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## REPORT

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### Fifth meeting of the African Elephant Specialist Group

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The fifth meeting of the African Elephant Specialist Group took place in Shaba National Reserve in Kenya from 28 January to 1 February 2002. The meeting was attended by 36 out of the current 48 AfESG members. It was made possible by funding from the European Commission, the United States Fish and Wildlife Service and the UK Department for Environment, Food and Rural Affairs.

The tightly packed agenda consisted of technical presentations and work sessions on a variety of issues relating to African elephant conservation and management. The main themes are summarized here.

#### Multiple species of African elephant

One of the main topics concerned the conservation and management implications of the fact that the African elephant appears to be not one but multiple species. The session began with presentations from three geneticists who had been invited to present the findings of their recent studies on the taxonomic status of African elephants.

The first presentations were given by Alfred Roca of the Laboratory of Genomic Diversity of the US National Cancer Institute and Nicholas Georgiadis of the Mpala Research Centre in Kenya. Evidence from their study, recently published in *Science*, suggests that Africa is, and has long been, home to two distinct species, one inhabiting rainforests and the other savannahs. Genetic data leading to these conclusions are based on single-copy nuclear DNA sequences and comes from several hundred samples from 20 populations in 10 countries. Additional data based on maternally inherited mitochondrial DNA sequences and

nuclear 'microsatellite' markers from the same samples provide new insights about the history of hybridization between forest and savannah elephants.

Next, Lori Eggert presented as yet unpublished findings of another recent study by a team from the University of California at San Diego. In this study mitochondrial cytochrome *b* and control region sequences and four microsatellite loci extracted from dung samples were examined to investigate the genetic differences between forest and savannah elephants of western and central Africa. The data were combined with published control region sequences from across Africa to examine continental patterns. The analysis revealed three deeply divergent lineages that do not correspond with the currently recognized taxonomy: 1) forest elephants of central Africa, 2) forest and savannah elephants of West Africa, and 3) savannah elephants of eastern, southern and central Africa.

These presentations were followed by discussion about the potential conservation and management implications of such findings. The group concluded that although strong evidence exists to support the view that there is more than one species of African elephant, taxonomic status remains uncertain. Furthermore, some populations of high conservation value may consist wholly or partly of interspecific hybrids. Prematurely allocating Africa's elephants to two or more species could result in significant populations being left in taxonomic limbo. Therefore, AfESG strongly encouraged further genetic and morphological studies to resolve this situation and assisted with suggestions for further sampling. Until this sampling is done, AfESG will continue to refer

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to the single species *Loxodonta africana* but as far as possible will distinguish between forest (*cyclotis* form), savannah (*africana* form) and to a lesser extent West African elephants. AfESG further recommended that

- nuclear DNA analysis of the existing West African samples be carried out
- additional genetic samples from a wider range of sites be collected and analysed

Consensus needs to be clear among scientists working on this issue on the significance of the genetic and morphological data before taxonomic changes are made.

The AfESG Chair has been mandated to advise the membership when these conditions have been met and will seek consensus among the membership before implementing the changes in the treatment of the genus *Loxodonta* as agreed by AfESG.

## Listing of the African elephant by IUCN Red List Criteria

At the last AfESG meeting in Burkina Faso in 1998, the group agreed to re-examine the continental listing of the African elephant as soon as the new listing criteria, including the proposed regional and national criteria, were finalized.

The Red List criteria are generally poorly designed for species such as African elephants, which are long-lived and widely distributed and whose status differs across their range. There has also been much discussion about the time scale used for the listing by criterion A. To assess a taxon against criterion A, it is necessary to estimate the overall reduction in the last three generations. It has been widely felt that this time scale (approximately 60 years in the case of African elephants) is inappropriate as it is based solely on biological considerations and not on other important factors determining the status of the species. The members suggested that it might be more realistic to look at a shorter time scale over which there is more confidence about both changes in numbers and the factors affecting them. In addition, they expressed concern that some populations of high conservation value might end up being classified as interspecific hybrids under the proposed multispecies system, but the current Red List criteria have no way of dealing with this issue.

