



The Friends of Ruaha Society

FORS News

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August 2005

FORS is a registered charity based in Iringa, Tanzania near Ruaha National Park. FORS was started in 1984 to assist with the task of safeguarding the wildlife in the park and its environment. However, in recent years, FORS has changed its focus to involve the communities on the eastern boundary of the park. FORS strives to **increase the responsibility of the local communities around the park, in Idodi and Pawaga divisions, to slow the destruction of the environment and assist in the search for new balances between people, wildlife and the environment.**

INSIDE THIS ISSUE:

The Meeting Point	2
FORS Committee Members retire	2
RNP Stakeholders Meeting	3
Teachers Ruaha Excursions	3
Environmental Story Board	4
New Committee	4
FORS and Roots & Shoots	4
Giving Voice to the People	5
Tanga Workshop	5
FORS Funding	5
Msembe P/S marks Water Week	6
Forging and Maintaining Partnerships	6
Teachers' Manual	6
Baseline Survey	7
Learning Lab	8
Plastic Waste	8
The Great Ruaha River by Dr. Peter	9
EE Experts	10
UNDP Visit	10
FORS receives generous funding	10

World Environment Day Celebration 2005

This year's celebration was held help.

at Mlowa Primary School and was a resounding success! Mlowa teachers and students organized a celebratory day

providing communities the opportunity to come together and honor the environment.

Students and teachers alike enjoyed traveling to Mlowa and we are grateful to WCS and Kate Forrester Kibuga and

Paulo Kibuga for their extensive help with transportation – always one of FORS's challenges for activities such as this!

Tanzania declared "beautifying the environment through the planting of trees, flowers and grasses" as this year's theme. In line with this the day began with the Guests of Honor being shown a lovely forest that Mlowa has grown with FORS'

We were honored to be joined this year by the District Education Officer, Mr. Kisiga, as well as by



Mr. Mbano, the former head of Tanzania's Wildlife Division and one of FORS' new committee members. Both gentlemen gave inspiring speeches encouraging teachers and students to continue the important work of caring for the environment.

Other guests included members of the FORS Team, village leaders, and throngs of teachers and students

from all over Idodi Division. We were happily surprised to welcome representatives from Matalawe Primary School, who had traveled on their own from their distant village to express their desire to be included in future FORS activities.

This year's program included many wonderful performances including songs showing how much the children really know about their environment and the challenges it faces. Everyone enjoyed traditional drumming and dancing, especially by students from Mafuluto who are well known for their skills!

Other activities included the revamped Drawing Competition (see article page 4), the School Environment Assessment with awards given to Mahuninga, Kitaneva and Makifu and the annual football and netball matches.

★ Continued on page 8

MBOMIPA Scouts Receive Training

By K.A.S Ngomello (Advisor and Secretary on the Board of Trustees of MBOMIPA)



MBOMIPA Association has received scholarships from the Friends of Ruaha Society and Michalel Sweatman for four of our Village Game Scouts (VGS) to undergo training in Likuyu Sekemeganga Community Based Training Institute in Namtumbo District (Ruvuma region) and for one scout to undergo training at Pasiansi Wildlife Training Institute, Mwanza.

The scholarships were awarded to Leonard Kiwonika, Justine Sanga, Costa Masimba and

Kokoyo Sute to study at Likuyu and Appolinary Damas to attend Pasiansi. The Likuyu trainees are currently taking a six-week long course which they will complete in August 2005. Pasiansi offers a one year course which started in July 2005 and leads to a 'Basic Certificate in Wildlife Management' qualification.

These scholarships are a dream come true for the MBOMIPA Association since one of the criteria for VGSs to be recognized as Authorized Officers (who are allowed to handle firearms and undertake anti-poaching work in



Apollinary Damas, sponsored by Michael Sweatman through FORS and Mbomipa to attend Pasiansi Wildlife Training Institute.

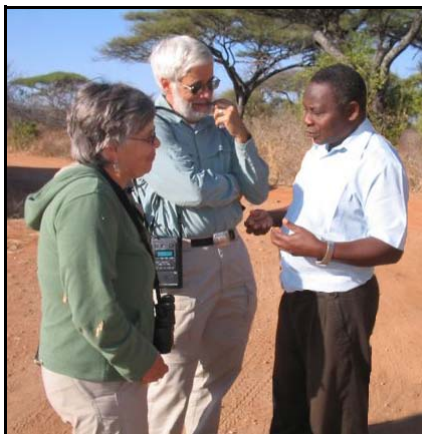
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The Meeting Point

By Leslie Veirs

Ruaha National Park is the ecological meeting point or convergence zone between northern and southern African species. It is an important area because it is where the *Acacia-Combretum* vegetation of northern Tanzania meets the Miombo woodlands of south-west Africa. This convergence zone was recently of particular significance to my husband and I as it served as our 'meeting point' with FORS staff on the third week of our visit to Tanzania.

