

you put the many genies back into their bottles? Will we pursue co-operation rather than confrontation and domination? If so, do we even know how? Can we invest in peace, environment and the long-term future rather than the domination of one another and of the Earth? Do we have a choice?

It is these types of issues that I hope to address in the coming months. I wish to pursue the philosophical and ethical underpinnings, from a North American perspective, that seem necessary to guide humanity through the rough waters of change as we fundamentally alter the way we must do business with and on the Earth. I believe that here in North America great and fundamental changes will be necessary in the relationship between humans and the Earth if our collective future is to hold much promise for things wild and free, and the ecosystems upon which they and we depend. Our apparently suicidal refusal to acknowledge and then deal with the human population juggernaut is primary on the list. If we cannot come to grips with that, I believe the world will be a much uglier place; endan-

gered species may well be the least of our worries when eight billion bodies crowd the planet. Second, our worship of growth economies, continual expansion, materialism, and increased living standards will complete the task if sheer numbers do not. An ethical bankruptcy that favours short-term profit over long-term stability, and amusement parks and mega-malls over a holistic land ethic will continue to make us all poorer of soul, if richer of body for a few. These trends and others like them will continue to destroy the species and ecosystems that appear in these pages and in similar journals. The view from each of our windows is telling, and continually changes. Some of the changes are positive, while many others continue to degrade nature and the human condition. The view out of my own window offers both hope and a challenge – hope that humanity and nature can co-exist on a larger scale, and a challenge for all of us to determine how that can be done. It will not be easy, but it may well be the most important thing humanity has ever done.

## NEWS AND VIEWS

### Gerald Durrell OBE: 1925–1995

Gerald Malcolm Durrell was born on 7 January 1925 in India, but when his father died in 1928 the family started a peripatetic life that eventually brought them to rest on the Greek island of Corfu, where they stayed until the outbreak of World War II. It was on Corfu that the Greek biologist Theodore Stephanides taught the young Gerry and had a profound influence on his future life. After attempts at schooling in wartime England he gained a position as a student keeper at the Zoological Society of London's Whipsnade Zoo Park. A legacy of £3000 in 1947 (a significant sum in those days) enabled him to finance the first of his many collecting trips. And the rest is history ... at least it is all pretty well documented in his 37 books.

After his third expedition to Africa, in 1950, he commenced writing and broadcasting, cul-

minating in his first book, *The Overloaded Ark*, which was published in 1953. It was an immediate success and the income from his writing was to finance a series of collecting expeditions written up in the books that followed. *The Bafut Beagles*, published in 1954, is my personal favourite and encapsulates Durrell's ability to observe human foibles and to anthropomorphize wildlife but never sentimentalize it. And, of course, his robust sense of humour is omnipresent. In 1951 he married Jacqueline Rasen and she accompanied him on many of his collecting, and later filming, expeditions until the marriage was dissolved in 1979. His second wife, Lee McGeorge, accompanied him on most of his later travels and also co-authored books with him.

In 1959 he founded Jersey Zoological Park, which rapidly became transformed into a conservation-based collection under the auspices of the Jersey Wildlife Preservation Trust

(JWPT), which he founded in 1964. From the early 1960s, his work centred on ensuring his 'Ark' would survive. A world-wide readership ensured that almost all of his books sold well, although not all managed to retain the originality or spontaneous humour of the best. He was not a 'committee man' but recognized the necessity of committees and I first met him through the then Fauna Preservation Society (FPS) Chairman, Lord Craigton, who was also on the Council of the JWPT. In 1986 Gerald Durrell was elected a Vice-President of the FFPS (and his wife Lee was elected to Council). The JWPT and the FPS had been joint organizers of the First World Conference on Breeding Endangered Species in Captivity, held in Jersey in 1972, and remained closely associated with the subsequent conferences.

Aside from the public figure appearing in numerous films and as the author of numerous books, Durrell was a larger-than-life figure in many respects. His enthusiasm was truly infectious and inspired tremendous loyalty – several of the staff at the JWPT have been there since its inception. It is a measure of his success that when he disappeared to southern France for a stint of writing he had in place an organization that was fully functional. He was a true leader, who did not interfere with the day-to-day minutiae.

Durrell's story-telling abilities are legendary, and he could easily fill an evening with anecdotes – as he did at an FFPS members' meeting in Cambridge. And he could be even more hilarious when describing certain members of the zoological and conservation establishment. It was humour without malice, but he was a doer and had little time for conservationists who spent most of their time going from conference to conference, from committee to council to working group.

