



INVESTOR IN PEOPLE

# EARTHWATCH

## Fellowship Programme Newsletter

Earthwatch's African Fellowship Programme provides practical training placements, on ongoing field research projects, to African conservation professionals.

**Tell me something and I'll forget it; Show me something and I'll remember it; Let me do something and I'll understand it.**

Issue 5 2001

<http://www.earthwatch.org/europe/fellowships/africa.html>

Dear Fellow

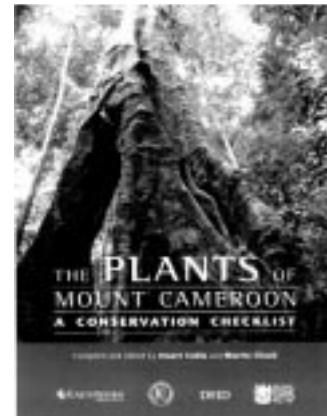
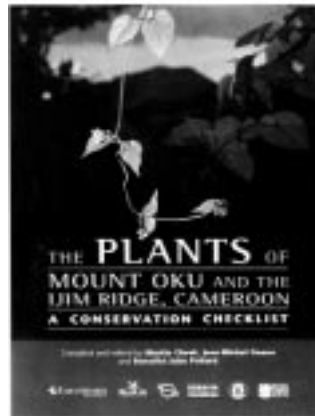
Welcome to the fifth Newsletter. We are delighted to announce that the 500th African Fellowship was awarded in September 2000. The Alumni Network now has 563 members, making it an increasingly important and far-reaching network of conservation professionals, which as a past Fellow you belong to.

We want to ensure the Network is a *live* network. It was set up for YOU, to enable you to keep in contact, talk about issues and find out about opportunities. We are now restructuring the Network and need every Fellow to register. When you register you will receive a list of funding opportunities for African nationals as well as other appropriate information. (e.g. contact details of Fellows, partners and PIs in 22 African countries). Please look at the back page for more information and PLEASE send your details to: [network@earthwatch.org.uk](mailto:network@earthwatch.org.uk) Finally, please pass this message to other Fellows who we may have lost touch with, so that everyone can benefit from the Network. Thank you!

Our partnerships are also growing. In 2000 we worked for the first time with the National Herbarium of Zimbabwe and Natal Parks Board, South Africa. We hope these new partnerships will continue to ensure that Earthwatch training reaches the people and the organisations that will most benefit.

2000 also saw the end of European Union and Darwin Initiative grants and the beginning of increased corporate support. Our new programme partner is UBS Warburg, we have a further five-year commitment from British American Tobacco and continued funding from Rio Tinto. We are extremely grateful for this ongoing support.

Lucy Sagers  
(formerly Beresford-Stooke)  
African Programme Manager



## Cameroon's Rainforest Checklists

For six years Earthwatch has supported botanical inventory work in the rainforests of Cameroon.

by Dr. Martin Cheek, Senior Scientific Officer, Royal Botanic Gardens, Kew, UK.

**118 Earthwatch Fellows from 14 countries**, 20% of the Alumni Network, have contributed to the compilation of the Royal Botanic Gardens' conservation checklists: "The Plants of Mount Cameroon" and "The Plants of Mount Oku and the Ijim Ridge". The second checklist was launched in November 2000 in Cameroon and formally presented to the Fon of Oku. The checklists give information on all the flowering plants and ferns in a protected area, with detailed information on the Red Data species. The Red Data assessments are vetted by IUCN and referred to in the World Red Data book for plants (Web version, 2000).

**Since 1995 I have been running Earthwatch teams in conjunction with the National Herbarium of Cameroon**, undertaking detailed botanical inventories in protected areas of rainforest. The 118 Fellows on these teams have formed the backbone of the surveys - THANK YOU ALL for your hard work and valuable contributions. I hope the experience and training in collecting plant specimens and converting them into herbarium specimens has been useful and may even have led to discoveries of new species in your home countries.

From the specimens gathered on Kew inventories, **35 species or subspecies new to science** have been published, and many more are in the process of being published. This large number of new species is not surprising because Western Cameroon is considered the most species diverse area for plants in Tropical Africa. Our work has aimed to identify the rarest species and by publishing these checklists, to help ensure their survival. We have identified approximately 150 Red Data species. Without our work there is a danger that species will become extinct, maybe even before they are known to science.