After a wonderful two week safari experience in the northern circuit, our FORS-related visits to Iringa, Lunda and Ruaha National Park were a very welcome view of the 'real' Tanzania. During this week we continued with our wildlife viewing but our main goal was to find out more about FORS and Ruaha Na-



Mr Mbano, of WCS and FORS, discusses the environmental education with Val and Leslie Veirs

tional Park. We met staff and talked to them about their environmental education ideas in relation to the proposed Learning Lab at park headquarters in Msembe (see article page 8).

Our first day in Iringa was spent at the FORS office talking with Anna Marie and Sarah. They showed us the curriculum materials they had developed relating to four environmental themes: water,

weather, wildlife and fire/forests/soil. We also viewed posters and brainstormed a 'wish list', including possible contributions we could make to the Learning Lab and curriculum development. I also gave FORS some science resource materials from the U.S. which are related to the chosen four environmental themes. Then it was time for a visit to the market to bargain for fresh fruits and vegetables and those attractive yet functional Iringa baskets!

The next morning our driver, Rongino Kibuga, picked us up and, after an interesting visit to the Stone-Age site of Ismila, drove us to the Coppollilo family's Lunda bush camp. Rongino competently picked his way along bumpy dirt roads, through peaceful villages and into dry riverbeds, to the lovely river

camp of Chris and Pete and their children, Henry and Nina. That evening, after an enjoyable pre-sunset game drive and sundowner conversation with the Coppollilos and Mr. Mbano (a new FORS committee member), we ate dinner by the Great Ruaha River and discussed more FORS-related ideas and some broader African conservation issues.

We spent the next three days observing animals (such as a persistent bull elephant in search of acacia seed-pods just inches from our banda!) in Ruaha National Park and meeting with park officials. We briefly met Charles Ngendo, Acting Head of Outreach Program, before he left for a visit to the local villages. Charles appointed Pendael Johnson Shafuri as our most gracious guide. Shafuri arranged some of our meals and a meeting with Paul Gwaha, acting Park Warden as well as showing us the room where the Learning

★ Continued on page 7

Continuation of page 1

Wildlife Management Areas) is to have undergone the necessary training from recognized government institutions such as Likuyu and Pansiansi.

After holding consultative talks with MBOMIPA Association leaders, FORS realized that there was a need to train MBOMIPA's Village Game Scouts. In order to meet this need, FORS launched

fundraising campaigns both within and outside Tanzania. As a result, over three million Tanzanian shillings was raised

to pay for tuition fees, meals, accommodation, uniforms, travel costs and allowances. The trainees were sent to the two different institutions depending on their qualifications: Pansiansi

dard Seven leavers.

Upon completion of the course each participant is expected to return to work with MBOMIPA, write a report on the course which demonstrates how the course will improve his work performance and submit a report to the FORS committee.

MBOMIPA Association appreciates the valuable assistance provided by FORS and calls on other organizations to follow their lead as MBOMIPA still has more people who require training.

*FORS would like to thank Michael Sweatman of the Wild Foundation for his generosity and inspiration regarding this scholarship program.



Mbomipa Scouts and Advisors outside the Mbomipa Office in Iringa.

requires that trainees are Form Four candidates with at least a division three pass whereas Likuyu enrolls Stan-

FORS Committee Members Retire

FORS sincerely thanks Charles Dulle and Sue Stolberger for their years of service to the society. Both committee members retired at this year's Annual General Meeting after serving FORS in many different ways. Charles was FORS' most recent chairperson, was an invaluable link to the communities around Ruaha National Park and was instrumental in the inception of the Environmental Education Program. Sue also previously served as chairperson, maintained a close relationship with the park as she worked hard to bring to light the crisis of the Great Ruaha River and was a tireless and successful fundraiser. Thank you, Charles and Sue, and very best wishes for the future.

Ruaha National Park Stakeholders' Meeting

In June, Ruaha National Park held a three-day workshop to review its Ten Year General Management Plan. Participants included members from TANAPA and the Wildlife Division, local government representatives, WCS and WWF, tour operators and NGOs. FORS was represented by Anna Marie.

The workshop focused on conservation, community outreach and tourism.

The resources found in Ruaha National Park were listed and ranked and then groups worked toward formulating a 'Park Purpose', the final version of which

will re-articulate the exceptional value of Ruaha National Park. Anna Marie had the opportunity to present her group's discussion.

