.

The fibrous vegetation consumed by elephants is continually scraping cells from their intestines into their dung. This enabled Eggert, Woodruff and his UCSD research assistant Caylor A Rasner to extract

DNA and to genotype dung samples collected by Eggert in Ghana, Côte d’Ivoire, Mali and Cameroon.

In a separate study, more intensive genotyping methods are being used to help Africa’s wildlife managers better to gauge forest elephant numbers with a view to improving their conservation planning.

Explains Eggert: “Forest elephants are so difficult to

Delta blow

It was a pitiful sight. The baby elephant, not yet weaned off its mother’s milk, had evidently died of starvation.

Its tiny carcass lay there, in a swampy clearing between Ozi and Kurawa amid the tangled forest of the Tana River Delta, north of the Kenyan coastal resort town of Malindi.

The youngster’s passing – in late August – might have gone unnoticed, had it not been for the Orma-Pokomo party that stumbled upon it, and whose members went on to notify their colleagues on the EAWLS-run *mazingira*, or community based organisation.

Someone in that group had an instamatic camera, and was able – on being guided back to the spot – to take photographs

of the dead calf. Some of these pictures were forwarded to the Kenya Wildlife Service (KWS).

Upon further investigation, it transpired that the infant’s mother had been ambushed and killed by a poaching gang, which had made off with her tusks only. The orphaned calf, unable to keep up with the rest of the fleeing herd, had soon collapsed and died.

The ambush took place on the crossing traditionally used by elephants migrating back and forth between the ocean and the interior. This route is criss-crossed by a veritable maze of waterways, interspersed with dense riverine forest full of mangroves and doum palms.

Tracking down a poaching gang in such uncompromising



terrain is very difficult. And the poachers know this. For none – that I am aware of – has been apprehended here recently.

Before the poaching ravages

of the 1970s and 80s, the Delta elephants would gather *en masse* among the doum palms here each August to feast on the trees’ ripe fruit. Some recall

observe that we have no reliable census data from many of their populations, including even some of the larger ones.

“Only between one-quarter and a third of African elephants are forest elephants,” she adds. “That would put their number at somewhere between 120,000 and 150,000. Their habitats are being extensively logged and turned over to agricultural use. As Africa’s forests become ever more fragmented, so elephant populations too are becoming increasingly isolated amid a sea of farms and villages.”

In all, Africa is thought to harbour somewhere between 400,000 to 500,000 elephants. Most of these (250,000 to 350,000) are savanna elephants. Western elephants, by contrast, are believed to number barely 12,000.

Africa’s forest elephants have longer, thinner, straighter tusks than savanna elephants. They have smaller and more rounded ears, a flatter forehead region, and more toenail-like structures on their feet. They

are also significantly smaller than the savanna forms. West African elephants have been described as “morphologically indeterminate,” showing both forest and savanna forms.

In identifying what they describe as “three recognisable taxa of African elephants,” the scientists concede that their findings are based on analyses of mitochondrial, or maternally inherited, DNA sequences. So their results will have to be corroborated, they write, by nuclear DNA sequences that are inherited paternally as well as maternally before a formal taxonomic revision of African elephants can be proposed.

“If the levels of genetic differentiation are found to reflect a divergence going back several millions of years, then it will be appropriate,” the paper states, “to treat the three taxa as separate species in recognition of their long and independent evolutionary trajectories.”

— reported by **Trupti Shah**
and **Gichuki Kabukuru**

seeing the elephants, on their return journey, scaling the sand dunes and sliding into the sea for a swim.

But this is now a fading memory. Today, Delta elephant numbers are thought to have declined to fewer than 15 animals. And yet still, going by August’s events, the carnage here is continuing.

The Delta is a complex web of wetland habitats, both of salt water and fresh, all interwoven with creeks and estuaries, canals and channels fanning out on the ocean side along a 40-km stretch of coastline. Yet, because of its remoteness, and the fact that it has no form of Protected status, the Delta’s fragile ecosystems — neglected and forgotten — are subject to

serious depredations that often go unreported.

Yet concern does now seem to be mounting among local Orma, Pokomo and Giriama communities over the increased poaching levels in the Delta.

KWS Elephant Programme Co-ordinator Patrick Omondi is encouraged. “Whereas we, at the KWS, are mandated by the Government to protect wildlife species (in this case, elephants) wherever they occur in Kenya, we cannot be everywhere,” he says. “And, in areas not under our jurisdiction, such as the Tana River Delta, we have to rely on being able to work in closely with local communities, county councils and NGOs.”

— reported by **Rupi Mangat**



Jolted in Lagos

For Paolo, a Nairobi-based engineer making his first ever business trip to Nigeria in early November, the sight that greeted him on arrival by cab in the car park of Lagos’s luxury Le Méridien Eko Hotel was “So shocking I could hardly believe my eyes.”

There, on the Victoria Island premises of this supposedly prestigious international hotel chain, was a shop filled to bursting with elephant tusks and worked ivory ornaments, as well as whole piles of leopard skins and other items of wildlife merchandise.

This can’t be real, Paolo thought. Not here, surely. “So I went over and looked inside,” he says, “whereupon I was immediately offered a leopard skin (for US\$ 100), followed by a succession of ivory figurines (mostly going for prices ranging from US\$ 7 to US\$ 8).”

“This would probably have come as no great shock to me, had I been out on a sidewalk,” he confesses, “somewhere in the middle of town. But to see these items being sold openly from the compound of a leading international hotel with a clientèle apparently consisting mainly of European diplomats and business people (all paying US\$ 300-plus a night) did come as a bit of a jolt, I have to say.”

Then, when Paolo went back the following morning to take some photographs (including the one reproduced above), he found a party of European film-makers there, being shown around the shop by an escort of Nigerian policemen. “The policemen,” he says, “seemed totally oblivious to all the illegal merchandise on display.”

Maybe Paolo should not have been surprised. For surveys of Africa’s ivory markets have repeatedly shown ivory’s main buyers to be Europeans and to include diplomats, military personnel, and staff from the United Nations and other non-governmental organisations. The Méridien hotel group, by allowing such items to be sold on its premises in Lagos, is actively endorsing the unlawful trade.

— GB

A point or two about us



We offer-

- Guaranteed safari departures
- Tailor made itineraries
- Flying safaris
- Balloon flights

We've been in
the Safari business for
over 30 years - plenty of
time to iron out the wrinkles!

So get in touch with us and we'll let you know how we
can make your trip to Kenya a safari to remember.

rhino safaris

NAIROBI: Rhino Safaris building, Ngong Rd., PO Box 48023 Nairobi,
Tel. 720610/ 611 Fax: 720624, e-mail: rhinosafarisnbo@form-net.com
MOMBASA: Rhino Safaris building, Nyerere Avenue, PO Box 83050, Mombasa
Tel. 311141, Fax: 315743, e-mail: rhinomsa@users.africaonline.co.ke
ARUSHA: Kudu Safaris building, 11/4 Them Industrial Estate PO Box 1404,
Njiro, Arusha Tel. 007 - 57 - 8193/ 6065 Fax. 8139,
e-mail: kudu@habari.co.tz

**Follow the
trail with us.
The people
who know
Kenya better.**



Nairobi - 408 Othaya Road, Lavington
P. O. Box 44687, NAIROBI Kenya,
Tel: 574404, 573596
E-mail: kwtnbo@form-net.com
Website: www.wildlifetrails.com
Fax: 254-2-573574

Mombasa - Taiyebi House,
Nkurumah Road
P. O. Box 87626, MOMBASA Kenya
Tel: 313371 & 313332
Fax: No. 011-311650

TOURS & CAR HIRE



Fiona Alexander's recent article, *Species diversity – or elephants?* (in SWARA Vol 24:2), raises the intriguing question: are we protecting elephants at the expense of species diversity in the Shimba Hills National Reserve?

The assumption is that to conserve *both* species diversity *and* elephants is not possible, given the massive impacts the elephants are having on the reserve's vegetation. Because Shimba Hills is now completely fenced, these elephants are no longer free to migrate beyond the reserve's borders as they once did. This has resulted in unnaturally marked impacts by the elephants on the flora and fauna within the reserve.

While the elephants' effects on the flora may be easily seen, their impacts on other species of fauna that share the reserve with these 'megaherbivores' are perhaps less obvious at first. I have yet to visit the Shimba Hills, but the whole issue of conserving elephants at the possible expense of biodiversity has become one of the focal points of my own research in Kenya's Laikipia District.

Since February 2001, I have been studying the effects on bird communities of elephants and other large mammals. My study area differs widely from the Shimba Hills in respect of dominant vegetation types, soil profiles and other climatic and topographic features. But my results may shed some light on the likely effects of elephants on Shimba's bird communities.

My observations show that megaherbivores (in this case elephants and giraffes) have a marked impact on birds. While such megaherbivores have not affected overall bird numbers, they are negatively influencing the bird community's diversity. Areas accessible to giraffes and elephants have a lower bird diversity (both in terms of the number of species and their relative abundance) than areas from which they are excluded. The other wild herbivores are having no discernible effect on bird communities.

(Do bear in mind, however, that it is not always possible to separate the effects of elephants

Bizarre liaisons

October 7 was to be our last day in Kenya's Samburu National Reserve. The early morning sky was clear. The sun, rising over the nearby hills, had taken the chill out of the air. We had seen just about everything we could possibly have wished for during our week's stay. So what surprises might yet lie in store?

The game drive started out gently enough. The birdlife was glorious, as ever. There were lots of dikdiks about – together with those Samburu 'specials,' the gerenuks and reticulated giraffes. Then, as the day was warming up, we noticed a lone vehicle in the distance. When, after half an hour, that vehicle had not moved, we decided to

go over and to find out what was keeping it there.

Stopping on the way, we could – with binoculars – just pick out the form of a lioness. Was she on a kill, perhaps? Could that be what the fuss was all about? On arriving at the scene, the driver of the other vehicle started pointing excitedly towards the lioness. This puzzled us, as the lioness did not appear to be doing anything special, just resting in the shade of a bush.

The driver, gesticulating still, was clearly trying to tell us something. We looked at the lioness, and then back at him. This went on for several minutes. Then suddenly, with the power of some revelation,

'megaherbivore effect'



© DARCY MISURELLI

from those caused by giraffes. So in theory giraffes could be responsible for 100 % of the 'megaherbivore effect' on birds, and elephants for none of it, although observations in the field suggest otherwise.)

The megaherbivores' main impact on bird communities is

one of browsing on the trees. Of four tree species that I have examined, two had significantly smaller canopies in the areas open to the megaherbivores. The reduced canopies seem to render these trees less attractive to birds, offering less protection from predators and from the

elements. While much of this is conjecture, I hope to be able to clarify such issues over the coming year.

These findings need not be interpreted in a negative light, or as being in any way against protecting elephants. After all, growing elephant populations

confined to small habitats will lead increasingly stressful lives. My results highlight the need to examine alternative means of protecting elephants. Migration corridors allowing elephants to disperse, reducing their impacts on the local vegetation, warrant more serious consideration.

This may seem implausible in today's overcrowded world. But then, consider the likely predicament of these confined elephant populations in 10-20 years' time – and the resulting loss of biodiversity – and then ask yourself: what are we really trying to conserve?

Arguments over whether we should be conserving elephants *or* biodiversity miss the point. For this is not a straightforward 'either/or' issue. The real issue is that any attempt to protect elephants without at the same time conserving biodiversity will also lead inevitably to the demise of the elephants.

Darcy Misurelli
Mpala Research Centre
Box 555
NANYUKI

Oryx number five

Kamuniak, or 'Blessed One', the Samburu lioness renowned for trying to adopt a baby oryx, made yet another such attempt – her fifth in less than a year – on 6 October.

The two animals were observed together on the morning of 7 October. At first, the baby oryx's natural mother could be seen following the strange pair from a distance. This calf was dubbed Naisimari ('Taken by force' in the Samburu language) by KWS wardens on the scene.

When the hapless oryx calf died a few days afterwards (apparently of starvation), Kamuniak is reported to have eaten the tiny carcass (see accompanying Letter).

Kamuniak's bizarre adoptive quest began in December 2001. The first baby oryx she attempted to mother was killed by a lion on 6 January. Her second baby oryx, adopted on 14 February, was taken away by KWS wardens and is now in the Nairobi Animal Orphanage. A third oryx calf was adopted on 30 March, and a fourth on 23 May. Both these gave Kamuniak the slip and were able to rejoin their natural mothers.

Kamuniak's persistently strange behaviour continues to baffle scientists and conservationists alike.

– TS/GK

we realised what was going on. This was none other than Mama Kamuniak, Africa's most famous lioness, and there – in the grass beside her, perfectly

camouflaged – was a baby oryx, the fifth one she has adopted so far. ('Oryx, baby oryx,' we now realised, was the message the driver had been mouthing.)

We moved a little further down the track, from where – at last – we got a clear view. The bush was barely 30 metres from the road. We looked on for several minutes, in silence and disbelief. Then suddenly the oryx got up and ran a short way from the bush. The lioness promptly sat up and followed.

This oddest of odd couples then settled down again in some low scrub nearby. Not for the first time, we were amazed by how well camouflaged the pair was. We left the scene for other tourists – whom we could now see heading our way – to marvel at.

We later heard that this fifth adopted oryx had died. But there was another twist: this time, Kamuniak ate the dead oryx – something she had not done with any of her four previous adopted oryx calves.

● Before we left Kenya, we got to witness yet another bizarre liaison, this time at Gandessa Camp, on the Galana River in the Tsavo East National Park. There, some vervet monkeys have recently adopted a female olive baboon. She appears to be fully integrated into their group and can be observed feeding, grooming and interacting with other group members.

Then, in the most recent SWARA (Vol 25:2), there is also Paul Kirui's fascinating account of the exploits of the Mara rhino that associates with elands and buffaloes. This rash of peculiar liaisons begs the question: Just what is mother nature really up to, and why in Kenya?

Alan and Edna Jeffrey
London, England
via e-mail

'Save the elephants' has become a global catchphrase over the past 12 years, winking at one from T-shirts, car-stickers and posters in even the most unlikely of places. Conserving the world's largest land animal is a *cause célèbre* that for many has assumed the aspect of a moral and religious crusade.

For some, the issue is simple: elephants must be preserved because they are among the grandest examples of God's creation on this earth. For those directly involved, however, the question is more complex. In five African countries – Namibia, South Africa, Zimbabwe, Zambia and Botswana – elephant populations are so robust they actually threaten human livelihoods. These countries have been culling their elephants for years and stockpiling the ivory, along with that taken from poached elephants, as a potentially valuable resource.

These states made their wishes known at the November conference in Santiago, Chile, of the Convention on International Trade in Endangered Species (CITES). There, they campaigned for a relaxation in the worldwide ban on ivory imports and exports imposed in 1990 by CITES that would allow them to sell their stockpiles on the international market. Four of them were also seeking annual quotas of between 2,000 kg and 5,000 kg, to dispose of future ivory stocks accruing not only from culling but also from natural attrition and poached elephants.

In the event, three southern African countries – Namibia, Botswana and South Africa – were given the go-ahead to hold one-off sales of a total of 60 tonnes of stockpiled tusks after May 2004, subject only to there being improved monitoring systems in place by then.

Countries like Kenya and India argued that such a relaxation in the ban would open the door to illegal ivory trading. The 1990 embargo and the associated publicity made buying ivory unfashionable in the

What next?

Author and explorer **Michael Asher** looks into the state of the world's ivory markets, at a time when the CITES international ivory trade ban is being partially relaxed.

West, causing a 50 % downturn in the price of ivory on the international market. Easing the ban would result, they said, in increased demand and thus an increase in the price of ivory, which in turn would lead to poachers' getting in on the act. They pointed to the recent seizures of poached African ivory – 16 tonnes this year alone – as evidence of an upsurge in smuggling.

Some have traced this upsurge back to the decision reached at the 1997 CITES meeting allowing Zimbabwe, Botswana and Namibia to sell off their existing stockpiles – a total of 50 tonnes – to Japan in 1999. Others have cited an increase in the demand for ivory in China, on the back of economic improvements there.

Earlier this year, Dr Esmond Martin and Dr Daniel Stiles, veteran researchers of the illegal ivory trade, went to east Asia to find out how the ivory markets there were faring. One of their specific objectives was to ascertain whether countries such as China, including Hong Kong, and Japan – traditionally the major importers of ivory – had the necessary controls in place to prevent large-scale smuggling.

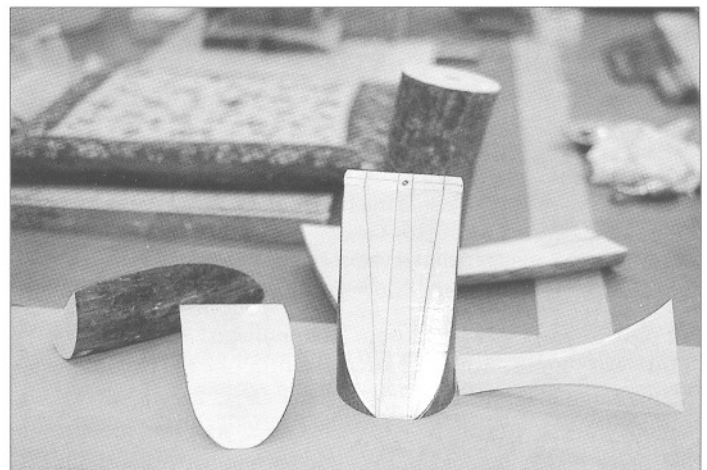
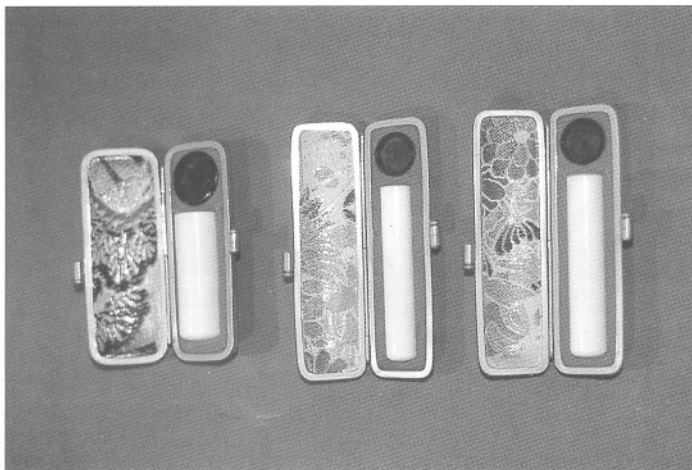
Martin, who back in 1980 completed a major survey of Japanese ivory carving and trading, was met off the plane at Tokyo airport by representatives of the national Ivory Association who had assisted him 22 years earlier. His hosts apologised for their inability to entertain him as on previous occasions, explaining that there had been a huge slump in the ivory trade since the 1980s. This was to be the keynote of Martin's visit. For, whereas Japan was the

world's largest consumer of ivory in 1980 with 38 % of the market, the trade there had declined by 90 % since the 1990 CITES ban.

Martin's first aim was to talk to ivory carvers, who traditionally work in small workshops employing up to eight people. Although ivory carving in Japan cannot boast the antiquity of that of China, dating back only to the sixteenth century, Japanese carvers are the most skilled in the world, producing the highest quality items.

These artefacts are distinctly Japanese in style and are bought entirely by Japanese customers, due partly to high prices and partly to the tough controls on re-exports. Martin found that due to the decline in the ivory trade, very few young craftsmen were coming in to replace those who had retired. Of the two ivory sculptors' associations in Japan, one had just five members left, while the larger had a membership of only 60.

Turning to the retailers – mainly ivory speciality shops and department stores – Martin found about 7,500 items of worked ivory on sale in Tokyo and Osaka. These items were generally small, and included finely carved figurines, traditional name-seals called *hankos* in Japan, and a few other objects such as tea-container lids, chopsticks, and parts for traditional musical instruments, such as *bachis* (plectrums for the *shamisen*, a three-stringed Japanese guitar). Some shops also stocked *netsukes* – a kind of toggle once used on clothing in place of buttons and as a clasp for closing medicine chests and



tobacco pouches. Prices are high, owing to the high costs of labour. A Japanese ivory carver earns about US\$ 3,200 a month, and while a plectrum might retail at about US \$ 9,200, a 20-centimetre high figurine can fetch a staggering US \$30,000.

Until a century ago, the netsuke was the most popular ivory artefact in Japan. That position has since been assumed by the *hanko* – a finger-sized cylindrical seal with a personal signature carved into one end. Almost everyone in Japan uses these seals for signing cheques and letters and for enumerating the pages of contracts and official documents. Hankos accounted for about 80 % of the items for sale, while figurines, bachi and netsukes accounted for only about 10 %. Nevertheless, the decline in the production of hankos has been dramatic in recent years. While two-million name-seals were produced in 1980, using 55 % of total ivory imports, in 2001 the figure had slumped to just 150,000.

Martin's informants agreed that a fall in the demand for ivory, coupled with the economic recession, the scarcity of raw material, and the pressure exerted by conservation organisations, lay behind this slump. For, not only are the Japanese becoming more westernised, and using more credit cards and hand-signatures for instance, but they also have access to a wider range of substitute materials for their name-seals, including high-quality plastics, buffalo-horn, lapis lazuli and another substance called zirmina.

The one-off sale of ivory stockpiles from three African countries in 1999 was probably what saved the Japanese ivory industry from near extinction, allowing some workshops to continue which might otherwise have gone bankrupt.

While some would argue that a total collapse would be a good thing, Martin disagrees. Japan, he says, has very strong government controls on the ivory trade,



Photos © ESMOND MARTIN

with compulsory registration of all tusks, cut-pieces and waste held by ivory trading companies. *Hanko* retailers must keep a ledger recording all their sales, which the government is allowed to inspect regularly.

While Martin concedes that some ivory has been smuggled into Japan since 1990, and that some worked items have been brought in illegally from other Asian states where labour is cheaper, the illegal trade is small. There is, he reveals, a fundamental pessimism about the future of Japan's ivory trade, with many business people believing that, with no new stocks of African ivory forthcoming, the industry could face total collapse within just a few years.

Martin and Stiles found things to be very different in Hong Kong and on mainland China. China is the world's largest importer of illegal ivory, and between 1996 and September 2002 a total of 45 tonnes of smuggled ivory destined for China has been impounded by the Chinese authorities. Although most government-owned factories in China have gone bankrupt, production continues to flourish in illicit workshops, and ivory is illegally exported to foreign countries labelled as 'mammoth ivory', 'hippo teeth', or 'bone'.

In Hong Kong, where the industry collapsed in the 1990s, the number of full-time craftsmen has declined from 600-1,000 in 1988 to virtually none in 2002. At the time of the 1990 CITES ban, Hong Kong was stuck with 463 tonnes of raw and worked ivory, almost half of which has since been disposed of, some smuggled out of the country.

Since 1997, Hong Kong has continued to be a centre for smuggled ivory, with

mainland China the chief destination for tusks. Martin's survey of 85 shops retailing ivory in Hong Kong found 35,884 items for sale, with thousands more artefacts in storage, making Hong Kong one of the largest ivory markets in the world. Among the items for sale were jewellery, netsukes, figurines, name-seals and chopsticks. The main buyers here are Japanese, Europeans, Americans and local Hong Kong Chinese in that order, and most of the items bought are smuggled out of the country.

Martin discovered that many retailers have switched to selling items made from mammoth ivory. There are large numbers of mammoth tusks dating from about 10,000 years ago to be found strewn about the tundra in Russia. Mammoth ivory is carved legally on mainland China into artefacts similar to those fashioned from elephant ivory. But the mammoth ivory is inferior in quality, and elephant tusks are preferred.

Martin and Stiles concluded that, while Hong Kong's trade-controls are effective, its proximity to mainland China – the main entrepôt for illegal ivory – makes anti-smuggling regulations hard to enforce. This, along with the present dearth of ivory craftsmen, renders Hong Kong unsuitable for any future legal export of African ivory.

In a 2000/1 survey on the ivory markets of south-east Asia, Martin and Stiles found that while the 1990 CITES ban had been effective in dissuading many Westerners from buying ivory, the demand for ivory by eastern Asians had grown and was sufficient to keep the poachers in business. The 1999 sale of ivory from Botswana, Namibia and Zimbabwe did not have a discernible effect on ivory-trading in China, Hong Kong and South Korea, but had a marked impact on Japan where it has rescued the industry, and reduced incentives to import ivory illegally.

The 1999 sale also brought the hope – now vindicated – among some Japanese ivory traders that further supplies would become available following the November 2002 CITES meeting.

Were the Japanese market to go under, Martin points out, there would no longer be any safe destination for legally exported African ivory. "Which country will the southern Africans sell to in the future," he asks, "where there are good trade controls, where high prices for tusks are paid, and where there are no re-exports of worked ivory? These requirements can now be met only by Japan."

Made in Japan: Ivory name-seals or hankos (far left), are still popular in Japan, although their production has declined by more than 90% since 1980. Some are the work of skilled individual craftsmen, using hand tools (top). The bachi (near left), a plectrum for the shamisen (a three-stringed Japanese guitar), is an item requiring larger pieces of ivory.

TOWERING ABOVE
THE REST



EXPERIENCE AFRICA

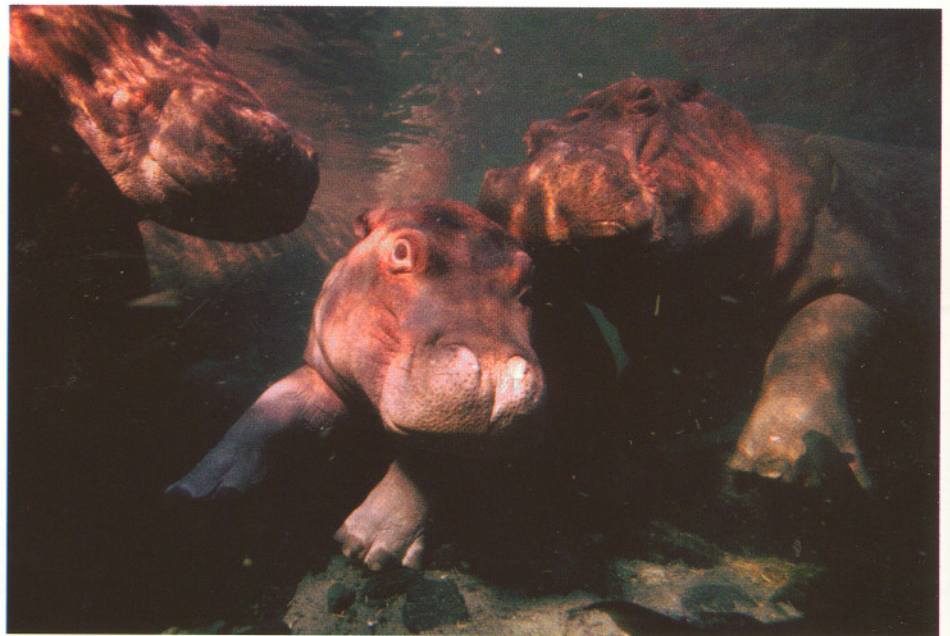
WITH

Wildlife Safari

Serengeti House, 101 James Gichuru Road
P O Box 56803 00200 City Square Nairobi

Tel: 571703 573630 Fax: 571699
info@wildlifesafari.co.ke

www.africa-wildlife-safari.com



Mzima revisited

Why revisit the scene of Alan and Joan Root's classic documentary *Mzima: Portrait of a Spring*? For the filmmakers Mark Deeble and Victoria Stone, this question – often put to them as they were embarking on their own film on Mzima – must have seemed a loaded one. For what, it appeared to imply, could they possibly hope to show that the Alan and Joan Root masterpiece had not already captured 30 years before?

The question is perhaps best answered by the film itself, which premieres in Nairobi on 9 December. *Mzima: Haunt of the Riverhorse*, as the Deeble-Stone work is called, has already won global acclaim as one of the most accomplished and successful wildlife films in years. In all, it has received more 30 international awards, including both an Emmy and a Peabody.

The film reveals the intricate pyramid of life that a school of hippos supports, capturing the astonishing and sometimes shocking hidden behaviour going on beneath the calm surface of Mzima Springs in Kenya's Tsavo West National Park.

A combination of scuba and specially modified remote cameras enabled the filmmakers to get right into the mouths of hippos and crocodiles to reveal aspects of underwater behaviour and ecology never before captured on film, many of which are new even to science.

Stone and Deeble and their Kenya-based assistant Norbert Rottcher took more than two years to make the film, with Alan Root as their Executive Producer.

