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Echo's daughter Enid with her son Ektor need your help to assure their future

## **Please Donate**

## Earth Day - April 20

Do you live in or near Chicago, San Antonio, San Diego, or Seattle? Are you or your organization participating in an Earth Day event? If so, consider including some ATE literature and publications at your table or booth. Let us know when your event is and about how much literature you will need. We will be happy to send it to you and very grateful to be part of your day. Reply

to <u>eswart@ elephanttrust.org</u> and have a Happy Earth Day!

# News from the Amboseli Trust for Elephants

January - March 2018

## Greetings!

Our last newsletter went out at Christmas so it has been three months since I've been in touch. In general, the elephants and Amboseli are doing very well, but there was a very dark period in February.

There was a spate of very serious spearing in an area that the elephants have recently moved into. Eight adult elephants and two calves were killed but we don't know who they were. The families that range that far away from central Amboseli are infrequently seen these days making it difficult to know who is missing. When they eventually come back to the Park we should be able to census them.

The elephants were being attacked in that area because the people living there are intolerant of wildlife. It is far from the national park, they have no conservancies, nor do they have tourist lodges. Therefore, they see no value in wildlife, only the disadvantages of having to live with what they see as dangerous and destructive animals. This situation is emblematic of the very real and acute problem of human-wildlife conflict.

There are many of us trying to find solutions. The wildlife in Kenya cannot simply be confined to the protected areas. They need the larger ecosystems to survive. Amboseli is a perfect example. The Park is only 390 sq. kms (150 sq. miles); it can only hold a very limited number of animals. The elephants in particular need to be able to roam over the much larger ecosystem.

We attend many workshops and meetings and it isn't all doom and gloom. We are inspired by the Maasai stakeholders from Amboseli who also attend these meetings. They have been and continue to be tolerant of wildlife. It is part of their culture. They as much as we want to conserve the ecosystem for both their way of life and for the wildlife. To them the two go hand and hand.

Cynthia Moss Director Amboseli Trust for Elephants

# We Thank these Generous Donors for their Vital Support

Jane Beckwith Gladys Cofrin and Daniel P. Logan Fair Play Foundation Kathryn Heminway Sarah Khan John Madigan March to the Top T.J. and S.W. Ocasek John Oden Gordon Ray Rettet die Elefanten Afrikas T. Gary and Kathleen Rogers Family Foundation Rouse Family Charitable Trust Carl Safina Gary Schudel Richard Stanley Larry Strear and Strear Family Foundation

### Our Latest Scholarship Girls



Faith Naisola and Lucy Reson (right) entered class 3 and 4 in Kilimanjaro Junior Academy as boarding students. Katito searched for suitable new Amboseli students for our scholarship program which has been active since 2002. Both these girls had good scores but difficult home stories. Faith is an orphan from a very poor family; her relatives could only give her basic food but not education. Lucy has just one parent, her father.

ATE's Sylvi Nyambura, who oversees our scholarship program, got them their uniforms and the supplies they needed and took them to school on their first day. We are pleased to be able to say that we have changed the lives of a number of young people from the Maasai community around Amboseli, and we are happy that Faith and Lucy have joined our scholarship family.

## **Ever Vigilant: Trump and Hunting**

Many of you will have seen the public outcry after Trump daimed he was going to lift the ban on trophy imports to the US. The rationale behind this

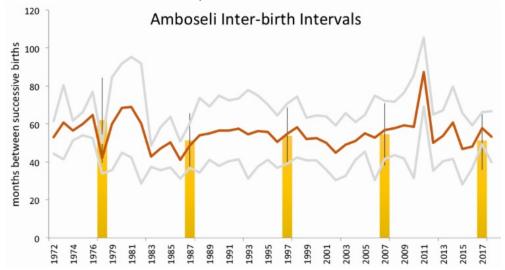
# How Many Elephants? Understanding Population Numbers

We often get asked how many elephants there are in Amboseli, and if the population is going up or down. We think these questions are usually directed to getting some kind of "good" or "bad" metric for how the elephants are doing. But as usual elephant truth is a bit more complex than "good" or "bad", and some wider perspective is useful.