The legacy that Durrell has left is enormous. His books have entered the school curriculum, where they will probably inspire a new generation of naturalists. And the Jersey Wildlife Preservation Trust is not only a model that zoos are measured against, but is also a major education force, training zoo personnel from all over the world.

*John A. Burton*



Gerald Durrell with a Russian desman at the Oka Reserve south-west of Moscow (*John Hartley*).

### **Ninth Meeting of the Conference of the Parties to CITES**

Fort Lauderdale, November 1994

A record 96 per cent of Parties (119 nations) attended the ninth meeting of the Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in Fort Lauderdale, Florida, USA, from 7 to 18 November 1994. The 1600 people that attended included representatives from 221 non-governmental organizations (more than at any previous meeting) and several non-party government observers. The meeting considered 135 proposals concerning amending the Appendices to the Convention as well as discussing and passing resolutions on a number of issues. Table 1 lists the proposals accepted by the meeting.

Among the proposals that were withdrawn during the course of the meeting was one from South Africa seeking to transfer its population of African elephant *Loxodonta africana* from Appendix I to Appendix II to allow trade in elephant products 'other than ivory'. South Africa was specifically seeking approval to sell hides and meat from the hundreds of elephants culled annually in Kruger

**Table 1.** Changes to the Appendices as agreed at the Ninth Meeting of the Parties to CITES

Newly listed on Appendix I		Transferred from Appendix I to Appendix II	
<i>Megamuntiacus vuquangensis</i>	Giant muntjac	<i>Manis temminckii</i>	Cape pangolin
<i>Pseudoryx nghetinhensis</i>	Vu Quang ox	<i>Hyaena brunnea</i>	Brown hyaena
<i>Agelaius flavus</i>	Saffron-cowled blackbird	<i>Felis bengalensis bengalensis</i>	(excluding populations of Bangladesh, India and Thailand) Leopard cat
<i>Sphenodon</i> spp.	Tuatara	<i>Ceratotherium simum simum</i> (South African population, live animals and hunting trophies only)	White rhinoceros
<i>Bufo perigrines</i>	Golden toad	<i>Vicugna vicugna</i> (High Andes populations)	Vicuña
Transferred from Appendix II to Appendix I		<i>Psittacus erithacus princeps</i>	African grey parrot
<i>Acerodon jubatus</i>	Golden-capped fruit bat	<i>Melanosuchus niger</i> (Ecuador population: zero quota for 2 years)	Black caiman
<i>Acerodon lucifer</i>	Panay giant fruit bat	<i>Pachypodium brevicaule</i> (with 0 quota)	
<i>Ailurus fulgens</i>	Red panda	<i>Pachypodium namaquanum</i>	
<i>Anas aucklandica aucklandica</i>	Auckland island teal	<i>Leuchtenbergia principis</i>	Agave cactus
<i>Anas aucklandica chlorotis</i>	Brown teal	<i>Mammillaria plumosa</i>	Feather cactus
<i>Eos histrio</i>	Red-and-blue lory	<i>Euphorbia primulifolia</i>	
<i>Testudo kleinmanni</i>	Egyptian tortoise	<i>Cattleya skinneri</i>	Christmas orchid
<i>Scleropages formosus</i>	Asian arowana	<i>Didiciea cunninghamii</i>	
(Indonesian population)		<i>Lycaste skinneri</i> var. <i>alba</i>	White nun orchid
<i>Pachypodium ambongense</i>		Deletions from Appendix I	
<i>Euphorbia cremersii</i>		<i>Lissemys punctata punctata</i>	Indian flap-shell turtle
<i>Aloe albiflora</i> , <i>A. alfredii</i> , <i>A. bakeri</i>	Dwarf aloes	Deletions from Appendix II	
<i>A. bellatula</i> , <i>A. calcairophila</i>		<i>Rhynchotus rufescens</i>	Red-winged tinamous
<i>A. compressa</i> including var. <i>rugosquamosa</i> and <i>schistophila</i> ,		<i>Alocasia sandieriana</i>	
<i>A. delphinensis</i> , <i>A. desconingsii</i> , <i>A. fragilis</i>		<i>Aloe barbadensis</i> (= <i>A. vera</i> )	Aloe vera
<i>A. haworthioides</i> including var. <i>aurantiaca</i>			
<i>A. laeta</i> including var. <i>maniensis</i>			
<i>A. parallelifolia</i> , <i>A. parvula</i>			
<i>A. rauhii</i> , <i>A. versicolor</i>			
<i>A. helena</i> , <i>A. suzannae</i>	Tree aloes		
<i>Dendrobium cruentum</i>			
Species newly listed on Appendix II			
<i>Manis gigantea</i>	Giant ground pangolin		
<i>Manis tetradactyla</i>	Long-tailed pangolin		
<i>Manis tricuspis</i>	White-bellied pangolin		
<i>Hippopotamus amphibius</i>	Hippopotamus		
<i>Saiga tatarica</i>	Saiga antelope		
<i>Tauraco</i> spp.	Turacos		
<i>Terrapene</i> spp. (except <i>T. coahuila</i> , already on Appendix I)	Box turtles		
<i>Lissemys punctata</i>	Indian flap-shell turtle		
<i>Mantella aurantiaca</i>	Malagasy golden frog		
<i>Brachypelma</i> spp.	Tarantulas		
<i>Pandinus dictator</i> ,			
<i>P. gambiensis</i> , <i>P. imperator</i>	Emperor scorpions		
<i>Pterocarpus santalinus</i>			
(primary products only)	Red sandal wood		
<i>Prunus africana</i>	African cherry		
<i>Taxus wallichiana</i> (excluding medicinal products)	Himalayan yew		
<i>Aquilaria malaccensis</i>	Agar wood, eagle wood		