In spite of these reservations, AfESG agreed to become the IUCN Listing Authority on the African ele-

phant and to carry out as a necessity the global listing for *Loxodonta africana* as it is now described. It was further recommended that separate listings be carried out for a separation between savannah and forest populations in anticipation of further clarification on African elephant taxonomy. Further analysis of West African savannah and forest populations should also be carried out if future studies lend additional support to the theory of a distinct West African species.

A new Red List task force was set up to take this process forward in close collaboration with the IUCN Red List programme. The task force is composed of David Balfour (head), Debbie Gibson and Nigel Leader-Williams. It is supported by the data review working group in compiling and considering population estimates and applying the Red List criteria.

## Guidelines for reintroducing African elephants

As shown by the many case studies presented at the meeting, elephant translocation is a highly technical and expensive undertaking. Many animals have been translocated in recent years in Africa, often with little technical guidance from elephant experts. Over the past year, in an effort to fill this technical vacuum the AfESG Secretariat has been discussing with the IUCN SSC Reintroduction Specialist Group (RSG) the possibility of producing guidelines for reintroducing African elephants. A new reintroduction task force (RTF) has now been formally appointed to complete this task. The RTF will work with the secretariats of the two Specialist Groups during the next year to draft these guidelines. AfESG members Holly Dublin, Ian Whyte, Marion Garai, David Balfour and Moses Litoroh will be joined by Richard Kock, the vice-chairman of the IUCN SSC Veterinary Specialist Group, as the main technical experts in the new task force. Micky Soorae and Leo Niskanen, programme officers of RSG and AfESG respectively, will provide support from the two Specialist Group Secretariats.

During a special working session on this initiative, AfESG members provided worthwhile suggestions on a number of technical issues to be included in the guidelines. These recommendations will serve as a useful starting point for the RTF when it holds its first meeting to discuss a detailed work plan. If funding allows, this first meeting should take place before the end of 2002.

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## Illegal killing and trade issues

The session on illegal killing and trade began with several presentations on the CITES system for Monitoring of Illegal Killing of Elephants (MIKE). After a brief overview by Nigel Hunter, the MIKE director, John Hart described the results of the central African MIKE pilot project. This was followed by a presentation by Leonard Mubalama on the development of the MIKE pilot phase in the Ituri Forest in the Democratic Republic of the Congo.

From the pilot project a number of recommendations have emerged. The dung count method for population estimates has proved viable but calibration with defecation and decay rates needs further refinement. The use of other population survey methods that are emerging, such as the potential use of infrasound and 'camera trapping', should also be investigated. The movement patterns of radio-collared elephants may help to streamline further a stratified approach to work on population surveys. It was also felt that, as and where possible, monitoring of human–elephant conflict should be incorporated into data collection protocols at the MIKE sites. Finally, the pilot experience has emphasized the importance of intelligence networks, and it is recommended that information produced by such networks be incorporated into the overall analytical framework.

Thato Morule, the MIKE national officer for Botswana, gave an update on MIKE implementation in her country (see field note on p. 69). A MIKE national coordinator is now based in Gaborone and site coordinators have been appointed at Kasane, Mathathane and Maun. Consultation and basic training through workshops have been adapted and extended to other patrolling units outside Chobe National Park, the designated MIKE site for Botswana. To date, the annual report for 2000 and reports for January to April 2001 have been submitted to the CITES Secretariat and the regional MIKE coordinator for southern Africa. The need to have this information analysed was emphasized. Shortage of personnel, vehicles, field equipment such as GPS, cybertrackers and computers were mentioned as some of the problems encountered so far.

An update on the elephant trade information system (ETIS) was presented by Tom Milliken of TRAF-FIC East and Southern Africa. After a brief explanation of what ETIS is and how it relates to the MIKE programme, he presented recent figures on il-

legal ivory seized, number of seizures by year and top countries in terms of seizures. The information flow of the ETIS system was explained and it was shown how implementing ETIS at the national level depends on teamwork between officials in several branches of government and other parties in the respective countries. The ETIS reporting mechanism was also explained along with the output in the form of the reports produced by ETIS. Delays in the submission of information by the authorities responsible have presented the system with some problems.

The session finished with a number of reports on illegal killing from specific sites and countries.