Kenya has far fewer elephants than it used to-- in 1974 there were estimated to be 167,000 elephants in the country; by the end of 1989 there were only 16,000 remaining and today there are between 30,000 and 40,000. While other populations were declining sharply Amboseli's population grew, and continues to grow. That early trend may be a bit misleading because the study population was still recovering from earlier poaching and some elephant families "joined" us in the late 1970s after agriculture displaced them from wetlands outside the Park. Although recent increases are due to more elephants, they are also using the ecosystem more widely (see Cynthia's letter above).

Elephant population growth rate isn't simple to calculate, because it is determined by a combination of factors that vary between individuals and over time such as age at first reproduction, inter-birth intervals, and survivorship of calves. That intricacy makes output figures hard for non-specialists to understand. Looking at short-term information like annual birth rates only tells part of the story: The number of births in any given year depends on the ecological conditions and the number of available females (old enough to give birth or without a calf so young it prevents her getting pregnant again) 22 months before. After terrible droughts like 2009, where almost 400 elephants died in Amboseli, all females came back into reproductive condition around the same time and we ended up with the "baby boom" we have written about before.

One easier-to-grasp measure is how quickly females can produce calves (the inter-birth interval). It is measured for each birth, from the previous birth. This interval between successive calves depends on the mother's age, sex of both this and the previous calf, if the previous calf was first-born and whether or not it survived, as well as the ecological conditions the mother experiences. In good times, females can shorten the period between births, getting pregnant sooner and weaning their older calves earlier, which might contribute to big increases in population growth. This has been shown for recovering elephant populations elsewhere. Although the Amboseli interval varies between females and between years (see graph) there has been no overall change in the interval between births since we started the study.



Amboseli birth intervals are stable over time: average birth intervals recorded in any year can vary from 40 to 80 months (orange line), but average per-decade intervals (gold bars) don't change (error bars show standard deviation; overlap in error bars shows no difference between bars). Pale grey lines are standard deviations from the

decision is that those people who pay thousands to shoot endangered species should be allowed to do so because the money "benefits conservation". At ATE we are deeply skeptical of this model (see also a recent New York Times article <a href="Here">Here</a>), and we believe it's an ethically corrupt policy.



Worth More Alive

The good news is that the outcry forced the President to tweet a "hold" on the policy change. The bad news is that tweets are not legally binding and we have to stay vigilant. Combating this assault on endangered elephants, lions and other wildlife is a long and worthy battle.

We will keep you posted...

# Ways to Support Us

## Follow an Amboseli Family with Elatia



There are 58 elephant families in the Amboseli population. Six of our families feature in our Elatia program which allows you to sign up and follow your chosen family. The regular updates include photos and videos, and news of what is going on for the family.

To learn more about Elatia go to <u>This Link</u>. If you have any problems, Tal has made a tutorial for signing up, <u>Click Here</u>. You can also contact her directly if you have any questions on: <u>info@elephanttrust.org</u>.

Name a Baby Elephant

mean in any given year.

We know the Amboseli population is still self-regulating because females don't raise all their calves successfully, and the patterns of pregnancies and births continue to reflect changes in the environment. Long-term analyses like these birth intervals show us that the elephants are not in "runaway success", although they are increasing.

For a look at how our families have done over the course of the study, please <u>Click Here</u>. Pay special attention to how some families have become big and successful, while others have stayed small and some have gone extinct.

# **Crazy Weather**

Amboseli is a low rainfall area, partly because it is in the shadow of Kilimanjaro and partly because it is in a semi-arid zone. In our research camp where we record daily rainfall we receive an average of 340mm (13.3 inches) of rain per year. That's not a lot of rain. Compare that to the average rainfall of about 1400mm (55 inches) per year in the Maasai Mara west of Amboseli.