Working groups were also formed to discuss issues such as park operation and ecosystem management. With the goal of developing a Management Strategy, a logframe was developed to examine each park pro-

gram's purpose, objectives, target and action plan.

FORS' participation in the workshop not only provided good networking opportunities but was also a chance for FORS to continue exploring

where the resources of our small NGO can be used most effectively to contribute to the conservation of the wider Ruaha ecosystem. Community outreach and environmental education continue to rise to the surface as areas where FORS can make a significant contribution.

The results of the workshop will be expanded upon at TANAPA headquarters to feed into the finalization of the Management Plan. FORS looks forward to continuing its support of RUNAPA as they work towards this goal.



Teachers' Excursion to Ruaha National Park, July 2005



By Paul Mgulunde, teacher from Makifu Primary school.

Since FORS started the Environmental Education Program with primary schools adjacent to Ruaha National Park, the program has been both valuable and rewarding to collaborating teachers and students. Teachers have enjoyed and appreciated working towards an increased depth of understanding regarding environmental issues through FORS resources, seminars, trainings, excursions, and teaching methodologies. The program continues to improve

every year, with a variety of challenging activities for students and this has contributed to better student attendance. Recently, teachers had a two day trip to Ruaha National Park as one of the supplementary activities to the Wildlife module that lasts from July to September. The trips help teachers learn more about the Park and its inhabitants and to feel confident when teaching about wildlife.

The safari was exceptionally arranged. There was effective planning and communication between FORS and the teachers, reliable transport and a well-organized program once we arrived in the Park. We were thrilled by the news that

this year we would have an overnight in Ruaha as part of the excursion!

There was a lot to learn, much to explore and many areas to visit. We were kept too busy to be tired by the full schedule! It was fun exploring Ruaha National Park with teachers from different schools as it is not often that teachers from one school have chance to spend time with those from other schools. It was a great opportunity for us to have a 'Ruaha-by-night' experience. Hyena and im-

pala came by the hostel to visit as we enjoyed the evening and the amazing food. During the game drive we were amazed by several lion prides, baboons with twin babies, groups of elephant, buffalo, and impala, just to mention a few. We were astonished by one of the lodges we visited- Ruaha River Lodge. We appreciated the general arrangement of buildings which were environmentally friendly. The walk towards the bar, which is situated on top of the rocks, made us feel like we were on a

★Continued on page 7

TEACHER QUOTES:

"Are you serious that elephants and giraffes are not found in Europe and America!!?"

—a teacher from Mahungu Primary School

After searching all day for the elusive leopard, a Teacher from Makifu Primary School comments:

"There's a leopard, it's just wearing the skins of an impala!"

"For most of us, it is our very first time to spend the night in Ruaha National Park. This trip has provided us with both theoretical knowledge and practical knowledge which will help us teach wildlife to our students."

—the Ward Education Officer of Idodi Ward

Environmental Story Board Competition

Every year, FORS holds a drawing competition with an environmental theme for the school children of Idodi Division. This year, in an effort to be more inclusive and encourage children with various interests and abilities to partake in the event, we changed the format to one that is more in line with FORS' overall philosophy regarding teaching and learning. Students worked in small groups to find a traditional story about the environment and create a "story board", an illustrated telling of their story that can be presented in a display format. Not only did this give writers and artists a chance to shine but it gave children the opportunity to explore the value and relevant environmental wisdom to be found in indigenous stories.

from the schools with many stunning entries. The stories included animals and people living together in harmony, people protecting the forests



so that they grow tall and dense, and stories which pointed out that if we destroy wildlife habitat those same wildlife can make life difficult for us. A couple of

clever groups of authors and illustrators showed that if you protect the environment, you can make money out of it!

Other stories had individual animals and trees crying in distress at their ravaged habitat, showing children's empathy for the natural world. A favourite was a traditional story about a huge snake which long ago lived in a cave deep in the forest. People were so scared of the snake that they left the forest well alone. However, one day reports were heard in the village that the snake had been slain so people rushed into the forest and began to cut it down. Ever after, the village, which in former years enjoyed good rains and endless supplies of clear water in the rivers, suffered from terrible droughts. People realised that they were actually safer when the snake lived in the cave and the forest was intact.

The colour pencil pictures

which illustrated these stories were vibrant and lively. Despite the fact that most children in these schools had never had the opportunity to draw using colours many of the results showed fantastic imagination in the use of colour.

At the World Environment Day celebration on June 5th the winners were announced. From each school we chose Best Illustrations, Best Story, Best Environmental Message and Best Overall Entry. Since each story board was created by five students, a total of 160 children received drawing and writing materials as prizes. FORS is pursuing funding for future publication of some of the storyboards. Stay tuned!