National Park, but when it emerged that the proposal was not supported by other elephant range states, South Africa withdrew it. Later delegates supported a proposal by Kenya to establish an 'intra-African assembly' to review the issue of ivory stockpiles and other relevant issues with the co-operation of the IUCN/SSC African Elephant Specialist Group.

**Changes to the Appendices**

South Africa's proposal to move its population of southern white rhino from Appendix I to Appendix II was accepted after amendment to allow the sale of live animals to 'appropriate and acceptable destinations' and the export of hunting trophies. The hippopotamus

was listed in Appendix II because trade in its teeth has grown in recent years. The Chilean proposal allowing for controlled trade in raw vicuña wool sheared from Appendix II populations was approved, as was the proposal to downlist the Appendix I populations in Peru to Appendix II. Convincing evidence was presented that sustainable-use safeguards and adequate trade controls were in place in Peru and the proposal was accepted with a limit on the amount of stockpiled wool that could be traded. Mexican and Central American red-kneed tarantulas were included on Appendix II. They have been popular in the pet trade for many years, especially in the USA, and there have been recent seizures of smuggled shipments totalling hundreds of specimens.

Switzerland's proposal to downlist the leopard cat from Appendix I to II elicited comment from several range states. Although there appears to be no longer a significant commercial market for its fur, several countries expressed concern about heavy trade and there is poor information on population status. India, Bangladesh and Thailand expressed a desire that their populations remain on Appendix I.

### Implementation of the Convention for timber species

While one African and three Asian tree species, (African cherry, red sandal wood, Himalayan yew and agar wood), which are used for medicinal or other chemical purposes as well as for their wood, were included in Appendix II, other proposals to list commercially significant timber species were unsuccessful, even though the purpose of the listing is to monitor and regulate rather than ban the trade. A proposal to list the Neotropical bigleaf mahogany *Swietenia macrophylla* in Appendix II was defeated by a narrow margin and several Central American countries stated after the vote that they would include their populations in Appendix III. Four proposals that sought to include other tropical tree species – African blackwood (*Dalbergia melanoxylon*), African mahoganies (*Entandrophragma* and *Khaya* spp.) and Vietnam ebony *Diospyros mun* – in

Appendix II were withdrawn because of broad concerns of the range states or technical considerations.

The Parties directed the Standing Committee to establish a temporary Working Group, chaired by the Chairman of the Plants Committee, to address the technical and practical problems associated with the implementation of CITES listings of species of trees used in the timber trade. The composition and terms of reference for this group were to be decided at a meeting of the Standing Committee in March 1995. The Working Group will report back at the tenth meeting.

### Resolutions

A Resolution was adopted on the international trade in sharks, calling for the Animals Committee to review information concerning the biological status of sharks and the effects of the international trade on them. Other Resolutions covered a new tagging system for the identification of crocodylian skins in international trade and revised guidelines for evaluating marine turtle ranching proposals.

