

# Darwin Initiative for the Survival of Species

## Half Year Report

|                                 |  |
|---------------------------------|--|
| <b>Project Ref. No.</b>         | EIDPO12  |
| <b>Project Title</b>            | Replicating biodiversity conservation management at all key soda lakes in the Rift Valley. |
| <b>Country(ies)</b>             | Kenya, Tanzania  |
| <b>UK Organisation</b>          | University of Leicester and Earthwatch Europe  |
| <b>Collaborator(s)</b>          | TANAPA, National Museums of Kenya, University of Nairobi,                                  |
| <b>Report date</b>              | October 2007   |
| <b>Report No. (HYR 1/2/3/4)</b> | Second 6 month report  |
| <b>Project website</b>          | <a href="http://www.kenya-rift-lakes.org">www.kenya-rift-lakes.org</a>                     |

### **1. Outline progress over the last 6 months (April – September) against the agreed baseline timetable for the project (if your project has started less than 6 months ago, please report on the period since start up).**

The major activities were a) participation in the July water bird survey in Kenya to ensure that all main soda lakes were covered b) meetings and discussions by the PI in August with existing and new partners for five new soda lakes, Oloidien, Elmenteita (these two the subject of the research/training team in March) and Magadi, Little Magadi & Natron, the subject of the November training team and c) commencement of the education being provided to Kenyans connected to soda lakes.

Some of these relate to comments made in the review of the Annual Report so are elucidated upon here.

1. Partner involvement. We are using our experience of partners in Lake Bogoria (which is ongoing through the continuation of Earthwatch-supported teams at that lake, two held in August-September 2007), to develop equivalent relationships in the new lakes. At Oloidien, this activity is also integrated with our Earthwatch-supported work at Lake Naivasha (an October Team) since the community there are largely flower industry workers. The AR reported that we had interviewed about 750 community members and will be presenting a report of this work in a UNESCO HELP conference in Johannesburg, November.

The involvement with community at Elmenteita in March was not as good as planned because of disruption by road building at that time. In August, the PI spent several days at Elmenteita in discussion with two key community groups. The first one, African Forests, is a charitable business which is set up on 500 acres of land leased at Soysambu about the lake to operate indigenous tree-planting and associated activities (sustainable charcoal, honey production, medicinal herbs. We are tentatively working together a) on honey marketing, using this project's experience at Bogoria and b) rehabilitation of eroded environments, linking with the Baringo RAE Trust. The second group is the Soysambu Conservancy, which has been set up as a legal entity to manage the Delamere estate sustainably. This is working with other community groups under Greater Elmenteita Forum so is an ideal way for this project to be involved without the necessity of establishing relationships in individually with many groups. I shall run an Earthwatch-funded research camp on Soysambu in July 2008, which (although outside the time of this Post-Project) will take forward several of the ideas discussed in August.

The involvement of ACC has grown, as we have planned the next research/training camp which will take place in November with them. They have developed a close working relationship with two Masaai group ranches in the south Rift, Shompole and Olkiramatian. The camp will enable us to conduct scientific research on three soda lakes – Lake Natron at its northern end (in Kenya), Lake Magadi and Little Lake Magadi. The latter two may not have great importance to flamingos, but are potentially limnologically important because of their unique chemistry. The former is the only breeding site for flamingos in East Africa and is critically important since a proposal for soda ash extraction, which is potentially highly damaging, has been made in Tanzania.

2) Training. The review of the AR requested further details about the training camp structure and delivery. Briefly, we undertake 4 separate research investigations by day, which are carried out with 3 trainees for 4 days. The trainees then swap to another research investigation so that, by the end of the camp, they have worked on three. In March these were a) soda lake limnology, b) riparian woodland bird communities c) use of stable isotope analysis for food web elucidation and d) PPA with the local community. In the evenings Fellows are taught presentation skills, based on groups of 3 fellows selecting one topic from the ones they all gave in the first 3 evenings, and improving it using the skills taught to them by the PI.

The research themes which have been planned for the November team are a) soda lake limnology including freshwater input to Natron, b) Ecohydrology of the Ewaso Njoro river and swamp, c) Odonata biodiversity in river, swamp and small wetlands and d) bird biodiversity of the swamp. The Ewaso Njoro is the major freshwater input to Lake Natron, so is important in its own right to the Masai (especially the swamp) as well as to the lake. Magadi and Little Magadi are spring-fed lakes, so will offer an interesting limnological comparison.

