

AERP REPORT FOR 2003

This past year has been a busy and productive one for the Amboseli Elephant Research Project and the African Elephant Conservation Trust, and I would like to update you on what we have been doing.

Amboseli

New Warden and Park Matters

Early in the year a new Senior Warden, Robert Njue, was posted to Amboseli National Park and I'm happy to report that it is the best thing that's happened to Amboseli in a long time. He's young, energetic and full of good ideas. He has everyone talking to each other at frequent meetings on security, park management, human-wildlife conflict, education and other park and community matters. Soila Sayialel, AERP's Project Manager and I, or Soila on her own if I'm not in Amboseli, and sometimes colleagues Harvey Croze or Joyce Poole, join in these meetings. They have proven to be very useful and productive.

On another front, Warden Njue has taken up the banner of an Information Center for Amboseli, something I've been trying to get going for years now. The idea for a visitor center has been in the Park's plan since 1981 but through lack of funds and initiative it has yet to happen. One former warden did get a long way in mobilizing some activity and through the International Fund for Animal Welfare (IFAW) succeeded in getting architectural plans and a detailed proposal completed. Harvey and I have been attending the meetings and have each been given assignments—Harvey is helping with the building plans and, and I will help with the fund raising. Kenya Wildlife Service (KWS) is enthusiastic about the whole concept. Visitors entering Amboseli, which is one of the highest revenue earners in the Kenya Parks system, are given no information on the geology, the habitat, the people, the animals, or the history, all of which are fascinating.



EBs with Echo in the lead moving slowly across a pan in the dry season

Environment

For the second year in a row the rains have not been good in the Park. During the long rains of April and May the amount of rain that fell outside the Park was actually normal but the amount in the Park was below average. This meant that the vegetation was not as lush as we and the elephants would like, but it was by no means a drought. However, the subsequent dry season from June through to early November was tough. The elephants were listless and husbanding their energy as they walked from outside the Park where they fed at night to the central swamps for their daytime feeding on sedges and rushes which are low in nutrition.

Finally rains came in the first week of November and typically all the elephants as well as the wildebeeste and zebras abandoned the Park and went off to feed on richer fare outside.

Lions and Hyenas



Lions on a kill on the entrance road to the AERP research camp

There is a new research project in Amboseli and I'm very happy about it. I've described in past reports the situation with the lions in Amboseli. In the early 90s all the lions were killed except for two and they eventually died. The Park had no lions at all for about three years until some very shy youngsters came in from the northeast and set up a territory near the research camp. In the meantime, during that period with no lions, the hyena population grew remarkably quickly from an estimated 25 to 200!

I thought that this hyena increase was such an interesting phenomenon that I have been pushing to have someone look at both lions and hyenas in Amboseli. I contacted Kay Holecamp, who teaches at Michigan State, and has been conducting a hyena study in the Maasai Mara Reserve in Kenya for 20 years. She was fascinated by the interactions between the lions and hyenas in Amboseli, which appears to show that competition between these two species is critical. After some struggles Kay found two students and funds for them to carry out their research in Amboseli.

Heather Watts and Wes Dowd are now ensconced in a camp of their own and they're out every day and sometimes night watching their subjects. I am very impressed with how quickly they've gotten to know the animals individually. They have distinguished six hyena clans and the two that they're working closely with are each about 50 strong. So far they have

recognized 36 individual lions making up two prides.

The other predators also seem to be doing remarkably well. The lodge drivers are regularly seeing as many as 15 cheetahs. The most exciting news of all is that Heather and Wes spotted three wild dogs one day in the middle of the Park. I have never seen wild dogs in Amboseli. To me, the return of the predators means that Amboseli is in a healthy state with a good environment for a large variety of animals.

Elephant News

The elephant population in Amboseli now numbers over 1200. This is what the population was estimated to be in the 1960s. Luckily, the Amboseli elephants still have most of that 1960s range to roam over, so we're not worried about "overpopulation". The Park is small at only 150 square miles, but the ecosystem over which the elephants are ranging is at least 2500 square miles. They've lost habitat to the east where two swamps—Kimana and Namalog—have been taken over for irrigated agriculture, but the rest of the ecosystem is open range, either held as part of the Maasai group ranch system, as sanctuaries, or across the border in Tanzania as a Game Controlled Area. In an aerial count of the total elephant population undertaken by KWS and AERP last year, the team found 289 elephants in the Park and 801 outside, of which 69 were in Tanzania.