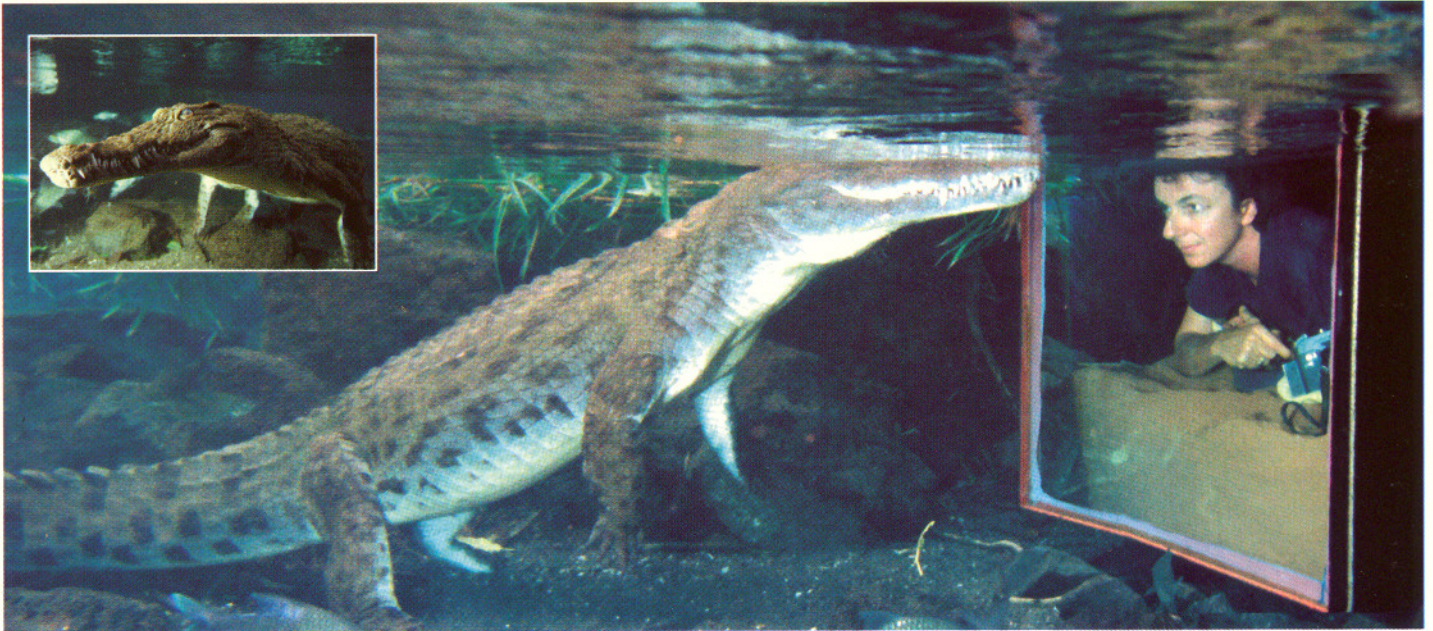
So, why *did* this illustrious team decide to go back to Mzima Springs? "There were three compelling reasons," replies Deeble. "First, technology has developed to such an extent over the intervening period, that we could realistically expect" he says, "to get images of hippo behaviour underwater that had not been technically possible before.

"Then, secondly, both Survival Anglia and National Geographic were prepared to support a two-year filming period which just happened to coincide with a desire by the Kenya Wildlife Service to highlight Tsavo West's premier natural attraction.

"The third reason was that Alan Root himself actively encouraged us to make Mzima the subject of the film, as this would follow on well," he goes on, "from our trilogy of wildlife documentaries of the past ten years on aquatic environments in East Africa: *A Little Fish in Deep Water*, *The Tides of Kirawira*, and *Tale of the Tides*."

But, while the location may have been the same, Stone and Deeble point out that initially they set out to tell a very different story. "This intention was short-lived," they admit. "For it soon became obvious to us that Mzima's ecology revolves around hippos and the dung that they produce.

Videos of *Mzima: Haunt of the Riverhorse* are available during and after the film's Nairobi premiere at 5:00 p.m. on 9 December in the Louis Leakey Hall at the National Museums of Kenya. All proceeds from sales of the video in Kenya have been donated to the Kenya Wildlife Service. Jointly hosting the premiere are Nature Kenya and the East African Wild Life Society.



Photos: MARK DEEBLE / VICTORIA STONE

“Everything we tried led us back to the hippos – to deny this was impossible,” they say. Their challenge, then, became one of keeping the story simple, but to tell it in a new and refreshing way.

From water level, it is hard to identify individual hippos – let alone to see what they are doing underwater, or how they are interacting there with other animals. So an aerial view was the filmmakers’ vital first step towards getting to know the hippos.

“We set up hides on towers hidden in the trees, giving us views from roughly 15 metres above the water. The result was amazing,” Stone says, “in that for the first time we could see right down into the gin-clear water. We saw baby hippos suckling, females defending their young from crocodiles, cormorants and darters hunting amid the school, and hippos opening their mouths to invite fish inside to clean up.”

Filming this extraordinary underwater cleaning behaviour became their principal quest. But the void between seeing this from the surface and being able to film it underwater was immense. With Rottcher, they experimented with several approaches ranging from using a rebreather from the protective cover of an underwater tunnel, to conventional scuba, and even to using a floating metal box with a window – a sort of reverse aquarium.

“Nothing appeared to work,” says Deeble, “for the hippos simply kept their distance. On our past films, we had always put in the hours underwater, knowing that the animals would eventually get used to us. But this was not going to happen at Mzima, where the crocodiles had grown much larger and bolder since Alan and Joan were filming here more than 30 years ago.”

So Deeble and Stone toyed with other ideas: remote cameras mounted on ropes, rafts, poles, even submersibles – any means, they say, of getting a camera close to a hippo. “In the end, we opted for quite the reverse approach,” says Stone, “in deciding that the hippos would have to come to our camera.”

From the ‘aerial’ lookouts, the duo had established that specific activities occurred in specific places. As conditions in those places must somehow be attractive to the hippos, they positioned a remote camera close to each such action site. The hippos promptly responded by moving off a short distance. Underwater, a few metres might

just as well be a mile, however. “At first,” says Deeble, “we thought they might be sensitive to the faint noise produced by the headgear supporting the camera, so we had this adapted and sound-proofed. Then we suspected the movement and silhouette associated with the camera housing, so we adapted this too and had it light-proofed. Next, our suspicions fell on the camera frame, which we adapted and camouflaged accordingly.”

“Finally, with nothing left to adapt, we came to the conclusion,” he adds, “that we simply could not force the pace: We should just have to wait, and to let the hippos get used to the contraption. After all, we had plenty of time ...”

In the event, they were to need all that time. Indeed, it was almost a year before they had narrowed the ‘trust’ gap enough to get their first usable pictures. And their remote systems, despite the faltering start, eventually became just another member of the school, once the hippos had become familiar with it. Says Stone: “There came a point when they took to using the remote system to lean up against or to scratch on. Indeed, some of the babies even took to using the camera housing to teeth on.”

“After that, we were away,” she says, “and the system, once accepted, became the tool that enabled us – during our second year of filming – to record many previously unknown aspects of hippo behaviour, while shedding altogether new light on Mzima’s amazing underwater life.”

– reported by Gordon Boy

Underwater stars: The hippos and crocodiles (above) eventually got used to the inventive techniques employed by filmmakers Victoria Stone and Mark Deeble (right) in Mzima: *Haunt of the Riverhorse*.



Insects and CITES

The massive international trade in insect species is still not getting anything like the attention it deserves, argues

Dino J Martins.

Insects make up the bulk of the earth's terrestrial biodiversity both in terms of numbers and biomass. Live and dead, they also account for a significant portion of today's international wildlife trade. The result is that many of the world's most beautiful insects are increasingly coming under threat. And, while habitat loss and degradation may be largely to blame, the effects of over-collecting for purposes of trade should not be underestimated.

Butterflies (Lepidoptera) and Beetles (Coleoptera), in particular, are widely and openly traded on international markets. In both families there are many very 'showy' species with amazing features and colours. These are the species most threatened by over-collecting. Yet such spectacular forms are often those of endemic species with low population densities and extremely limited ranges. And many, in addition, have long and complex life-cycles that are very easily disrupted.

Birdwing butterflies (*Ornithoptera* spp.) from Papua New Guinea and other islands in the Australasian region are among the most sought-after species for collections. The Giant African Swallowtail (*Papilio antimachus*), found across west and central Africa to western Uganda, is another rainforest species with a price on its head. East African species such as the Goliath Beetle (*Goliathus goliathus*) and several swallowtail butterfly endemics are also in demand.

Who would want to buy insects, one might ask? A

great many people, it turns out, going by the statistics. Britain and the US rank as the largest importers of CITES-listed insect species, followed by Japan and Germany in third and fourth places respectively.

Investigative surveys carried out by TRAFFIC International have found as many as 80,000 insects on sale at a single trade fair in Europe! At similar events in the US, hundreds of thousands of beetles, scorpions, snakes, and frogs may be sold over the course of a single weekend. The end market supporting these astounding figures consists of the legions of hobbyists, collectors, and unscrupulous museums bent on filling up their cabinets with specimens of some of the world's rarest insects. And many such insects are also routinely offered for sale in the pages of entomological journals.

Collecting is a universal human trait. And just as some people avidly seek out rare stamps and coins, so others are passionate about beautiful and unusual insects. This love of insects, reflected in the accumulation of thousands of specimens, need not be condemned outright, however. For many collectors contribute much to the

science of taxonomy, while advancing our understanding of insect evolution. Yet even scientists must be responsible for their actions. For, paradoxically, it is the study of rare insects – often very well-meant – that is now contributing enormously to their decline.

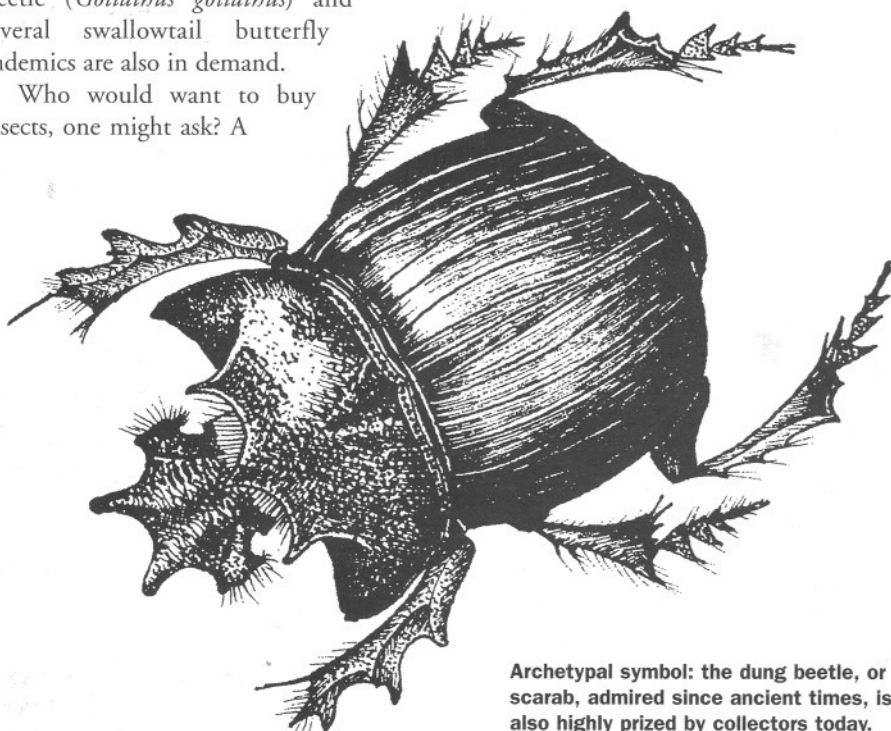
Policing the trade in insects is difficult at the best of times. Customs officials, even CITES personnel, are often not qualified to identify endangered insects. Some view all insects as more or less frightening 'creepy-crawlies' that are best avoided, and simply wave consignments of them through. And sadly, it is – in many African countries – all too easy to get hold of the necessary 'documentation'.

But there is some hope, as one South African example shows. Cape Stag beetles (*Colophon* spp.) are among the most highly priced of all beetle species on the market. A low reproductive rate is typical of these and other members of the Lucanidae (the Stag Beetle family). Some three years ago, these rare beetles were proposed for a listing on CITES Appendix I. After much wrangling, they were – in September 2000 – listed on CITES Appendix III. But it remains to be seen whether all this paperwork is actually doing anything to dampen the ardour of collectors.

As with all illegal trading, the best counteractive recourse rests in educating the consumer. For, as long as someone, somewhere is willing to pay, then someone else will always be more than willing to supply. The demand for insects, since this will never entirely go away, needs to be harnessed in a way that helps conservation, while also promoting science.

The demand for live butterflies is already being met, in part, by community-based initiatives that raise butterfly larvae and export the pupae to butterfly houses around the world. Kenya's Arabuko-Sokoke Forest is home to one successful such initiative: the Kipepeo Project. Given the burgeoning market, perhaps other African insect species could also be bred in this way for export?

What is needed – urgently – is much more recognition of the fact that insects are valuable, not just as pollinators and in nutrient recycling, but also in forming a significant – and growing – segment of the global wildlife trade. It is quite possible that no more than a few of the delegates present at November's CITES meeting in Chile will have given insects even so much as a passing thought.



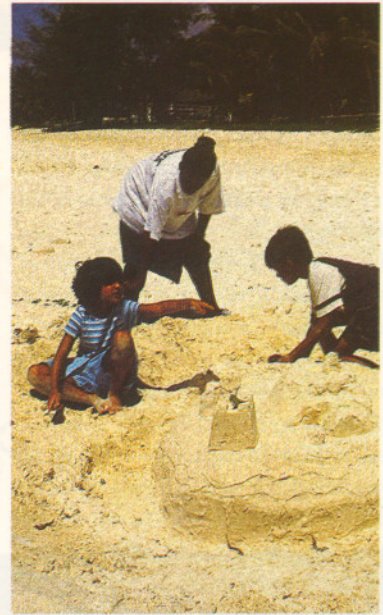
Archetypal symbol: the dung beetle, or scarab, admired since ancient times, is also highly prized by collectors today.

Something to write home about.

Dear Sharon,

I don't believe I've been gone for one whole week already! I'm really loving it here. There's so much to do! Between snorkeling, beach volleyball, deep sea fishing, tennis (need I go on?) I couldn't have dreamed of a better holiday. (I'm even learning to windsurf and dive - Yes! Me! - But it's all worth it cause it gives me a reason to get massaged and pamper myself at the health club).

Charles is also having the time of his life. He can't believe his luck. What with 10 restaurants to choose from and goodness only knows how many bars! (That's cause we're free to use any of the facilities in all three hotels - just as long as we're staying in one of them!)...



Alliance Africana
SEA LODGE

Alliance Jadini
BEACH HOTEL



Alliance Safari
BEACH HOTEL

... But really, he does get into the water once in a while. We've been boating twice already. And he seems to have taken an interest in the aerobics class (!!) although golfing keeps him quite occupied.

Oh. And the kids - bless the Adventures Club, always keeps them busy with something.

So, guess where we're going next lots? Yup. Alliance Naro Moru River Lodge. We heard it has the most breathtaking view of Mt. Kenya's magnificent snow-capped peaks. I can't wait to go hiking, or mountain climbing!

You must accompany us next time, (wait till you see the photos - you won't need convincing!) Wish you were here. Love lots, Jenny.

Alliance Naro Moru
RIVER LODGE

FOR BOOKING CONTACT: YOUR TRAVEL AGENT OR
THE NAIROBI SALES OFFICE, WAIYAKI WAY, WESTLANDS,
TEL 254 2 4443357/8, 4443368, 0733 898 416, 0722 333 454 FAX 4445309
EMAIL alliance@africaonline.co.ke www.alliancehotels.com

Alliance
HOTELS & RESORTS
Another great day at Alliance.

**CLICK START YOUR
NEXT HOLIDAY.**



Click your mouse onto www.letsgosafari.com
and you can find yourself at 320 of Kenya's
top hotels and lodges. So what are you
waiting for?

Head Office Tel: 447151 / 441030, Karen Office: 882168/882505
City Centre Tel: 340331/213033, e-mail: info@letsgosafari.com,
Internet: www.letsgosafari.com



Gametrackers

Safaris and Travel

P. O. Box 62042 Nairobi, Kenya
5th Floor, Nginyo Towers, Koinange/Moktar Daddah St.
Tel: (+254-2) 338927/222703/212630/313617
Fax: (+254-2) 330903
E-mail: game@africaonline.co.ke
Website: <http://www.gametrackers.com>

ADVENTURES IN AFRICA

Gametrackers safaris are designed for those in search of real adventure, who enjoy the unpredictable and who want to get away from the well traveled tourist routes. The open African plains where you can see forever, star filled nights vistas, animals in the wild with an expert safari cook - experience the real Africa

LAKE TURKANA SAFARIS
TAILOR-MADE SAFARIS
CULTURAL SAFARIS
MOUNTAINEERING SAFARIS
GORILLA SAFARIS
CAMPING SAFARIS
LODGE SAFARIS
AIR TRAVEL

WILDLIFE SAFARIS
CAMEL TREKKING
FOOT SAFARIS

KENYA, TANZANIA & UGANDA SAFARIS

Salongo



Special Interest Tour Operator

www.salongo.jp

Maendeleo House, Monrovia Street, , 9th flr Left Wing, Nairobi.

Tel: 222623, 222596. Tel/ Fax: 222596. Mobile: 0722-345511, 0733-726969

E-mail: salongo@zoom.co.uk

- **Tours & Safaris • Hotel Reservations • Air Travel • Transportation**
- **Camping/ Mountaineering • Beach Holidays • Gorilla Tracking**

SPECIAL PACKAGES TO UGANDA

SALONGO INTERNATIONAL

Salongo Inc. - Head Office
Inaho Bldg, 3rd Flr 3-7-7
Shimbashi, Minato-ku,
Tokyo 105-0004 Japan
Tel: 81-3-5157-3291
Fax: 81-3-5157-3293

Salongo Ecuador - Quito Office
Mercadillo 292 y
Paez; of.205,
Quito, Ecuador
Tel: 593-2-2907704
Fax: 593-2-2906666

Salongo Egypt - Cairo Office
7 Osman Towers. Floor 5,
No. 501, Maady,
Cairo, Egypt
Tel: 20-2-5257181
Fax: 20-2-5272270

Salongo Maldives - Male
Maldives
M.Ahuliha Haveeree Hingun,
Male, 20-02, Maldives
Tel: 960-335035
Fax: 960-335060



© JAN BISSCHOP

Violet or Green?

*Iridescent hues can be fiendishly deceptive, discovers birder **Bernd de Bruijn**.*

An October weekend's birdwatching in the beautiful fever tree woodland along the Malewa River near Gilgil in Kenya produced some pleasant surprises – and a mystery as well.

The Kigio Wildlife Conservancy, east of Gilgil, successfully combines dairy farming with conservation and small-scale tourism. That stretch of the Malewa River running through it supports riverine woodland not unlike that around Hippo Pools in Nairobi National Park. The Malewa River Lodge, set in this woodland, blends in perfectly.

On arrival, we walked straight down to the river. Among the first birds we saw was a male African Finfoot, that most elusive of river-dwellers. Some start to the weekend! We were up early the next morning. And, while the place seemed alive with promise, most of the birds on view were consistent with those occurring around Hippo Pools, confirming the similarity between habitats.

But this sense of familiarity was soon dispelled – by the appearance of a Northern Puffback, a kind of bush-shrike you would normally expect to find, taking over from the Black-backed Puffback, roughly north of the Equator. Yet this was 55 km south of the Equator: just about as far south, surely, as these birds get.

Then a Black Cuckoo-shrike, a male, hopped into view. How strikingly glossy, even purplish, these birds can look, I was thinking. The female's appearance minutes later put me right. For she had a pale yellow belly, almost devoid of barring and with a grey head. So these were not Black Cuckoo-shrikes (the species you would expect here),

but *Purple-throated* Cuckoo-Shrikes, more usually encountered in highland forests.

I had to remind myself that, here, the Malewa is around 1,900 metres above sea level and near the escarpment rising on to the Kinangop Plateau. Yet it still seemed odd, seeing a Purple-throated Cuckoo-shrike in a fever tree. Later in the day, the area's highland affinities were again well demonstrated, by the calls of Yellow-whiskered Greenbuls, Hartlaub's Turacos and Tambourine Doves, and by good sightings of Grey Cuckoo-Shrikes and Black-throated Wattle-eyes. The Malewa, then, offers a fascinating mix of lowland acacia and upland forest species.

A loud cackling signalled the arrival of wood-hoopoes; lovely, lively dark birds with long, attenuated white-tipped tails and slender curved red bills – and, usually, a glossy green head too, for these (I sensed) were bound to be Green Wood-hoopoes, the most common species in East Africa.

I watched them, a group of six, swoop from tree to tree, acrobatically searching cracks in the yellow bark for hidden insects and larvae. But, look as I might, I could see no glossy green on them. So I followed the birds, to make sure. For iridescent hues, as sported by many starlings and sunbirds, can be deceptive and

are notoriously hard to assess. Often, prolonged views in good light are needed to determine the actual colours of such birds.


Fortunately, this group of wood-hoopoes remained in the area throughout our stay. So we had opportunities aplenty for closer scrutiny – under a wide range of mostly excellent light conditions. But still, we could detect no trace of glossy green on any of them. Their sheen appeared instead to be uniformly bluish purple. This does not tie in with Green Wood-hoopoes, race *marwitzi*, the ones you would expect here.

Could this be the north-western race, *niloticus*, of the Green Wood-hoopoe, then? Or were these Violet Wood-hoopoes? The problem is that neither bird is known to occur in *this* area. The books tell us that the Green Wood-Hoopoe, *niloticus*, is found in north-west Kenya, south to Bogoria, and that elsewhere the race *marwitzi* (with a very obvious green head) occurs.

Violet Wood-Hoopoes, known from the northern Uaso Nyiro, Tana and Athi-Galana rivers, prefer riverine woodlands. They have not been recorded any further west than Nairobi National Park, where – interestingly – they have eluded discovery for many years because they have always been assumed to be Green Wood-hoopoes.

Studies of Nairobi museum specimens show the amount of green on *niloticus* to be very variable. But it does always have *some* green, on its back if nowhere else. In a test, where museum specimens of both *niloticus* and Violet, held side by side, were viewed from just a few metres, this green showed only at certain angles. From most angles, the two birds looked bewilderingly similar.

Still, the absence of green even after extensive views in good light at Malewa would seem to point to the Violet Wood-hoopoe. Curiously, some seemingly equally green-deficient wood-hoopoes (*including the one pictured above*) were photographed by Jan Bisschop in July in the Lake Nakuru National Park.

Further observations are needed before the identity of these mysterious Rift Valley wood-hoopoes can be confirmed. If they *do* turn out to be Violet, then their presence around Gilgil and in the Rift would go to show that there are still things left to be discovered even in places that are often visited and well-watched. 

Records of further related sightings can be submitted to the Bird Committee of Nature Kenya, on < office@naturekenya.org > (enter 'Bird Committee' in the subject line). Information on Malewa River Lodge can be obtained from Let's Go Travel, on Tel +254 (2) 4447151 or < info@letsgosafari.com >

The thrill of discovering a new avian species must be every birder's dream. In such a dream, you are usually in a remote jungle, or on some forgotten island, when – fleetingly, right out of the blue – an unknown winged form appears, a bird on nobody's life list but your own!

The closest I had come to experiencing such excitement for real was in 1979, when – on the island of New Ireland in the Bismarck Archipelago off Papua New Guinea – I chanced upon a previously undescribed *Microeca* flycatcher. (And yet, while that species has since been seen by several ornithologists, there is still no specimen anywhere that I know of.)

Since 1986, when I left Papua New Guinea for Kenya, I had come across no other bird that looked as though it might be new to science. For nine years I lived in the Maasai Mara National Reserve. There, I spent time in areas never before examined by a birder. I was rewarded with exciting and unexpected distribution records. But there was nothing in any of the birds I saw to suggest that its kind had not been viewed a thousand times before.

Ever since moving to Nairobi in 1994, I have lived near the edge of the Nairobi National Park. This seemed a tame option relative to the far-flung haunts of my past. I soon changed my mind, however. Indeed, I now consider Nairobi Park to be among Kenya's most surprising and rewarding birding areas. Its varied habitats harbour many species, and it is normal – between October and April especially – to record more than 200 species in a day.

For the past eight years, and even before I took to living permanently in Nairobi, I



© STEVEN EASLEY



© WAYNE EASLEY

A 'Nairobi Pipit'

*My eight-year conviction that an enigmatic 'forest' pipit in Nairobi National Park is of a species new to science may very soon be vindicated, says ornithologist **Brian Finch**.*

have been conscious of there being a different form of Pipit living on the fringes, and in the glades, of the Lang'ata Forest in Nairobi National Park.

On being flushed from the roadside, pairs of these birds would generally rest for a while on a low branch under the canopy of a tree before flying off. My records were year-round, but the restriction of having to remain in a vehicle inside the Park meant that, on average, I got to see the birds only

once in every two or three visits to the area. And then, after they had flown off, it was usually difficult to get good views.

So I put the word about, urging people to be on the lookout for strange pipits in Lang'ata Forest. Normal park restrictions prevented my taking anyone into the forest to search for the birds on foot.

On 1 December 2001, while in the company of Steven Easley, I located a pair of these birds feeding young in a nest at the

Pipits in the Park

Besides our enigmatic 'forest' form, there are only two species of large pipit resident in Nairobi National Park.

One is the **Grassland Pipit**, *Anthus cinnamomeus*, a common species of the open grasslands, easily identified by its conspicuous white outer-tail feathers. These alone rule out confusion with the buffy-white outer retrices of the 'forest' form. Otherwise, the 'forest' pipits are more similar in their general patterning and proportions to this species than to the Long-billed Pipit, although this is not true of their vocalisations.

The **Long-billed Pipit**, *A. similis*, is the more likely candidate for confusion, even though its proportions differ considerably. This species is confined to the southern portions of Nairobi National Park. It may be located along the rocky edges of both

the Mokoyiet and Mbagathi gorges, on the road from Maasai Gate, at the Baboon Cliffs picnic site, and on the rocky spurs above the Athi Basin.

Long-billed Pipits in the Nairobi region are typical of those elsewhere: slender, attenuated large pipits with longer bills than other species and longer tails, giving them a wagtail-like profile. They favour bare rocky areas in open grasslands on fairly steeply sloping ground with low shrubs and only the occasional, isolated Acacia or Balanites tree.

They will readily perch on the tops of such trees, but are more usually seen on the rocks. Their general caste is greyish and cold, rather than warm olive, and their markings are less well defined. Their tails have inconspicuous greyish-white — rather than obvious buffy-white — outer retrices.

So far, 'forest' pipits have been seen only in the Nairobi Park's Kisembe Forest. Their range may once have extended over much of the Karen-Lang'ata area. But the fragmentation of suitable habitats, both here and further afield (around Dagoretti, Mbagathi and Ngong, say), may have rendered these areas too disturbed for such a ground-nesting bird.

It seems possible, however, that the form may still occur within intact portions of the Kijabe Forest, along the edge of the Rift Valley, where the habitat is similar.

The form's Nairobi Park population cannot be very large. But there are some extensive patches of forest, and several large glades, with no road access. So the birds may also occur there. Finding two nests within 200 metres is certainly an encouraging sign.

— Brian Finch



© STEVEN EASLEY

forest's edge along the 'Forest Glade' road. The vehicle was an asset on this occasion, and for more than an hour we watched the two birds bringing food to their young.

After leaving these quiet birds, we drove on through the forest for another 200 metres or so, where – incredibly – we found another pair, also feeding young in the nest, and also very close to the road. This pair was very much more vocal. So I was able to record their song, along with three different calls. Steven, meanwhile, took several photographs. Again, we watched the birds for some time. In all respects, they were identical to the first pair.

The next morning Steven returned to photograph both pairs. This time, he also succeeded in obtaining recordings of the song and the calls of the first pair, which on

A tale of two pipits: the Long-billed Pipit (in the middle, above) is flanked by two of the 'forest' forms which are thought to belong to a hitherto undescribed species of 'Nairobi Pipit'. Both are carrying food to young in their nests, on the fringe of the Lang'ata Forest (bottom) in Nairobi National Park.

comparison with those we already had of the second pair proved identical. While watching the second pair, an immature fledged bird could be seen walking into the forest, followed by its parents.

That afternoon I made arrangements with Tony Archer to show him the birds the following morning (3 December). It was a wet morning but cleared to become bright yet overcast. We found the first pair busily feeding their young. From the vehicle we

observed the birds in ideal conditions and from ranges down to three metres, breaking our concentration only to watch a big male Leopard crossing the road in front of us.

This cat was far too large to upset our birds. So we resumed our watch. Tony was soon convinced as well that these birds did not match any of Kenya's known pipits, although there was some resemblance to the Long-billed Pipit, *Anthus similis*. We then went on to visit the site of the second pair, but there was no sign of those birds.

That afternoon I flew off to Madagascar and was away for six weeks. On that very same December afternoon, however, Tony returned with ornithologist Don Turner to study the birds further.

On getting back from Madagascar, I learned from Tony that he and Don had concluded – after two days' spent studying the birds – that that they were really just representatives of the *chyuluensis* race of the Long-billed Pipit. Their deductions were based on the Van Someren diaries, which include records of specimens, later declared to be a new subspecies, collected in a forest verge on the Chyulu Hills by ornithologist 'Chum' Cunningham-van Someren.

I thanked Don for his input, but – on re-examining the evidence – my doubts persisted. It did not seem possible for *two* races of the same species, *A. similis*, to be nesting in very different habitats just a few kilometres apart, as was the case here.

Steven, in the meantime, had given me his slides of the birds. From these images, which showed several features not present in the Long-billed Pipit, it became clear that the 'forest' form was quite different. Tony Archer's enthusiasm was immediately revived. Indeed, he promptly had a set of prints made from the slides, so that he could go back and study the birds again.

We then made arrangements to show the birds to Leon Bennun, then Curator of Birds at the National Museums of Kenya (NMK). Leon spent a morning with us in Nairobi Park, bringing with him specimens of the Long-billed Pipit, race *chyuluensis*, which taxonomically has been merged with the widespread *hararensis* to which all of our *similis* pipits now belong.

Easily locating the enigmatic pipits, we had the benefit of excellent views and even obtained new tape recordings of one of the birds singing from the top of a bush. After studying these birds, we drove on for about five kilometres to the ridge of the Mbagathi Gorge in the Park's southwestern corner.



© DAVID ELSWORTH

Elephants, buzz off!

Our most recent experiments show that bees may offer a simple and practical answer to elephant control, say Fritz Vollrath and Iain Douglas-Hamilton.

