

# Chairman's Report

## ELEPHANT AND RHINO SURVEYS AND SOME ACTION

A little over a year ago, IUCN formed the African Elephant and Rhino Specialist Group. The great urgency to do something about the gravely endangered rhinos, the need to review the status of elephants, rhinos and the trade in their products, requests to collaborate with zoos in preparing guidelines for captive propagation of rhinos on private lands, and a dozen other necessities, have confronted AERSG with an awkward dilemma: what projects should it take on, and how far should it go to ensure that projects are implemented?

I can best illustrate the dilemma by describing what we set out to accomplish a year ago, what we learned about the status of rhinos and elephants, and what moved us to greater involvement in the follow-up than we intended.

One of our primary goals was to ensure that the conservation priorities drawn up by the 1981 Wankie meeting were addressed by the international conservation bodies. The critically endangered northern white rhino topped the list, yet still too little was known about the remnant populations to be sure if Garamba National Park, the area favoured by the Wankie meeting, was a viable proposition. Because IUCN lacked a project representative at that stage, AERSG collaborated closely with them in dispatching a survey team, headed by Kes Hillman, to see what could immediately be done in Garamba. Hillman's rapid survey showed that Garamba's white rhino population was in the low tens, far fewer than we anticipated. AERSG subsequently assisted in launching a status survey, headed once again by Hillman, which looked at northern whites in adjacent Sudan and, in conjunction with Marcus Borner of Frankfurt Zoological Society, conducted a detailed aerial and ground survey of Garamba. The situation in Sudan proved beyond hope. The field evidence showed that the animals were probably extinct in Shambe, which held 400 in the mid 1970s, and that elsewhere the prospects were equally bleak. In Garamba, aided by IZCN (Institut Zairois pour la Conservation de la Nature). Hillman and Borner showed that no more than 15 to 20 rhinos remained. At the meeting held in Harare during April, AERSG felt the situation so critical that the safest bet was to move them into captivity and carefully breed up stocks prior to eventual reintroduction to the wild once conditions improved. Contingency plans were drawn up should this recommendation receive the approval of the IZCN and prove feasible. Meanwhile, IUCN, in collaboration with WWF and FZS, went ahead with plans to help IZCN revamp the poorly equipped park and train personnel. The project, not yet underway, will protect this important ecosystem which was given high priority by the Wankie meeting. Though it will give added protection to the northern white rhino, it does not give it the priority management attention it urgently requires. In discussions with Mankoto ma Mbaelele, Scientific and Technical Director of IZCN, he made it clear that Zaire was committed to conserving white rhinos in Garamba. Nonetheless, he recognized the futility of trying to protect rhinos against all odds and suggested that Zaire would consider a defined end-point should field efforts prove hopeless. Provided this guarantee is made and convincing management proposals are drawn up, AERSG will add support to renewed efforts to raise funds. Both the urgency and lack of direct international

support for the northern white rhino led to a greater involvement than AERSG intended.

Further participation resulted from yet other activities AERSG initiated. In September last year we placed high priority on conducting new Africa-wide surveys of elephants and rhinos to update the earlier status reports conducted by Iain Douglas Hamilton and Kes Hillman. We also commissioned a simultaneous study by the Wildlife Trade Monitoring Unit (WTMU) to update ivory trade statistics so that we could access recent trends and the significance for African elephant populations. By April this year Chris Huxley presented AERSG with a summary report which corroborated another independent study undertaken by Ian Parker and Esmond Bradley Martin, and reliable field information. It will still be some time before the results are complete, but the various sources of information paint a broad pattern and pin-point critical problem areas for both elephants and rhinos.

There has been a crescent of heavy poaching extending from Somalia, through northern Kenya, South Sudan, CAR, Chad, northern Zaire, and probably the Congo Republic. By contrast the situation in southern Africa has remained stable, or improved in certain areas of South Africa, Botswana, Mozambique and Zimbabwe. East Africa shows a mixed picture with some improvements for Uganda and Kenya elephants, and further losses in Tanzania's rhino population. There is still a great deal of uncertainty over the numerous, fragmented populations of elephants in West Africa.

Once the ivory trade statistics were in, it became clear that the grave concern expressed by many observers in Sudan over the slaughter of elephants and rhinos was more than justified. Prior to the mid 70s Sudan's ivory exports were inconsequential in world terms, but by 1981 they exceeded a quarter of Africa's total. Large, heavily armed gangs from northern Sudan regularly headed south and poached elephants and rhinos, and were also reported killing animals well into CAR and Zaire. Much of the ivory exported by Sudan clearly came from both these countries, and possibly elsewhere.