The final figures are not in yet, but so far we have records of 68 calves being born and 21 elephants dying. Two of those deaths have been very hard on all of us. In late April, Echo's adult daughter Erin was speared by Maasai moran under unknown circumstances. She was found barely able to walk in early May and soon after treated by the KWS vet team. They discovered two deep spear wounds up high on her shoulder.

Martyn Colbeck and I arrived on May 11 to continue making the third film about Echo and her family and spent the next 10 days following



Erin and daughter Erica safe in the Park in happier days

Erin. It was one of the most difficult things either of us has ever done. To watch Erin in such pain was almost unbearable. To see the confusion and concern, but also the intense loyalty on the part of her family, was heart wrenching.

For a short while Erin seemed to get better but then she got worse again and we called in the vet team to dart and treat her for a second time. The wounds were septic and not draining because of their position. After that treatment she seemed a little better but then on May 21 she went downhill rapidly and finally fell down and couldn't get back up. In order to spare her an attack by hyenas while she was dying, we got a vet down from Nairobi to tranquilize her and then when she was fully asleep she was shot. A full description of the Erin tragedy is on the Elephant Trust website.

The second death was in most ways much more acceptable. M22, Dionysus, one of Amboseli's biggest and oldest bulls, died peacefully on October 21. He was estimated to be 63 years old. After he died we examined his teeth and discovered that they were almost completely worn down. He had a small spear or arrow

wound that wouldn't heal but mostly he appeared to have died of old age. If he had been in better shape he probably could have fought the infection, but he was unable to get proper nutrition with his teeth almost gone.

Dionysus was by far my favorite bull. I know I'm not supposed to have favorites but he was such a gentleman. In all the years of coming into musth, when males are usually aggressive and often disagreeable, Dionysus never threatened any of us. He was a major character in the first two Echo films and he was always very accommodating when we wanted to film him. Even when he was in consort with an oestrous female he always allowed us to work near him, unlike some other bulls we know.



Dionysus with his admirers

What was fascinating about Dionysus was that the other elephants treated him with what appeared to be respect and in some cases adoration. Young bulls seemed to be in awe of him and females always greeted him with the special "female chorus" which they reserve for musth bulls. He was the only bull I've ever seen "make love" to a female. Instead of simply chasing and mounting her, Dionysus would often approach a female, test her to see what hormonal state she was in, and then most unusually go around to her head and caress her face with his trunk. Afterwards he would mate with her. His technique seems to have won the hearts of many females. We believe he's the

father dozens if not hundreds of calves born in Amboseli over the last 20 years or so.

Dionysus had a long, successful life. We at AERP can be proud of the fact that he was even able to live that long. There are very few bulls in Africa in their 50s and 60s. For all that I'm happy, but I am going to miss him.

People & Project News

General

All is going very well on the administrative side of AERP and the supporting organization here in Kenya, the Amboseli Trust for Elephants. We've expanded our office to two rooms because of all our activities. Luckily, just as we were feeling very cramped, the next-door office became available and the landlord put in a connecting door for us. We all use the second room as a computer, GIS and resource center. Purity Waweru, our Office Manager, keeps everything ticking over from the original office.

In the US, Betsy Swart has set up the African Elephant Conservation Trust office in Newburyport, Massachusetts. From there she handles fund-raising, donations, payments to Africa, etc. She also writes proposals and works on a number of advocacy issues, such as CITES and the ivory trade, the use of elephants in entertainment, and general welfare and conservation concerns regarding elephants.

Betsy and I were able to work together on fund-raising and advocacy face to face for a change because I spent three and half weeks in the US in September and October and Betsy spent two weeks in Kenya in the second half of October. (See her trip report on this website).

My US trip was a fairly short visit and was half work and half personal. I was only on the East Coast, starting in Newburyport and ending up in New York City. In Massachusetts I visited with donors and worked with Betsy in the office. An AECT board meeting was held via conference

call and several important items were approved and passed.



Betsy, our accountant Pooja Bhandari, and Office Manager Purity Waweru working together in the Nairobi office in October

One of the highlights of the trip was a two-day visit to the headquarters of the International Fund for Animal Welfare (IFAW) on Cape Cod. IFAW both funds AERP and works closely with us on many fronts from local projects in Amboseli to global initiatives regarding elephants. While there I gave a presentation to the staff and had good meetings with the president, Fred O'Regan, Chris Tuite and Grace Gabriel who run the Wildlife and Habitat section. The people at IFAW are colleagues with whom I am proud to be associated.