There, we soon located a Long-billed Pipit, also singing from the top of a low bush. We watched this bird for some time, again taking recordings. Leon was by now also persuaded that the mystery birds could represent a new taxon of *Anthus* endemic to Nairobi Park.

Steven's father, Wayne Easley, has since contributed more photographs of Long-billed Pipits taken in Nairobi Park. Images of the two forms have been tabled at the meetings of various ornithological sub-committees, where all present have agreed that this pipit looks different, and is not on the existing Kenya List.

Since the discovery, many other people have seen the birds, which can quite easily be found in the vicinity of Nairobi Park's Kisembe Forest, and which – it now seems – may occur nowhere else.

Earlier this year, permission was sought to net some of the birds, to obtain their DNA from blood samples. This would help scientists to determine whether the pipit is indeed a separate species, or whether it is, after all, just the *chyuluensis* subspecies of the Long-billed Pipit.

That permission was duly granted. And, on Sunday, 10 November 2002, a team representing the NMK Ornithology Department, the Nairobi Ringing Group, and the Kenya Wildlife Service, as well as leading ornithologists and ornithological researchers – succeeded in capturing two of the birds. Before they were released, and while blood samples were being extracted, close-up photographs were taken of both birds in the hand.

If, as I expect, these 'forest' pipits turn out to be genetically quite distinct from the Long-billed Pipit, then Kenya will formally acquire a new endemic bird species. And, while it may not have a name just yet, the Nairobi Pipit suggests itself as the most obvious choice.

So, there we have it: A new bird species turns up, not in any of the remote island or mountain fastnesses that birders' dreams are made of, but instead in a busy national park located within spitting distance of one of Africa's most visited capital cities.

And its novelty becomes apparent, not with that flash of instant recognition that is always so exciting in dreams, but after years – many years – of painstaking observation, consultation and deduction.

This is a humbling lesson, perhaps, for those of us who, in pursuing the dream, have seen fit to scour the backmost reaches of beyond in the quest for new bird species. The Nairobi Pipit, as it may one day come to be called, has been here – lurking quietly undetected in our midst – all along.

Ngai laughed only twice. Or so the Maasai legend has it – at least, as reported in Guggisberg's charming *Elephant Safari Guide*. The first time Ngai laughed since the beginning of the world was when, looking down from the top of Kilimanjaro, he saw some huge grey beasts that had been pushing over mighty trees turn tail suddenly and run away, chased by a very much smaller two-legged creature carrying a long stick.

Ngai laughed for the second time when, looking down again some years later, he saw a group of the same two-legged creatures, which had been seated around a fire, jump up suddenly and run off frantically, pursued by thousands of tiny, winged creatures that had emerged from a nearby tree.

With our new 'guardian-bee' method of elephant control, we aim to circumvent the humans in the Maasai legend – by setting the bees directly upon the elephants. Early experimental evidence suggests that by doing this we may have found a way of managing elephants – to some extent.

Bees may be useful in guarding against elephant damage in that the pachyderms seem to steer clear of bushes and trees that have been 'mined' with bee-hives. We are extending our guardian-bee experiment to

see if the aggressive insects can be used in shamba protection as well.

The idea of using bees in elephant control came not so much from Maasai legends as from a conversation over dinner with John Wreford Smith at Mpala Ranch in Kenya's Laikipia area. We were talking about the many all too obvious signs of ruinous depredation by elephants in the beautiful riverine fever-tree forests lining a nearby stretch of the Ewaso Nyiru River.

A few of the trees here are venerable old giants whose imposing and grizzled trunks are surprisingly still intact. Some of the other trees are mature emergents with yellow bark extending all the way down to the ground – except in the many, many places where this bark has been stripped away, leaving the trunks heavily scarred, marked and often decaying.

Most of the trees, however, are little more than grotesquely misshapen big bushes with broken, twisted trunks and branches that have been eaten back and regularly stripped naked of all their bark, spines and leaves. And all this, needless to say, is the result of elephant damage!

Our evening conversation led to follow-up enquiries around Laikipia. From these, it soon became clear that other Kenyan bee-



© GERALD CUBITT / EAWLS



keeping ranchers were toying with the idea of using bees as guardians against elephant damage. Both Colin Francombe at Ol Ari Nyiro Malo and Gilfrid Powys at Kisima, for instance, were wondering how bees and elephants might interact. But the clincher, if I can call it that, came when we talked to the bee experts from 'across the river'.

We interviewed a number of the best known Lewaso bee-keepers. From them we learned that all (!) had witnessed, often on several occasions, the sight of bees chasing elephants for miles, after the pachyderms had meddled with their hives. Some of the Lewaso bee-keepers had seen such chases taking place even on moon-lit nights. For clearly, bees do not take kindly to having elephants interfere with their hives; and the pachyderms seem not to be so pachyderm after all when it comes to bee stings.

Further evidence for pachyderm soft spots came from a talk with Dan Subaitis, the trainer of Booper, a 20-year-old bull elephant on Ol Jogi Ranch. Four years ago, while out on a walk with Dan, Booper was seriously stung by a migrating swarm of angry bees that for some reason decided that attack was the only recourse. Booper went wild at first, and not long afterwards the flesh around his eyelids began to swell

Destructive craving: Fever trees are especially attractive to elephants because of their sap, which is unusually sugar-rich compared with that of other trees. Bee-hives, placed in such trees, have been shown to act as an effective deterrent in limiting the extent of damage inflicted on these trees by hungry elephants.

On the run: could stings from angry bees be what has put these elephants to flight? Swarms of bees have been seen to chase elephants for distances of up to five kilometres. Sensitive areas of thin skin on the bellies, behind the ears, around the eyelids, and on the inner trunk membranes of elephants are especially vulnerable to bee-stings.

until both eyes were completely shut. With the help of strong antihistamine injections, the swelling eventually subsided about 24 hours later.

Booper has clearly never forgotten this unhappy experience. For even now, four years later, his reaction to any tree with a loudspeaker in it playing the sound of 'Angry Bees Humming' is one of obvious panic and discomfort. (The strains of Beethoven's Violin Concerto in D Major, Opus 61, incidentally, had no effect whatsoever on him.)

Clearly, the initial bee encounter has negatively conditioned Booper in such a way that he will immediately stop feeding and turn away in obvious alarm on sensing the likely presence (even just auditory) of bees in a 'food tree'.

We have since also tried to gauge the effects on wild elephants of bee-humming and violin concertos (using works by Bach, among others). But results so far from these experiments have been more ambiguous, and the tests are still continuing. It appears that wild elephants are also worried by the sound of angry bees, but their proximity to the sound (that is, the loudspeaker) and other variables relating to the experimental

situation seem to play an important (and so far confounding) role as well.

Turning away from observing the direct effects of bees on elephants, we decided to look into their indirect effects. On Mpala Ranch, we set up an experiment where a few areas of riverine vegetation supporting a high density of fever trees (*Acacia xanthopholea*) were 'mined' with bee-hives. Fever trees, incidentally, are particularly attractive to elephants because of their sap, which is unusually sugar-rich compared with that of other trees (such as *Acacia tortilis*) that are apparently attacked more for the calcium present in their bark.

Initial results indicate that even empty hives appear to provide some degree of local protection to the trees that carry them. Occupied hives, on the other hand, act as a total deterrent, ruling out even the smallest degree of nibbling on even the furthestmost tips of branches. Obviously, the hives must be positioned at elevations low enough to allow the approaching elephants to smell the bee/honey/propolis mix and/or to hear the bees humming. Hives suspended high in tree crowns (as is normal in these parts) seem to have little or no effect as guardians.

We are now setting up more detailed experiments, including studies into the possible use of bees in shamba protection. Under these circumstances, of course, the bees need to be handled much more carefully. For African bees are notoriously dangerous when aroused, and an attack en masse can easily kill a human being.

Only time will tell how good a guardian the bee can be. But even a limited degree of protection would be very welcome. The guardian-bee concept is both natural and economic in that it requires no unsightly wires, while honey sales would pay for the hives and their maintenance.

While we are studying this concept, any observations and suggestions from SWARA readers are most welcome. You can address your comments to < fritz@mpala.org >, or to < iain@africaonline.co.ke >. Failing that, you can post your observations either to Fritz Vollrath, Mpala Research Centre, Box 555, Nanyuki, or Iain Douglas-Hamilton, Save the Elephants, Box 54667, Nairobi. ♪

The findings of the Fritz Vollrath-Iain Douglas-Hamilton 'guardian-bee' experiments were first published in the November 2002 issue of the German on-line life sciences journal Naturwissenschaften. Further information is posted on < www.savetheelephants.com >.

KOBO
safari



Member of

At Kobo Safaris nothing is new, but everything is different. Our team of professional destination managers has been appointed for their understanding of the rigorous demands of our trade. We believe that only the best is good enough, and this is what we offer you.

Headquarters - Mugoiri Road, Kileleshwa
 Address - P.O. Box 72763
Nairobi. KENYA
 Telephone - (254-2) 570333, 568438, 562108
 Fax - (254-5) 56 04 96, 57 03 32
 Internet - E-mail: kobosaf@form-net.com
 Web site - <http://www.kobo-safaris.com>



**Patmos Equatorial
Safaris & Travel Ltd**

Vedic Hse, 3rd Flr, Mama Ngina Str Room No. 306

P.O. Box 79280 Nairobi, Kenya.

Tel: 254-2-310477 / 318914/5

Fax: 254-2-249237

Website: www.sitatungatours.com

Email: patmosequatorial@sitatungatours.com




AY&R

Capture the Spirit.



Capture the spirit of adventures in Hunter's Choice Whisky. A special blend of the finest Whiskies. Rich, smooth, mellow with a well rounded taste, Hunter's Choice is a high calibre whisky for the discerning drinker. Track it down today and you will be deeply rewarded.

Hunter's Choice. The Spirit of Adventure 

Back from the brink

Angola's national animal is rediscovered several years after being pronounced 'Presumed extinct.'



It may be Angola's national symbol. But its extermination had been widely feared in the aftermath of nearly three decades of civil war. For there had been no confirmed sightings of the subspecies since 1972 – three years before the onset of the long and catastrophic civil war that followed Angola's independence from Portugal in 1975.

The animal in question is of course the **giant sable antelope**, *Hippotragus niger varians*, a race that is endemic to north-central Angola.

"Probably extinct as the result of civil war," was the terse verdict passed on this particular subspecies in the Halternorth/Diller Collins Field Guide, *Mammals of Africa* (Sixth Edition, 1996).

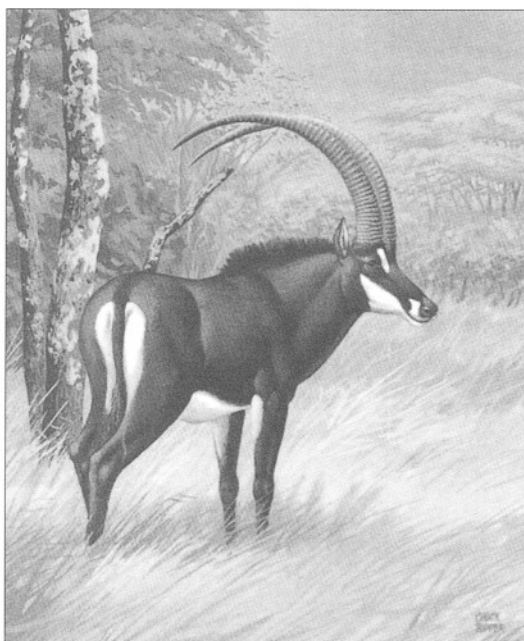
Tidings, then, to the effect that in August this year a team of scientists had located some surviving giant sable herds in Cangandala National Park in Angola's northern Malanje Province, nearly 400 km southeast of the capital Luanda, have been greeted with palpable relief.

The adult male giant (or royal) sable is considered by many to be the most handsome of all antelopes. Standing more than 1.2 metres at the shoulder, it sports a glistening dark black coat, bright white underparts and facial markings, a magnificent bristling mane, and huge, sweeping scimitar horns up to 1.6 metres (more than five feet) long.

The expedition that 'rediscovered' the giant sable was mounted by Prof Wouter van Hoven, of the Centre for Wildlife Management at South Africa's Pretoria University. He, along with South African, US and Angolan field researchers, had been eager to take advantage of the ceasefire signed in April between the Angolan army and UNITA rebels, following the killing of veteran rebel leader Jonas Savimbi.

To begin with, the search – which got under way in the second week of August – did not look at all promising. Repeated aerial surveys from a helicopter of the 8,280-km² Luando National Reserve, the giant sable's traditional stronghold, failed to yield any sightings of the subspecies.

The Luando Reserve, encompassing a broad expanse of *Brachystegia* woodland between the upper Cuanza and Luando



Majestic bearing: the male giant sable antelope, that supreme embodiment of regal grace and power, has sweeping scimitar-shaped horns that, in some animals, grow to lengths of more than 1.5 metres.

Rivers north of the Benguela Railway, had been created in 1938 specifically to protect the giant sable, which was first 'discovered' there in 1913.

A 1970 census put the Luando giant sable population at "somewhere between 1,000 and 2,000 animals." Another smaller population, numbering about 250 animals, came to light in the early 1950s near Cangandala, further to the north, and for this a second reserve was duly established in 1963. The 600-km² Cangandala Reserve was in 1970 upgraded to a National Park.

Prof van Hoven admits to having "feared the worst" on being unable at first to locate any of the animals from the air. "But we were reassured," he says, "during interviews we conducted on the ground with local people from the area, that giant sable antelopes were still being seen quite regularly in the Luando area."

"In retrospect, I can suppose only that these antelopes had become highly sensitive to the sound of an approaching helicopter," he suggests, "and had learned to take cover at once upon hearing the sound."

Success resulted only after the expedition had changed tactics and had resorted instead to carrying out ground surveys on foot within the nearby Cangandala National Park. "Here, we were soon rewarded with three good sightings," Prof van Hoven says, "of five different animals: two adult bulls, and then another solitary bull, followed by a pair of sub-adults."

"We also came across their dung and found many other tracks left by both juveniles and adults. So our expedition had the satisfaction in the end," he says, "of establishing that there is indeed still a viable breeding population of giant sable antelopes in Angola's Cangandala National Park."

The Angolan authorities, using two army helicopters, are since reported to have counted as many as 25 giant sable antelopes, in several different groups, in the Cangandala area.

Typically, the antelopes move in small herds numbering between six and 18 animals, of which roughly half are usually bulls. The females are chestnut-coloured. Luando's giant sable herds are said to be most conspicuous while out grazing on the vast flood plains that emerge each year, verdant and lush, along the banks of the Luando and Cuanza Rivers.

The giant sable is Angola's national symbol; the country's football team is named after it, and its majestic, sweeping horns are emblazoned on planes belonging to the Angolan national airline. The antelope's rediscovery after 30 years in the wilderness was announced on 28 August, during the recently concluded Johannesburg Earth Summit.

Further ground surveys in both Luando and Cangandala are now being planned in conjunction with Angola's own Kissama Foundation and with the Augosthino Neto University in Luanda. "The immediate aim," Prof van Hoven says, "is to arrive at a clear understanding of the giant sable's present status in terms of numbers and distribution, so that future conservation measures can be targeted accordingly." 🐘

– reported by Gordon Boy

Observing the pint-sized baby gorillas is rather like watching a miniature game of rugby with no teams and few rules. The ten gorillas scramble over one another: play fighting, tackling, and attempting mock bites that induce fits of giggling all round.

The playing does occasionally get out of hand. And fights break out. But more often than not these disputes are resolved by the Congolese women seated nearby, who assert their authority with a series of coughs – vocal reprimands the baby gorillas know they must heed, or there will be trouble.

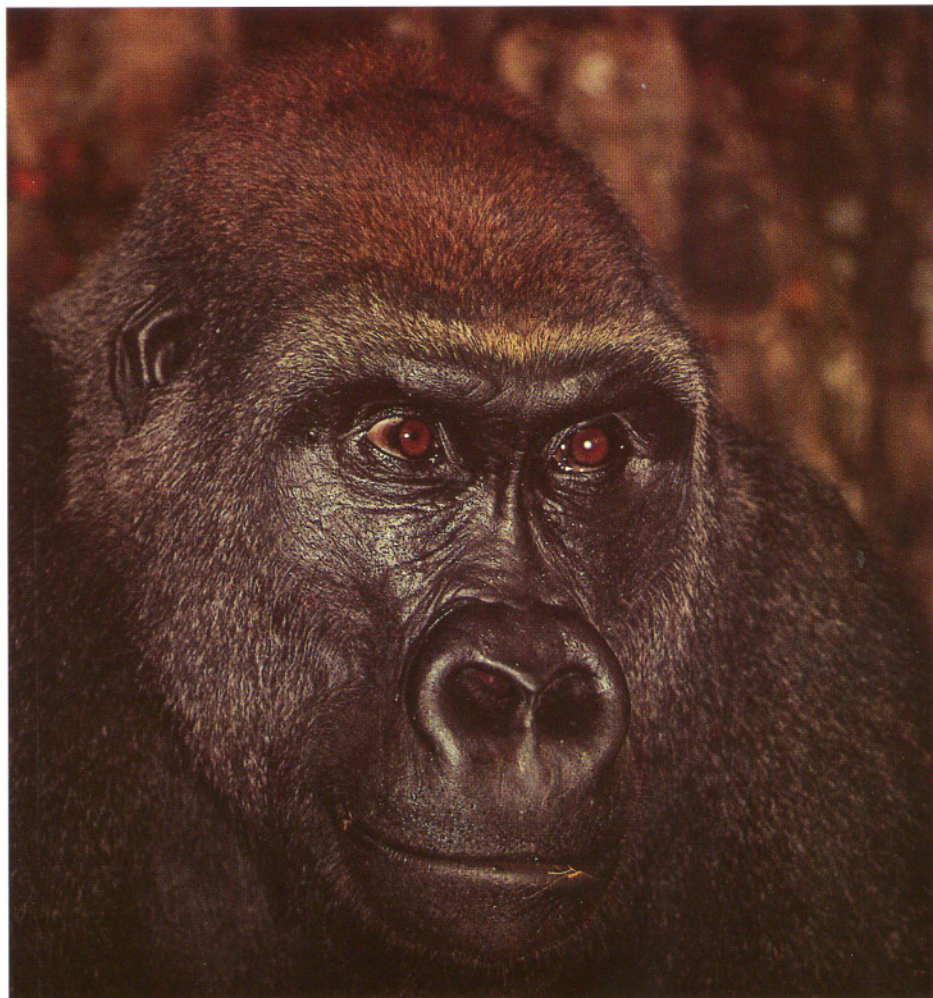
Such apparently blissful scenes belie the horror these young western lowland gorillas have had to bear. For these are all orphaned gorillas – by-products of the bushmeat trade ravaging central and west Africa.

Over the western lowland gorilla's entire range in central Africa's rainforests, poaching for bushmeat is a long established tradition, and the gorillas have traditionally been regarded as a delicacy. Well-armed poachers risk their lives to kill whole family groups for what is still very highly prized meat. The infant gorillas, too small to be considered for the pot, are often snatched from their mothers' corpses, and then trussed up and carried back to the poachers' home villages as objects of amusement.

In the Republic of Congo, some infant gorillas survive long enough to be taken eventually to commercial centres such as the capital Brazzaville and the coastal town of Pointe Noire, where they are offered for sale – often to do-gooder expatriates who may be asked to pay anything between US\$ 200 and US\$ 600 per animal.

It is easy to see why some might be tempted to buy these adorable bundles of fluff that require almost constant attention. But gorillas are highly sensitive and many die from their rope burns, or from bullet and machete wounds, or from exposure to human infections and parasites to which they have little or no immunity, or simply from the psychological stress arising from the treatment meted out to them.

The scale of the trade is considerable, with about 40 orphans becoming available annually in Congo-Brazzaville alone. Each live orphan found in the markets represents probably 15-20 other gorillas that will have



Going ape

John Watkin on how, and where, Africa's beleaguered western lowland gorillas are going – and they're going fast – and on what steps can, and should, be taken to prevent, even to postpone, their departure.

been killed while recovering the infant. Extrapolated throughout their range, this means that possibly as many as 3,000-5,000 gorillas are being poached annually from an estimated population of 100,000 western lowland gorillas inhabiting forests from Angola's Cabinda enclave through Congo, Gabon, Cameroon, Nigeria, the Central African Republic and Equatorial Guinea. The clock is ticking...

Horror at the massive scale of this trade led John Aspinall, the late gambler-turned-conservationist, to establish an orphanage for infant gorillas at the Zoological Park in Brazzaville in 1986. Run initially by Mark and Helen Attwater, the Rescue Centre worked alongside officials of the Ministry of Water and Forests to confiscate the purloined infant gorillas, to imprison the poachers or traders, and then to try to rehabilitate the gorillas.

This hard-line approach was meant to deter poachers. The trials of this time are recounted in Helen's book *My Gorilla Journey* (reviewed in SWARA 23:1). Being the first sanctuary of its kind dealing with gorillas, there were many, many setbacks, and individuals were lost to a combination of wounds, disease and stress. The work

Dominant male: 'Kola' (above), now 15 years old, was raised by the Projet Protection des Gorilles in Congo-Brazzaville. Since his release in the nearby Lésio Louna Reserve (where this picture was taken), he has driven out all the other adult males in his original 'family' group. His wanderings have taken him (top right, facing page) into Mâh Village, outside the Reserve, where he has been known to cause panic among villagers. Bottom right: Rescued infants like this one, seen during a break in play, have survived extreme trauma at the hands of poachers and would-be traders.



Photographs: © John Watkin/ICCE 2001

was heart rending, with a success rate of only 20 %. Yet there were some notable successes, despite all the setbacks.

The Rescue Centre's aim was to form pseudo gorilla 'family' groups and to release these back into the wild. In 1993, the Ministry of Water and Forests gazetted an area for the gorilla releases – the Lésio Louna Sanctuary. This beautiful area of rolling green hills and gallery forest seemed ideal for releasing the newly constituted gorilla 'family' groups. Food plants were abundant and the sandstone cliffs around the Reserve provided natural barriers that would help to keep the gorillas in the Reserve. The first group of older gorillas was released there in 1994, leaving the younger individuals behind in the Centre in Brazzaville.

The political history of Congo-Brazzaville in the 1990s is one of almost incessant turmoil and conflict: three civil wars, a complete breakdown of society, and horrifying reports of atrocities committed by all sides. The country has a fairly small human population of some 2.8-million, of which about 80 % is

urbanised. Many of the inhabitants of Brazzaville fled into the forests south of the capital, as helicopter gunships decimated whole cartiers of the city.

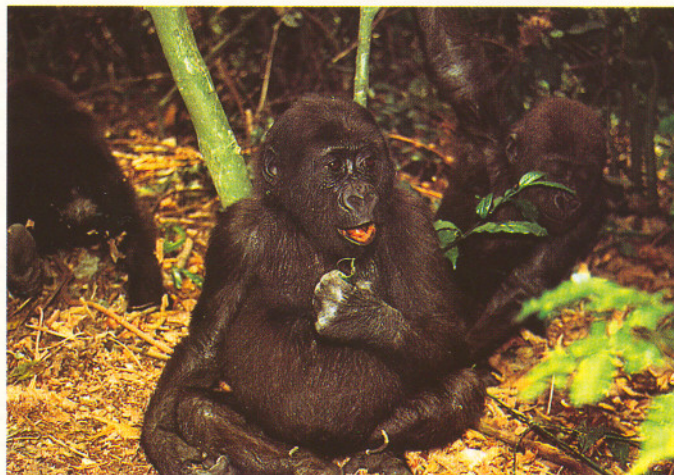
During the 1997 war, the project's then head, Amos Courage, pulled off a truly Herculean feat in convincing the military to evacuate all the gorillas being held in Brazzaville and to transfer them to the Jane Goodall Institute in Tchimpounga near Point Noire that cares for chimpanzees. This, just days after he had broken his leg.

Following a brief respite in 1998, the youngest gorillas were transferred from

Pointe Noire to the Lésio Louna Sanctuary, to join the free-living gorillas already released there. The civil conflict flared up again in 1999, with yet more negative repercussions for the project. But again the diligence of the staff ensured the gorillas were not harmed. It is a credit to John Aspinall and all the project's staff that they continued to invest in the project at a time when so many other organisations were bailing out and leaving Congo to its own devices.

Back, then, to our 'babies', who are just beginning the second half of their pseudo rugby match after taking a midday break. This group of ten individuals is called Djéké's Group, after the seven-year-old male whom it was felt, from an early age, would go on to be the leader. To the initiated, each orphan has its own distinctive appearance and character and responds to its name: be this Kelle, Pikouda, Tchivou, Koto, Massabi, or Mpoumbu.

There is nothing arbitrary about any of these names. For the project calls new arrivals after the village that from which they





On the small side: The 44,000-ha Lésio Louna Reserve (above) turned out to be too small an area in which to go on releasing the project's gorilla groups. Other areas, such as the Lefini Reserve, which are larger and more remote, would be better release sites.

An alternative approach?

Possible health risks associated with eating the flesh of primates came to the fore after the December 2001 outbreak of Ebola in Gabon. Some have suggested that this outbreak may have been the result of an incident where some people ate a dead gorilla.

It has also been argued that HIV, the virus that can lead to AIDS, may have crossed over from chimpanzees to humans following the contamination of human blood during the butchering of a chimpanzee after a hunt.

Whatever merits these arguments may have, they certainly present chilling scenarios that, until further investigations are carried out, it would be foolhardy – not to say wholly unscientific – simply to reject out of hand.

It may well be some time, however, before the implications for human health of consuming the flesh of wild apes are properly understood. So, in the interim, other creative approaches to the problem of stemming the trade in bushmeat from apes must be considered. A paper in the conservation journal *Oryx*, on the threat to primates and other mammals from the bushmeat trade in Africa and how this threat could be diminished (Bowen-Jones and Pendry, Vol 33:3, 1999) reinforces this need for more creative approaches.

One possibility that suggested itself to me while I was in Congo-Brazzaville was that it may be worth trying to tap

into the various religious movements already well established in the region. One religious group, the Kimbanguists, forbids the consumption of the meat of primates. The Kimbanguists believe, first of all, that apes resemble humans, and secondly, that if you were to get lost in the forest, then you could – in order to survive – always copy what they eat.

Most of the people I encountered in Congo are avid followers of a religious group. Often this religious fervour is seen to provide an essential form of self-defence against 'fetish', or witchcraft, which still exerts a powerful hold over people throughout central and west Africa.

Conservation organisations and religious movements may come over as strange bedfellows. But, where there is such an urgent need to disseminate information – on the threats to wild ape populations, on developing alternative protein sources, or even on the possible health risks of consuming primate flesh – the religious networks offer probably the only channels through which to spread the word effectively.

Given the right encouragement, these religious movements may yet prove to be far better purveyors of such information than conventional conservation education and awareness programmes.

– John Watkin

Wildlife biologist John Watkin has been working on conservation programmes in East and Central Africa since 1992. For almost two years (2000 – 2001), he was based in Congo-Brazzaville with the Projet Protection des Gorilles.

originated. So, looking at a map of Congo Brazzaville, it is easy to see – by locating the villages whose names the gorillas bear – that the poaching is ubiquitous. The same applies in Gabon, where the John Aspinall Foundation has set up a sister project to do similar work. Djéké's Group was released at a new location in June 2001, and all the indications are that they may have a bright future ahead of them.

Of the ten individuals in the group, six are females and four are males. Aged between two and seven years, they have been together as a group for four years. Their transition to free-living represents a major step forward, not only for them but also for the whole issue of whether primates can be hand raised for release back into the wild. This is a young science and requires careful consideration. But the experience of the *Projet Protection des Gorilles* suggests that – with the right levels of investment, of time and love as well as money – successful reintroductions can be achieved.

The *Projet Protection des Gorilles* is all about the individuals in their care and their stories. 'Mainstream' conservation may well criticise the efforts of ape sanctuaries as a whole. But ultimately there are two aspects to consider. First, giving these individuals some semblance of a life has to be better than abandoning them to the fates they would suffer at the hands of poachers and traders. Secondly, these individuals can go on to be used as ambassadors in raising awareness of the threats faced by wild gorillas – and of the scale of the bushmeat trade.

Throughout central and west Africa, bushmeat is brought to commercial centres to satisfy the human demand for protein. Bushmeat is the diet of choice; alternatives have yet to be accepted. The problem is compounded by the fact that there is still scant awareness among the general public of the scale of the bushmeat trade and of the threats it poses to wildlife populations.

That conservationists now accept that there is a bushmeat problem represents something of a *volte face*. For, not long ago, during the politically correct 1990s, some were reluctant to criticise traditional practices such as the consumption of

A taste of the wild: The baby gorillas are taken every day in goups like this one (right) into the Lésio Louna Reserve as part of the preparations for their eventual release. The Reserve itself boasts a combination of long-grassed savanna habitat and impressive riverine forest (top, facing page) along the winding course of the Louna River.



bushmeat, as this was not 'PC'. But then, as it became obvious that the massive scale of the bushmeat trade was threatening the continued survival of entire wildlife populations, conservation bodies were jolted into starting to examine the issue.

There are alternatives to bushmeat that can give villages an easier source of much-needed protein. The problem is one of cultural values and attitudes to hunting. Karl Amman, once a lone voice speaking out against the horrors of the trade, has been instrumental in setting up an international programme highlighting the bushmeat issue. Yet bushmeat is still the meat of choice for those who can afford it. For the ape meat is usually more expensive than meat taken from domestic animals.

Rehabilitation projects such as Projet Protection des Gorilles are certainly not

without their problems. Sadly, the 44,000-ha Lésio Louna Reserve turned out to be too small an area for the gorillas. At 11 years of age, male gorillas reach maturity, and the concomitant surge in testosterone leads inevitably to fights. Kola, one of the individuals raised by the project, is now 15 years old and has long since expelled the other males from his group.