Ivory exports from Africa declined from nearly a 1000 tons in 1976 to 681 tons in 1979 and have held steady since, despite a falling price. However, far from reflecting a stable offtake of elephants, a sharp drop in mean tusk weights from 10.11 kg. in 1979 to 6.21 kg. in 1982 shows that increasing numbers of elephants of progressively younger age were being killed. The average number of elephants represented in the ivory records rose 40% between the late 70s and early 80s, from around 45,000 to 65,000. There is every indication that the change resulted almost entirely from elephants killed in the northern crescent of their distribution, and that they were here becoming heavily overexploited. From tentative calculations Tom Pilgram and I have done (Working paper: "Information about individual elephants from individual tusks", briefly summarised in this newsletter), this could mean that the proportion of females killed by poachers in the region has doubled from 25% to 50%, thus severely reducing the future reproductive potential of elephants. The widespread use of automatic weapons has made poaching far easier than it ever was, and possible for the hunter to slaughter entire herds where bolt-action rifles previously necessitated selective shooting of the largest tuskers before the herd fled.

The sharp decline in mean tusk weights has not pleased ivory carvers in Japan and Hong Kong, which between them account for over 80% of Africa's exports. Ivory carvers, who much prefer heavier tusks and pay more per kilo to obtain them, have expressed growing concern at the flood of small tusks. If both conservationist and ivory carver are concerned by low tusk weights, who benefits? The answer is probably the poacher and middleman, though we can't yet be sure. With so many automatic weapons now available, the task of killing elephants is comparatively easy and requires no special skills. As a result there are many more people able to make a little money on the side by poaching. With such strong competition even the specialised ivory poacher is forced to make up for falling prices by increasing his killing rate. The rush of new entrants, for whom any money is a bonus, is forcing more and poorer ivory onto the market than it would normally absorb. As a result, the costs and risks are now so low, and the response to falling prices so muted and slow, that normal market constraints on over-production are inadequate to curb the killing before it is too late for many elephant populations.

The scale of slaughter and the widespread concern amongst both conservationists and international ivory traders alike prompted AERSG to take emergency action. Earlier in the year we circulated the evidence and encouraged the U.S. State Department, amongst others, to urge the Sudanese government to take action. We followed on with an international press campaign which received wide coverage and helped precipitate action. Finally, Sudan made it known that all raw ivory exports would be banned from December 31st. This will not, of course, stop the poaching overnight. Carved ivory, which will not be covered by the ban, provides a loophole for exports. A new lobby is underway urging President Numieri to ban carved ivory exports too. What the ban will do is give reassurance to wildlife officials in Sudan that the government condemns elephant poaching. We have already received reports that more arrests are being made and that more ivory consignments have been impounded than in previous years.

These examples give some idea of the dilemma we face in reviewing the status of elephants and rhinos and in identifying priorities for immediate action. There are other pressures on AERSG to participate more directly, as for example, in initiating an ivory council which would provide policy and technical guidance to the traders associations on how to balance elephant conservation and sustainable ivory production. However, the voluntary nature of the Group made it obvious from the outset that it could not involve itself too deeply in conservation action. We saw our role as a purely technical, advisory body, which would monitor the status of elephants and rhinos in Africa and the threats to their survival, and which would define both the long-term conservation priorities and urgent areas for action by IUCN, governments, and other conservation bodies. Despite our intentions to play an impartial, advisory role, circumstances have dictated we become increasingly active. The urgency of specific issues, the frequent lack of international conservation action on them, and the expectations that AERSG should fill the vacuum, have all helped nudge us slightly more centre-stage. To become too involved in conservation action would be to lose the valuable perspective we offer, yet to maintain practiced indifference when the species we champion are threatened and lack due attention, would be to relinquish our deep

concern for elephants and rhinos. So, while we intend to maintain our primary role as watchdog and advisor, we may have to stray a little more than we would like into areas that require urgent action. Limited time and finances will ensure our active endeavours concentrate on the few most pressing and important issues.

I now want to move on to consider two issues connected with the ivory trade that we are giving some thought to. The first concerns carved Ivory. Ivory, whether carved or raw, a whole tusk or a tiny bead, requires a licence to move within and between CITES member countries. The purpose of all this paper work is, of course, to conserve the elephant by regulating and monitoring the movement of ivory. Whether CITES legislation is effective depends on a number of things, including how efficiently permits are issued and scrutinized. On this score there is a real danger of licensing and customs officials being swamped by the countless permits that accompany every bead, bangle or button. If their task becomes too onerous, effective control will collapse. One possibility of overcoming this bureaucratic nightmare is to focus attention on raw and carved ivory consignments, and to exempt the individual small items a tourist buys on holiday. Large consignments, especially of raw ivory, pose more of a threat to elephants than small trinkets, are easier and cheaper to license, and are decidedly simpler for customs officials to watch out for. We have recently conducted a survey amongst AERSG members to find out whether there is any consensus on the matter. Most who responded felt that small, carved pieces, should be exempt from licensing. We may recommend to CITES that licences should be waived for all carved items under, say, 1 kilogram. If so we will link the recommended waiver to calls for tighter controls on commercial consignments, including all raw ivory, and perhaps all carved consignments over, say, 10 kilograms. Which brings me onto the second and more worrying point we are giving some thought to.