Over the years of Earthwatch support there have been many success stories among the Fellowships. Paul Munyenembe (Lecturer in Botany, University of Malawi) discovered a species on Mt Oku that was new to science, as well as other species that were previously unknown in the area. After his Fellowship, Paul became an Earthwatch partner, and to date he has nominated eight Fellows from Malawi. Geoffrey Mwachala (Research Scientist, East African Herbarium, Kenya) was a Fellow in 1995 and as a result of his experiences in Cameroon, Geoffrey set up his own Earthwatch supported botanical inventory project 'Rare Plants of Kenya' in the Taita Hills. To date he has trained and received assistance from 95 Earthwatch African Fellows.



Programme partners:  
British American Tobacco p.l.c.  
Rio Tinto plc  
UBS Warburg



# Ghana's Hippo Sanctuary

Earthwatch is working in partnership with a Ghanaian NGO surveying plant, mammal, reptile and bird populations in a new protected area.

by Professor Oteng-Yeboah, Deputy Director General, Centre for Scientific and Industrial Research, Ghana.



Members of Wechian Sanctuary Management Bond

## Background

The two remaining hippopotamus populations of Ghana both occur in the Black Volta River system in north-west Ghana, but are entirely isolated from one another. One population is legally protected in Bui National Park, but is now under threat from a projected hydro-electric dam to be constructed in the Bui Gorge. The second hippo population occurs further upstream, away from the danger of flooding from the dam, but historically not protected from poaching or habitat destruction.

This second population occurs within the Wechiau paramountcy of Ghana's Upper West Region. The chiefs and people of the Wechiau paramountcy considered the benefits they stood to gain if they could protect and manage the area containing the second hippo population, such as development of ecotourism allowing increased income generation for the community. They decided to find out how to go about protecting the area and, in consultation with the Nature Conservation Research Centre (NCRC, a registered NGO in Ghana), the chiefs and people decided to develop a community-managed sanctuary for the hippos and all other wildlife.

## Development of Research Focus

Following a memorandum of understanding between the Council for Scientific and Industrial Research (CSIR) and NCRC, CSIR was given the responsibility to initiate the Wechiau Hippo Sanctuary Project. It was decided that, in order to provide the information needed to form a comprehensive management plan, baseline research activities such as botanical and animal surveys were required. Earthwatch Institute was approached to assist with baseline research for at least two years.

## Research Aims

The research aims for the sanctuary area, covering approximately 40 square kilometres, were:

- To conduct a botanical survey of plant species (PI Prof. Oteng-Yeboah)
- To conduct a mammal and reptile survey (PI Dr. Oduro)
- To undertake a survey of birds (PI Prof. Beier)

## Earthwatch Assistance

In addition to assisting to streamline the research proposal, Earthwatch provided research funds, one team of African Fellows and three teams of volunteers to assist the Ghanaian research team with collecting data on plants, birds, mammals and reptiles.

In June 2000 the first team arrived in Ghana. Each Fellow had been nominated by one of Earthwatch's local partner organisations and sponsored by Earthwatch to join the project to receive training and help collect data. The June team was made up of three female and five male Fellows from Nigeria, Ethiopia, Uganda, Kenya and Cameroon. All Fellows were professional researchers, lecturers, park wardens or students with backgrounds in one or more of the project disciplines.

The contributions of the Fellows were very highly valued, and we look forward to welcoming the second team of African Fellows in April 2001.



Dr. Odwo's team

## Conclusion

I am particularly impressed with the role of Earthwatch's African Fellowship Programme in promoting professional and cultural exchanges. A very remote village like Talewona in the Wechain traditional area, has become a destination for ecological work. Before very long, this village, together with Wechain, the district capital, will become important tourist destinations in the Upper West Region of Ghana.

## East to West Africa

by Andama Edward, Researcher for the Institute of Tropical Forest Conservation, Uganda who joined the team of African conservationists and researchers on Ghana's Hippo Sanctuary.

Our team arrived at the project site on Monday 12th June 2000. This was a very important day, because it was our first experience of the local culture of north-west Ghana, and we were welcomed officially by the Paramount Chief of Wechiau Community (Wechiau-Naa) and his subjects. We also met the Principal Investigators for the first time.

On our arrival, the local community entertained us with traditional dances, which were very colourful indeed. The Paramount Chief introduced us to the Wechiau Sanctuary Management Board Members who assured us of their commitment and dedication to support the project. This portrayed to us the level of involvement of the local community in this project. The lively ceremony was finished by a prayer of blessing from the Paramount Chief, elders and various religious leaders for success in our work and good health during our stay in the area.