We would like to thank Vlek and Partner B.V. for the generous funding that made this year's Environmental Story Board Competition possible and the All-Austin-Cooperative Nursery School who kindly donated some of the art supplies.

We had a prolific response

2005 Committee

We have great pleasure in announcing that a new committee was elected during this year's Annual General Meeting, held at the FORS office in Iringa in May. The new committee consists of 8 members.

The new Chairperson is Kate Forrester, a returning committee member. Kate came to Tanzania over twelve years ago to work for Concern Worldwide and has lived here ever since. She has a great deal of experience working in Tanzania and has spent much time in the villages on the boundary of Ruaha National Park.

Chris Coppolillo, also a member of last year's committee, is now the Secretary and has a background in education as a primary school teacher with a Masters in Education. She lives at a conservation camp just outside of Ruaha

National Park where she home schools her children.

The new Treasurer is Shanna Sheridan-Johnson, a nurse and midwife who was a founding member of FORS back in 1984. Shanna hosted the very first FORS meeting in her house all those years ago!

Dorothy Bikurakure is a returning committee member who has valuable experience working in the villages on the boundary of Ruaha National Park with the original Mbomipa Project. She currently works for an organization dealing with natural resource management.

Annet Witteveen is also returning for another year on the committee. She has lived in Tanzania for over four years. She has experience working in development and education projects in natural resource management in both Asia and Africa.

We are honored to welcome Mbano Bakari, the former head of Tanzania's Wildlife Division as well as a former teacher at Pasiansi Wildlife Training Institute, and Tosamaganga Secondary School. He is the Assistant Director of WCS' Rungwa Ruaha Conservation Program.

Fiona Oates is an architect and has been working in development in Tanzania for many years exploring and developing sustainable building practices. She is involved with the International School in Iringa as well as being on

★Continued on page 7

FORS and Roots & Shoots

By Sara Montag of *Roots and Shoots*.

Friends of Ruaha and the Roots & Shoots program of the Jane Goodall Institute are excited about their new partnership, which will begin with cooperation to support the Idodi Division Schools. Founded by primatologist Dr. Jane Goodall in Dar Es Salaam in 1991, the R&S program is based on the philosophy that each individual matters, and that everyone, especially young people, can make a difference

in their communities. There are now more than 3,000 Roots & Shoots groups in over 90 countries around the world, all working to plan and implement projects to show care and concern for people, animals and the environment.

Roots & Shoots' Iringa coordinators, Dickson Mwalubandu and Maria Mbilinyi, have been working with school clubs in the Ir-

★Continued on page 8

Giving Voice to the People

By: Nringi Naiman Urassa. (A fieldwork student from the Institute of Rural Development Planning (IRDP), Dodoma)

Friends of Ruaha Society has been working with communities adjacent to Ruaha National Park for quite some time but they recently decided to take a "fresh listen" to local people. Taking time to listen to local communities is of paramount importance when initiating any development program. FORS believes that local people are well vested with knowledge that can be used not only to learn how people live but also to better understand their needs and thereby effectively help them develop ways to meet those needs.

It was with all of this in mind that FORS began several micro-enterprise projects over the past couple of years, including vegetable growing and honey production. Although some villagers have experienced modest success through these projects, FORS wanted to learn if there were unrealized op-

portunities in the villages and if so how we might better assist local people in realizing them.

It was good luck then, that I was put in touch with FORS. I am a third year student at the Institute of



Urassa, with the notebook, talking with villagers

Rural Development Planning (IRDP) in Dodoma and had chosen to do some fieldwork on micro-enterprise projects for my Advanced Diploma. I had been employed by the Sustainable Management of the Usangu Wetland and its Catchments (SMUWC) project as an Assistant Researcher in rural livelihood and have also done some work with Raising Irrigation Productivity and Releasing Water for Inter-sectoral Needs (RIPARWIN)

as a Primary Researcher. I felt well-prepared to join FORS in their effort to learn more about what sort of income-generation projects might be viable in the villages bordering Ruaha.

During my first couple of days in the villages I learned that many people have beehives near their households and others in the forest. I fear that the bees may have found out I was promoting them being kept in hives. I had just held discussions with local people from Mahuninga village when I was attacked by none other than a group of these buzzing honey-producers! I was happily riding a bicycle back to Makifu village where I stay during this fieldwork when the group of bees started attacking me. I decided to run away but believe it or not, the bees were so highly motivated that I couldn't seem to escape! I decided to lie down on the ground in an attempt to protect myself. This strategy was a success but my heart was racing and my body temperature soared.