In New York, I had meetings with donors, AECT board members Bruce Ludwig and Isabella Rossellini, and lawyer Kathy Meyer, who fights so valiantly for the law to protect wildlife. Recently, we worked closely together on trying to prevent US zoos from importing African elephants from Swaziland. (See our letters to US Fish & Wildlife Service on this website.) Unfortunately, we failed. Now we're trying to prevent the Bush administration from completely changing the regulations regarding the Endangered Species Act. Under the proposed guidelines, endangered species will be able to be imported live or killed and brought in as trophies or for other purposes, as long as the money paid for them goes to "conservation" in

the country that exports the animal. All the importer has to do is declare that some of the money will be used in conservation. There is no provision for monitoring or checking up on this use. Needless to say we're very upset about these proposed changes and feel that pressure is being put on this administration by hunters, circuses and zoos. (Again we've sent a letter to USFWS which is posted on this website.)

DNA Project

In July the Duke University genetics project came to an end, or at least the field portion of it did. There is still much laboratory work to do. Tom Morrison spent a year in Amboseli collecting data and dung for the project. He acted as a field assistant to Beth Archie whose Ph.D. project it is. Beth had to return to Duke to analyze the hundreds of dung samples. However, she came back to Amboseli for two months from May to July to help colleague Julie Hollister-Smith collect dung on the adult males.

Beth's work focuses on the females—how they are related and how those relationships affect their behavior to one another. Julie, who is also doing a Ph.D. at Duke, is focusing on the males—particularly finding out who has fathered the calves. For us who have been watching and studying these animals for so long, it is like opening a door and letting the light shine in on a whole lot of unknowns. We're very excited about the results. For example, Julie wrote to us a few days ago and told us she definitely knows the calves of Ganesh and Long Left because these two bulls happen to have unusual genotypes that show up in the calves. Joyce, who did her own Ph.D. on males and their mating strategies, wrote back immediately and said she wanted to rush down to Amboseli to see if those calves looked like their papas.

Outreach, Consolation and Scouts

Our work with the local Maasai community continues on several fronts. Soila spends

considerable time on maintaining and improving AERP's relations with the members of the group ranches that surround the Park. She attends all the meetings involving wildlife and holds discussions with leaders and others. At the same time, our community officer, Saruni Seleka, frequently goes out into the community to talk with the people both to explain things that we're trying to do and to listen to their grievances. Both Soila and Saruni work closely with the KWS Senior Warden and Community Warden.



Patrick Papatiti, one of our seven research scouts with a GPS unit and data sheet

Although there have been some spearings of elephants this year, it has not been in retaliation for livestock killed. As soon as a cow or sheep or goat is killed by an elephant a team consisting of Soila (or Norah or Katito) goes out to the place where it happened with a KWS officer and a representative from the community to verify the event. Within a few days she returns to deliver the consolation payment to the owner of the dead animal. These payments, which are generous, are greatly appreciated by the owners.

AERP's seven research scouts are now able to use GPS receivers to pinpoint their sightings of elephants and signs of elephants. David Sitonik, the university student we are sponsoring, trained them and has been returning during his holidays to check up on them, collect the data sheets, and enter them into the computer. We are building up valuable data on where the elephants go when they are outside the Park. These movements and distributions of the elephants are being mapped by Harvey and Keith using the Amboseli GIS.

Scholarships

Our scholarship program for the young men and women from the Maasai group ranches surrounding Amboseli is thriving. Through Joseph and Carol Reich's Pumpkin Foundation, we are presently supporting three university students:



1) *David Sitonik* is studying wildlife management at the University of Nairobi.



2) *Agness Masoi Kureroi* is studying pharmacy at the University of Nairobi.



3) *Grace Neeyio Masarie* is taking a degree in Community Development at Daystar University in Nairobi

In addition to these university students, we hope to send two girls through secondary school with the goal of having eight girls receiving scholarships at once, two in each class for four years. Very few girls are sent to school in the Maasai community around the Amboseli area and of those only a handful make it to secondary school. Part of the reason behind this low

enrollment is financial and part is cultural. Girls are usually married by the time they are 13-17 years old. We believe that education is very important to the Maasai community and in turn to the long-term conservation of the area and its elephants.

Joyce, Soila and Norah Njiraini, AERP's Training Coordinator worked with the local education officer and the schools to find suitable candidates. They organized an essay contest asking the students to write about the ways traditional beliefs and practices conserves wildlife. Based on their essays and their exam scores two girls have now been awarded scholarships.

Echo III

In my December 2002 year-end account, I reported that Martyn Colbeck and I started a third film about Echo and the EB family. This film will be the sequel to two previous award-winning films *Echo of the Elephants* and *Echo of the Elephants: the Next Generation*, which were made from 1990 to 1995. In December 2002, after a seven-year gap, we started this third film. Martyn and I filmed off and on until June 2003. .