3) Education. The original PP proposal assumed that partner individuals from organisations at the new soda lakes would benefit from the same educational assistance as had been delivered on the original project. This was found not to be the case. At Lake Elmenteita, there is no conservation agency managing it, but individuals interested in its future were found through our involvement there since we ran an Earthwatch-funded team in 2005. Sarah Omsula, whose parents work on Soysambu estate, has helped us as an assistant at several Earthwatch-funded research teams. So this PP was able to fund, together with two Earthwatch volunteers from HSBC who raised money the bank doubled, Sarah (who left school at 16 due to lack of parental funds) through a Diploma in Wildlife Management at the KWS Training Institute, Naivasha. An ecology assistant from the KWS staff at Lake Nakuru, who was one of the first Darwin Fellows on this PP, also has no higher education and so this PP is paying his fees through the same course, he is paying his living costs.

A major partner in the original project was the Water Quality Laboratory at lake Nakuru and its staff. The Chief Technician, Andrew Kulecho, had been accepted for an M.Sc in Analytical Chemistry at Egerton University earlier this year, but his employer, the Nakuru Water & Sewage Services Company, was not going to be able to move fast enough in its decision-making, to enable him to take up this course in 2007. The PI of this PP decided therefore, to fund his first year. The Managing Director of NAWASCO has indicated strongly that the company will fund subsequent years to enable Andrew to complete.

In March 2008, this PP will run a research/training camp at lake Manyara in Tanzania. The Ecologist for Lake Manyara National Park was one of the Tanzanians who came to Kenya in November-December 2006 for the Workshop and flamingo-counting training run by the Kenyans who had participated in the original project. Emilian Kihwele has now been accepted by Dar Es Salaam university to conduct an M.Sc. in Environmental Science and this PP has part-funded his research project expenses, since his project will be on the relationship between lesser flamingos and their food at Manyara.

Finally, one of the Darwin Fellows at the March research/training team. Margaret Kyalo, has been accepted for an M,Sc in Hydrobiology at the University of Nairobi. This PP is part-paying her fees (she the remainder) to enable her to take up the place and she will conduct her dissertation in 2008 (extending beyond the PP) on an aspect of soda lake limnology in Kenya.

4). The reviewer of the AR asked for more detail about community understanding of soda lakes, expanded monitoring and techniques of soda lake conservation. We have continued to develop this at Bogoria, with the momentum which the original Darwin project started and will be trying to repeat these at the new soda lakes. Firstly, the Bogoria community has formed a site-support group, Friends of Nature Bogoria, which we are assisting. Local site support groups is an initiative of Nature Kenya. One of the NK stalwarts in the Friends of Kinangop local group has now (September-November) been brought to UK through a "Twinbasin" exchange (an EU Framework 6 programme) by this PI and is gaining experience in WWT Centres, Rutland Water and Birdlife International. He, when he returns will try to extend from Kinangop to Elmenteita to assist the formation of a local group there. He is funded in Kenya by a grant from UNESCO to the PI, to develop the Malewa basin as an Ecohydrology Demonstration Site. The Elmenteita catchment is adjacent to the Malewa, sharing part of Kinangop.

At Bogoria the PIs wife had written 2 children's story books about the adventures of 'Bogor' and 'Kim' who are lesser flamingos. A third book has been written about Kim's Adventures in the Rift, bringing information about other lakes (Nakuru, Sonachi, Natron) to children as well as Bogoria to those who do

not live there. These story books, together with the "Maji ni Uhai" series of films are the tools by which we involve the community, increasing their understanding. We do not yet have any evidence of the impact of these on Elmenteita schools and we will be visiting new schools and communities in Olkiramatian this November. This community education is a slow process and will continue beyond the PP as a result of the Earthwatch funding for our research camps.

**2. Give details of any notable problems or unexpected developments that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.**

The main problem is that we have not succeeded in coordinating work in Tanzania with Kenya. Water bird census work there is not a regular annual event as in Kenya and distances between lakes are far greater. Discussions are ongoing about how to resolve these problems and I am confident that a concurrent survey will be achieved. Flamingo censuses and spirulina sampling has been done three times in Kenya, extending the lakes covered to Magadi and Natron (north). Anecdotal records of the Tanzanian lakes are being accumulated as a partial substitute for this and discussions with key people are continuing.

We are moving towards supporting the Water bird counts in both countries from the PP in January 2008 and, concurrently, ensuring that water samples are taken at each lake. I am also trying to ensure that aerial photographic counts are also made. This has been done in Tanzania about 10 years ago, initiated by the WCS and I am in contact with them to try to organise a repeat. I am also in touch with the pilot in Kenya who did an aerial photographic count of Lake Bogoria in 2001, with Spanish scientists. Concurrent counts in the two countries are rare, concurrent land and air counts have never happened in either country so if concurrent land and air counts, together with water samples and subsequent Spirulina counts can be achieved in the two countries in early 2008, this Darwin PP will have made a major achievement.

**3. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?**

None

November 2nd 2007