The excluded males wandered about, succeeding eventually in climbing the cliffs surrounding the Reserve. Once up on the plateau, they posed a threat to local villages and were darted. They now live in huge cages sent out from Britain for just such a contingency. The project's staff live within the territory of the free-living gorillas. This can complicate matters. For, when a 150-kg gorilla decides to relieve you

of your bread, manioc, or fruit, you have little choice but to pander to his wishes. But all these are important lessons, learned the hard way.

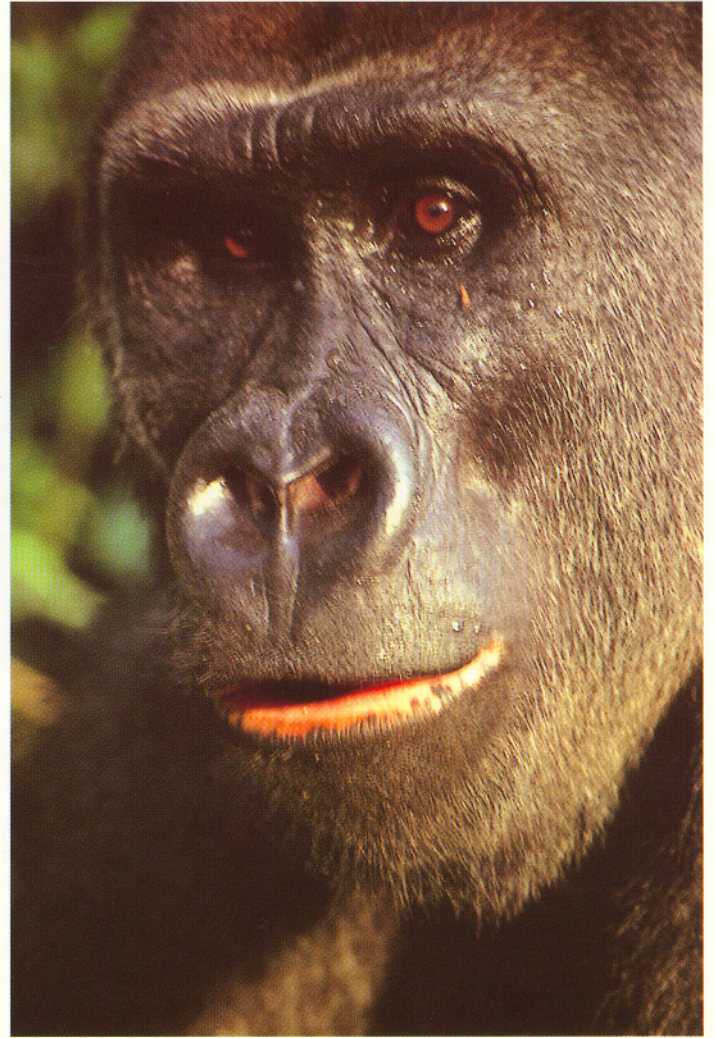
The project's future depends on its being able to relocate the adult gorillas to a more remote area, hopefully in the neighbouring Lefini Reserve. There, the gorillas would have sufficient space in which to establish individual territories, while being prevented from wandering too far by the large rivers that describe the protected area. Large rivers with no fallen trees to form natural bridges are the only natural barrier to the movement of gorillas. That we now know.

Project staff could then live in peace across the rivers and monitor the gorillas' movements and behaviour from canoes and via foot patrols. Even the caged gorillas could be released, as there would be little chance of their wandering into villages again. Gorilla tourism from boats might also be developed to create much needed benefits for the local people.

Relocating the adult gorillas would also enable the project to take in more orphans. For, despite all that has been done, the trade continues. There are many reasons for this, but a finger can be pointed at the main culprit – commercial logging.

The scale of the logging concessions is such that big roads have to be cut into the interiors of the remaining forests to extract the timber. This increases access to what were once very remote areas of tropical rainforest. This in turn allows poachers to continue the slaughter in areas of virgin forest. Lorry drivers provide easy transport back to towns where the meat and babies are sold. These tracks, and the proliferation





of the logging itself, result in serious fragmentation of the remaining habitat. As Jane Goodall has said, "It is my firm belief that in 50 years there will be no viable populations of apes in Africa."

Conventional conservation approaches and moral arguments are invariably futile in such situations. Central Africa does not

have the benefit of a profitable tourism industry to show that landscapes and wildlife can be of economic benefit on a national scale. In such areas, new and inventive conservation approaches are required. Initiatives such as the one being tried by Conservation International, a relatively new organisation which is

Youth and experience: Another of the project's youngsters (left) is bloodied in the arts of free-living. 'M'binda' (right) – once known as 'Hotlips' – was among the adult males driven out of Kola's group. His wanderings led him into a village on the escarpment above the Reserve, causing panic among villagers.

purchasing the logging concessions from the Government in order not to log them, may be what is needed. This could at least stem the flow of trucks and hunters into some of the gorillas' remaining forest strongholds and so give all primates – ourselves included – a breathing space.

With Africa's great apes, there must surely come a time when human society as a whole will have to speak up and say, "This is not acceptable," while at the same time redoubling efforts to find effective solutions. Hand in hand with this is the desperate need to find, and to teach the people in these areas about, alternatives to bushmeat – from other species than *can* be harvested sustainably. And this must be done soon, or it will be too late. The clock is still ticking.

Source: Blynynski, T. M. (2001), Africa's Great Apes

Africa's Great Apes – Population Estimates

Robust Chimpanzee, <i>Pan troglodytes</i>	203,000
Subspecies	
Western Chimpanzee <i>P. troglodytes verus</i>	39,000
Nigeria Chimpanzee <i>P. troglodytes vellerosus</i>	5,000
Central Chimpanzee <i>P. troglodytes troglodytes</i>	63,000
Eastern Chimpanzee <i>P. troglodytes schweinfurthii</i>	96,000
Gracile/Pygmy Chimpanzee (Bonobo), <i>P. paniscus</i>	35,000
Western gorilla, <i>Gorilla gorilla</i>	94,700
Subspecies	
Western Lowland Gorilla <i>G. gorilla gorilla</i>	94,500
Cross River Gorilla <i>G. gorilla diehli</i>	200
Eastern gorilla <i>Gorilla beringei</i>	17,500
Subspecies	
Grauer's gorilla (Eastern Lowland Gorilla) <i>G. beringei graueri</i>	16,900
Mountain gorilla <i>G. beringei beringei</i>	300
Bwindi gorilla <i>G. beringei ssp?</i>	300

This article is dedicated to the memory of Roland Goma.



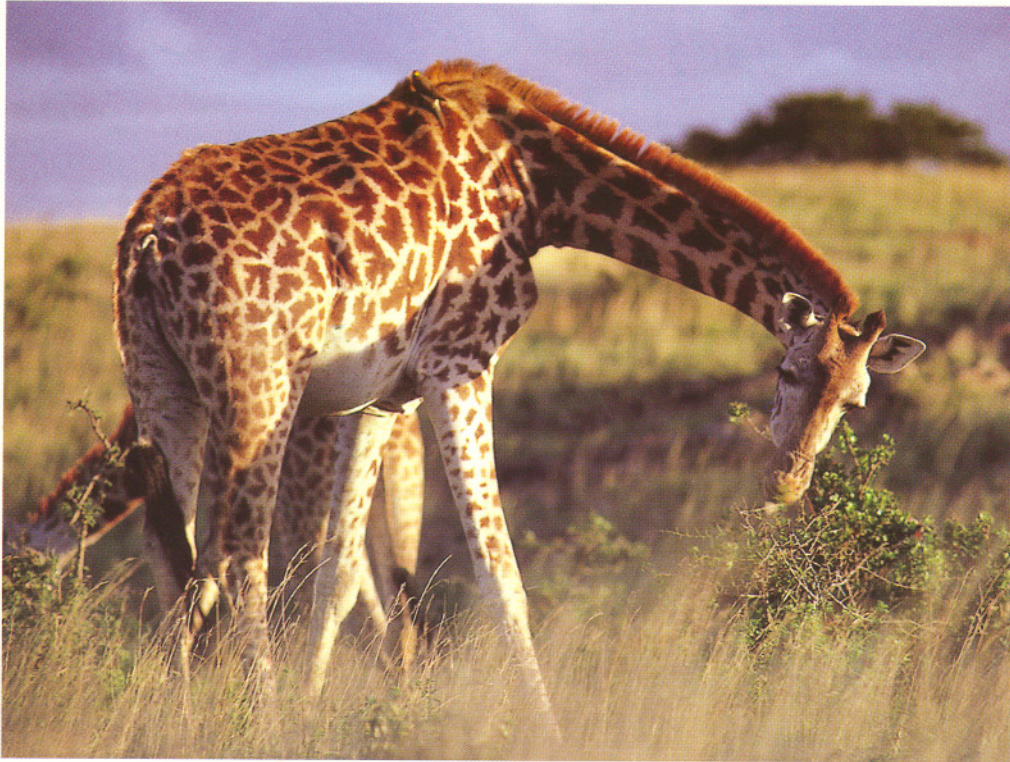
191 Direct

Just call 191
from your Safaricom phone

Access to the most comprehensive phone listing in Kenya. 191 Direct can provide the name, phone number or address requested. 191 Direct operators will help you find any number. They can also SMS or email you the number and fax you a map with directions. 191 Direct, the largest phone listing in Kenya, just one call away.

Service available to Safaricom subscribers only. Calls charged at Kshs 20/- per call. Call 100 for more information on how to have your personal or business number listed

Safaricom
the better option



© DAVID ELSWORTH



A conundrum of hide and seek

Such a piece of work is the giraffe, argues **Antoni V Milewski**, from a study of its 'flags' – markings that appear to advertise, rather than to hide, its presence.



© DAVID ELSWORTH

The tallest of all animals is a curious combination of camouflage and conspicuousness. A fresh look at the giraffe suggests that it may 'flag' not only to give the alarm but also to keep sight of other members of its own species.

A giraffe's throat, cheeks, ears, mane, horns, chest, tail and feet are conspicuous at certain angles and in certain lighting. All are bright or dark enough to register covert displays to other members of a scattered herd by day, when the active giraffe can hide to a limited degree only.

The giraffe stands out as the largest ruminant on earth. It is the only hoofed mammal to be covered in dark blotches

Enigmatic patterning: The largest of ruminants, the giraffe – the animal the Romans called *camelopardalis* (the camel marked like a leopard) – is a curious blend of camouflage and conspicuousness. While the markings of no two individuals of the same subspecies are alike, the general coat patterns of Africa's eight recognised giraffe races vary markedly.



© UWE FLUHS

and spots separated by a pale ground-colour. It is the largest animal with a coat pattern designed to disrupt its shape in the eyes of predators. Is it simply a coincidence that the giraffe is also the only mammal born with tasselled horns and a fully-developed mane, while at the same time being nearly mute to the human ear?

Such enigmatic patterning makes sense when one considers that the giraffe may hide in some circumstances and display itself in others, using a 'sign language' previously overlooked by zoologists.

A patchwork pattern may camouflage the giraffe sufficiently to compensate for its exceptional size, at least while it is quietly

chewing the cud. At night, the giraffe's blotches and spots may keep it hidden even from the lion, which sees well in darkness. Yet several of the markings on its coat are conspicuous enough to override this camouflage by day.

How do giraffes see pattern and colour?

Most mammals cannot see full colour, and view the world in blue, yellow, and shades of grey. Experiments in zoos have shown, however, that giraffes can see the orange part of the spectrum. Subtle hues of rufous (reddish-brown or bright fawn) on a giraffe's coat may be visible to other giraffes, yet invisible even in daylight to predators. This awaits investigation.

The giraffe has acute vision, and may see patterns missed by the human eye. I have noticed an intriguing pattern on the chest of the giraffe. Although the dark blotches are arranged differently on every individual and trespass on the midline over the neck, back and rump, the chest always has a midline corresponding with the pale

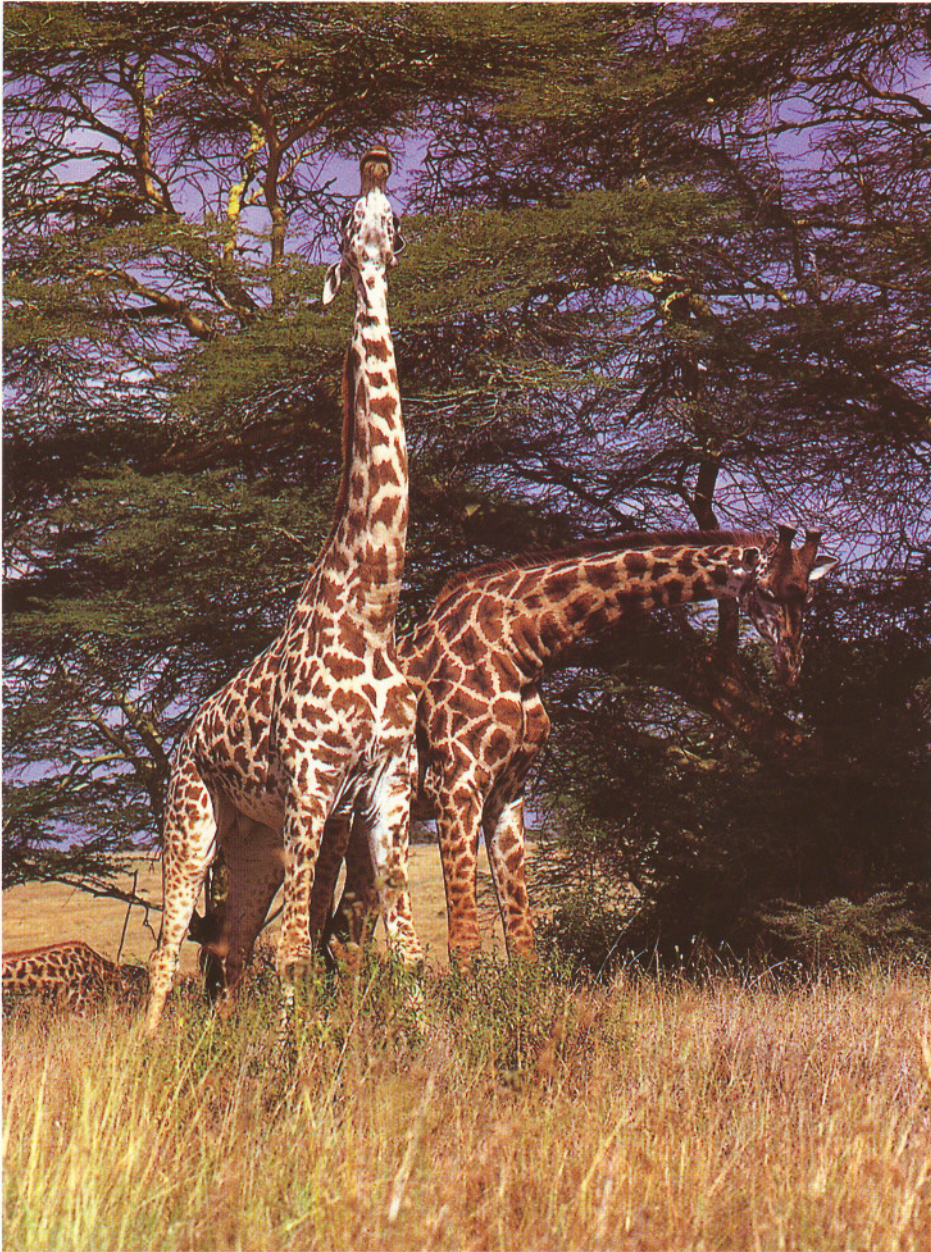
ground-colour. Because the shoulders project forward, the midline of the chest can be spotted only when the giraffe faces the observer. This pattern may therefore act like a sighting device (or cross-wire) in allowing the giraffe to monitor the positions of herd members hidden among the trees.

Conspicuous markings on ruminants

'Flags' are markings designed to advertise, not to hide, an animal. The black and white bands on the hindquarters of one cover-dependent species, the impala, are conspicuous only from within 50 metres. By contrast, the white rump of the Grant's gazelle, inhabiting grasslands and semi-deserts, is visible from several kilometres away. Many species of open habitats make little attempt to hide from predators as adults, making themselves prominent instead, partly out of a commitment to herding and synchronised running.

In the case of the oryxes and gazelles, most of the coat is pale and bright. So the

The reticulated giraffe (top right) of northern Kenya, dark rufous brown with a latticework of fine white lines, has perhaps the simplest patterning. The Maasai giraffe (top left), with dark blotches resembling starbursts, possesses the most irregular pattern. On the Rothschild's giraffe (left), a western subspecies, the dark areas form more regular, geometric blocks.



© DAVID ELSWORTH



© RAMONA SERGENT

whole animal is conspicuous at a distance. Buffalo and bison stand out by being dark, and rely on water and shade to keep cool in tropical grasslands. 'Flags' that may aid herding are apparent to the human eye in the case of giraffes too, although these have not been pointed out in field guides, or in published explanations of coat patterns (see Kingdon's *Mammals of East Africa*).

Many species of ruminants that are well camouflaged at rest raise 'flags' in alarm, warning one another and demonstrating their fitness to the predator. Kudus and bushbuck, for example, are hidden by dull coats disrupted by stripes until they reveal the white undersides of their tails as they flee. The only antelopes without such 'flags' are small, solitary species inhabiting dense cover, such as grysbok and certain duikers.

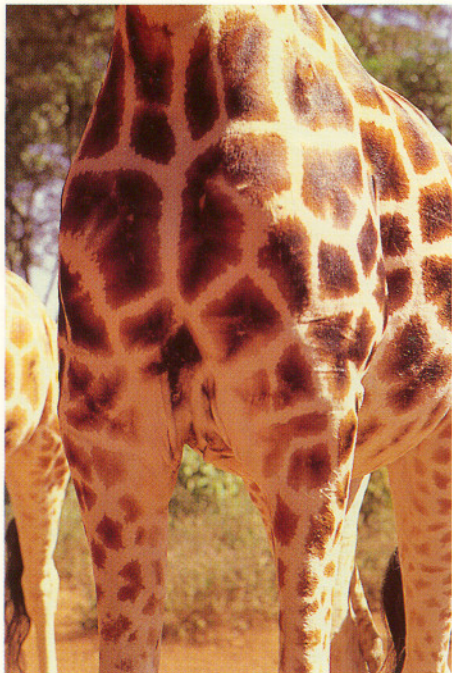
The giraffe shows both types of 'flags': those likely to help keep herd members in sight as they routinely browse or ruminate, and those likely to give the alarm, as an individual takes flight. All forms of the giraffe show, to a greater or lesser degree, a subtle trade-off between hiding from predators and seeking to be seen by their own species, according to the situation. However, the 'flags' differ in emphasis among different subspecies, in keeping with the vegetation cover and illumination prevalent in their respective habitats.

'Flags' for keeping watch

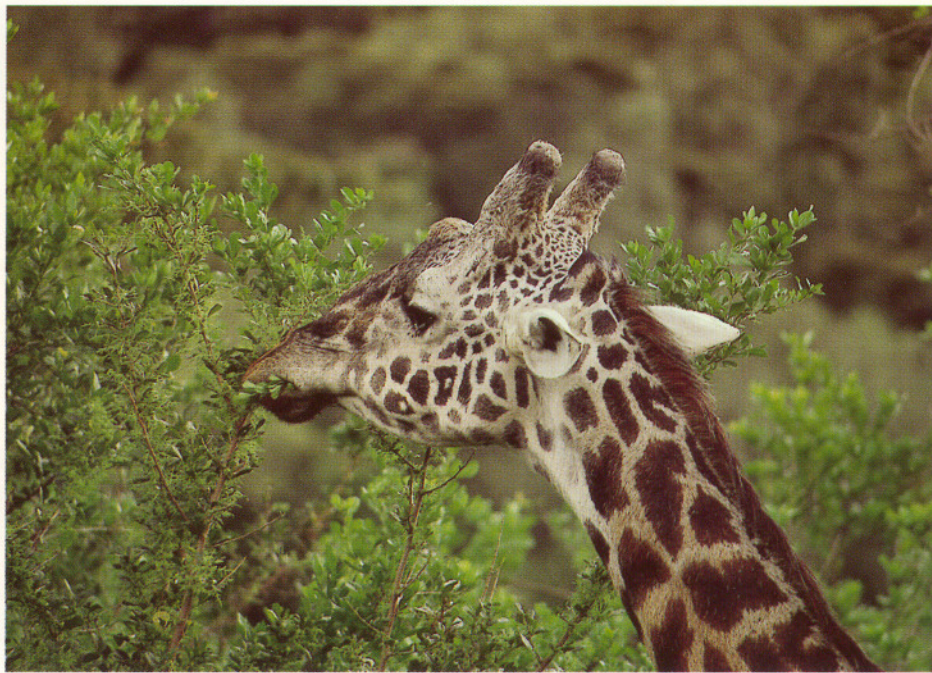
Pale 'flags' on the coat of the giraffe are patches wherein the ground-colour, or the blotches and spots, or both, are bleached. The junction of head and throat in the giraffe is marked with a 'flag', displayed automatically even when the animal is browsing among trees. The crook of the throat is pale because the ground colour is white, not fawn as on the rest of the neck. This 'flag' is present even in mature males of southern African subspecies, which have otherwise dark necks.

The cheeks are also sufficiently pale to be conspicuous in certain subspecies. In the giraffe of the northwest of Africa (*Giraffa camelopardalis peralta*), this is because the

While the pattern of blotches on the neck and the chest of Maasai giraffes like this pair (top left) varies enormously between individuals, there is a consistent theme on the midline of the chest. The white 'socks' of this southern African giraffe at a watering hole (left) in Etosha, Namibia, act as 'flags' in low grass. Right, facing page: The white 'flag' around the upper throat is clear from this southern African group, browsing in late evening light in Caprivi, northern Namibia.



© DAVID ELSWORTH



© DAVID ELSWORTH

ground-colour around the cheek spots is white. In southern African subspecies, the ground-colour of the cheeks is greyish, but this is barely spotted and is also offset by a dark muzzle.

The junction of the foreleg with the body is pale, beyond the countershading on the bellies of many species of mammals. A pale patch is prominent around the elbow on a figure walking away from the observer. Another shows near the brisket, as the giraffe approaches. These 'flags' are most conspicuous in slanting winter sunlight, far from the equator. They are best-developed in the subspecies – *G. c. giraffa* or *G. c. capensis* – of the southern African savannas

and woodlands. Southern subspecies also have a subtle pale patch on the rump, similar to (but less marked than) that of the hartebeest. This is achieved by a slight pallor or sheen on the blotches of the haunches below the level of the anus, complemented by the whitish inside surfaces of the upper hind legs.

All giraffe subspecies have pale, spotless fur just above the hoof, acting as a 'flag' in low grass. The feet are more visible to other giraffes than to predators at ground level. In the Maasai giraffe (*G. c. tippelskirchi*), whitish 'socks' contrast with relatively dark (fawn and spotted) lower legs. In western subspecies (*G. c. peralta*, *G. c. rothschildi*, *G.*

Full frontal: The midline on the chest, in this case of a Rothschild's giraffe (top left), may act as a sighting device for other giraffes in the herd. Above: The white 'flags' on the backs of the ears, evident on this browsing Maasai giraffe, are conspicuous over large distances, and may – in a fleeing giraffe – help to signal alarm to others in the herd.

c. camelopardalis), this 'flag', spread over most of the lower limbs, forms a whitish stocking.

The only dark markings that may act as 'flags' for leisurely surveillance are the swishing tail and the horn tassels of the female giraffe. The distinct horns of both females and juveniles, and their consistent covering of dark hair, have not been explained in any other way. Female giraffes have never been recorded using their horns to strike, or even to threaten, either one another or predators.

Possible colour signals

Subtle colours on the giraffe suggest that rufous (reddish brown and bright fawn) at least serves to whisper, if not to shout, in the sign language of the species. The manes of the Maasai and southern subspecies are the most rufous part of the whole body. The mane's prominence has never been otherwise explained.

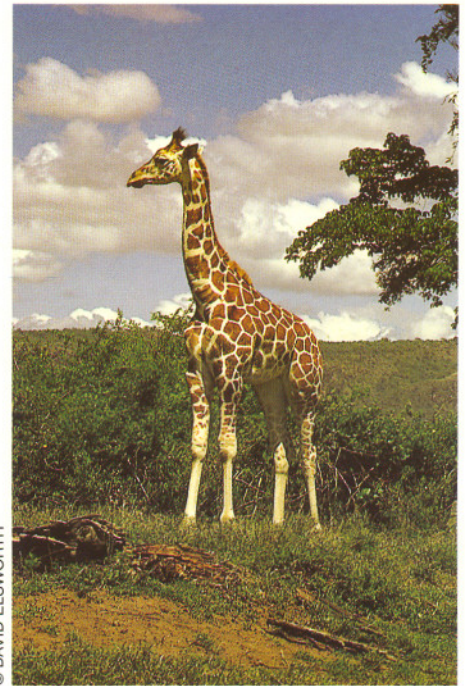
The giraffe is the only ruminant in which the newborn has a proportionately larger mane than that of the adults of its species, mature males included. Of the 70 species of ruminants in Africa, only four besides the giraffe have a full mane on the neck of the female: sable, roan, and both wildebeest species. The closest relative of



© RAMONA SERGENT



© DAN GROSS



© DAVID ELSWORTH

the giraffe, the okapi, has neither a mane nor horns in the female.

In the giraffe, both the horn tassels and the mane are proportionately largest at birth, and smallest in the mature male. This suggests that mane and horns complement each other in some function other than advertising male power. Perhaps the reason why the giraffe is the only animal species born with conspicuous horns is one of fostering recognition and cohesion among infants, which congregate in a crèche.

Black and white alarm signals

The tail tassel of the giraffe is black, in both sexes and in all ages and all subspecies. It is most conspicuous when curled above the rump as the giraffe flees. In raising its tail in flight, the giraffe resembles many other species of hoofed animals, including the next largest ruminant in Africa, the buffalo.

However, the ears of the giraffe also sends an alarm signal, visible even when the tail is hidden by trees. The pale, spotless posterior surface of the ears creates the appearance of an interrupted whitish bar mounted on the dark axis of the horn bases, crown and nape of the fleeing giraffe. This effect is achieved through a pale grey

colour, possibly combined with a sheen, so the ears appear white in flight without being especially conspicuous at close range.

The function of sheen on a short coat is epitomised by hartebeests and their relatives, which can shine like car bodies in the sun. Wildebeest stand out mainly by virtue of their dark colour. But the tropical species has a rump sheen so pronounced that it has much the same effect as a white 'flag' on a dark body.

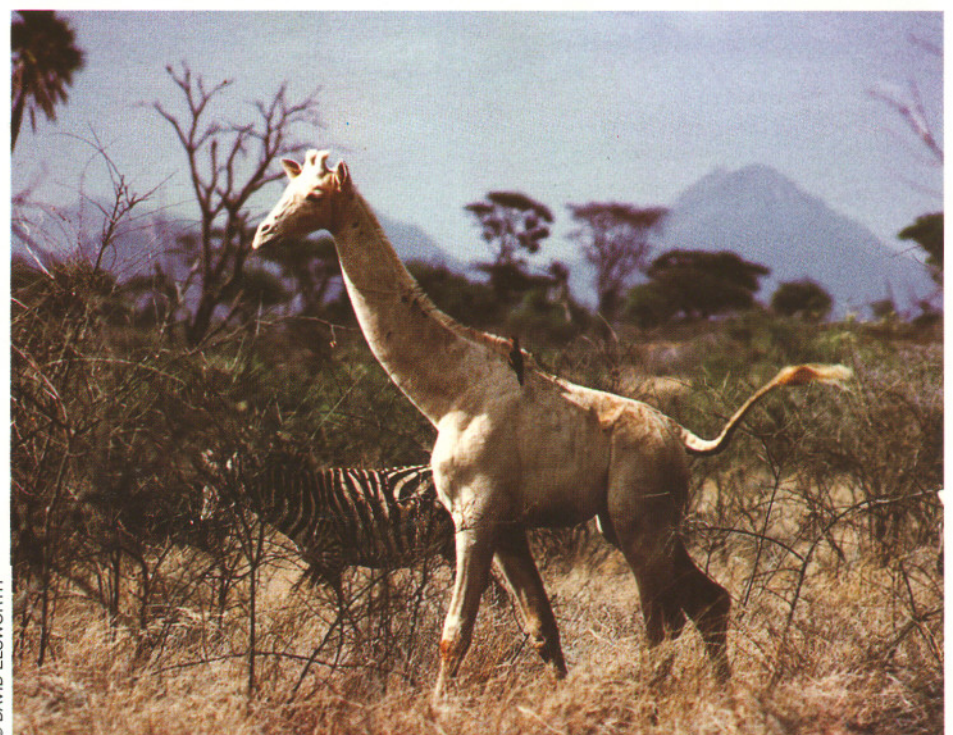
The newborn giraffe has a relatively small tail tassel, and the rear surfaces of its ears appear grey instead of white. The need for alarm 'flags' may be minimal in infants left in crèches away from most adults.

Differences among subspecies

The reticulated giraffe (*G. c. reticulata*) of northern Kenya is the subspecies with the simplest pattern. A uniform dark brown coat with narrow white netting is likely, in dense thorn scrub, to provide camouflage from large carnivores with poor colour vision. The only 'flags' shown by this form are those shared by all giraffe subspecies: tail, ears and feet. However, the rufous hue of the body as a whole is bright enough to be conspicuous to humans, and possibly to other giraffes as well.