All in all, I was fine after the attack, escaping with a few stings on the back of my head! Later, many people (including Mzee Tengeneza, who has been assisted by FORS and has more than 700 beehives) told me that I had used exactly the right strategy to escape the bees and that the attack was due to lotion I was wearing. Apparently the bees thought I was ready-to-be-harvested honey.

What I learned from the event is that the area indeed has a suitable climate for beekeeping projects! In addition, local people have a lot of expertise to share with us about how these projects might work. It is essential that their voices are heard. I look forward to reporting on what else I learn while spending time in the villages around Ruaha National Park and will make recommendations on how FORS might use my findings to develop their micro-enterprise efforts as a way forward in poverty reduction and sustainable development for this special ecosystem. I am very grateful to FORS for giving me the opportunity to listen to and give voice to local people.

Tanga Workshop on Education for Sustainable Development

In March, FORS was invited to a workshop on Promoting Education for Sustainable Development in Tanzania. The workshop was organized by the Ministry of Education and Culture (MOEC) in collaboration with SIDA (Swedish Embassy) as a follow up to the Rio de Janeiro conference (1992), the World Summit on Sustainable Development (WSSD) in Johannesburg (2002) and the Goteborg International Consultation on Education for Sustainable Development. Sarah and Anna Marie attended the three-day workshop in Tanga, Tanzania.

The previous conferences had addressed and emphasized education as an essential tool for envi-

ronmental conservation and sustainable development. This workshop focused on promoting environmental education by bringing together different environmental practitioners from all parts of Tanzania (including Zanzibar) in order to reflect, rethink and reform environmental education objectives in order to help meet the United Nations' Millennium Development Goals. Other participants included members of higher education institutions, NGOs, the National Environmental Management Council (NEMC), the Vice President's Office, Education Inspectorate offices, the Institute of Education and the Ministry of Education and Culture.

During the workshop, sessions were held that gave FORS the opportunity to network and to share our experience of working in environmental education with other individuals and organizations. The workshop affirmed that FORS' work with the Idodi Division primary schools is in

line with the national goals and efforts. This is exciting because it means that the schools surrounding Ruaha National are at the forefront of environmental education in Tanzania. In addition, FORS' Environmental Education Program stands to benefit greatly from the national efforts, as we are working towards common goals.

The objectives of the workshop were:

- To share experience and common understanding on environmental education and Education for Sustainable Development (ESD);
- To enhance networking among environmental education practitioners and experts;
- To suggest ways of mainstreaming ESD at all levels of the Tanzanian education system; develop a strategy for influencing relevant decision makers and map out what should be done in Tanzania as regards ESD.

As a direct result of the workshop FORS has started working closely with 'Roots and Shoots' (see article page 8) in Iringa and has developed other new links, for example with the 'Menai Bay Conservation Au-

FORS Funding

We would like to thank the following organizations and individuals for their very generous support, received since February 2005:

- Vlek and Partner B.V.
- United States Brownies of West Putnam Troop # 2697
- Wildlife Conservation Society
- All-Austin-Cooperative Nursery School
- Liz Deleyser
- Michael Sweatman
- Nam and Tom Siebert
- Val and Leslie Veirs

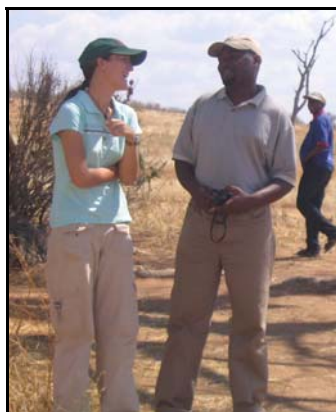
And last but not least, we would like to thank all our members for their interest and support in our programme.



thority' in Zanzibar. We look forward to playing an active role in the ongoing effort to bring effective environmental education to all school children in Tanzania.

Forging and Maintaining Partnerships

FORS is constantly looking to forge new links and partnerships as well as maintain our current relationships with other organi-



zations who are working in and around Ruaha National Park. By both understanding the needs in the Ruaha ecosystem and being aware of what various organizations have to offer, we are all better able to contribute effectively. By valuing and becoming familiar with each others' work we are able to collaborate so that no one 'reinvents the wheel'. In the past few months, FORS has been communicating with a number of organizations about means and ways of sharing our knowledge and our abilities.