Martyn filming Echo and Enid

It was a joy to be back with Echo and her family again. On our first day of filming, we discovered Echo's daughter Eliot with a new calf born early that morning. We followed and filmed Eliot and her son Emilio for much of December. Another highlight was Echo coming into oestrus (in her

late 50s!) and being mated by Ed. Our joy quickly turned to tragedy when Erin was speared and we filmed her and the behavior of her loyal family.

Since the dry season is not such a good time to film, we took a long break, during which I went back to my work for the research project and Martyn went off to film in other places. We resumed filming in early December and will work off and on through to April. The film is scheduled for broadcast in the fall of 2004 on BBC2 in the U.K. and on the Discovery Channel in the US.

Book

Progress on the scientific book has been significant over this past year. We had been held up because the database with 30 years of sighting records was unwieldy and basically unusable. After much sweat and tears and the help of experts, in particular Hans-Georg Michna, a very patient and generous computer programmer, the database is now user-friendly and we have been able to analyze data and actually write drafts of many of our chapters.

Colleague Phyllis Lee, who teaches at Cambridge University, came out for the month of July to work with Joyce and me on our joint chapters. We were extremely pleased at how much we accomplished. Having Phyllis here made all the difference. First of all, she's an academic and very good at what she does, and she also has an amazing ability to get the most out of her students and colleagues.

Through the generosity of ESRI, the leading GIS software company, and it's president Jack Dangermond, Harvey and colleague Keith Lindsay have been working away on the mapping components that we need for the book. Keith, who is based in the UK, has been out twice this year to work with Harvey. Amboseli GIS not only involves the book, but also underlies almost all of our research. We are creating layers of geographical information from soils, vegetation and water points to elephant distribution, human occupation and land use.

We soon realized what a big job creating this GIS was and sought the help of the National Geographic Society, which has agreed to support our work. We will make the resulting maps available to KWS and other researchers.

SEVP

Joyce Poole and Petter Granli's fascinating research project on elephant vocalizations and behavior has always been closely connected to AERP, but we have recently taken a decision to have the Savannah Elephant Vocalization Project become a more formal part of our program. To see what Joyce and Petter have accomplished, go to their exciting website: www.elephantvoices.org.

Donors

The AERP donors continue to be generous and I want to thank you all for supporting the project. I know that economically this is not the best time to be seeking funds, but people have been loyal and I greatly appreciate that. The following individuals and foundations deserve special thanks.

- 1) Joseph H. and Carol F. Reich through the Pumpkin Foundation continue to support monitoring, training and scholarships for the second year of a five-year pledge. It is through this grant that we are able to carry out our new and important program of scholarships.
- 2) The Donner Foundation came to our aid this year with funds to support the US office and the important work that Betsy carries out.
- 3) The National Geographic Society, as mentioned above, is supporting the Amboseli GIS work.
- 4) The Bosack Kruger Foundation has just given us a two-year grant to support our work with the Maasai scouts and community.
- 5) The International Fund for Animal Welfare (IFAW) has renewed its pledge to fund my work as Director of AERP.

Other foundations, organizations and individuals, which continue to help on a yearly basis, are Born Free, Fair Play, Paul Klingenstein, Oakland Zoo, Paul and Jane Schosberg and Vienna Zoo. To these and all my individual donors, thank you very much for your support, especially for those who rallied in our time of need when we were trying to save Bad Bull from being killed for crop raiding (see reports on this website).

Wish List

I'm only going to put one thing on the wish list this year, because we're actually rather desperate. I mentioned at the end of 2002 that we needed another vehicle for the project. The Land Rover we bought three years ago is doing all the project work. My 19-year-old Land Rover is mostly retired. It can go on water and firewood runs and I drive it when I'm in Amboseli, but it's not reliable enough for other work. The small Suzuki used for the DNA study belonged to Duke University, has been sold, leaving us with only the one functioning vehicle. With our community work plus the daily research and monitoring we are definitely overstretched. Both of these important AERP activities are suffering because of lack of transport. If Soila has to go out to community meetings it means that Norah and Katito can't do the research for that day. If Norah has a training course underway, then nothing else can get done.

A new Land Rover will cost \$48,000. I really need your help on this and would appreciate anything you can give. If you would like to make a donation please send it to Betsy Swart at the African Elephant Conservation Trust, 10 State Street, Newburyport, MA 01950 or if you have any questions call her at 978-352-2589. Your support will be greatly appreciated.

I wish you all a happy and peaceful year ahead.

*Cynthia Moss
February 2004
Amboseli*