This excellent opportunity to spend two weeks involved in hands-on field research training, that Earthwatch provided me with has allowed me to learn about woodland and savannah ecosystems. I learnt many new field techniques in botanical and reptilian surveys, including vegetation sampling using plotless methods and the use of a clinometer to estimate plant height and distance from a reference point. I was particularly interested in the botanical work because at home in Uganda I am carrying out a study on the reproductive ecology and use of Mauritius thorn (*Caesalpinia decapetala*) as a deterrent to crop raiding around Bwindi Impenetrable National Park. I also learnt to capture snakes and that snakes are not always harmful (as is believed by the local community back home in Uganda) which was refreshing but frightening!

My interaction with the botanist, Professor Oteng-Yeboah, gave me a chance to learn new botanical survey methods and also gave me increased confidence in the work I am doing at home. Since leaving the project I have established a permanent consultation link with Professor Oteng-Yeboah.

Earthwatch supports a wide range of field research projects and we are particularly keen to support African research scientists. If you would like information about Earthwatch research grants for your own project, please contact us: [network@earthwatch.org.uk](mailto:network@earthwatch.org.uk)



*Setting small manual traps*

The project has also provided me with my first experience of how traditional leaders can influence species conservation in a community. In Wechiau, the most useful and important plants, for example the shea butter tree (*Butyospermaum paradoxum*) and dawadawa (*Parkia clopertoniana*), are culturally protected by being said to belong to the chief. This method of traditional protection is something that could be transferred to other regions.

Over the two week period I worked with the other Fellows as part of an international team, exchanging information amongst ourselves and co-operating during fieldwork. This provided an environment in which to become close friends and learn from one another's different backgrounds and experiences, thereby revealing the benefits of working in an international research team. At the same time we gained insight into conservation problems

and solutions in Ghana. Since leaving Ghana we have maintained contact with one another.

I hope to use the knowledge and skills that I gained on the Earthwatch project in my work back home and to initiate a community based wildlife conservation and development project. All in all, the Fellowship was very informative, unique and I gained practical experience which I hope to apply in my personal and professional work back home. It was the most enlightening and memorable experience in my life, away from my country of origin.

## Impressions from Ghana

Earthwatch funded a team of 9 fellows from 5 countries to receive biodiversity training on Ghana's hippo sanctuary project.

Solomon Gebreyohannis is a Forester at Amhara Regional State Bureau of Agriculture in Ethiopia. Solomon wrote that he "will use the knowledge gained on this project to help formulate an ecological conservation strategy for Tana, Ethiopia."

Jane Kuniya, who is Area Warden in Hell's Gate National Park, Kenya said that "the quick vegetation inventory is a useful management tool to detect deterioration of habitat due to e.g. fire." Jane also reported that with the knowledge she gained on this project she "will help to create small mammal and reptile checklists in Kenya."

Yoseph Assefa, an MSc student at Addis Ababa University, Ethiopia was struck by the way the sanctuary is managed by the local community and commented that "learning how to handle



*The Welcome Ceremony*

community problems is a lesson that is transferable to many areas of the world."

Ayonniyi Dehinbo, a student at the University of Ibadan, Nigeria commented that "the project introduced me to practical ecological techniques. It is good to have experience of field work after all the theories and methods learnt in the classroom. The experience therefore provided a good basis on which to initiate a local project that would benefit the local community."



*Professor Oteng - Yeboah's team*

## Free wildlife census technology

David Balfour's South African Wildlife project involves a census of twenty large herbivore species in Hluhluwe-Umfolozi Park. DISTANCE software is used to estimate species density from line transect data. A number of Fellows have commented on the usefulness of learning this technique:

**Edson Sichali, Assistant Parks and Wildlife Research Officer for the Department of National Parks and Wildlife, Malawi, commented that:**

*'An effort will be made to substitute the expensive and less reliable methods in use now in some protected areas in Malawi with this less expensive and more reliable method of censusing large mammals.'*

*The software for DISTANCE sampling was acquired from the project ecologist and has already been installed in our computer. This is a direct benefit from the programme, not only to me, but to the institution as a whole.'*

**Hetherwick Msiska, Senior Assistant Parks and Wildlife Research Officer, Department of National Parks and Wildlife, Malawi, wrote that:**

*'The knowledge gained on DISTANCE sampling techniques was challenging and exciting. This will be put in use in large mammal ground count surveys for Vwaza March Wildlife Research in Malawi.'*

*This project was very educational, particularly to those working in ecological research who have acquired information on new technology in wild animal population estimation. Personally, I have benefited a lot from this short period, and the expertise gained will be shared amongst my research counterparts in my station.'*