The international trade in rhinoceros and tiger parts continues to pose a huge problem for conservation efforts for these animals. The Parties adopted two separate Resolutions urging all Parties to make strenuous efforts to reduce the illegal trade in these animals and their parts and derivatives.

After extensive discussion, the New Criteria on Amendment of Appendices I and II were adopted. These were prompted by the Parties at the eighth meeting in 1992 against a background of growing dissatisfaction about the inadequacies of the existing criteria and developments in population biology, wildlife management and conservation policy.

The tenth meeting of the Parties will be held in Zimbabwe in the first half of 1997.

Sources: Summary of the Main Results of the Ninth Meeting of the Conference of the Parties to CITES. TRAFFIC, Cambridge, UK, November 1994; CITES Update No. 31. US Department of the Interior, December 1994.

## Seychelles giant tortoise rediscovered?

Most of the populations of giant tortoises that once inhabited the islands of the Indian Ocean were believed to be extinct by the mid-1800s. The Aldabran population of giant tortoises *Geochelone gigantea* alone appeared to have escaped this fate: conservation attempts date from an appeal by Charles Darwin and other naturalists in 1875. Today some 150,000 individuals of this species remain on Aldabra.

The taxonomy of the Indian Ocean tortoises has never been satisfactorily resolved but it is believed that those of the granitic islands of Seychelles were specifically different from those of Aldabra.

In addition to the wild population of *G. gigantea* in Aldabra, large captive groups of giant tortoises exist in Seychelles and Mauritius. These are descended from tortoises imported from Aldabra and a smaller number of long-term captives. The origin of the latter animals is unknown and there have been occasional suggestions that some were surviving Seychelles giant tortoises. However, the specimens concerned have always been found to be very old Aldabran tortoises showing growth abnormalities caused by unnatural diets.

In January 1995 the existence of two very large male tortoises (with a straight carapace length of more than 1 m) in a hotel garden in Seychelles were brought to the attention of the Nature Protection Trust of Seychelles (NPTS). When examined, these animals appeared to be distinct from Aldabran tortoises, showing marked flattening, flaring and scalloping of the shell, particularly over the hind legs. These features are characteristic of the extinct Seychelles tortoise.

The hotel owners said that three of these tortoises had been bought in 1994 from 'an old man in the mountains', in whose family they had been kept throughout living memory. The third animal, also a male, had died in December. It was exhumed and the skeleton is now preserved in the collections of the NPTS. Comparison of the skull with museum specimens confirmed that it is distinct from the

Aldabran species and it is believed that the individual, and the two surviving animals, could be relicts of the original Seychelles species. The valid name for this species is uncertain: the most recently used name is *Geochelone arnoldi* but this requires revalidation. This morphological work is to be followed up by a genetic comparison.

The NPTS is now planning a conservation project for the species. The first step will be to try to locate other survivors – it is hoped that some females survive and that the species can be rescued.

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## Elephants – four years after the ivory trade ban

A report\* on elephant poaching released in January documents dramatic declines in law enforcement operating budgets for elephant protection in Africa since the inception of the ban on international trade in ivory in 1990. Researchers from the IUCN/SSC African Elephant Specialist Group (AESG) and TRAFFIC targeted nine countries in particular – Cameroon, Gabon, Ivory Coast, Kenya, Malawi, Nigeria, Tanzania, Zambia and Zimbabwe – and also examined the situation in 16 other range states through postal questionnaires and a working group in May 1994.

In seven countries for which data were available, budgets for wildlife protection had plummeted: in Tanzania, Zambia and Zimbabwe by more than 90 per cent; in Malawi by 25 per cent; in Francophone Africa, the budget in Cameroon declined by 20 per cent and in Gabon by 33 per cent, figures that have since doubled with the devaluation of the CFA Franc. Even Kenya, which received more funds from external donors than any other country surveyed, experienced a 13.5 per cent decline for antipoaching efforts in the key elephant areas studied. This is thought to



One of the captive tortoises that may prove to be a Seychelles giant tortoise (*A. Skerrett*).

reflect the situation in most African countries, where budgets have continually failed to keep pace with inflation and are routinely cut under economic reforms. Today, law enforcement budgets in the majority of Africa's protected areas are less than 5 per cent of the minimum \$US200 per sq km that are needed to maintain the integrity of the areas and protect their wildlife. Many wildlife management authorities are in crisis and weaknesses in national legislation and the judiciary in some countries further complicate the situation.