The Maasai giraffe cannot hide by day in the grasslands of East Africa, and has several markings that serve to accentuate its

Deconstructed: This albino (near right), pictured in Kenya's Meru National Park in 1987, shows what a reticulated giraffe would look like without its distinctive coat markings. Far right, facing page: Reticulated giraffe in Kenya's Samburu National Reserve, in the company of a Grevy's zebra. 'Flags' on the latter include white-tipped ears and a pale, almost stripeless rump and underbelly.



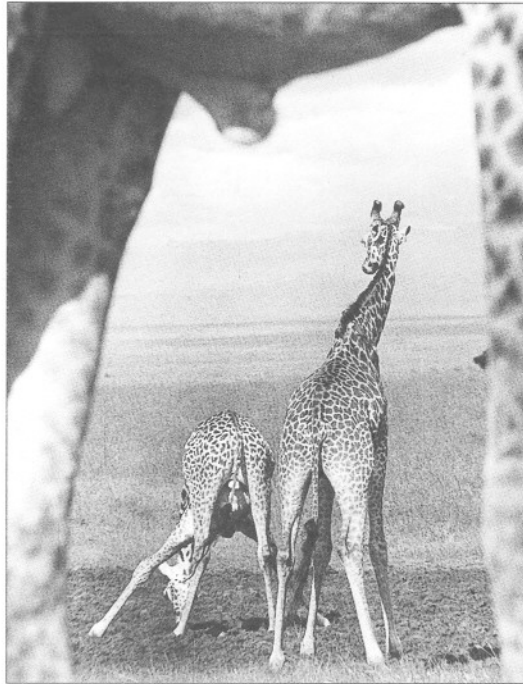
© DAVID ELSWORTH

No place to hide: Maasai giraffes (far left, facing page) in the almost lunar setting of an eroded Mara River bank show obvious white 'flags' on the crook of the throat and behind the ears. Knee-high white stockings are typical of Rothschild's giraffes such this one (near left), pictured in Kenya's Nakuru National Park, which has very dark coat blotches. Framed (at right): Rear-end view of a pair of Maasai giraffes in Nairobi National Park.

conspicuousness. The 'flag' at the crook of the throat is well developed. The upper lip, marked in bright fawn and edged with grey, contrasts with the monotonous rufous in the reticulated giraffe. The whitish 'socks' are visible by day in short grass. The Maasai giraffe's horns are tipped with black, compared with brown in the reticulated giraffe.

The giraffe enters some very open areas: at the edges of the Sahara (in the case of *G. c. peralta*) and around both the Namib and the Kalahari (*G. c. angolensis*?). In common with coexisting antelope species, these giraffe subspecies are so pale, their whole bodies tend to be conspicuous in daylight.

In the northern subspecies of the Sahel, overall pallor is achieved by a broadening of the whitish ground-colour at the expense of the blotches, by the appearance of pale centres in the blotches themselves, and by the spotlessness of the whitish lower legs. In the southern subspecies of the southwest arid region, the ground-colour (including that on the cheeks and feet) is neither white nor especially broad. Yet the whole body



© L J PARKER / EAWIS

catches the eye at a distance because the blotches and spots are so faded.

How the giraffe compares with other large hoofed mammals

The largest species of equid, and deer, may – like antelopes – also play a game of hide and seek both with its fellows and with predators. But, if so, it appears to use a parallel, and not an identical, language to that of the giraffe.

The largest wild species in the horse family, the Grevy's zebra, is conspicuous enough, despite any camouflage provided by its stripes. Approaching the observer, it has 'flags' in the form of white-tipped ears,

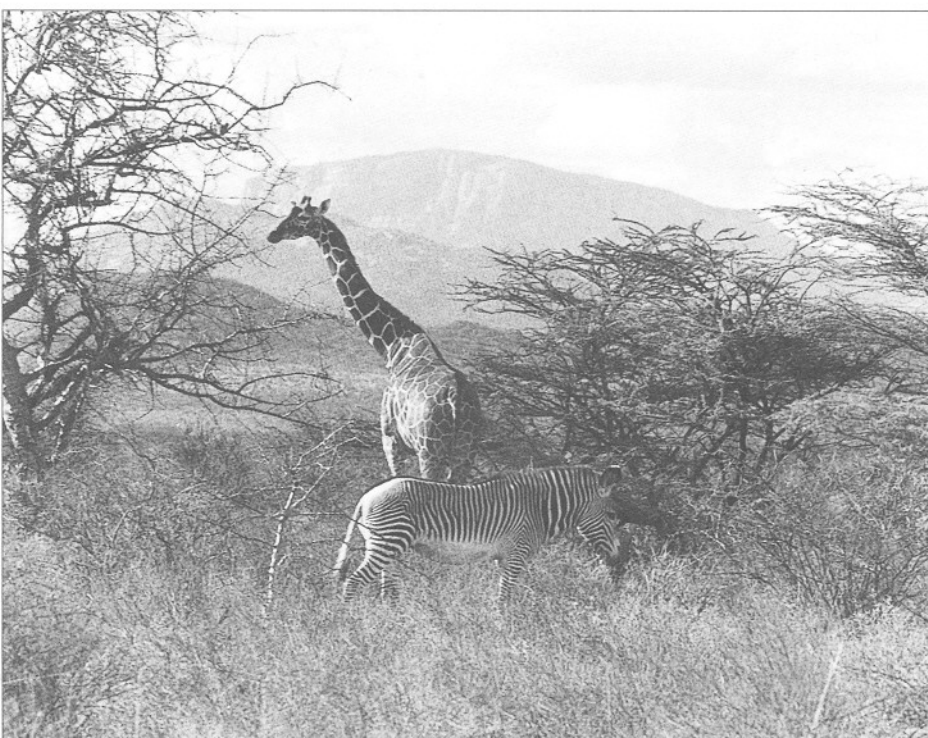
a white muzzle and bold bars instead of stripes on the chest. In retreat, its 'flags' are its white ears with a horizontal black band, and its pale, nearly stripeless rump complete with a vertical black band. In profile, the muzzle and rump are not hidden, and the stripeless belly reaches the lower flanks, where it catches the morning and evening sunlight.

Grevy's zebra, in common with other members of the horse family, has a substantial tail, but it makes less use of this as a 'flag' than the giraffe.

The moose of North America may be conspicuous in open vegetation, since this largest of deer is also one of the darkest. It lacks the camouflage spots typical of deer, even in its newborns. Its tail is small, conserving body warmth in a cold climate. The moose lacks a mane, even in the male – as do all other deer species. The moose is less gregarious than zebras and elands, but it does have one striking 'flag' that may signal the alarm even from afar. The broad posterior surface of the hind legs is the palest part of the body, contrasting with the dark haunches.

The eland seldom appears camouflaged to the human eye. It is pale and bright enough to stand out in most vegetation types, despite token stripes on the back. It shares with the giraffe a pattern of pale cheeks, crook of throat and lower legs. But the tail tassel of the eland is relatively small, and is not raised in flight. The eland also has a dark-and-pale bar on the posterior surface of the foreleg, which has no equivalent in the giraffe. And the leg tendons of the male eland make a metallic clicking sound in its routine stride, which may help to keep the herd together in dense vegetation where even the head is obscured. The ears of the eland do not act as a 'flag'.

The only other ruminants I know of with pale ear 'flags' are the bontebok and maybe the Cape hartbeest. Theory predicts that the species most similar to the giraffe in the function of its coat patterns would be the giant eland, which also lives among trees. I look forward to a time when there are enough photographs available of giant elands to make close comparisons.



© ALAN BINKS / EAWIS

Antoni V Milewski is an interdisciplinary ecologist specialising in mega-herbivores. He made a detailed study of the giraffe on Kenya's Athi-Kapiti Plains in 1985-1988, and was scientific advisor on the National Geographic film Paradise of Thorns, set in the Serengeti. He is currently a research scientist based at the Percy FitzPatrick Institute of African Ornithology at the University of Cape Town in South Africa.



Photos: © QUENTIN LUKE

Ever wondered what kind of natural vegetation once covered what, today, are some of Kenya's most heavily settled areas?

The areas in question – consisting mainly of flat or gently undulating terrain at altitudes of 1,050-1,500 metres (roughly 3,500-5,000 feet) – are described on some old maps as being covered by 'moist woodland and bushland.' What, though, might this 'moist woodland and bushland' have looked like? And what natural plant communities would have been dominant?

For answers, there is little point in going to the areas themselves. For today, just about nothing remains of this once-extensive belt of indigenous vegetation. In its place, there lies a vast patchwork of cultivation: of alien fruit trees (mangoes, bananas, avocados, loquats) and various food crops, interspersed with Grevilleas, Eucalypts and other exotic trees.

A few small, isolated pockets of the original forest have survived the chop. For botanists, these offer tantalising glimpses of the likely composition of the vanished indigenous flora of much of Kenya's now intensively farmed and densely populated Central Province.

Ngaia specials: this green millipede (top left) represents not just a new species to science, but a new genus as well. The *Homalium* (top right) is a new tree species. Its flowers (facing page, top left) have been collected, but not its fruits. Near right: Flowers of *Baphia keniensis*, one of two small trees, both considered to be Rare, that make up the forest's dominant form of undergrowth.

A 'living museum'

For botanist **Quentin Luke**, the Ngaia Forest near Kenya's Meru National Park is the finest example left of an otherwise 'vanished' indigenous habitat.

One tiny patch of forest around the Blue Posts Hotel in Thika, 45 km north of Nairobi along the confluence of two rivers, the (Thika) Chania and the Thika, is one such example. Now one of only a few remaining haunts in Kenya of the Purple-crested Turaco, *Tauraco porphyreolophus*, the Blue Posts' grounds boast some rare

species of flora that not long ago would have been considered, if not common, then at least fairly widespread.

There is, however, still one rather more substantial portion left of this once ubiquitous original habitat. This takes the form of the 4,314-hectare Ngaia Forest, a Government-gazetted Forest Reserve on





the southeastern slopes of the otherwise almost totally denuded Nyambene Hills, northeast of Mount Kenya.

Only about 12 km northwest of Meru National Park, the Ngaia Forest lies just north of the road leading down from Maua to the Park's Murera Gate, between the villages of Cape Corner ('Kip Konna') and Kioleni. Access is through plantations of *Catha edulis*, from which the area's main export – the alkaloid stimulant, *miraa* (or *gat*) – is derived.

That Ngaia has remained largely intact, despite all the pressures from farmers bent on expanding their *miraa* plantations, is attributed largely to the efforts of Kioleni

Chief, Josephat M Thiangeta, a former scoutmaster who, to date, has successfully resisted all attempts made to log or clear sections of this forest.

From its high point near Mutuati in the northwest, the forest slopes down gradually from an altitude of 1,415 metres (almost 4,650 feet) to one of barely 1,050 metres (about 3,500 feet). As such, it is perhaps Kenya's best remaining large expanse of unspoiled forest in an altitude range that, elsewhere, has long since been monopolised by human settlement.

"Ngaia is unique in providing a 'living museum' of a habitat and an ecology that, while prevalent once, has now all but

Surprising finds: this pink-flowering hibiscus (above), found growing in the forest, turned out to be a previously undescribed subspecies of *H. vitifolius*. Bottom: Fruit of the Ugandan liane, *Cordia uncinulata*, the first such plant ever to be found in Kenya.

disappeared." So says the Nairobi botanist and National Museums of Kenya (NMK) research scientist Quentin Luke, who has just returned from a field trip there – his fourth in the last two years. "And yet, the Ngaia Forest is still virtually unexplored," he goes on to lament.

Luke's own recent visits to Ngaia have, as he puts it, "barely scratched the surface." But already, these brief trips have yielded some remarkable discoveries – although not always of a botanical nature. Indeed, in perhaps the most remarkable find of all, Luke came back from his first Ngaia trip, in November 2000, with specimens of a green millipede that has since turned out to be not only of a species new to science, but a new *genus* as well.

All the millipedes he collected turned out to be females. "I didn't know it at the time," he says, "but later, in consultation, first with Benny Bytebier in Nairobi and then with Didier van den Spiegel [of the Invertebrate Section of the Royal Museum for Central Africa in Tervuren, Belgium, who is the world authority on millipede taxonomy], it became clear that the males – or rather, the gonads of the males – are required when describing millipedes."

More of the strange green millipedes have since been collected, including some males. And in early December this year, a



follow-up team of scientists, led by van den Spiegel, visited Ngaia with Kenyan naturalist Anne Powys and the NMK entomologist Koen Maes, in an effort to find out more about these previously undescribed denizens of the forest.

Finding the millipedes was a bit of a bonus for Luke, who is also an honorary research associate of the Royal Botanic Gardens at Kew, London, and the Vice-Chairman of the Plants Committee of the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES).

What he had really been doing at Ngaia in November 2000 was assessing the forest at the suggestion of Anne Powys, who had drawn his attention to its possible importance while she was training some tour guides in nearby Meru National Park.

One tree immediately caught his eye. "It was tall, perhaps 15 metres, and while it was quite clearly an *Homalium*," he says, "I suspected from its leaves and flowers that its species had not been recorded before. So I spoke to Chief Thiangeta, who in turn appointed some 'spotters' to keep an eye on this tree, for the fruits."

Luke's initial hunch has since proved to be correct. For neither the flowers – tiny, eight-petalled, pale greenish yellow, in tight clusters – nor the leaf samples tally with any of the *Homalium* species documented as occurring within the region under the *Flacourtiaceae* (the Kei-apple family) part of *The Flora of Tropical East Africa*. But, while Luke has since revisited the tree three times (most recently in December 2002), neither he nor the Kioleni Chief has yet seen it bearing any fruit.

The fruits, *as well as* the flowers, are of course just as crucial in describing a new plant species as male gonads are in being able to describe a new species of millipede. So, for now anyway, the watching and the waiting goes on.

In the meantime, a new subspecies of the hibiscus, *H. vitifolius*, with very striking mauve-pink flowers has been found in the Ngaia Forest. Its status has been confirmed by Geoffrey Mwachala, the NMK-based botanical research scientist responsible for the *Hibiscus* section of the *Malvaceae* part of *The Flora of Tropical East Africa*, from samples collected by Luke in May 2001.

A Ugandan liane, *Cordia uncinulata*, with bright orange-yellow fruits that had never before been recorded anywhere in Kenya, has also turned up in the forest, together with another species of liane, the prickly *Pisonia aculeata*, which has been recorded only twice before in Kenya – once



Influential stand: As the Chief of Kioleni, the miraa-growing area abutting on the Ngaia Forest's southern edge, Josephat M Thiangeta (above) has so far resisted attempts to log or clear sections of the forest.

in the Kakamega Forest and once near the coast. And at Ngaia there is also a climber, *Flabellariopsis acuminata*, whose Kenyan range was previously known only from a few plants located in the Kaya Timbwa, near Diani on the Kenya South Coast.

Finding new species of plants, while at the same time chalking up new plant records for the 'K4' botanical zone (corresponding roughly to Kenya's Central Province), may be exciting enough in itself. "But Ngaia's real significance," avows Luke, "lies in its *overall* composition – in its *mix* of different species of flora.

"At places like the Blue Posts," he says, "there are still a few examples of small trees such as *Baphia keniensis* and *Uvariadendron anisatum* that are today considered to be 'Rare' or 'Restricted, possibly Vulnerable'. Yet, at Ngaia, it is these two species that combine to make up the forest's *dominant* form of undergrowth."

Luke's four visits so far to Ngaia add up to little more than eight days spent in the forest. In that time, he has managed to cover only a small fraction of the forest's 4,314 hectares. Yet already, his inventory of plants for Ngaia stands at 204 taxa, which is "quite impressive," he says, "for a dry forest, especially given the high incidence of species that are deemed either Rare or Restricted."

Nor has he been concentrating only on the plants. "I have been urged to keep an

eye out too for the Black-and-white Flycatcher, *Bias musicus*," he says, "since Ngaia is now thought to be one of the only suitable habitats left in Kenya for this seldom seen species." The Black-and-white Flycatcher almost certainly once enjoyed a much wider distribution in Kenya than it does today. And, like the Purple-crested Turaco, its dwindling presence may reflect the disappearance of so much of its prime natural habitat as typified today by Ngaia.

Luke may not have succeeded yet in finding a Black-and-white Flycatcher in the forest, but with Anne Powys in early December, he did get to see the Bluemantled Crested Flycatcher, *Trochocercus cyanomelas bivittatus*. And, on both of his last two visits, he has also seen the African Broadbill, *Smithornis capensis*, a forest species perhaps best known for the loud whirring sound its vibrating wing feathers make when the bird is displaying. This could be a very significant record, in that African Broadbills seen in Kenya are more normally met with in the Kakamega Forest.

Luke has in the meantime also observed a number of insects in the forest, including the butterfly, *Euxanthe tiberius meruensis*, which is endemic to the area. In addition, he has collected specimens of four species of molluscs that are to be examined by a leading malacologist at Kew. And then, of course, there are those extraordinary new arthropods, the green millipedes.

He is convinced that Ngaia will yield up many more exciting discoveries. "The habitat is not only unique in Kenya today," he says, "but the whole ecology of the place also remains almost totally unexplored. So clearly, there is a huge amount of work to be done."

Kioleni's Chief Thiangeta is especially eager, he adds, to see conservation projects established in the area. And to this end, Luke – together with colleagues from the Kenya Forests Working Group (KFWG), representing the East African Wild Life Society and other conservation bodies – has been drawing up plans through which to help local communities conserve this forest.

"Like all Kenyan forests today, Ngaia is faced," Luke says, "with threats of erosion, encroachment, plunder, and excision. The fact that it is still in quite good shape shows that, so far, it has been fairly well looked after. Its local communities, then, deserve all the support we can muster, if they are to be able to go on conserving this priceless treasure."

– reported by Gordon Boy



APPROVED



Pure Drinking Water

HITCHHAMS[®]
The Inviting Taste of Nature

Ian Parker comments:

I got to know Mkomazi well and have continued, from a distance, to follow its fortunes down the years. It all started when Tanganyika was German East Africa, and a large expanse of Masailand west of the Ruvu River was proclaimed the Ruvu Game Reserve. The British continued with the reserve until pressure from Maasai grazing so changed things that the Game Department abandoned the Ruvu and sought new territory.

A tract of seemingly uninhabited and seldom used land between the Pare and Usambara Mountains and the border with Kenya was proposed as the Mkomazi Game Reserve. Game Ranger David Anstey was principally responsible for its boundaries. Coincidentally, I was from 1957 to 1960 the Ranger posted across the border, where Mkomazi abuts on Kenya's Kwale District.

Bear in mind two points from these early days. Mkomazi was a substitute. It became a game reserve not because it was a good area for game, but because it appeared to be vacant. Second, while David found some Kwavi (*aka* Parakuyo, who are Maa-speaking herdsmen linked to the Maasai) in the reserve with 3,000 head of stock, he agreed that they could continue to use the land. But then, within a decade of taking this decision, Anstey was aware of pressures from other pastoralists outside the reserve, all wanting greater access to Mkomazi.

While human usage is unacceptable in national parks, it is possible in game reserves. So in conservation terms a game reserve is a lesser entity, lacking the assured permanence of a national park. There must have been reasons why Mkomazi was not accorded park status. Nevertheless, Anstey's hope was that in time Mkomazi would generate revenue enough to support itself.

Throughout its existence, however, a lack of money has held back Mkomazi's development. Indeed, the only time any revenue was forthcoming was when David Anstey contracted my company – Wildlife Services – to cull 600 elephants. We paid UK£ 12,000 and were in the middle of the second phase of this work when Anstey moved to Ethiopia.

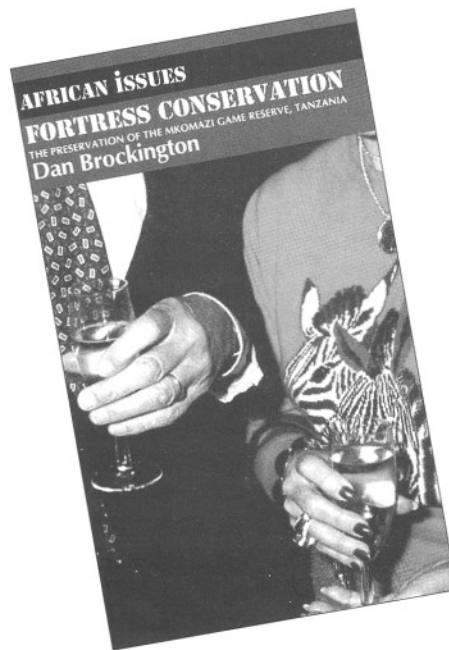
He had intended to use this money to resettle the Kwavi outside Mkomazi, but nothing came of the plan. The historical point is that 33 years ago, David Anstey was taking steps to resolve a problem he

Mkomazi – A cause célèbre?

The appearance earlier this year of a book, *Fortress Conservation* by Dan Brockington (James Currey, Oxford/Indiana University Press; ISBN 0-85255-417-6), criticising the management Tanzania's Mkomazi Game Reserve has elicited an impassioned response from Tony and Lucy Fitzjohn, who in the name of the George Adamson Wildlife Preservation Trusts are running the Mkomazi Project there.

The Fitzjohns have since copied their response, in a large folder complete with numerous supporting documents, to the East African Wild Life Society, together with a copy of the Brockington book.

For some insight into the background behind this acrimonious state of affairs, SWARA turned to veteran wildlife consultant and conservation historian Ian Parker.



initially underestimated: that of people wishing to use the reserve. After Anstey's departure, Mkomazi's never very bright fortunes as a game reserve dimmed.

Pastoralists entered the reserve in ever greater numbers. Naturally, this will have changed the vegetation and displaced wild grazers. Conservationists called this degradation which, in their own terms, it was. But, in animal production terms, where a stock population is on the increase – as Mkomazi's apparently was – carrying capacity has by definition yet to be reached.

In 1988 the Government of Tanzania expelled the pastoralists and denied local people access to the reserve, hoping that it would be able to generate revenue through tourism. In effect, they treated the 'B' grade

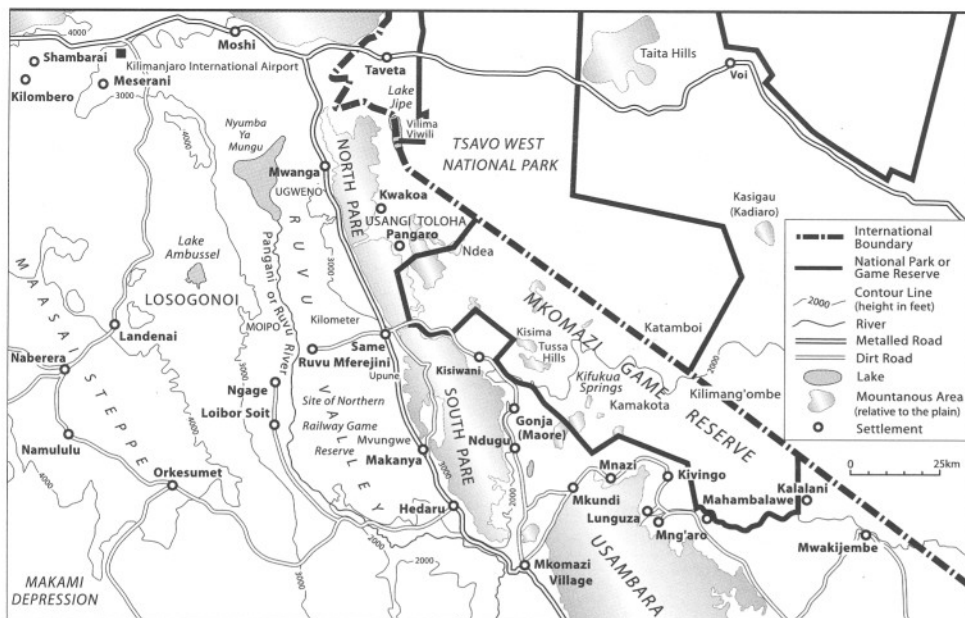
Mkomazi Reserve as an 'A' grade national park. Tony Fitzjohn profoundly influenced the consolidation of this policy. Groomed as George Adamson's assistant, Tony was at a loose end after Adamson's murder, having been denied permission to go on living at Kora on Kenya's Tana River.

Mkomazi, languishing without funds and with no rival conservation personalities in residence, was an inviting alternative.

Trading on the Adamson connection, Fitzjohn the showman conservationist raised funds for the Tony Fitzjohn/George Adamson Wildlife Preservation Trusts on the cocktail circuits of North America and Europe. The image he projected – that of the heroic warden valiantly defending dwindling nature – pitted the goody sheriff against the baddy poachers/land grabbers. In fund-raising terms, this is always more fetching than trying to solicit cash to alleviate poverty. Donors find helping the goody attractive, and poverty repulsive – which is why Hollywood makes films about Indiana Jones, wardens, hunters and derring-do, but seldom any about poverty.

As his Trusts' Field Director, Tony is a *de facto* warden, driving and flying about conserving wildlife in a manner perfectly in keeping with the popular image of what wardens in Africa do. With considerable PR skill, he has selected high profile issues – like reintroducing rhinos and wild dogs to Mkomazi – to bring the international spotlight on to the reserve.

In the sense of a conventional African game park, with roads for tourists, dams to attract animals, rangers on patrol to keep poachers and trespassers away, and periodic 'pour boire' contributions to communities beyond the Reserve's borders (to convince



The lie of the land: Tanzania's Mkomazi Game Reserve, again the subject of conflicting views, has never been entirely free of controversy, says Ian Parker.

them it is there for their benefit), Tony has, by all accounts, done a very good job. Indeed, there is even talk of the reserve's status being upgraded soon by the Tanzania Government to that of a national park.

The one persistent drawback, however, is that much needed revenue from tourists flooding in to admire this wilderness and its wildlife is still just a hope. And, even if the reserve does become a national park, its problems will certainly not go away.

In fund-raising terms, the Fitzjohn strategy makes good sense. And, if selling the case means living the life, well that's the way the cookie crumbles. If the result is a romantic lifestyle as Guvnor of an African game reserve, making occasional swings around the glitterati circuit to solicit funds, then so be it. That the living is about as good as it can get is neither here nor there. But it may go some way towards explaining the Fitzjohns' outrage over Brockington's findings, which threaten to undermine this way of life.

During the 1990s, Dan Brockington, a British social scientist, spent six years working among the people who live around Mkomazi. In 2002 he published a book, *Fortress Conservation: The Preservation of the Mkomazi Game Reserve, Tanzania*. In it he challenges the running of Mkomazi as a fortress from which local people are excluded, arguing persuasively that this is unjust. He puts forward this view despite the Tanzanian Courts' having thrown out a case the pastoralists brought against the government after their expulsion in 1988.

Brockington's contention is that while Mkomazi may have been little used when it was proclaimed a game reserve in 1951, historically this was a temporary situation

suggesting greater use before the colonial era. He has dredged the colonial records, presenting a perception of land use and of tribal distribution that is more diffuse and ill-defined, altogether less tidy, than any sought by the colonial powers, which had their own cultural attitudes towards land tenure and rights.

He also points to the implausibility of claims made in 1988 that the area had been wrecked by pastoral use. If so, he asks, then how had the land been able to recover so quickly to become the magnificent wilderness Fitzjohn's donors were being told their money had created?

Fortress Conservation stresses how little tourism is contributing to the welfare of local people. The case could have been put more strongly. East Africa's core tourism area is defined by the highland plains of northern Tanzania and southern Kenya, by the land between them, and by the beaches of the Kenya coast. Investment in tourist facilities there over the past half century runs to hundreds of millions of dollars, and the industry is sophisticated, aggressive and innovative. And while 'big game' may still be the area's primary attraction, wildlife tourism has evolved specialised aspects catering for other interests: birds, plants, butterflies, you name it.

That this same tourist industry has not invested so much as a single tented camp in Mkomazi, despite the reserve's being

among the bigger conservation units in the core area, reveals much about its potential. Compared with other areas, and like the larger and more accessible southern third of contiguous Tsavo, Mkomazi's potential has clearly been found wanting. Claims based on the area's tourist potential rest on 51 years of evidence that it has little such potential.

Brockington also criticises some of the findings set out in *Mkomazi: The Ecology, Biodiversity and Conservation of a Tanzanian Savanna* (ISBN 0-907649-75-0), an earlier book documenting the scientific work of the five-year Mkomazi

Ecological Research Programme (MERP) that commenced in 1992 and that lists the impressive biodiversity its staff had found in the reserve. While highly commendable in most respects, this book does contain some inexact and misleading statements.

The authors maintain that Mkomazi is biologically one of the richest savannas in Africa. At face value, this impressive claim would make donors contributing funds to Mkomazi feel they were conserving an area of exceptional value. Not pointed out is the fact that very few African savanna ecologies have been studied at comparable depth. So, while the authors are justified in saying Mkomazi's ecology is rich, the term richest gives a false relative value.

In claiming biological significance, the name Mkomazi is used without any qualification to apply to all 3,234 km² of the reserve as though this were a single homogeneous entity, when clearly it is not. Indeed, a very substantial proportion of the diversity cited is contributed by a few hills in the western part of the reserve that, quite reasonably, could be considered separate ecosystems, isolated from the flat drylands making up the bulk of the reserve.

Mkomazi forms the southern fringe of the great, dry Nyika ecosystem separating highland Kenya from the coast. Of this, 21,000 km² lie within Tsavo National Park (administratively split into East and West). Ecologically, then, Tsavo – with the higher conservation status of national park – is a far bigger and 'safer' conservation unit. And it is in this context that Mkomazi's value should be measured before claims about its significance are made.

In an otherwise invaluable record, the MERP researchers, by presenting some of

their findings out of context, give Mkomazi an unwarranted elevation relative to other places. That this may well have been for political rather than purely scientific ends seems likely, since the Tanzanian Wildlife Department had been keen to justify the expulsion of people and livestock in 1988 through stressing Mkomazi's 'uniqueness' and biological value.