In March, Tim Lloyd-Jones from the Anglican Church in Iringa asked FORS to help him with vegetable seed distribution

in the villages of Idodi. Tim had received a large quantity of seeds which he wanted to get out to the farmers in the villages. His idea was that one person in each village could be in charge of selling seeds (for 20 Tsh per packet) and while doing so could impart knowledge of how to grow these vegetables to the farmers who are unfamiliar with more 'exotic' vegetables such as lettuce. FORS linked Tim up with the Head Teacher of Makifu Primary School who could help sell the seeds. As a teacher, we thought he would be well equipped to disperse knowledge about cultivating certain vegetables. The project was a great success.

FORS is, above all, an environmental NGO and as such places its focus on environmental issues. However, we recognize that there is a direct link between poverty and a lack of education and environmental destruction. Therefore, FORS considers poverty reduction, improved primary education and access to secondary education as important issues which are inextricably linked to environmental protection. There are many organizations which work in these areas and FORS has formed link a close link with one such organization, S.E.E.D (Secondary Education to Encourage Development). S.

E.E.D. is a UK registered charity that finds sponsors to send students to secondary school. This year 50 students, who otherwise could not afford to go to school, are being sponsored by S.E.E.D. During FORS' field visits, it became clear that there were successful standard seven students who were unable to afford to attend secondary school so we decided to put Idodi Secondary School in touch with S.E.E.D. as a way of assisting these students. For more information about S.E.E.D., please contact Sarah Vatland at sarahvat@hotmail.com or Emma Brice at ejbrice@free-internet.co.uk.

In early July, members of the FORS Team met with WWF's local environmental education representative, Enoch Chengulla. Mr. Chengulla is implementing environmental education activities (in terms of both content and pedagogy) in many of the districts FORS currently

works in, although not yet in Idodi or Pawaga. We discussed in some depth the ways in which our efforts complement each other and potential areas of collaboration. We came up with many possibilities, including hosting awareness-raising workshops for teachers, sharing materials and pursuing ways to secure further training for educators and outreach authorities. We look forward to pursuing these ideas with WWF and will keep our members updated on our progress.

FORS is also currently working closely with Roots and Shoots to further develop the Environmental Club at Idodi Secondary School and with Mbomipa on scholarships for game scouts (see article). We continue our close relationship with the Wildlife Conservation Society from whom we receive much expertise and assistance.

Teachers' Manual

FORS is presently working on putting together our teachers' manual for each of our Environmental Education teachers which will include all the lesson plans, warm ups, and helpful teaching tips, which are currently located in the FORS school binder. We would like to thank Liz DeLeyser for helping us to fund the printing of the manual.

Msembe Primary School Marks World Water Week in Own Style

World Water Week is a chance to celebrate water and highlight the importance of sustainable uses of water. The primary schools in Idodi Division all marked the occasion in different ways. Msembe Primary School, at park headquarters, must abide by all park rules and therefore have limits on what they are able to do in their surrounding environment. Despite this, they managed to celebrate the week in their own style.

Issa Ngaunje, a teacher from

Msembe explains:

As one supplementary activity to our water module for the Environmental Education Program, we decided to spread the message to people at headquarters by celebrating World Water Week. The events took place on March 23, World Water Day. It was an enormous occasion for us to commemorate the day as everyone in the world does. Teachers and students prepared several performances. At 9:30 am we started by tidying up the surrounding area around the school, cleaning of waste water channels and picking of any trash around the area.

After this hard work the students went to Lyambangari Social Hall where the community was

waiting to hear from our well-prepared young environmentalists. Anthony Kivike, a student from Msembe Primary, explained the importance of clean water and how to maintain it. He gave an example of tree planting and the effects of trees in the environment. The clever student illustrated his explanations through concept mapping on a flip chart. He also referred to some pictures drawn by his colleague students from Msembe Primary School that were posted on the walls.

We all watched FORS' 'Water is Life' film. Godwin Gondwe from Independent Television and student Faraja Mramba from Idodi Primary School narrated the education film involving stu-

dents from Idodi Division. The film was awesome! It can be used as a teaching aid for all of our environmental topics.

Finally, Mr Shafuri from Ruaha's Outreach Department gave some final remarks on the importance of water to our life, for animals and for the whole world. The event ended at 2:30 pm. The Msembe community is aware of and very active in conserving and maintaining the little water we have. The celebration was an important and effective way for the students to highlight this for their families and all others.

Pawaga Baseline Survey

FORS, represented by Henriette Verwoerd (an MSc student from the Netherlands) and Mtindo Shilla (a BSc Environmental Sciences and Management graduate) has recently conducted a baseline survey of environmental knowledge amongst primary school children in the villages around Ruaha National Park.