Not only does Amboseli have low rainfall but it also has unpredictable rainfall with extreme fluctuations, so that some years Amboseli is in drought and others in abundance. For example in the drought year 2009 the Park received 185mm (7.3 inches) of rain--only 54% of the average rainfall, the third year of poor rainfall in a row. Needless to say it was a terrible time for



Flooded Amboseli from the air on 11 March

wildlife, people and livestock with huge losses. On the other hand, in 1998 Amboseli experienced an *El Nino* receiving 837mm (33 inches), bringing superabundance to the herbivores. To see our YouTube video on drought <u>Click Here</u>.

Last year 2017 there was a drought. This year in March we are experiencing some of the wildest weather we've seen in a long time. As this article is being written, Amboseli had received 284mm (11 inches) of rain in only three weeks. The Park roads and the plains are flooded and most of the wildlife has left to go to higher ground. Amboseli sits in a geological basin so that all the water from three sides flows down into the center.



Once these rains end and the sun comes out the growth of vegetation will be amazing. There will be more than enough food to go around. In these conditions the elephants get into aggregations of 300-400. It is basically a party for them when



Is there a special person in your life to whom you would like to give an extraordinary present? We have a naming program in which you can give an Amboseli calf a name.

Unlike our Elatia program where many people follow the same family, our naming program is a unique experience. The calf becomes "your" calf and yours alone and the name you give forms a part of the Amboseli dataset for all time. For more information write to us

at: info@elephanttrust.org

#### iGive

One of the ways you can support ATE is by making your online purchases through iGive. If you sign up the Amboseli Trust for Elephants as your recipient organization we will get a small percentage of the sale. Connect with <u>iGive</u>.

### Give a Gift that Lasts Forever

Designate the Amboseli Trust for Elephants as a beneficiary of your will, individual retirement account, or life insurance policy. To learn more about planned giving opportunities, please contact: Betsy Swart eswart@elephanttrust.org Tel +1-508-783-8308.

Cynthia in one of the project Land Rovers driving to the airstrip to pick up Vicki who took the photo as she was flying in adults reestablish relationships, young males test

each other's strength, and romance blooms when females come into oestrus and the big musth males join the aggregations to find and mate with available females. This is our favorite time to be with elephants. If we can just keep the camp above water and the vehicles running we have something wonderful to look forward to.

### Watch our films on YouTube

## The History of the MB Family

The MB family was one of the last families to be recognized in the Amboseli population. The Amboseli Elephant Research Project was started on a part-time basis in September 1972. My colleague Harvey Croze and I would together or separately try to get down to Amboseli as often as possible over the next three years. In that period our main goal was to identify individuals and families and to try to work out their associations, distribution and ranging patterns.

We gradually built up an identification file of individuals based on photographs of their ears. Each elephant ear is unique with holes, bumps, nicks, slits and distinctive vein patterns. By the time I started a full-time project based in the Park in September 1975, I had identified 43 families.



Beautiful Megan

Over the next year I added more and on January 21, 1977, I found a new family with particularly beautiful females. I assigned them the family code MB. Each time a family was discovered they were assigned a letter of the alphabet and each adult given a name starting with that letter. I had already gone through the letters once and had to start again with AB, BB, CB, etc. There was already an M family, so they became the MA family and the new family became MB.

When I first met the MBs they were in the eastern side of the Park but thereafter I saw them in the west. I guessed that they spent a lot of their time in Tanzania and that is why I hadn't spotted them before.

They were more wary of cars than the central elephants but they were not aggressive.

On that first day they were in a big aggregation of 230 elephants. I managed to photograph three adult females from this new family. I gave them Irish names-Maggie, Megan and Molly. I saw them three more times in January and then again in May, June and July.

To read the full history Click Here.

### Visit our Website

While we face many challenges, such as human-wildlife conflict and droughts and floods, the elephants always keep us going. It just takes one morning driving in amongst them, turning the engine off, and just sitting with them to remind us once again what we're fighting for. They are nothing short of magnificent in every way. Please help us keep them wild and free.

Cynthia Moss Director