Brockington's critique is, on balance, reasonable. The local people have lost more from Mkomazi's creation than they have gained. Those whom David Anstey found grazing their stock in the area in 1951 and whom he allowed to go on living there, in particular, have been treated unfairly.

The prediction that continuing to run the reserve as a fortress with little or no local participation will bring about the demise of Mkomazi appears plausible enough. Yet Brockington does not advocate the reserve's abolition, only that it be run on a community basis.

This sounds well and good, but – in the single biggest omission of his presentation – Brockington does not tell us *how* such community conservation might work.

Community conservation is a catchphrase very much in vogue. But where are

there any examples of its actually working? And whose poverty is it alleviating? Lessons drawn from ventures such as Zimbabwe's Campfire programme may contribute ideas for Mkomazi's betterment. No such parallel models have yet been explored, however.

For as long as community conservation remains just an interesting idea, then, Tony Fitzjohn's fortress – for all its imperfections – is at least working in the short term. On this basis, and providing it is a stepping stone to something better, the Fitzjohns deserve the support of bodies like the East African Wild Life Society.

Ultimately, Mkomazi's fate will be decided by two tightly interlinked issues: economics and demography. The fortress concept's viability depends on being able to match the opportunity costs of disbaring local people from entering the area. Such costs will reflect principally those of a subsistence pastoralism that in 1980 was said to be worth US\$ 400/km² annually.

Were that still to be the case today, then people denied use of the reserve would have to receive a total of some US\$ 1.3 million annually. If tourism cannot provide this (an impossibility, surely, in the foreseeable

future), then some alternative will have to be found. Mixing conservation with cattle, as I suggested 30 years ago (although the idea, then, was purely theoretical), may be just such an alternative. This idea has since been applied to another portion of the ecosystem to which Mkomazi belongs: the Galana Ranch, where it worked remarkably well.

On the demographic front, one thing is certain. Had the government in power in 1951 been obliged to contend with present human numbers, the Mkomazi Game Reserve would never have come into being in the first place. With a doubling time of less than 25 years, Tanzania's population is now four times what it was then. With increasing numbers comes the parallel demand for increased space. Equating rights and assigns today with those granted in 1951, when the need for space was only a quarter of what it is now, is downright silly. And all the parties in the Mkomazi controversy are guilty of this.

Populations that are either increasing or decreasing are by definition unstable. This instability will undermine conservation for as long as it exists. That, above all else, is what the Mkomazi problem is all about. 🐘

Glacial meltdown

Fears that Kilimanjaro's fabled ice cap may vanish altogether within the next 20 years have been underscored by the findings of yet another recent study, published in the October issue of the US journal *Science*.

The depths of the melting glaciers are falling at a rate of roughly half a metre every year, the study says, adding that if present climatic conditions persist, then the 'snows of Kilimanjaro' will be gone completely by the year 2020.

"Since 1962, the summits of the ice fields on Kilimanjaro have been lowered by at least 17 metres," says Prof Lonnie Thompson, of the Institute for Geological Studies at Ohio State University, who led the team which carried out the study.

"The margins of the mountain's northern ice fields, meanwhile, have retreated," he says, "by more than two metres in just the last two years. That's more than two



'Mountain of brightness': Kilimanjaro's fabled ice cap, thinning out at an alarming rate, is expected to have vanished altogether by the year 2020.

metres shaved off an ice wall 50 metres high," he adds. "So we're talking here about an enormous amount of ice."

Vanishing along with the glaciers, is the archive of African climatic history they encapsulate, going back more than 11,000 years. Indeed,

ice cores obtained from deep drill sites near the summit, Kibo, reveal that the region surrounding the mountain has been subject to several major climatic changes since the glaciers were formed about 11,700 years ago.

The composition of the ice

cores indicates that Africa has experienced at least three prolonged periods of drought over the past 12 millennia. During the last such drought, Kilimanjaro's ice fields – thought then to have covered an area of just 2.6 km² – were less extensive even than they are today, according to Douglas Hardy, a geoscientist.

Hardy accepts that changes in atmospheric humidity and precipitation could be at play. But the body of data amassed so far from satellites, aerial maps and temperature readings is still too sketchy, he argues, for the melting glaciers to be linked conclusively to global warming.

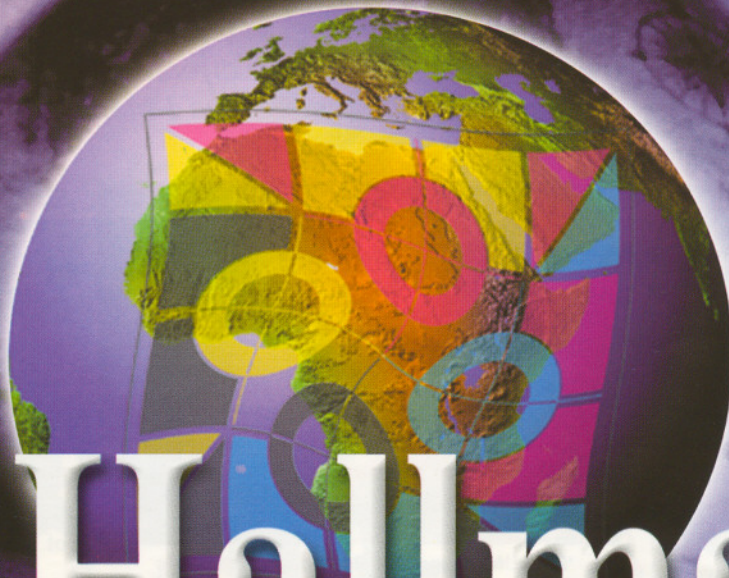
"In the next two decades, we may reach a point where for the first time in 12,000 years there will be no ice at all on the mountain," he says, "which suggests that under present conditions we are indeed witnessing a time of incredible change for these glaciers." 🐘

– reported by **Trupti Shah and Gichuki Kabukuru**

Photo: © DAVID KEITH JONES / EAWIS

Colourprint Limited

The Gifts that build business relationships



Hallmark®

Diaries & Calendars

The Gifts that build business relationships



Diaries & Calendars for Hallmark® Products

Created in exquisite designs by

Colourprint Limited



P.O. Box 44466 - 00100 - Nairobi GPO Kenya.

Industrial Area - (Road - C, Off Enterprise Rd, Third Turn Right).

Tel: 540999 / 534708 / 531767 / 536098 / 531310 / 533895 Fax: 541145

Kirinyaga Road - Tel: 220735 / 335210 / 331873 / 340530/1 Fax: 340533

E-mail: hallmark@wananchi.com

A loud whirring stirs the drowsy forest air. The flecked leaves part and into the streaming chords of light comes a most improbable character. Propelled by a blur of membranous, bat-like wings, this might just as well be some creature out of *Alice in Wonderland*.

It is *Goliathus goliathus*, Africa's largest beetle and arguably the most handsome. Its elytra (wing-cases) are a sumptuous deep maroon. And there is something rather avant garde about its black-and-white striped thorax. All these features, together with a perfectly sculpted, bifurcated snout, contribute to the striking appearance of this rare and wonderful creature.

It circles clumsily, startling some jittery *Charaxes* butterflies and sending false alarms pulsing in chemical waves down a column of busy carton ants. Then, with a loud thwack (followed by some rather undignified scrabbling), it alights on a gnarled, dripping branch whose ripe fermenting sap is leaking from a deep, red-yellow-green wound.

Fine, recurved claws on the tips of this beetle's tarsi (legs) first probe, then grip on to, the sides of a deep, scarred crevasse lined with crustose lichens. With one sweeping motion, the goliath beetle hoists itself up over the wound and begins to feed.

Inhabitants of the dense, tangled rainforests extending across Africa from Cameroon to Congo, Goliath beetles are occasionally encountered in eastern Africa's relict patches of rainforest. This particular species bumbles through western Kenya's Kakamega Forest. It is the largest species of beetle found in Kenya, sharing its rainforest home with a bewildering variety of other beetles.

Occupying every possible niche from deep within the dark soil to the delicate tips of epiphytic tendrils high up in the canopy, beetles make up far and away the earth's most diverse order, the Coleoptera. The name means 'sheath-winged': a reference to the hard wing-cases over the insects' backs. These hard elytra meet in a perfect line and

'An inordinate fondness for beetles'

Such a bias – once laid at a creator's door – reflects the reality that beetles, in terms of sheer numbers, are by far the most evolutionary diverse and successful order of terrestrial life forms. Dino J Martins takes stock.



'Beautiful despoiler': Rose chafers like this beetle are the scourge of many gardeners.

many different beetles. Any garden in bloom will attract those beautiful despoilers of flowers, the rose beetles. Also known as rose chafers, these very dashing black-and-yellow beetles belong to the sub-family Cetoniinae. Voracious pollen feeders, they find zinnias, roses and other garden flowers irresistible (as every gardener will know). Their larvae, like those of other Cetoniinae, live in the soil, feeding on or among the roots of plants.

Both the goliath beetle and the rose chafer belong to the Cetoniinae sub-family. Go back further in the family tree, and you will find the Scarabaeidae. This group, as the name suggests, includes those familiar and cherished ancient symbols, the scarabs or dung-rollers, that have so enchanted humankind down the ages.

The scarab or dung-roller's industrious nature was greatly admired in ancient Egyptian religion. The exemplary toiling of dung beetles was a recurrent motif in Egyptian art. Over time, the symbolism grew ever more complex, as an elaborate system of lunar symbolism came to be extrapolated from the pattern of grooves on the insect's back.

Dung beetles play a vital role within East Africa's forests and savannas. Several species of trees and shrubs (including some Acacias) are given the perfect start in life through being planted at just the right depth in the soil by dung beetles. The seeds arrive in the dung via the guts of elephants and other herbivores that consume them as pods. Were there no dung beetles to bury them (along with the dung), these seeds would be dessicated by the hot African sun.

There is, of course, nothing altruistic about this service, from the dung beetles' standpoint. These beetles are just providing adequate food and a safe environment for

protect the membranous hind-wings that are used for flight. Beetles also undergo a complete metamorphosis of four distinct stages: egg, larva, pupa and adult or imago.

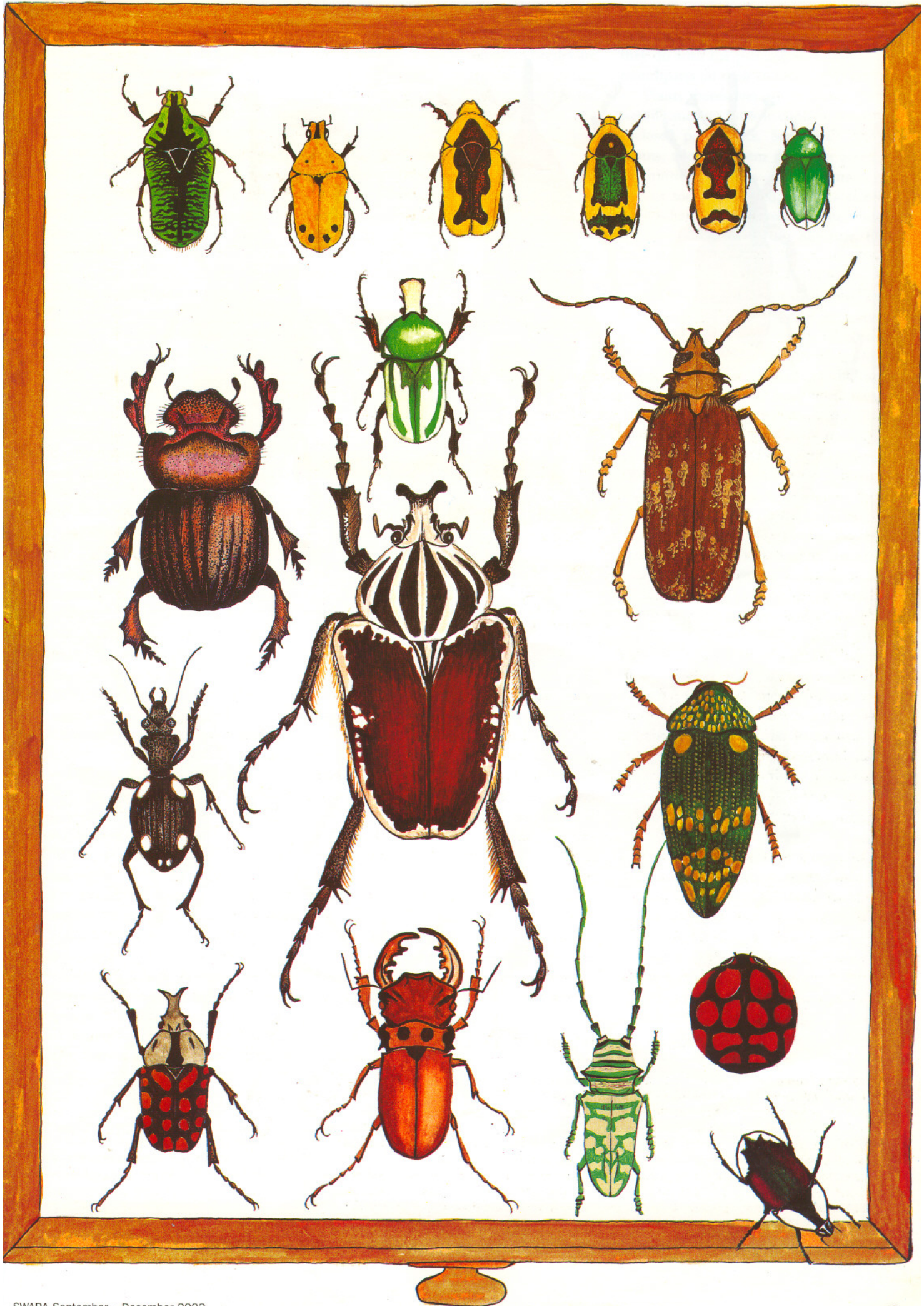
Beyond these basic similarities in wing structure and life-cycle, beetles are as diverse as can possibly be imagined. Their body plans range from the starkly simple to the exceedingly complex. Some revel in colours that appear to have been distilled from distant galaxies. Yet others follow lifestyles that are at once both mind-boggling and inscrutable. In quantitative evolutionary terms, beetles are the most diverse and successful order of terrestrial organisms nature has ever produced.

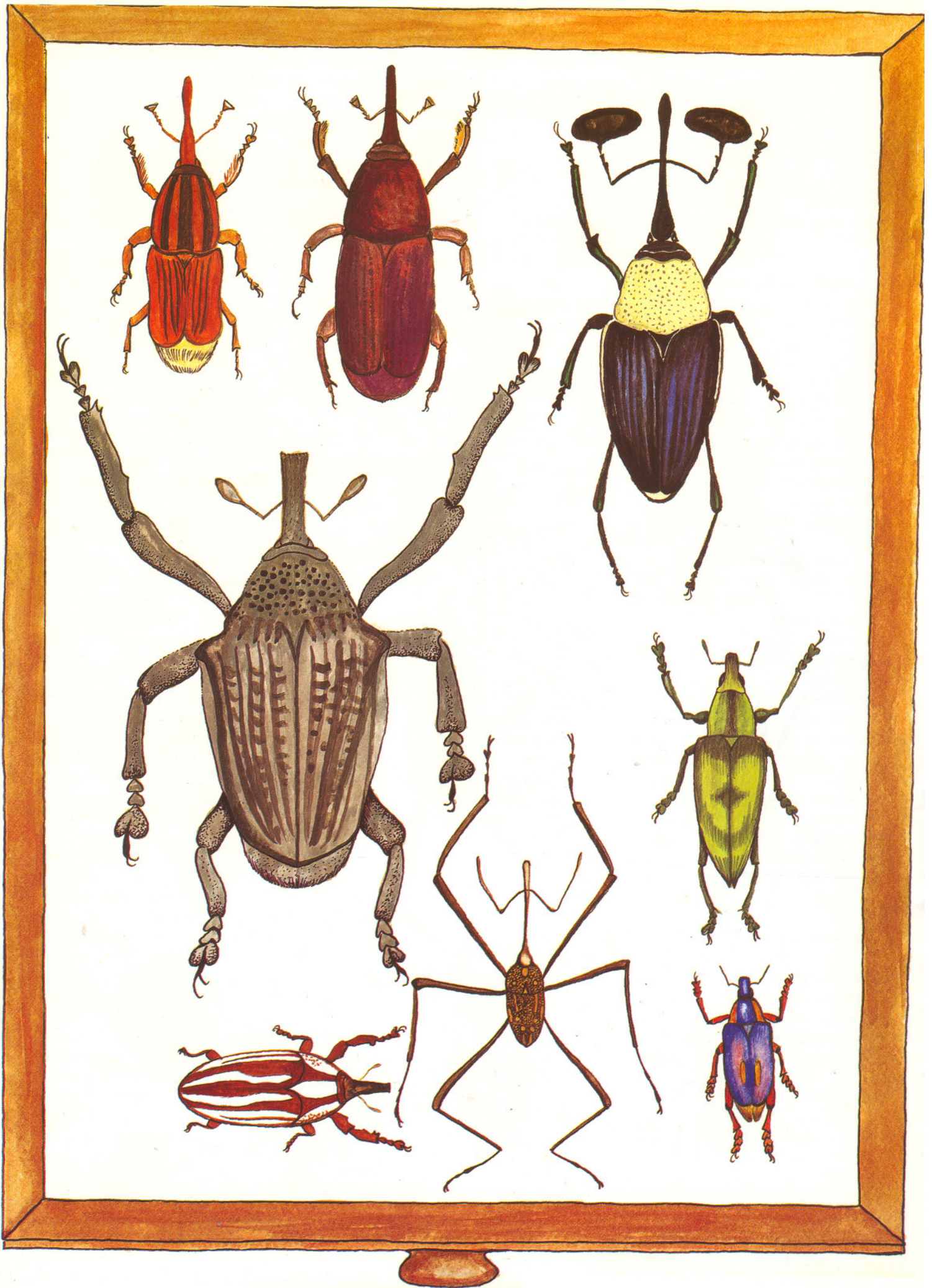
Walk through any forest, or across any garden or field, and you will unfailingly see

Pictures: © DINO J MARTINS

Many-splendoured beetles (top row, from left): *Euchroea coelestis* and *E. auri-pigmentata*, both from Madagascar; the rose chafer, *Pachnoda ephippiata*, from Mbale, Uganda (centre), with three other *Pachnoda* spp., all from Nairobi. Then, around the large Goliath beetle, *G. goliathus* (centre), are (clockwise from top): *Ranzania splendens*, from the DR Congo; the longhorn, *Acanthoporus maculatus*, from Eldoret; the Buprestid, *Sternocera castanea*, from Tsavo; the ladybird, *Cheilomenes sulphurea*, from Limuru, Kenya; *Puleopragma petersi*, from Nakuru (seen crawling out of frame), and the longhorn, *Sternotomis aglaura*, from Kampala. **Completing the picture are** (clockwise from bottom): the stag beetle, *Homoderus mellyi*, from Mount Elgon; *Amaurodes passerinii*, from Kwale, Kenya; the Carabid beetle, *Thermophilum hexastictum*, from Lamu, and the dung beetle, *Helicopriss colossus*, from Voi, Kenya.

All species drawn to scale (50 %-70 % life-size except for the ladybird, which is 2.5 times life-size).





their coprophagous larvae to grow and develop. The beetles work in pairs to roll the dung into a ball. The finished ball is then rolled – often over some distance – to an appropriate site, where it is buried.

The female dung beetle then lays her eggs in the ball. These duly hatch and develop into larvae. Beetles in general are remarkably diversified. And dung beetles are no exception. Many of them are species-specific, using only the dung of one species of herbivore. Some even follow the great migrating herds, rolling dung and burying larvae along the way by night, and then flying by day to keep pace with the herd.

One of the most endearing and familiar of all beetles is that gaudy hero of fairytales, the ladybird. Ladybird or ladybug beetles, as they are also called, belong to another large family, the Coccinellidae. The bright yet attractive colours of their broadly oval, or spherical, bodies are enough to charm even the most insect-apathetic among us.

The good looks of ladybirds belie their nature as voracious predators both as larvae and as adults. Many species prey exclusively on aphids, so providing an essential (and free) pest control service. The bright, lurid colours of most ladybird species combine to warn would-be predators of the wearers' unpalatable taste.

B iologists, enamoured of parallels, have symbolically assigned to beetle species the names of many animals. Thus, we have tiger beetles, longhorn beetles, elephant, rhino, and stag beetles, Hercules and engraver beetles – even flea, tortoise, and seed beetles. Yet there are, for countless beetle families and genera catalogued in museums around the world, only Latin names to go by.

To date, more than 350,000 different species of beetles have been described. This tally is especially humbling given that perhaps only one-tenth, or fewer, of all beetle species (as with most insect groups) have so far been described.

Encounters with some beetles are not easily forgotten. Rhino beetles, as the name implies, have a long, curved horn that is used by the males in territorial battles. Shiny, red-brown and boldly confident,

rhino beetles are found in most gardens and woodlands.

The 'long horns' of longhorn beetles are really just elongated antennae, often much longer than the insect's entire body. One emerald-green iridescent species in the Kakamega Forest seems to spend its days loitering on forest flowers, just waving its splendid antennae back and forth.

The beetle order, the Coleoptera, is taxonomically comparable with our own order, the primates, in that one particular family stands out above all the rest in terms of numbers and diversity. That family is the Curculionidae (the Weevils), and its claim to fame is that it is the most diverse family on earth.



Gentle giant: A Goliath beetle on author-cum-artist Dino J Martins' shoulder.

In all, more than 60,000 weevil species are known, in 5,200 different genera. The fact that there is, in the shape of our own genus *Homo*, only one extant genus of hominid, puts this comparative wealth of weevil genera into context. Of the more than 350,000 known beetle species, weevils – which first appeared somewhere between the late Jurassic and the early Cretaceous – account for more than 17 % of the total.

As the dinosaurs sluggishly munched away on giant tree ferns and trampled over cycads, so the weevils were busy evolving, exploiting every possible niche open to their uniquely weevilish way of life. Their success

derives from specialised endophytophagy. This means 'feeding within plants' – which they do with the piercing/sucking/probing mouthparts on their snouts.

Plants themselves are to blame for the weevil's success. Jurassic conifers developed enclosed pollen sacs. So weevils evolved snouts, allowing them to go on accessing the nutritious pollen. But this snout, the weevils soon discovered, could – like the human hand – be put to other uses too.

The dizzying leap, on our part, from fashioning handaxes to manufacturing computer chips can be likened to the way in which a weevil's snout developed, from being able to probe a primitive conifer's pollen sacs to gaining entry to virtually every other part of every other plant: roots, leaves, seeds, fruit – anything goes with weevils. Only, weevils have been honing their skills for several hundreds of millions of years longer than we have ours.

Weevils are best known as spoilers of stored cereal grains and other seed crops. These tiny creatures have shaped many national economies. The boll weevil often brings regional cotton production to a standstill. These weevils feed on the cotton seed pods, or bolls, laying their eggs in the resulting cavities. Larvae develop within the bolls, which they eventually destroy.

Stored seeds and grains all over Africa are subject to weevil attack. The result is that much of what is harvested never makes it on to the table: the weevils take their share first. The weevil's success at foiling human agriculture is a warning against the cultivation of extensive, pesticide-soaked monocultures. For such monocultures are sitting ducks for pests.

The astonishing diversity of form and function within the weevil family means the weevil's many ecological roles should not be underestimated. Such diversity, after all, is not unrelated to the wider health and long-term sustainability of most terrestrial ecosystems. All those interesting shapes and colours, then, are more than just intriguing puzzles for naturalists to solve.

It may be a while before beetle diversity is properly accounted for. But, whatever reasons there may be for the phenomenal, unrivalled success of beetles, the old adage – that Nature's creator 'must have had a remarkable fondness for them' – is certainly borne out in evolutionary terms.

That beetles should have been so blessed in the evolutionary scheme of things is a reflection of the essential link (howsoever imperfectly understood) that exists between biodiversity, on the one hand, and the health of entire ecosystems, on the other.

Representing Earth's most diverse family, the Curculionidae or weevils, are (clockwise from top left): *Rhynchophorus phoenicis*, from Tanzania's Usambara Mountains; *R. phoenicis*, from Ruaha, also in Tanzania, and *Carcidocerus guerin-meneville* (with the large 'wing mirrors' on its antennae), from western Uganda's Bwamba Forest. Then (from 4 O'clock): *Polyclaeis auriventris oblitus*, from Thika, Kenya; *P. maculata*, from Ethiopia; the spider-like *Mecopus fractispinus*, from Kenya's Arabuko-Sokoke Forest; the striped *Mecysolobus arcuatus*, from Sultan Hamud, Kenya; and (largest of all) *M. olivaceus*, from Moshi, Tanzania.

Specimens are not drawn to the same scale

YOU CAN'T HAVE A MERCEDES FOR THE PRICE OF A BICYCLE



You don't need to be a business guru to work out that the cheapest things in life don't always offer the best value. Quality costs. It takes greater investment, more time and more attention to detail.

Take our reprographics, for example.

Despite advances in flat bed scanning technology, our digital drum scanner still gives higher resolution and more flexibility than any other in Nairobi.

We run two imagesetters - not one - so that big jobs don't clog up the works for smaller ones. They're fed by a Silicon Graphics ripping computer that leaves the fastest PC's in the dust.

Our Iris proofing machine produces genuine contract proofs, not approximations that leave the printer guessing.

Above all, we only employ the most qualified and committed

staff, and we continue to train them on a regular basis.

Of course, all this means that we're a little more expensive than many of our competitors. But for those who really care about quality, we're better value than ever.

I n C A
R E P R O

The fate of the forests

... is the fate of the nation, and both are in dire straits, writes **Dan Stiles**.

As election fever consumes Kenya, the country is heading for disaster as government continues to neglect the most pressing environmental problems.

Many think the economy, corruption, education and health are the major issues, but a responsible government can improve on these aspects relatively quickly. Kenya's forests, the number one environmental issue, have so deteriorated that it will take decades of rehabilitation just to catch up with the country's growing needs for fresh water, hydroelectricity, agricultural output and timber products – assuming proper forest management is ever instituted.

Kenya has now reached the crisis stage. If things do not change, there will be no foundation on which to build the economy necessary to pay for all the other things the country so desperately needs. The elections may provide that chance.

Kenyans must make it known to their candidates that they demand action on the forests. The outcome cannot be business as usual, which for the past 20 years has meant dishing out tracts of forest to government supporters, developers and paper mills. The forests must be brought to the forefront of the political agenda. If apathy prevails, and politicians think they can still flaunt the law and grab gazetted forests, Kenya will have no future. Pundits say that in a democracy, people get the kind of government they deserve. Let Kenyans prove they deserve good government by speaking out and by voting for those candidates who listen.

Dr Imre Loeffler, chairman of the East African Wild Life Society (EAWLS), has recently said, "Today, it is the governments *themselves* that have become . . . the arch destroyers of our region's forests."

A 2001 UN Environment Programme report estimates that Kenya is now down to having 1.7 % of its territory under closed forest. Yet the UN Food and Agriculture Organization says a country needs at least 10 % coverage to assure adequate water supplies. In spite of this, the government in February 2001 announced its intention to degazette a further 67,180 ha of protected forest and to open this for settlement. This is almost 7 % of Kenya's remaining one-million hectares of closed forest and would



On the receiving end: Ogiek honey-hunters like this man depend on the forest for their survival.

and other cities will experience worsening water shortages, damaging to industry, health and quality of life.

- Reduced forest cover is already affecting local weather patterns, making rainfall more erratic and increasing hail and frost, which hurt the tea and coffee sectors, backbones of the Kenyan economy.

Obviously, nothing can possibly justify the excisions. The government claims it wants to settle land-hungry peasants, although it is unable to identify who these peasants are. As Dr Loeffler has pointed out, previous excisions have benefited only "prominent members of the ruling elite. Indeed, any list of the names of the most likely beneficiaries of the government's magnanimity would probably read like a Who's Who in Kenya."

The government has stated that most of the gazetted areas targeted for excision are deforested anyway. Yet the Kenya Forests Working Group (KFWG), an EAWLS sub-committee, sponsored an aerial survey of these areas and proved they were still largely forested. The government did not admit to its lie, and in October 2001 signalled its determination to clear the forests by giving the go ahead to alter the forest boundaries.

This government action simply repeats previous scandalous conduct regarding the Ngong and Karura forests on the outskirts of Nairobi. I remember, when I worked for the UN Environment Programme (for the Desertification Control section, no less!) in the 1980s, being disturbed by the sound of incessant buzz-saws nearby. I didn't know it at the time, but they were cutting down the 'protected' Karura forest in order to build big houses for rich UN bureaucrats.

Unscrupulous government officials had sold large tracts of the forest to developers. Exactly the same thing was happening to forests in the Ngong area. And the Ngong Road Forest Sanctuary Trust, the Green Belt Movement and the KFWG are now fighting – through publicity campaigns, management plans and court cases – to halt any further illegal developments in these forests.

On 25 April 2002, the Kenya Association of Residents' Associations (KARA), the EAWLS and the Environment Liaison Centre International (ELCI) filed a suit to stop the forest excisions, citing that these were contrary to the Constitution and seven acts of law. The Law Society of Kenya later joined the suit. Justice Richard Kuloba of the High Court granted all the requests

constitute the biggest single excision since independence. The *Guardian* newspaper has called the proposed excisions 'suicidal'. What could justify this act given that:

- Kenya's own National Environment Action Plan warns against further forest excisions.
- Kenya has ratified the UN Convention to Combat Desertification as well as the Convention on Biodiversity; the excisions would go against many provisions in both.
- The forests to be excised are in highlands feeding most of Kenya's main rivers and streams and some of its most important lakes for biodiversity and tourism. Sites such as Lake Nakuru, home to the world's largest concentration of flamingos, and the Mara River, crucial to the wildebeest migration, are already being affected by deforestation in the Mau.
- Forests store and release the water used to produce hydro-electricity, which provides 70 % of Kenya's energy, while supplying water to towns and farms. Already there are many reports of the drying up of critical water catchment areas and streams due to deforestation. Some, such as the Kerio, Ewaso Nyiro, Sondo, and rivers flowing off the Mau, are silting up existing hydro-power dams and threatening the viability of new ones due to soil erosion. If forest cover is not *increased*, power rationing will become a permanent feature, and Nairobi

in the application, saying “irreversible harm could be done” if the excisions and land allocations went ahead.