The survey covered schools in Idodi Division where FORS already runs environmental education activities and in Pawaga Division where the program has not yet started. Several different methods were used. To test the younger students'

environmental knowledge (Standard I – III), picture drawing and group discussions took place. For the older students (Standard IV – VI) questionnaires and gap-fill exercises were used. Teachers from both Divisions were interviewed to find out how they felt about the program and if they had any suggestions for improvement.

Through the survey, we discovered that although almost all of the students we met knew something about the environment, the children in Idodi Division had a better understanding and wider knowledge of environmental

issues. For example, when asked 'Why do you plant trees?' a student from Pawaga responded: 'I plant trees because when visitors come in our school they will see that we have trees' yet a student from Idodi answered 'I plant trees because we can get shadow, fresh air, rain and medicine from them.'

Teachers in both Divisions were very positive about FORS and our environmental education efforts. Pawaga teachers kept saying how much they needed FORS and the Idodi teachers were continuously thanking FORS. In the words of a teacher from Idodi division: 'We had



heard about the environment, but FORS' work has allowed us to discover what 'environment' really means. Please keep FORS going!"

The information gained from this work is an important piece of our work in Idodi and a good first step to working in Pawaga (see UNDP article page 10).



Teachers' RNP Excursions

Continuation of page 3

walking safari alongside the observant jumping hyraxes.

The conservation education given by Ruaha's own Mr. Shafuri, Mr. Ngendo and Miss

ecologists were also interesting and were accompanied by a walk to find animal tracks and identify scat. We were given different posters and teaching aids for the schools that will help us as we teach our students about wildlife. We

Masei was informative and enjoyable. After a relaxing time while watching environmental films we had the primary questions to ask. Talks given by Wildlife Conservation Society

all went home feeling inspired and full of new ideas and information. We send our sincere thanks to Friends of Ruaha Society for

organising these trips for the primary schools of Idodi.

FORS would like to thank Ruaha National Park and the Wildlife Conservation Society for helping to make these

trips such a wonderful success. A very special thank you to Vlek and Partner B.V. for making the teacher trips possible.



The 'brave' walking safari participants listen as the askari (ranger) describes hippopotamus behavior

The Meeting Point

Continuation of page 2

Lab will be. He also shared his ideas for the Lab with us, for example having lots of posters and photographs on the walls. We discussed display boxes for animal skulls or other artifacts that park rangers might collect from the park and we all agreed on the educational value of a three-dimensional relief map of the park. My husband, Val, said he might be able to provide a computer-based audio display of

Ruaha National Park sounds and Shafuri and Mr. Gwaha mentioned the need for an LCD projector and equipment that could also be used for programs outside the Learning Lab. We all agreed on the importance of FORS and park staff working closely with the council, villagers and students towards shared goals.

Our last evening in the park was spent viewing the informative video "The Great Ruaha River" (Survival Anglia – 1998). Gracious as always, Shafuri arranged break-

fast for us before he drove us to the Msembe airstrip the next morning. After an elephant and some zebras were cleared from the airstrip, our small plane took off for Dar. We followed the Great Ruaha for a while, reflecting on how vital this water source is to all who live at 'the meeting point'. We have very fond memories of our visit and are excited about the further contributions we might make to FORS' environmental education efforts in the future.

2005 Committee

Continuation of page 4

the FORS Committee.

Janet Hayes joins us after working on environmental education in and around a national park in Vietnam. She is currently working as a Programme Manager for VSO- Tanzania and is studying towards a Masters in Development Management.

The new committee is optimistic that the coming year will be one of great success and increased growth and progress for FORS.

Learning Lab at Msembe RNP

Friends of Ruaha in conjunction with Ruaha National Park plans to develop a Learning Lab at Msembe headquarters.

This center will embody the philosophy of FORS' Environmental Education Program: *People are active makers of knowledge and are decision-makers who can and will change their behavior as new knowledge informs. Teaching and learning happen best when the learning environment is interactive, full of stimulating, open-ended activities that allow students to explore, try, play, make, do, reflect, share. Visitors to the Learning Lab will experience and explore the natural world in order to know it and care about it. Ultimately, it is hoped that visitors to the lab will have an increased ability to care for this very special ecosystem.*

It is our hope that this will be

a multiple-use space used by Idodi Division students and teachers during FORS visits to the park, Msembe Primary School students and teachers and other groups of visitors to Ruaha. We plan to use an existing building at park headquarters for the Learning Lab. Fresh paint and other minor cosmetic work will be done to make the Learning Lab bright and inviting.