If you are interested in finding out about DISTANCE software look at the website below, where the software and reference literature is available FREE: [www.ruwpa.st-and.ac.uk/distance/](http://www.ruwpa.st-and.ac.uk/distance/)

# Zambia's Park Survey

by Winfred Addo-Yobo Gyebi, Assistant Project Officer, Ghana Wildlife Society

In June 2000 Winfred joined Henry Mwima's project: Zambia's Park Survey. The project involves collecting vegetation data to compare the current status with that of thirty years ago (known from aerial photographs). The results will be collated to produce a vegetation and landscape map of Kafue National Park, as well as a Geographical Information System (GIS) for the area. This will allow quantification of habitat change over the thirty-year period and an assessment of vegetation distribution and abundance. Data is analysed using the Vegetation And Landscape Integrated Database (VALID), developed by Mwima specifically for this study.

Each participant was given the opportunity to assist with all elements of the work. Tasks included setting quadrats, identifying plants, measuring trees over 1.5m diameter, breadth and height, soil sampling, noting land use and entering data onto the computer. Each plot was also mapped for the GIS.

Participating in this project gave me the opportunity of working in different vegetation types to those I am used to in Ghana, allowing me to build on my previous botanical knowledge. I hope to be able to make the information I learnt available to my institution and the community I work with. The Earthwatch Fellowship provided me with much needed help in understanding how to establish a vegetation survey and monitoring programme. Part of my responsibility as Assistant Project Officer for the Afadjato Project is to design a vegetation monitoring programme, for which the experience in experimental design is very helpful. When the programme for the Afadjato Community



Collecting Specimens

Reserve is established it will ultimately provide information necessary to develop an effective site management plan, which will go a long way to providing the technical advice the communities need to manage their forest resources more effectively.

The Fellowship also provided me with first hand experience of conservation issues in Zambia, particularly regarding the role that communities around the park play in conservation. Some of the lessons learnt could be implemented in my area, e.g. establishment of a game management area where human activities are allowed around a protected area. Another worthwhile lesson constantly being explained and emphasised by the PI, was the importance of research in effective wildlife management.

During the project we were also shown how to use the computer programme VALID. Henry Mwima has sent me a copy of this software to help the Afadjato Project. This will greatly help my analysis and documentation of botanical data.

The trip provided many lessons. The Zambian people were friendly and hospitable. The PI and his colleagues were very helpful. I was on the programme with seven colleagues from five different countries: Kenya, South Africa, Madagascar, Ghana and Zimbabwe. From each colleague I learnt something unique. My only wish is that the two-week experience could be extended.

**UPDATE APRIL 2001:** Winfred has just completed the first draft of his proposed vegetation monitoring programme for Afadjato Project, which will be initiated after sign off by Ghana Wildlife Society.

Ratidzayi Takawira, Research Officer at Zimbabwe's National Herbarium and Botanic Garden, who also participated in 'Zambia's Park Survey' in June 2000 told us:

*"My duties at the National Herbarium and Botanic Garden, Zimbabwe, include carrying out vegetation surveys and inventories for the entire regional flora. I now feel I can carry out these surveys with greater confidence and I believe the skills I gained will greatly benefit both my institute and my own career. 'Zambia's Park Survey' resulted in the formation of links that will hopefully lead to collaborative research in the future."*

## ALL FELLOWS - NETWORK REGISTRATION

PLEASE SEND YOUR NAME, ADDRESS, TEL, FAX, EMAIL,  
JOB TITLE & ORGANISATION NAME:

[network@earthwatch.org.uk](mailto:network@earthwatch.org.uk)

If you do not register, we will assume you no longer wish to belong to the African Network. When you register we will send you a list of research funding available to African nationals, and details of other appropriate information.

## EARTHWATCH Achievements update

- Earthwatch's African Programme has been running for six years, providing training to 563 young African conservationists, scientists and NGO workers.
- Fellows have been nominated from 180 different research organisations, NGOs, national parks and government departments in 22 African countries.
- Five species of plant new to Taita Hills and one species new to Kenya were discovered in June and December 2000 by Fellowship teams on Geoffrey Mwachala's 'Rare Plants of Kenya' project.
- Earthwatch's new 'Ghana's Hippo Sanctuary' project was awarded the Ghanaian National Tourism Award for Community Initiative – 2000. 'This is the premiere award programme in the country and it is Earthwatch Institute's involvement at Wechiau that has been instrumental in this decision'. John Mason, Executive Director, Nature Conservation Research Centre, Accra, Ghana.

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