The honourable judge ordered all actions to cease until the court had dealt with the issues raised in the suit. To date, the government has ignored the suit and has not even bothered to file its response or to turn up in court. There are also reports that the government has broken the law by proceeding with land allocations in both the Hombe forest on Mount Kenya and the South Nandi Forest, and by continuing its surveying activity in parts of the Mau.

Following the public outcry and the international criticism the announced excisions provoked, President Moi banned all logging. But then Forest Department officials, backed by powerful politicians, wasted little time in declaring partial liftings of the ban to enable companies that “depend on forest products to provide services” to continue raping the forests. This ‘ban’, then, was just a PR ploy.

The Ogiek people have lodged lawsuits too, beginning on 25 April 1997, following years of mistreatment, discrimination and being lied to by the government. The latter’s duplicity was clearly exposed when recent Ogiek evictions from gazetted forests were justified on grounds of “protecting crucial water catchment areas,” followed by announcements that forest lands were to be degazetted to settle landless ‘squatters’. The Ogiek provided substantial evidence that the ‘squatters’ were Kalenjin from Kericho, Bomet and Transmara districts who had never even lived near the Ogiek forests.

The 30,000 Ogiek people, commonly known as Dorobo, once lived in most of the highland forests of Mount Kenya, the Rift Valley area (Loita Hills, Eburru, the Mau, the Cheranganis, Nandi-Tinderet, Maralal, and the Mathews Range/Ndoto Mountains) and Mount Elgon. Their ancestors first came to Kenya from the Nile Valley area with other Southern Nilotic speakers (today the Kalenjin) about 6,000 years ago. The Ogiek have a long pedigree of territorial occupation of the highland forests, but they no longer have any viable tracts of territory on Mount Kenya or in northern Kenya. Their way of life focused on hunting, gathering wild plant foods and producing honey. Traditionally, they did not clear land.

As long as such hunting-gathering peoples lived unmolested in the forests, the forest ecosystems and their biodiversity remained safe and sound. Hunting and utilisation were well within sustainable limits. The Ogiek say their tribal name means ‘caretaker of all’ in their language.



Photos: © DANIEL STILES

Yet colonial and independent government policies have discriminated against these indigenous forest dwellers, forcing them to change their way of life, very much to the detriment of forest ecosystems and to the people themselves. Their culture, social fabric and economic well-being have suffered terribly.

Kiprotich Sang, secretary of the Ogiek Welfare Council, sums up their present crisis: “There was a massive influx of foreigners,” he says, “as the government began secretly allocating land. For us, the history of Kenya has been one of suffering, but now is the worst time. We shall be assimilated or evicted. We shall be made extinct.”

The Ogiek saga is not well known to the Kenyan public. Most now live in the Mau Highlands, which provide 40 % of Kenya with water. (And yet the government is proposing to destroy another 60,000 ha of this forest by its degazetment order – an incomprehensible folly.)

The British colonial government began removing Ogiek from the Mau in 1903 to facilitate logging, mainly for the railroad. Much of the forest land signed over by the Maasai to the British between 1911 and 1914 for white settlement was really Ogiek land. In 1932 the East Mau was gazetted, which turned the Ogiek who had lived there for 5,000 years into ‘squatters’. They were evicted. The Kenya (Carter) Land Commission (1937-38) recommended that the Ogiek, or ‘Dorobo’ as they were called, be resettled on European-owned farms or in Forestry Department camps as cheap labour.

Laid bare: Primary indigenous forest in the Mau has for many years been dished out by the government to its supporters. After first selling the hardwood trees to sawmills, the land (above and facing page) has been cleared for farming.

Guy Yeoman, who defended the Ogiek for more than 20 years in the name of forest conservation (see SWARA No. 4, 1980), pointed out that by joining these great labour camps they were, “working for their own extinction since every hectare of trees they plant is a hectare of their birthright lost forever.”

Soon after the evictions, the colonial government clear-felled vast tracts of primary forest and planted sterile pine plantations. Guy Yeoman again: “To this great injustice has been added the forest policy of replacing the indigenous trees with the exotic, which are useless either for bee-keeping or for medicines.” They are also empty of birds and other wildlife. By 1954 the entire Mau was gazetted and the 1957 Forest Act officially rendered it all Crown Land. The Ogiek were now legally landless, although many sneaked back into indigenous forest areas to resume their old way of life.

After independence in 1963, the Ogiek hoped that an African government would be more sympathetic to their plight, but that was not to be. The 1964 Forest Act revision overlooked them. Worse, between 1967 and 1988 the KANU government sporadically continued the colonial policy of evicting Ogiek from the forests, even



closing their schools and ordering forest guards to burn down their houses. Many were forcibly moved to Narok District.

On the brink of annihilation, the Ogiek organised themselves and began lobbying administration officials. Their efforts paid off in August 1992 in a meeting with President Moi, led by then Nakuru District Commissioner Ishmael Chelang'a, who became a champion for the Ogiek. The president gave the Ogiek elders a kindly reception and they went away thinking they would be getting their ancestral lands back. The Ogieks voted *en bloc* for KANU in the elections later that year.


In 1993 the government appeared to be preparing some old Ogiek lands in the East Mau for allotment to Ogiek, but in 1994 Mr Chelang'a, now Rift Valley Provincial Commissioner, warned them that outsiders were plotting to grab it. He said he would press for their title deeds. In early 1995, surveying finally started for the Mauche (Mau-Chepalungu) Settlement Scheme, but then the shoe dropped. Each Ogiek family was to get only five acres. That left a large area unaccounted for. Ogiek elders went to President Moi's Kabarak home to complain – in vain. People of other tribes had started to move into the area, some with the assistance of a cabinet minister.

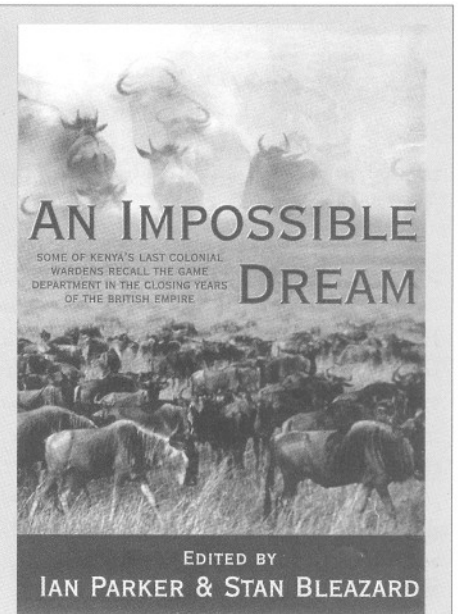
The Ogiek had to reject the five-acre plot offers or lose all the rest. In the end, the outsiders posing as Ogiek got hold of the title deed applications and had the Mauche land allocated to them, and well-connected administrators and politicians were allocated large properties outside of the scheme. The government sent in the military to subdue the outraged Ogiek. In

November 1995, Ogiek men, women and children started a 40-km march to see the president in State House, Nakuru. They were met by police who beat them with batons and arrested elders while Moi listened to a choir in State House. PC Chelang'a, who wanted to help, had his hands tied by the minister and by State House officials. He died tragically in 1996 when his helicopter was shot down in northern Kenya.

The Ogiek area was isolated from all visitors by the police. Journalists were ordered away at gunpoint and any Ogiek willing to be interviewed was arrested. The Narok DC began evicting Ogiek from the forest. In May 1996, the Ogiek wrote to the president, "Sir . . . we ask to be settled exclusively as a community with our own cultural entity . . . in a land reserve like any other community in Kenya."

The government response was to arrest and to beat the Ogiek leaders. The Ogiek eventually obtained legal representation and several lawsuits have been filed. Some have been thrown out of court, some lost, but a main one still languishes in the court. The 1997 suit was upheld. In it, the court ordered a cessation of all land surveying, allocations and title deed allotments. The government has not responded in five years and the court continues to adjourn when the matter is mentioned and when no one appears for the government.

Will this also be the fate of the KARA /EAWLS/ELCI suit? All Kenyans must now demonstrate the same courage and determination the Ogiek have shown in their struggle, as the fate of the forests is the fate of the nation. 



An Impossible Dream

This book, edited by Ian Parker & Stan Bleazard, is a compendium of writing by seventeen former Game Wardens of the Colonial Kenya Game Department. The topics range from the historical origins of the Department and official attitudes towards conservation a century and more ago, to spending a night haunted by ghosts in the abandoned District

Commissioner's house in Kipini. Some have written seriously, others with humour, but this book (reviewed overleaf) is an easy read throughout and essential for anyone interested in African conservation.

Produced by the new digital process of publishing 'on demand', the book is available both through the internet (www.librario.com) and through East African Wild Life Society shops at Viking House and on Riarua Road, and also from the Text Book Centre in Nairobi.

The publishers will pay the East African Wild Life Society £1.00 Sterling for every copy of the book ordered through the internet as a result of this advertisement. Evidence of having ordered as the result of seeing this advert should be indicated by putting (EAWLS) in the parentheses after the name on the order.

Never say die

When examining the evolution of African wildlife management, it is impossible to avoid the part played by the colonial era in shaping the wildlife issues and challenges we face today. Indeed, to keep this era under wraps would be a serious mistake, for there are still many valuable lessons that can be learned from an honest exposition of what was attempted then and why.

In *An Impossible Dream*, a new book due out in December this year with the subtitle 'Some of Kenya's Last Colonial Wardens Recall the Game Department in the British Empire's Closing Years,' editors Ian Parker and Stan Bleazard go a long way towards ensuring that the lessons of the past will not be forgotten quite so easily.

The book covers the period 1946 to 1963 in Kenya. It is no dry historical tract, however. Rather, it is a story told through the recollections and writings of 17 people who themselves were either Game Wardens or Honorary Game Wardens. It is skilfully edited so as to provide, through a series of pertinent vignettes, a clear picture of the wildlife management story of the period.

However, as the Introduction states, it would be wrong to treat this as an authoritative history. Yet, given that so many of the written records of the Kenya Game Department for the period have been either mislaid or destroyed, we should all be very much the poorer for not having this extremely wide-ranging and evocative compilation.

The opening four chapters set the scene, outlining the waxing and waning of wildlife conservation policies from the late nineteenth century to the onset of World War Two. The Kenya Game Department's gradual evolution is described, as are some of the principal early players involved.

In the early years, such players included Sir Frederick Jackson and Blayney Percival. Then, between the 1920s and the 1940s, it was Archie Ritchie, G C MacArthur (I now know how Mac's Inn at Mtito Andei got its name) and J A Hunter who were to the fore. Archie Ritchie was head of the Kenya

AN IMPOSSIBLE DREAM

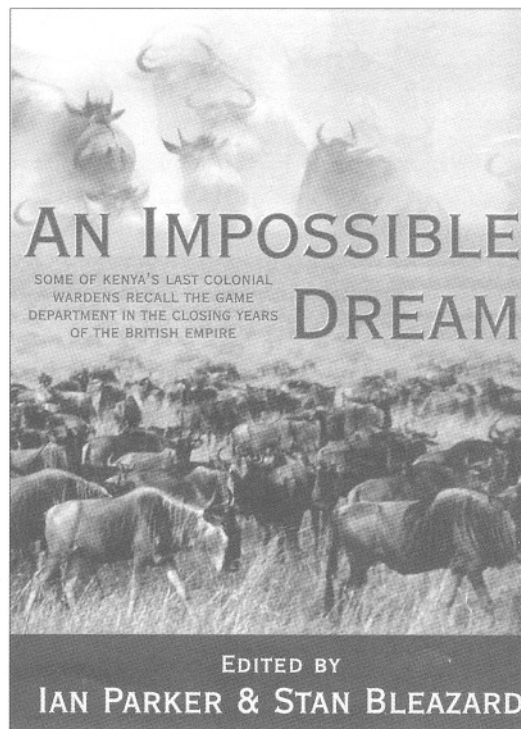
Edited by **Ian Parker**
and **Stan Bleazard**

Published by *Librario*,
Scotland, 2002.

pp. 349, *Illustrated*.

KSh 2,150 / UK£ 15

Reviewed by **Nigel Hunter**



Game Department from 1924 to 1948, and I still have vivid teenage memories of this striking-looking man and his wife Queenie at their house near Malindi. It is good to see this book accord to him, in Chapter 3, the recognition he deserves.

Chapter 4 then goes on to describe the extensive legal consumptive use of wildlife during World War Two, an episode that was considerably downplayed after the War.

Then, between Chapters 5 and 34, come the recollections spanning the period 1948 to 1963. These range from descriptions of incidents that had me uncontrollably laughing out aloud, unable to read on through the ensuing tears (try chapter 5), to accounts of bush experiences, unusual postings, game control, game capture, translocations, policies, 'problem' ghosts, leading personalities, presidential

demands and suchlike – all in the context of conditions prevailing in the 1950s and the early 1960s, which of course are very different from those of today.

Besides Ian Parker and Stan Bleazard, who both write as well as edit, there are contributions from Peter Jenkins, whose own son Mark continues to work with the Kenya Wildlife Service today, and from Ken Smith, Rodney Elliott, Dave McCabe, David (DB) Brown, Tony Carn, and Tony Marsh.

Other stalwarts among this book's contributors include Noel Simon, who was one of the founders and also the first chairman of the Kenya Wildlife Society (forerunner of today's EAWLS), Mike Drury (representing the life and work of an Honorary Warden), Ron Jolley (on lions in Karen/Lang'ata in 1961), Miles Coverdale (on roan translocation), John King (on the work of the Game capture unit), and Ken Levett (on outwitting a Kapiti lion).

In Chapter 37, Jack Barrah casts the spotlight on such personalities as Major (TB) Temple-Boreham, Major Rodney Elliott, George and Joy Adamson, and Fred Bartlett. From David Brown there is a fitting tribute to David Sheldrick (Chapter 36), as well as much mention – in various chapters – of Bill Woodley, whose sons Bongo and Danny have also since taken up careers in wildlife.

In a slightly different mode, but no less appealing, is the Chapter (29) by Alistair Graham, who has the ability to stand back and to poke a little fun at himself, as well as at some of the people involved and the approaches adopted.

What is most refreshing about all these recollections is the underlying honesty with which they are offered. This candour is evident throughout – in the accounts and reflections of the editors, as well as in those of the various contributors. They all acknowledge, *inter alia*, the big error made in sidelining African tradition and values from wildlife policies and management.

Administrative laxity in terms of poor accountability and financial management – in conjunction with legislative loopholes that allowed some regulatory processes to be circumvented altogether – is also recognised as having greatly facilitated the corruption that would follow.

With hindsight, it seems obvious that such mistakes have contributed to today's

Copies of An Impossible Dream can be ordered from Librario, Brough House, Kinloss, MORAY, IV36 2UA, Scotland, e-mail: < amlawsonlib@aol.com >

continuing declines in wildlife numbers and in the efficacy of wildlife policy and management. Yet no one could accuse that era's wildlife custodians of being afraid of trying out new initiatives (read Chapter 19 and the final chapter in particular). Many such initiatives have greatly influenced the shaping of effective wildlife policies and approaches, although some of these have taken root more strongly elsewhere than perhaps in Kenya.

Above all, the story told in this book is remarkable for all the fascinating insights it sheds on the conditions under which some of Kenya's pioneering wildlife officers had to work, and on the many hardships they had to endure in order to maintain their dedication and professional integrity under such conditions. Their perseverance, alone, should serve as an inspiration to us all.

At the time of writing this review, I have only an advanced copy of the text to work from. So I am in no position yet to comment on the photographs, maps and illustrations – of which provision is made for a great number: certainly more than 100 photographs, by my count. These are to include portraits of the protagonists, as well as views of the places, animals, events and operations described in the various chapters.

With the maps as well, to give a sense of the enormous areas the wildlife officers were expected to cover, usually with the help of only a few dedicated staff, the pictures will – in the book proper – add another whole dimension of interest.

I have no hesitation whatsoever, then, in recommending *An Impossible Dream*. It is an excellent read. It is history. It is biography. It has information, humour and anecdote – and storytelling of the highest order by engaging raconteurs. It certainly does ample justice to that illusive pursuit of a dream, the dream of keeping the African Pleistocene alive, that was cherished and shared by a very special breed of people. 🦒

Nigel Hunter is currently Director of the Monitoring of Illegal Killing of Elephants (MIKE) programme of the Convention on International Trade in Endangered Species of Fauna and Flora (CITES). Specialising in land use planning, particularly in relation to the formulation of wildlife and tourism policy, he was – between 1990 and 1995 – Director of Wildlife and National Parks in Botswana, southern Africa.

A prime mover's memoir

WRESTLING WITH RHINOS The Adventures of a Glasgow Vet in Kenya

by Dr Jerry Haigh

ECW Press, Toronto, Canada,
2002. ISBN 1-55022-507-3

pp. 390, Illustrated.

US\$ 21.95

Reviewed by Ian Parker

As animals cannot speak up and explain their symptoms, vets generally make better observers than doctors. People are unaware, when they take their animals to vets, that they are often just as closely observed as the patient. Consequently vets accumulate much material on their fellow humans which, when they care to write about it, usually makes for interesting reading. Jerry Haigh is no exception to this rule.

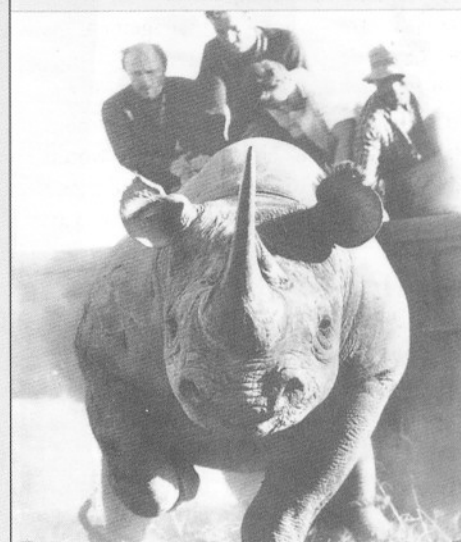
Born of military parents in Kenya, Jerry returned there from Glasgow University as soon as he had qualified in veterinary medicine. The book tells of his experiences over the next decade or so, of his meeting and marrying a Dutch Doctor, of starting a family and eventually of moving on to Canada, where he has spent the rest of his career.

Jerry's time in Kenya spanned the early post-independence years, when things still ran more or less with the order inherited from the colonial era. The country was full of enthusiasm and the cancer of corruption had yet to take hold at all levels of society. While he practised normal veterinary medicine with the full range of domesticants from household pets to cattle and horses, he also treated many wild animals and today would be referred to as a wildlife vet.

He was one of the small band of veterinary pioneers and wardens who developed the technology for capturing large wild animals through the use of tranquilising darts. Along with many of his peers at the time, he never really appreciated the degree to which they were breaking new ground. They all enjoyed the challenges involved, but failed to lay claim to the kudos that was rightfully theirs.

WRESTLING WITH RHINOS

The Adventures of a Glasgow Vet in Kenya
DR. JERRY HAIGH



In this respect, Jerry was the technical brain behind a conservation success in Rwanda that has still to be properly acknowledged. The Government had decreed that Rwanda's last surviving bush elephants should be exterminated. However, it conceded that all calves of between one and four years of age should be captured and transferred to the Akagera National Park where there were no elephants.

Thanks to Haigh's skills with darts and drugs, all elephants aged between one and ten years were caught. The largest were nearly seven feet at the shoulder, far larger than any caught and translocated in Africa before. This new population went on to triple in size over the next quarter century.

Had no elephant older than four been captured, it is unlikely that any of the refugees would have survived. Today, when even fully grown elephants are tranquilised and whole herds are sometimes moved, this early and first success story remains largely forgotten. Haigh himself makes far less of the achievement than he might.

Therein lies the appeal of *Wrestling With Rhinos*. It is not an exciting book abrim with tales of derring-do. Instead, it is a rather more gentle, nostalgic set of reminiscences. The opening quotation: "I speak of Africa and golden days (*Henry IV, Part 2, Act V, Scene 3*)" sums it up nicely.

For many who enjoy memories of Africa, this book would make an excellent Christmas present. My single criticism is that it should have been hard-cased, as it is the sort of book that many will want to have in their Africana collections. 🦒

SIXTH SENSE

You can count
on it for things
adventurous

One-sixth of a page
(13 cm deep x 6 cm
wide) in SWARA's
Sixth Sense
classified advertising
section may be all
it takes to expand
your horizons.

Call Maggie Maina on
Tel + 254 (2) 574145
or e-mail her at
< ewals@kenyaweb.com >

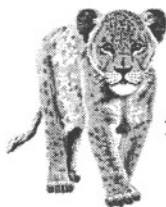
want to
HELP
save Africa's
endangered species?

...

contact us for more information by:
email:
contact@wildlifeartstudio.com.edu
Fax: +61 8 8364 3947
or
mail: Wildlife Art Studio International
P O Box 678
Stirling, South Australia, 5152
AUSTRALIA

**we will send you details by
return mail ... obligation free**

**We are an innovative business
offering real choices and real
opportunities for ordinary people to
assist with wildlife conservation**



Aloha
Tours & Safaris

The Experience
&
attention to detail makes
Aloha Tours & Safaris
the best to plan your next safari to
East Africa.

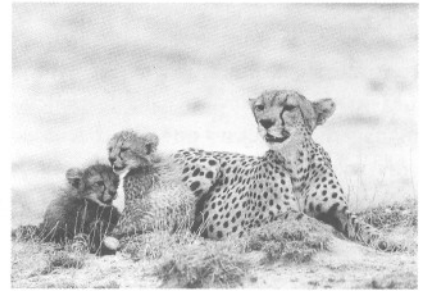
**We specialize in tailor-made,
personalized itineraries that meet
your own specifications.**

USA Tel: 1-800-699-3191
Fax: 623-322-2755
Email: alohatrs@aol.com

KENYA Tel: 254-2-719330
Fax: 254-2-716992
Email: alohatrs@bnxt.co.ke
Website: www.aloha-safaris.com

SPECTRUM
COLOUR LAB LTD

FINEST QUALITY PHOTOGRAPHIC SERVICES



- TWO HOURS E6 PROCESSING
- EXHIBITION PRINTS
- HAND PRINTS
- DURATRANS
- DUPES
- BLACK & WHITE DRY MOUNTING
- LAMINATION
- CANVAS

Telephone: 4448352, Fax: 4447437
Waiyaki way, P.O. Box 20107 Nairobi Kenya.



Mpata Safari Club, Masai Mara

Named after the great
Tanzanian artist S. G. Mpata,
this exclusive and romantic
club has been voted "The
Best Safari Lodge in Kenya".
It Commands a breathtaking
view of the Masai Mara plains
and the Mara River. Eleven
luxury suites and twelve
deluxe rooms provide first
class accommodation. Each
Suite is complete with an
outdoor jacuzzi.

Offices: Nairobi: Mpata Investments
Telephone: 254 - 2 - 217015/244987/
310867
Fax: 254 - 2 - 310895/229420
e-mail: mpatam@africaonline.co.ke

WANTED TO BUY

THE WILLIAMSON LIBRARY WISHES TO BUY
THESE FILMS IN ANY FORMAT:

- ◆ MR MOSES: ROBERT MITCHUM 1964
- ◆ NO (OR NOT) THE MOON BY NIGHT
- ◆ COWBOY IN AFRICA - ABC AMERICAN SPORTSMAN
- ◆ BRASS CASTING OF BABY ELEPHANT FOOT PRINT - MADE BY ROWLAND WARD 1953-1965
- ◆ SHAW @ HUNTER TROPHY - OR A COPY

F P Williamson
P O Box 715
Cambridge
MD 21613
USA

Sunworld Safaris

Looking for a special Safari?
Look no further...

SUNWORLD SAFARIS
your specialist in 4x4 CAR HIRE
Adventure & Luxury Safaris

visit Maasai Mara Game Reserve
from as little as

US\$ 195/- per Person

Our personalized service
and attention
is what will make
YOUR trip
unique and memorable!



CONTACT US NOW:
Tel.: ++254 2 445 669
or 445 680 or 445 850
Fax: ++ 245 2 445 673
Mobile: 072 525 400 or
072 525 425 or 0733 614 055
E-Mail: Sunworld@iconnect.co.ke
Web-Site: www.sunworld-safari.com



ALAN BORBE'S
BISTROT

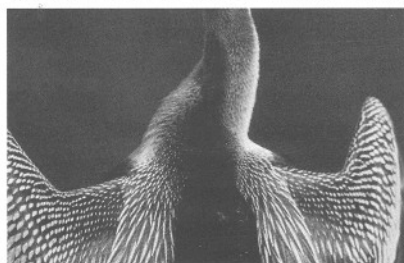
La Seule Table Francaise De Nairobi

**10% discount for all
Swara readers
on the presentation
of this voucher**

Cianda House • Koinange Street
PO Box 44991, Nairobi, Kenya
Telephones: 336952/226027/224945



ENJOY A SERENE VISIT TO OUR
SCENIC PROJECT AREAS IN
KENYA. SEE YOUR EFFORTS TO
CONSERVE EAST AFRICAN WILD
HABITATS. BOOK NOW FOR THE
MEMBERS "SAFARI" FOR JULY
13TH UNTIL 27TH 2003. ALL
MEMBERS ARE INVITED
(Maximum of 40 members only.)



For more information contact:

Jacque Mwangi
Tel 254-2-574145
Fax 254-2-570335
e-mail
or visit our website on:
www.eawildlife.org

Hotel Inter-Continental Nairobi offers a choice
of both formal and casual venues to dine in.

PLANTATION

Our 24 hour lobby cafe, offers an extensive selection of
refined tea, coffee and other refreshments as well as
a light menu of sandwiches and pastries.



A fine experience with speciality dishes from the
Mediterranean region. The restaurant offers
an exquisite wine list and is also ideal for candle lit
dinners and business lunches.

SAFARI BAR

Every evening from 5.00 p.m - 1.00 a.m,
enjoy the hospitality and comfort at the Safari Bar.

THE TERRACE

For a more informal atmosphere try the "Terrace
Restaurant" over looking the pool. Open throughout
the day serving breakfast, lunch and dinner.
Choose from our international buffet or a la carte menu.



"Bhandini" brings you the essence of India,
blending aroma and taste while you watch
our chefs prepare your meal in front
of you using traditional tandori ovens.



HOTEL INTER-CONTINENTAL NAIROBI

City Hall Way, P O Box 30353 Nairobi, Kenya.
Tel: 254 (2) 261 000 Fax: 254 (2) 210 675 / 214 617.
Internet site: <http://www.interconti.com>
e-mail: nairobi@interconti.com

VOLCANOES



Uganda • Rwanda

SAFARIS
*Gorillas • Chimps
Wildlife • Birds*

CAMPS
*Travellers Rest,
Kisoro
Mt Gahinga • Bwindi
Sipi*

27 Lumumba Av. • Nakasero Hill • Kampala
T (041) 346464/5 • M 075 741718
salesug@volcanoessafaris.com
www.volcanoessafaris.com

As such meetings go, East Africa can – on balance, I think – be reasonably satisfied with the outcome of November's 12th meeting, in Santiago, Chile, of the Conference of the Parties (CoP) to the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES).

True, there were times – in Santiago itself – when it felt as though we might be on some kind of a stock trading floor, or at an auction. "Up for sale, another 500 jabberwocks. Going once, going twice . . . GONE!" This does take a bit of getting used to, I must say, when all the lots on the table are of *endangered* wild species (with not a jabberwock among them).

But, having said this, we – as East African delegates – did not come away empty-handed, or defeated, as sections of our local press have suggested. Even the compromise reached on the African elephant, conditionally allowing a 'one-off' sale after May 2004 of a total of 60 tonnes of stockpiled ivory by Botswana, South Africa and Namibia, is not necessarily the unmitigated disaster it has been portrayed.

So I have, since returning from Chile, been rather surprised to find myself on the receiving end of commiserations beginning "Pole sana. Sorry to hear you people lost out in Chile."

The compromise is a setback, of course. But then, we did win quite a number of important concessions. And there is a big difference between a deferred, conditional 'one-off' sale and the *annual* sales quotas the southern African countries, including Zimbabwe and Zambia, had been seeking at the CITES meeting. Indeed, we argued successfully that the applications of both Zimbabwe and Zambia be ruled out on the grounds that neither state has sufficient safeguards in place to protect its remaining live elephant herds from any upsurge in poaching activity.

As expected, the discussions on the elephant issue were very highly charged, at times almost hysterical. But, for those of us present, it was the southern African delegations that were forced into doing most of the climbing down. The deferred 'one-off' sale is subject to the imposition, before May 2004, of verifiably better controls and monitoring systems. And reports reaching us after the meeting that



South Africa may have failed to disclose incidents of elephant poaching within its flagship Kruger National Park do not augur well for claims that controls already in place even there are anything like adequate.

Even so, there remain serious concerns for us at the East African Wild Life Society, that the very prospect of there being a 'one-off' sale in 2004 may send out all the wrong signals to poachers and profiteers in our region. So, we shall be continuing to watch the situation very closely. This battle is certainly not over yet!

Otherwise, it was very heartening to see agreement reached this time around restricting the trade in whale sharks and basking sharks, both of which were up-listed in Santiago to CITES Appendix II – after having narrowly failed to gain the necessary two-thirds majorities in Nairobi at CITES 2000.