I have already mentioned the large ivory shipments leaving Sudan and the implications for the elephant in its northern range. Because CITES documents exist for the bulk of ivory moving on the world market, we can hardly claim that the convention does conserve elephants by preventing overhunting within member countries. The elephant blitz in Sudan, where ivory is legally exported, is a case in point. How then can we tighten up controls? One proposal, put forward by the European Environment Bureau (EEB), would have the European Economic Community (EEC) ban all ivory imports. In doing so the EEC would almost certainly alienate most African nations, who would view the ban as a denial of rights to natural resources, and who could claim that Europe was not willing to explore trade and surveillance mechanisms to penalise countries abusing the spirit of CITES. Furthermore, because more than three quarters of the world's ivory imports enter Hong Kong and Japan, a unilateral European ban would be totally ineffective in halting Sudanese-style poaching. EEB further proposes that export quotas be set for each country, but because we are uncertain of how many elephants each country has, how can we set fair or effective quotas? Presuming CITES member countries are dedicated to its principles of conserving threatened and endangered species, how can they still benefit economically from elephants, which most African countries wish to do? Ironically, these countries could both conserve and exploit their elephants far more efficiently; Sudan could earn far more revenue, perhaps threefold or greater, if its

elephants were selectively hunted, rather than randomly poached.

We are presently working on three interrelated topics which could bring some degree of stability to the ivory trade, and, in turn, to elephant populations. First, we are preparing models to show how much more ivory would result from selective hunting, rather than indiscriminate slaughter, of a national herd. Bigger animals carry larger tusks and large tusks are worth more per kilo than small, because ivory carvers prefer them. Selection for older animals, especially males, would undoubtedly be the most profitable alternative for exporting nations.

By legislating minimum, average tusk weights on export and import consignments of commercial ivory, we could ensure such selectivity and, more importantly, conserve the reproductive capacity of elephant populations. The minimum weight requirement is a "safety-net", widely used in fisheries management, which could prevent

overharvesting, even though we are not sure of how many elephants there are. Finally, we need some way to define trade and conservation standards. Ian Parker's earlier suggestion of an ivory council involving trade associations seem to offer good possibilities, especially if it were modelled after the International Whaling Commission. We are now exploring the prospects to see whether an ivory council could realistically, within CITES legislation, and under the security of responsible conservation bodies, provide the best forum to regulate trade in the interests of ivory traders, carvers and conservationists.

Zimbabwe has an admirable conservation record. In this newsletter we highlight three projects to show how its success in wildlife planning and conservation depends on detailed research and monitoring.

David Western

## Zimbabwe Completes Tenth Year of Elephant Radiotracking

The Department of National Parks and Wildlife Management in Zimbabwe has just completed their annual re-collaring programme for elephant in the Sebungwe Region. Some 30 elephants whose radio collars were over two years old (2 years and 4 months, to be precise) were located by radio-tracking using a Supercub, darted from a Zimbabwe Airforce Alouette III helicopter, and fitted with new radio collars which will last until 1985. The operation lasted three days, with about 10 elephants being collared each day. To save on flying hours, the helicopter is used only for firing the tranquillising dart and for transporting the radio-collar team to the darted animal. The fixed-wing aircraft does all locating work, watches the darted animal until the drug takes effect, and checks that the animal recovers after treatment with the antidote.

All tagged elephant in the Sebungwe are on a two-year replacement cycle of radio collars. In 1984 a different cohort of about 30 animals will be due for new collars. This is a long term programme with known study animals dating as far back as 1973. Indeed, the first animal darted in this recent operation was a cow named "TV", who was first fitted with an experimental collar in 1973, and filmed for the television programme "Untamed Africa" produced by John Hanks. She is currently carrying her fifth radio collar.

Apart from the major issues arising from the different projects in the Sebungwe, there is a wealth of interesting minor information which comes from examining the immobilised animals repeatedly over many years. For example:

(i) Animals rapidly replace broken tusks. On 8 occasions we have noted that a tusk a foot or more shorter than the intact tusk will grow to be equal in length to the other tusk within two years.

(ii) Three years ago we began punching the ivory of each animal at the lip-line. The punch marks move down the tusk with growth, and we are now using these as a means of measuring the rate of growth of the tusks at the lip-line.

(iii) We notice that our measurements of shoulder height using Law's technique vary by as much as + 5 cms on successive occasions. As most of the animals are



Figure 1. Young bull elephant with radiocollar and identification notches cut in collar.

mature females it is unlikely that they are growing or shrinking and we are forced to conclude that the measurement is affected by the recumbent posture of the animal.

(iv) The teeth of each animal are checked and an attempt is made to identify the molars and describe the number of cusps in wear. Whilst this is wildly erratic in the majority of cases, it has however been of interest where very old animals have been encountered. We have been able to measure accurately the length of the molar and note the time until death. This will be an ongoing study with the cohort.

(v) Lactational status varies with the population sub-unit. Elephant in the Sengwa Wildlife Research Area are almost invariably lactating: out of some 200 females immobilised over the past 12 years, only one or two have ever been found without milk. In contrast, perhaps half of the adult female elephant in the unprotected communal lands of the Sebungwe have been found not lactating. This suggests that the unprotected animals are breeding less frequently.

Radio-tracking has been used for a number of projects in the Sebungwe Region. Originally started by David