## Human–elephant conflict

Richard Hoare presented the work that the human–elephant conflict task force has done over the past three years. He then made a number of presentations on various aspects of human–elephant conflict from across the continent, ranging from managing cattle for elephants in Ghana to the traditional deterrent methods used to mitigate human–elephant conflict in Kenya and Zimbabwe.

The human–elephant task force was reappointed and more appropriately renamed the human–elephant conflict working group (HECWG). Members for the current triennium are Richard Hoare (chair, Zimbabwe), Moses Kofi Sam (Ghana), Patrick Omondi (Kenya), Loki Osborn (Zimbabwe) and Cece Papa Conde (Guinea Conakry). HECWG will continue to field-test and improve methods for assessing and alleviating human–elephant conflict such as the new decision-support system designed to help plan effective mitigation strategies. Other plans include producing standardized maps from satellite images of human–elephant conflict zones.

## African elephant status report and the data review working group

An update on progress towards completing the next African elephant status report was provided by Julian Blanc, the African elephant database manager.

At the meeting of the data review task force, which was held in Kenya from 30 November to 2 December 2001, a target date of mid-2003 was set for publishing the next African elephant status report. The data review task force also spent considerable time at the meeting on developing a revised data dissemi-

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nation policy, which was formally approved by the members at this meeting.

The membership of the task force, renamed the data review working group, was also reappointed. Members are Richard Barnes, Colin Craig, Iain Douglas-Hamilton, Holly Dublin and Chris Thouless. A member will be appointed to assist with central African data on status.

## **National and subregional elephant management strategies**

The progress made in the development and implementation of elephant conservation strategies and management plans since the last meeting in 1998 has been truly astounding, particularly in West Africa.

In September 2001, Lamine Sebogo, the AfESG programme officer for West Africa, finished his tour of the range states in that subregion to introduce the West African elephant conservation strategy (WAECS) to governments, NGOs, donor organizations and other institutions involved in elephant conservation and management activities. Subsequently the Convention on Migratory Species adopted this strategy, and the Economic Community of West African States (ECOWAS) has given the initiative priority.

The promotion of WAECS has stimulated a flurry of activity on a national scale. Ghana is busily implementing its national strategy and is looking for additional funds to continue this process in the coming years. A workshop was held in Burkina Faso in January 2002 to discuss the development of a national elephant strategy, and similar workshops will be held in the near future in Benin, Ivory Coast and Togo.

In southern Africa the review and update of the Botswana elephant management plan has been put out for tender by the government of Botswana, and a proposal has been submitted to the United States Fish and Wildlife Service for implementation of the activities. A technical workshop, followed by a participatory stakeholder meeting, is now planned to discuss key management issues such as human–elephant conflict and utilization.

Unfortunately, progress on the development of the Central Africa elephant conservation strategy (CAES) has been less impressive. The coalition of non-governmental organizations and national wildlife authori-

ties formed in the year 2000 with the mandate of moving the process forward got bogged down and lost direction soon after it was set up. While the political will of the national wildlife authorities remains strong, the process needs to be driven by committed persons, just as it has been in West Africa. AfESG will assist with this process but it was agreed that the most appropriate role for Elie Hakizumwami, the new AfESG programme officer for Central Africa, is likely to be to promote the strategy once the subregion is ready to take the next steps towards its development.

## **Technological advances working group**

A new technological advances working group was formed at the request of several members. The new working group will start by examining the latest developments in the field of GPS radio tracking. The expected output is a series of desired specifications for these collars. Recommendations from the working group on this and future technological tools will be made available on the AfESG Web site. The new group will be chaired by Loki Osborn. Other members include Iain Douglas-Hamilton, Mr Charles Foley, Richard Hoare, Mme Andrea Turkalo and Ian Whyte.

## **New guidelines for dung counts**

The development of a ‘how-to’ manual on dung counting methods covering such areas as stratification, sampling, counting and analysis was suggested. Richard Barnes will be working closely with the MIKE programme and the AfESG Secretariat in an effort to seek funding for this initiative.

The meeting, which turned out to be one of the most productive and enjoyable African Elephant Specialist Group meetings to date, was made all the more memorable by a visit on the fourth day to the Samburu National Reserve. After observing the resident elephant herds the members visited the Save the Elephants field station where they were introduced to the ongoing work on GPS tracking by Iain Douglas-Hamilton and the Save the Elephants staff.