There are more whale sharks being seen today off East Africa's coast than I recall ever seeing during my long association with Marine Parks region-wide. And they seem to be around for much of the year, often very close to shore. Magnificent creatures, these gentle giants – whatever may be keeping them in our region (warmer seas maybe, with more abundant nutrients?) – certainly deserve all the added protection they can get.

Among the important plant species to be up-listed at the meeting was the Big-leaf

mahogany, from Latin America, which is now also on Appendix II. This species was the subject of some of the most visible and frantic lobbying on view during the Santiago meeting. Indeed, all the trees lining one of the city's busiest thoroughfares were decked out in large placards bearing the words 'Thank God I'm Not a Mahogany' – in Spanish most of them, but there were some in English as well (the handiwork, apparently, of Greenpeace activists).

There were other posters on display, leaving no-one in any doubt that the CITES bandwagon was in town. The facilities themselves were excellent, and the whole conference was expertly organised. The public transport system was also impressive, as were the hotels and restaurants – popular haunts, in the evenings, of the 'Must-see-and-be-seen-by' and 'We-are-right-and-you-know-it' brigades. The only thing I wished that I had been able to bring along with me was some rudimentary knowledge of Spanish, as this is one part of the world where English is of precious little use!

As always with CITES CoP meetings, there was a lot of frenzied activity outside the plenary halls, involving a vocal 'fringe' of special interest groups and lobbyists. The proliferation, since the last CoP meeting, of NGOs – of both the pro-conservation and pro-utilisation types (although of course the two are not always mutually exclusive) – was also very noticeable. And inevitably, tension between certain of the government representatives and the conservation NGOs boiled over at times, producing some very acrimonious, not to say hostile exchanges. Still, this does all go towards helping to ensure that conservation interests are not overlooked in the *mêlée*.

Discussions at CITES in general are becoming increasingly embroiled, however, in a complex 'Us versus Them' situation pitting the developing countries ('Us'), with most of the endangered species, against a few wealthy developed nations ('Them') which have enormous financial and political leverage at their disposal. The result, ironically, is that many of the poorer developing nations routinely go along with unrestricted international trade in their endangered plants and animals, regardless of conservation arguments pressing for only limited utilisation. Such manipulation and

collusion may one day, I think, undermine the conservation aspect of the Convention's rationale.

The 'Us' caucus, meanwhile, has upped the ante considerably since the last meeting in insisting that the developed world, by continually uplisting species, is denying it the right to earn much-needed revenue from the sale of products obtained from its natural resources. Without such income's becoming available for conservation, the argument goes, the very species that are being listed by CITES will perish for lack of the wherewithal to introduce protective measures. This line of argument is likely, in my view, to become much more central at future CITES meetings.

There was a proposal – put forward in Chile by the CITES Secretariat itself – that the convention's name be changed to the 'Convention on International Trade in Wildlife Species'. Thankfully, however, this proposal, which really would turn CITES into an out-and-out trading floor, or auction, was flatly rejected by the Parties, amid particularly strenuous opposition from ourselves as East African delegates.

That such a name-change was even being contemplated is extremely worrying. For perhaps the most important perception conveyed by CITES, as presently named, is that arising from the juxtaposition – in this name – of the word 'Trade' with the phrase 'Endangered Species'.

Back at the Society, meanwhile, I am pleased to be able to report that we are ending this year on a rather better footing than we entered it. This is down largely to more astute management of our finances, to a significantly enhanced public image, and to an increase in the number, and the scope, of the projects we have in place. Above all, though, it is your support as members that has made this turnaround possible. And, with your continued support in 2003, the Society – *your* Society – will undoubtedly continue to go from strength to strength.

In the next issue of SWARA, I shall update you on the outcome of the Society's Annual General Meeting, which is taking place on 19 December. In the meantime, I hope you will enjoy the results of the hard work put into this issue by the SWARA team. And I hope and pray that 2003 will turn out to be a better, and more peaceful, year for us all. Thank you.

– Ali A Kaka

Karibuni

The East African Wild Life Society is pleased to welcome the following new members to its fast expanding global conservation family:

Joining us as corporate members are:

Kenya Forestry Research Institute, Salongo S I Tour Operators, Silver African Tours & Safaris, SunTrek Tours & Travel Ltd, and KATO, all of Nairobi, Kenya

New individual members include:

From **Cameroon**: Nick Cockaye

From **South Africa**: Mr & Mrs Daryl Malfour

From **Australia**: Alex Burridge, Katja Linke, Kai Linke, Wolfgang E Linke, Liddy Linke

From **Middle East**: Donal Kilalea

From **Europe**: Mr Sulo Hippi, Ms Leena Hame, Aino Hippi, Jonathan Klocker, Mr Pekka Kunnari, Sylvia Ruetten, O Sollet, Ms Terhi Salomaa, Ms Marja-Leena Sarkki, Mr Simo Sarkki, Ms Cay Sevón, J Armstrong Wilkinson, Brewee, Carlos Bonet Betonet, Edward Coleridge, Mr J Davey, Mrs A W Dennis, Dennis Fairey, Mrs Sarah Graham, Francesco P Campanini, Flse Goss, Keith Richards, Lucine Schipper, Rob Williams, Mr K G Walker, Mrs Mary C Wilde, Mr Arme Broman, Peter & Tricia Kiehlmann, Anne Blackman K R, Mrs A C Gibson, N J T Jackson, Beverley Taylor, John Michael Mccloy, Philippa Miller, Nicola Neville, Ms Kirsi Immonen and Margaret Khan

From **US**: Linda Billmaier, Jody & Ken Frattini, Marsha Goetting, B Miller, Rudy & Colleen Pelre, Bradham George, Marilyn E Gibbs, Robert E Gribbin, Lynda Howland, Emilia Kihlsinger, Mrs T A Landreth, Gayle & Don Sommerfeld, Nadia Adawi, Judy Bouchard, Linda Grissom, Vera Sell, Bob Wallace, Marynne Cheline & Don Adamson, Bob Cleek, Fiona Dias, Jedd Hanson & Amy Loch, Carol Perry, Julie Racioppo/Jason Martin, Stephen, Lori & Jodie Racioppo, Mark A Reimers, Andrew J Smith, Dr. Michael Soronen, Sensenig Ryan, David Winn and Dr Mike Maunder

From **Tanzania**: Kleins Camp, Ngorongoro Crater Lodge, Lake Manyara Three Lodge, Grumeti River Camp, Ranger Training

From **Kenya**: Kuki Amrit, David Huw Brookes, Gerard Beaton, Per Jomsson, Patricia Jentz, Sila Matu, Katie Moore, Charles Masai, Siza Caesar Ntshakala, James Ndirangu, Patel Hetal, Leslye Rost Van Tonningen, Mrs. D M Stuart, Pauline Vaughan, Warden Education Centre, Chege Bernard, Edward Burrell, Odile De Beaumont, G Guyfjes, Laclavédie Edouard, Robert Dodson Francis, Benno Grupp, Samuel S Kingabgir, Davies Mucai Kairu, Oscar Mann, Elizabeth & Lawrence Marun, Peter Njoka Njoroge, Gabriele Pedrazzini, Diana Putman & Adam Messer, David Penrose, Henrietta Remnant, Mrs. Madeline Thornton, Antony Benard Wandera, Kenneth W Wade, A M Botta, Gro Bjornstad, Ms Archana Bhandari, Alison Cameron, Yvonne De Jong, Duthie David, Jane Glew, Eie Gunnar, Mick Gorton, Lilian Wanjiru Gatuma, Paul Howorth, Kimani Kuria, David Murphy, Kishore K Patel, Kostja Reim, Caludia Reim, Dee Raymer, Helen Smallwood, Andrew Smallwood, Avinash M Shah, Savelli Heidi Soderberg, Munir Virani, Tim Samadi Chindia, Tom Cholmodeley, Kagume Chiuri, Ken Korir, Tarit K Mahapatra, Anthony Ndirangu, Rohan Patel and Ssemakula Mukiibi

The Membership Office would be grateful if European members paying their annual subs would do so in either US Dollars, UK Pounds, or Euros. Please continue to send your e-mail addresses to us at < info@eawildlife.org >.

AFRICAN JOURNAL OF ECOLOGY

The scientific publication of the East African Wild Life Society (EAWLS), the African Journal of Ecology, features original, authoritative research papers on the plant and animal ecology of eastern Africa. The Journal is available – at a cost of UK£ 325 (Europe), US\$ 561 (US and Canada), UK£ 364 (rest of the world) – from Blackwell Science Ltd, Journal subscriptions, P O Box 88, OXFORD OX 2 ONE, UK; e-mail <journals.cs@blacksci.co.uk>.

East African Wild Life Society

Patrons:
The President of Kenya
The President of Tanzania
The President of Uganda



Chairman

Dr. Imre Loeffler

Vice-Chairmen

Tom Fernandes, Costa Mlay, John Emilly Otekat

Treasurer

Stanley Ngaine

Executive Director

Ali A. Kaka

Trustees

Prof. Fredrick I.B. Kayanja, Albert Mongi, Hilary Ng'weno

Honorary Vice Chairman

James H. Webb

Elected Members of Council

Mahmud Jan Mohamed, Nicolas Ng'ang'a, Dan Majanja, Elizabeth Maloba, Roselyn I Wawiye, Julie Matiba-Wahome

Executive Committee

Dr. Imre Loeffler, Tom Fernandes, Stanley Ngaine, Mahmud Jan Mohamed, Nicholas Ng'ang'a, Esmond B. Martin, Dr John Waitthaka, Julie Matiba-Wahome, Dan Majanja

Conservation Committee

Dr John Waitthaka, Dr David Western, Humphrey Kisio, Moses Mapesa, Edmund Barrow, James Ndirangu, Beatrice Nduta Kiarie, Dr Richard Bagine

Membership Committee

Julie Matiba-Wahome, Dan Majanja, Elizabeth Maloba

Fund-raising Committee

Dan Majanja, Andrew White, Julie Matiba-Wahome, David Sanders, Kiran Suthar, Harry Hare, Duncan Willetts, Yazmin Nanji, Wouter J Verwiel

Programme Areas

Conservation Advocacy, Species Conservation, National Parks and Protected areas, Conservation Education, Wetland and Marine resources, Forests and Water Catchments

Honorary Members

M. Bishop, James H. Webb, Webb and Sons Inc; Chas G. Allen Jr., Mr. & Mrs. H. E. Rocoveri

Head Office

EAWLS, P. O. BOX 20110 – 00200,

Riara Road, Kilimani, Nairobi

Tel: 254-2-574145 Fax: 254-2-570335

Email: eawls@Kenyaweb.com.

Info@eawildlife.org

Website URL: www.eawildlife.org

Netherlands Branch

Stichting EAWLS

Ridderhoflaan 37

2396 C. J. Koudekerk A/D RIJN

Members are requested to address any queries to the Executive Director

The East African Wild Life Society was formed in 1961 by an amalgamation of the Wildlife Societies of Kenya and Tanzania (both founded in 1956) and Ugandan wildlife conservationists

Corporate Members

Donor members

African Safari Club, Serena Lodges & Hotels, Stefanatos J D V M, Kobo Safaris

Corporate Members:

ABN Amro Bank; Abercrombie & Kent Ltd; Across African Safaris; African Horizons Travel & Safari; Africa Expeditions Ltd; Africa Safari Specialists, African Wildlife Foundation (K); African Wildlife Safari P/Ltd (Australia); African Quest Safaris; Agjp (K) Ltd; Agricultural Finance Corporation; Air Kenya Aviation; Air Travel and Related Studies Centre; Aldabra Productions SRL; Alliance Hotels Ltd; Apollo Insurance Co. Ltd; Aquasearch Ltd; The Ark; Aventis Cropscience (K) Ltd; The Banda School; Bartkus, J; Bauer Consulting; Big Five Tours & Expeditions; Brooke Bond (K) Ltd; Caltex Oil; Carbacid (CO₂) Ltd; Cheli & Peacock Ltd; Chemicals & Solvents (EA) Ltd; Coca Cola Africa; Comfort inn; Conservation Corporation Africa; CMC Holdings Ltd; CMC Motors Group (Ltd); Destination Kenya Ltd; Diani Marine Ltd; Document Handling (K) Ltd; Dream Travel Africa; East African Ornithological Safaris; East African Portland Cement; Ewell, Harry P ; Express Travel Group; Fairview Hotel; Farm Engineering Industries Ltd; Friends of Conservation; Fun Safaris INC; Guerba World Travel Ltd; Guerba (K) Limited; Mr. Harry Verville; Henniges Axel; Heritage Hotels; Highlands Mineral Water Co. Ltd; Highlight Travel Limited; Holiday Bazaar Ltd; Hotel Adventure Travel; InCA Repro Ltd; International Expeditions; International Fund for Animal Welfare; International School of Kenya; Kensta; Kapi Ltd; Kenya Association of tour Operators; Kenya Forestry Research Institute; Kenya Tourist Board; Kenya Wildlife Service; Ker & Downey Safaris Ltd; Kobil Petroleum Ltd; Kongoni Game Sanctuary; Let's Go Travel; Let's Go Tours; Liberty Africa Safaris; Library of Congress; Lonrho Hotels Kenya Ltd; Mara Landmark Ltd; Marajani Tours Ltd; Marketing Communication Ltd; Mayfair Court Hotel; Micato Safaris; Minet Aon Ins. Brokers Ltd; Monsonto Central, Africa INC; Mount Kenya Sundries; Mpala Research Centre; Multichoice Kenya; Mumias Sugar Company; Mweka College of African Wildlife Management; National Industrial Credit Bank Ltd; National Outdoor Leadership School; Nature Expeditions Africa; NCR Kenya Ltd; Nolan-Neylan, K I; The Norfolk Hotel; Offbeat Safaris Ltd; Olanana; Oserian Development Company Ltd; Pan African Insurance Company Ltd; Peregrine Adventures; Pollman's Tours and Safaris Ltd; Power Technics Ltd; Private Safaris Zurich; Private Wilderness Ltd; Prof Migot-Adholla Shem; Provincial Insurance Company of East Africa Ltd; Pyles Lumber Company Ltd; Reckitt Benckiser; Recoscix-wio Project; Royal African Safaris; S G S Kenya Ltd; SafariAfrica; Safari Beach Hotel; Safaris Unlimited (A) Ltd; Sarit Centre; Stanbic Bank Kenya; St Lawrence University; Securicor Kenya Ltd; Shades of Africa Tours and Safaris; Silver Africa Tours & Travel Ltd; Scorpio Enterprises Ltd; Solio Ranch Ltd; Somak Tours; Southern Cross Safaris Ltd; Stanley & Son Ltd; Sun 'n Sand Beach Hotel Ltd; Suntrek Tours & Travel Ltd; Sunworld Safaris; Swedish School Association-Kenya; Symbion International; Tamarind Management; The Ark; Transnational Bank; Tropical Ice Ltd; Unga Group Ltd; United Millers; University of Nairobi Library; Vintage Africa Ltd; Wildlife Safari (Kenya); Wildlife Safari (Australia); Wildlife Safari (USA); Wildtrek Safaris Ltd; Williamson (K) Ltd; Worldwide Adventure Travel; WWF Eastern Africa; Yare Safaris Ltd; ZDF German Television

Worldwide Representatives

Australia

Trevor Fernandes
Wildlife Safari (Australia)
 213 Railway Road
 SUBIACO WA 6008

Austria

Hans Norbert Roisl
 Uhlplatz 5/8
 A-1080 WIEN

Belgium

John Rowland
 11 Rue Faider
 1050 BRUSSELS

Canada

Dr N J C Mathews
 Box 69
 Pemberton, B C
 VON ZLO

Finland

Tom Kumlin
 Armfeltsvagen 7A5
 FIN – 00150 HELSINKI

Germany

Klaus Fenger
 Zugspitzstr. 65
 82467 GARMISCH-
 PARTENKIRCHEN

Jutta & Dirk Ohlerich
 Schutzbaumstrasse 50
 D-63073 OFFENBACH

Holland

Johan W. Elzenga
 Ridderhoflaan 37
 2396 C J Koudekerk
 A/D RIJN

Ireland

David Bockett
 30 Zion Road
 DUBLIN 6

Kenya

Mark Easterbrook
 P.O. Box 208
 MALINDI

Suthar Kiran

P O Box 1000
 MERU

Chris Diaz

P O Box 99200
 MOMBASA

Norway

J.E Johnsen
 Munkerdivelen 41 A
 OSLO 1 1

Spain

Lidia Sanchez Rugules
 c/o Nutria 26
 LA MORELEGA 28109

Africae Safaris

c/o Vilaragut, 5.3
 46002 VALENCIE

Sweden

Hugo Berch
 Össjö Gärd
 S-266 91 MUNKALJUNGBY

Switzerland

Anton-Pieter Duffhuys
 Vollenweid
 CH – 8915 HAUSEN AM ALBIS

Therese & Bernhard Sorgen
 Erlenweg 30
 8302 KLOTEN

Uganda

Dr Prof Wolfgang Thome
 P O Box 7743
 KAMPALA

United Kingdom

Prof Bryan Shorrocks
 Centre for Biodiversity and
 Conservation
 School of Biology
 University of Leeds
 LEEDS LS2 9JT

United States

of America

Keith Tucker

Chief American

Representative

PO Box 82002

San Diego

CALIFORNIA 92138

Peter A Bakker

Financial Representative

175 West 79th Street #10E

New York

NEW YORK 10024

Kurt Leuschner

70065 Sonora Road #267

Mountain Center

CALIFORNIA 92561

Lawrence A Wilson

3727 Summitridge Drive

Atlanta

GEORGIA 30340

Gordon Crombie

2725 Park Ave

Franklin Park

ILLINOIS 60131

Gary K Clarke

Private Bag 4863

Gage Center Station

Topeka

KANSAS 66604-0408

C G Allen Jr.

Barre 01005

MASSACHUSETTS

Mr & Mrs Harry Ewell

200 Lyell Avenue

Spencerport

NEW YORK 14559-1839

Evelyn M Bloom

1067 N E Cochran Drive

Gresham

OREGON 97030

Grant & Barbara Winther

9160 Fox Cove Lane NE

Bainbridge Island

WASHINGTON 98110

Wildlife Safari (USA)

346 Rheem Boulevard

Moraga

CALIFORNIA 94556

Sue L Farinato

28309 Kemptown Rd

DAMASCUS, MD 20872

Tel: 301 253 8997

Charles Kasing'a

7632 Amazon Drive Suite#,

HUNTINGTON BEACH,

CA92647-3523

Grice Galleher

307 Roslyn Road

RICHMOND VA 23226



Photo: FRANCIS MBURU

Up in the air

For a close-up shot of a lioness pouncing on a zebra, you could hardly get much closer to the action than this. The photographer with the grandstand view in this picture — taken in July last year near Paradise Crossing Point on the Mara River — is Hans Kuehne, from Germany, who was touring Kenya's Maasai Mara National Reserve with Nairobi-based tour operator, Sunworld Safaris.

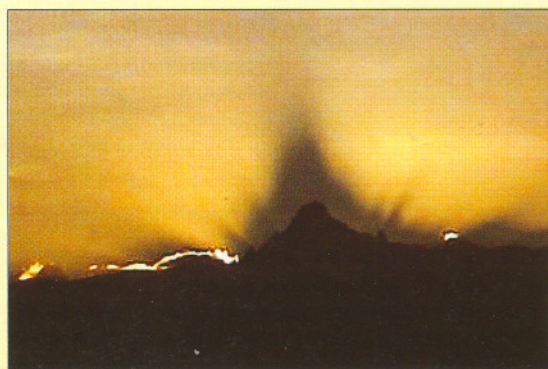
For Kuehne, the action was a little too close, however. For, as he subsequently told Sunworld's Gabriele Nowak: "The lioness made her move so suddenly that, with only a very long lens on my camera, I could neither focus nor get both animals into the frame. There was no time even to think about changing lenses." he went on, "and my other camera was out of reach — in its bag inside the vehicle."

Kuehne, then, thought he had blown

what by any standards, must rank as an amazing photo opportunity. Only later, once he was back in Germany, did he learn that the high-point (literally) in this drama had been captured (in the photo reproduced above) by **Francis Mburu**, then a driver-guide with Heritage Hotels' Voyager Mara Safari Lodge (now with Sunworld).

Mburu (pictured at right) had been looking on from another vehicle only slightly further away. He and **John Njenga**, the Sunworld driver-guide in the vehicle with Kuehne, are very close friends. So, when Mburu took delivery of his prints, he immediately had an enlargement made of this one — his best of the incident — for Njenga, to forward to Kuehne.

"The most remarkable thing," recalls Njenga, "was that this zebra, despite its seemingly hopeless position, actually got away in the end" — **GB**



Peak Shadow

The accompanying photograph — of Mount Kenya — was taken by Naro Moru-based safari operator **Helen Douglas-Dufresne**, of Wild Frontiers, from a point a little way north of Solio Ranch, near Nanyuki, at around 6:20 a.m. on 27 September.

Just the day before, she says, there had been a huge fire on nearby Ol Pejeta Ranch, and in the evening all the smoke was carried up and away to the east in the direction of Mount Kenya. This may explain the extraordinary shadow — rising high, and the aura-like, behind the peak.

The shadow disappeared of course, as soon as the sun appeared over the shoulder of the peak at about 6:30 a.m. I just thought SWARA readers might be interested in this strange effect, Helen writes.

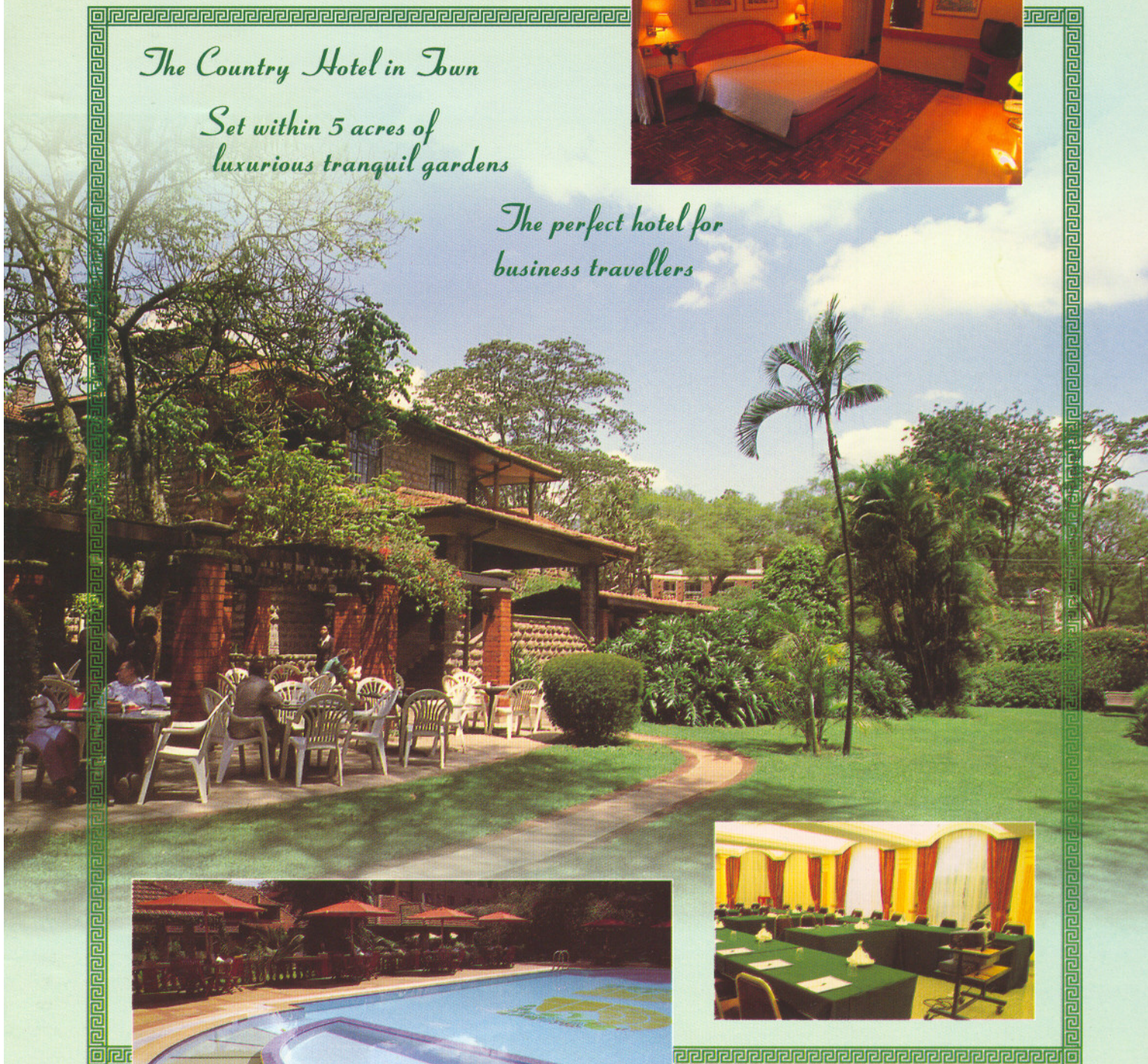
Fairview

the country hotel in town

The Country Hotel in Town

*Set within 5 acres of
luxurious tranquil gardens*

*The perfect hotel for
business travellers*



Bishops Road, P.O. Box 40842,
Nairobi 00100, Kenya.
Tel: (254-2) 2711321, 2710090
Fax: (254-2) 2721320, 2711655
Email: reserv@fairviewkenya.com
Website: www.fairviewkenya.com

EAST AFRICA'S FINEST MOMENTS.

The very best of East Africa is beautifully captured and showcased in Serena's Luxury Resorts, Safari Lodges and Hotels. Serena offers unmatched luxury and comfort in a way that will suit and expand your horizon. Always sensitive to the continent's wildlife and fragile habitat, Serena is an eco-tourism pioneer and has initiated major environmental programmes throughout the region.



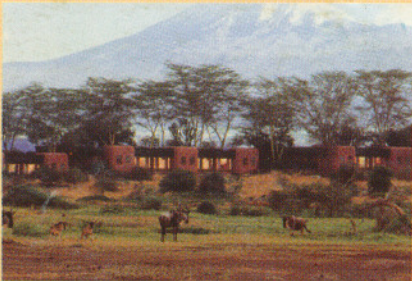
Mara Serena Safari Lodge, Kenya: Overlooks the famous Masai Mara Triangle, one of the world's richest wildlife sanctuaries. See the annual migration of wildebeest, zebra and gazelle take place. The luxurious rooms are set in Maasai like domed huts.



Zanzibar Serena Inn, Zanzibar: The epitome of elegance and romance. The airconditioned rooms overlook the azure waters of the Indian Ocean. Extensive recreation and watersports activities are available.



Lake Manyara Serena Safari Lodge, Tanzania: Tree climbing lions amidst extraordinary birdlife. The luxury rooms overlook the Rift Valley with a spectacular view of masses of pink flamingoes and birds of prey.



Amboseli Serena Safari Lodge, Kenya: The lodge lies in the shadow of Mt. Kilimanjaro's snow peaks. Amboseli is home of the elephants and the Maasai whose distinct Manyatta mood is the language of this lodge.



Nairobi Serena Hotel, Kenya: Tranquillity and proximity to the city centre and nearby game reserves. The flagship Serena Hotel is a five star member of "The Leading Hotels of the World".



Ngorongoro Serena Safari Lodge, Tanzania: Built in an extinct volcano. The lodge views right into the crater, where the 'big five' can all be found. Close by lies "Olduvai Gorge", the birthplace of man.



Samburu Serena Safari Lodge, Kenya: Renown for rare game this rustic yet modern lodge makes use of native materials. All rooms have private verandahs that overlook the river where crocodiles feed in full view.



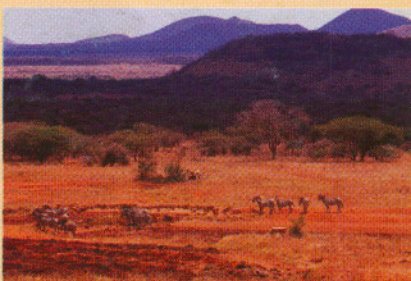
Mombasa Serena Beach Hotel, Kenya: With the shimmering sands and waters of the Indian Ocean stretching before it, this is the ultimate escape. The spirit and style is inspired by the legendary 13th century Swahili town of Lamu. Extensive recreational facilities are available.



Serengeti Serena Safari Lodge, Tanzania: Inspired by a traditional African village. The lodge is set on a high hill with big game feeding in full view. A spectacular view of the annual migration awaits you.



Mountain Lodge, on the slopes of Mt. Kenya ringed by a dense forest which comes alive at dusk with myriad sounds of creatures of all sizes. The hotel (all rooms ensuite) has the most consistent high record of animal visit.



Kilaguni Serena Safari Lodge, Kenya: Located on panoramic spur overlooking the sweeping Tsavo plains beneath Mount Kilimanjaro, Kilaguni looks out over one of Africa's last great wildernesses - home to huge herds of elephant and buffalo, all the big cats,



Kirawira Camp - Western Serengeti Luxury Tented Camp, Tanzania: Serena's first tented camp, all luxury tents have a private bath. Set in the plains of this world famous reserve which has over 2 million wild animals..



SERENA HOTELS

SAFARI LODGES • HOTELS • RESORTS

Serena Central Reservations Nairobi, Kenya: PO Box 48690 Nbo, Phone: +254-2-2711077/8, Fax: +254-2-2718103, Email: cro@serena.co.ke

Serena Central Reservations Arusha, Tanzania: PO Box 2551 Arusha Phone: +255-272-506304/508175, Fax: +255-272-504155/504058

Email: reservations@serena.co.tz