The report says that elephant conservation is costly and, while foreign donors have paid lip service to the need for saving Africa's elephants, they have not fully appreciated the cost of policing it: the existence of the ivory ban alone is not enough to halt poaching.

### Elephant poaching continues

Overall, the study found that poaching remained below pre-ban levels but had increased in most areas during the past 2 years. In Kenya poaching declined before the ban but afterwards started to climb again: 111 elephants were killed illegally in 1990–91 and 208 in 1992–93. Garamba National Park in Zaire lost approximately 17 elephants to poachers in each of the 2 years preceding the

ban, 10 per year in the 2 years afterwards and 35 in both 1992 and 1993. First-hand reports from members of the AESG indicate similar trends in other countries, especially those affected by war – Angola, Mozambique, Chad, Sudan and Nigeria. The study also confirmed a link between rhino and elephant poaching: where large-scale removal of rhinos has taken place, elephants have become the poachers next-preferred target. This relationship gives cause for concern in countries with significant rhino and elephant populations.

### Ivory trade continues with new players and possibly new markets

A general decline in Africa's ivory curio markets and a relatively stable amount of ivory seized in recent years indicates that there is certainly less ivory in trade since the ban. Among the countries surveyed, only Zambia showed a marked increase in seizures, which is probably related to the war in neighbouring Angola. However, the illicit ivory trade still exists. At least 16 tonnes of ivory have been seized within the nine target countries since the ban came into effect. Outside Africa, more than 8700 ivory items originating in these countries have been confiscated during the same period.

The markets for this illicit ivory appear to have changed. The major pre-ban markets in Europe and the USA have disappeared. Japan, which historically used a significant portion of all raw ivory, today relies on its own pre-ban stocks. Confiscations of ivory in transit countries and intelligence information in countries of origin suggest that China, Singapore, South Korea and Taiwan have been among the final destinations for illegal ivory in recent years. South Koreans and Taiwanese are appearing as the new middlemen in Africa's illicit ivory trade, a post-ban development of concern.

Another new development is the setting up of ivory-processing operations in Africa for direct export to traditional or new markets in Asia. The manufacture of ivory objects, notably semi-worked ivory blocks for making name seals, has been documented in Cameroon, Gabon, Ivory Coast, Kenya, Malawi and Tanzania. There is a growing risk that an Asia-run, Africa-based ivory processing industry could develop into a high-volume enterprise fuelled by the decline in ivory prices in Africa at a time when per capita expendable incomes in some Asian countries are rising.

### **Ivory stockpiles**

The nine countries surveyed in depth collectively hold nearly 100 tonnes of ivory, with Tanzania and Zimbabwe holding the largest amounts. Where stockpiles are well-managed, as they generally are in eastern and southern Africa, they are increasing at a rate of 1–6 tonnes each year from seizures, management programmes and natural deaths. In other parts of Africa, however, ivory stockpiles are negligible: some governments dispose of ivory on local markets, officially or otherwise, rather than store it. The security of some stockpiles is in question and the unexplained disappear-

ance of ivory stocks has been documented in Cameroon, Gabon, Ivory Coast, Nigeria and Tanzania. Even where stockpiles are secure, the future of these economic assets remains uncertain. None of the target countries has stated an intention to destroy their stocks, even though Kenya and Zambia have done this in the past. The pressure to find an equitable solution under CITES is bound to increase.

### **Human–elephant conflict intensifies**

The majority of elephant range states have reported increases in human–elephant conflict. The situation has become particularly acute in parts of Kenya and northern Cameroon. As a result, an increasing number of elephants are being killed by government authorities or local communities taking the law into their own hands. The report points out that increasing human–elephant conflicts raise the prospect of commercial ivory poachers working in concert with disenfranchised local communities, which could have serious ramifications for the elephant populations conserved. With human populations increasing and elephant range shrinking across Africa, creative solutions are required to this problem.

The ban on international trade in ivory appears to have worked to a certain extent in containing the mass slaughter of elephants. However, it has caused new problems and new areas of concern. It is hoped that African nations, the international conservation community and CITES will be able to work together to devise effective long-term solutions.

\*Dublin, H.T., Milliken, T. and Barnes, R.F.W. 1995. *Four Years after the CITES Ban: Illegal Killing of Elephants, Ivory Trade and Stockpiles*. TRAFFIC International, Cambridge, UK.