We hope to raise funds to include the following in the Learning Lab:

1. Posters including footprints, trees, wildlife, etc.
2. Maps, including a large topographic map and map-making activities
3. Notice boards, chalk board, white board



4. Audiovisual equipment
5. Five senses center including a scent-detection station and equipment including compasses, microscopes, binoculars, magnifying glasses, sound collectors
6. Hands-on specimen cases

★ Continued on page 10

World Environment Day

Continuation of page 1

Mlowa adults took home the gold for the adult football competition while Msembe students were champions in both netball and football – they went home to Ruaha National Park tired, happy and proud!

Perhaps the highlight of the day for the FORS Team was hearing a short anecdote from Mr. Mbano after he kindly drove students home at day's end: "Two young boys were in the back of the truck conversing when I realized they were debating about the merits of their parents' work. They argued extensively about cutting trees, voicing both questions and opinions." Students exchanging thoughts and knowledge about relevant environmental issues made the World Environment Day celebration feel like a sure success and highlights the progress of environmental education efforts.

Schools Initiate Plastic Waste Project



The budding environmentalists in Idodi Division primary

schools have increasingly noticed plastic waste all around their school compounds.

Head teachers presented the idea of waste separation to them and decided to experiment on plastic decomposition and its effects to the soil. Every school dug two trash holes for this project. One hole is for organic wastes while the other is for plastic wastes collected every day in school surroundings. The project aim

is to observe the decomposition processes of the two types of wastes. The students and teachers hope to compare the end products of these decompositions and then discuss measures to be taken by schools to overcome the problem. The project started in March and ends in October during the beginning of the Soil/ Forest/ Fire topic. Let's stay tuned for the results from these young students!

FORS and Roots & Shoots

Continuation of page 4

inga region for over four years. They hope to contribute their birding and forestry expertise to the Idodi Division schools. The partnership should be a great opportunity to further the goals of both organizations to inspire young people to value and protect the area's natural resources. Like FORS, Roots & Shoots believes that knowledge leads to compassion which inspires ac-

tion. Roots & Shoots clubs are encouraged to do projects to help wildlife, the environment and the human community, emphasizing the interconnectedness of living things. Thinking about the ways each part of an ecosystem affects the other parts is also one of FORS' "green lines" within their Environmental Education Program as they work towards helping students learn about human impact on protected areas.

The partnership is fully supported by Roots & Shoots' Tanzania director, Felix Mbogella, and Roots & Shoots'

southern regional coordinator, Erasto Njavike. Both Felix and Erasto visited Iringa in July and Erasto enjoyed meeting with Dickson, Maria, Sarah and Anna-Maria to discuss how the two organizations can work together. All agree that students should lead the way. "The best ideas for club projects come from the students themselves," says Maria. "That way, the club members take ownership of their projects." FORS and Roots & Shoots look forward to

reporting back on this exciting development in Idodi Division schools.



The Drying of the Ruaha River Through the Eyes of Wildlife

By Dr. Peter Coppolillo of Wildlife Conservation Society's Rungwa-Ruaha Conservation Program
Email: PCoppolillo@WCS.org

The last two issues of the FORS Newsletter have addressed the drying of the Ruaha River. In the first piece Sue Stohlberger provided a long-term and personal perspective on the river drying. Accounts like this are increasingly important, given the fact that fewer and fewer people concerned with Ruaha and its conservation (including this author!) "knew" the River and the ecosystem before it dried. In the following issue Peter Baur, who participated in the SMUWC Project, offered a hydrological perspective on Usangu and the difficulties in attributing the river drying to a single visible problem. Like Sue's, the scientific perspective is critical because after all, we depend on science to help solve technical problems and balance needs of people and wildlife. Strong advocacy and science have helped galvanize high-level political support for restoration of Ruaha River, and we are all lucky to enjoy this support.

However, one deficiency that still remains is for us—and by "us" I mean the collective "we" who hope to restore the river, from villagers in Pawaga to the Rufiji Basin Water Office to the President and Prime Minister—to specify what restoration actually means. Does it mean that a trickle of water a few inches deep and a meter wide will make it to Mtera Reservoir at the end of the dry season? This would certainly be a big step forward, as it would refresh the pools in which many fish die and would drastically expand the availability of surface water (see map); but is that good enough?

With these questions in mind, I offer another perspec-

tive on the idea of restoration: that of wildlife. Unfortunately though, this perspective raises as many questions as it answers, but these are important things to consider as we work toward restoration.

Clearly, for flow-dependent species the loss of habitat is total, because even though

dry season distribution of water.) Not surprisingly, a dry-season count of buffalo conducted by WCS and RUN-APA, failed to find buffalo east of the *Tortillis* woodlands between Msembe and the Mwangusi-Ruaha Confluence.

Of course, the drying of the Ruaha is just one indirect ef-

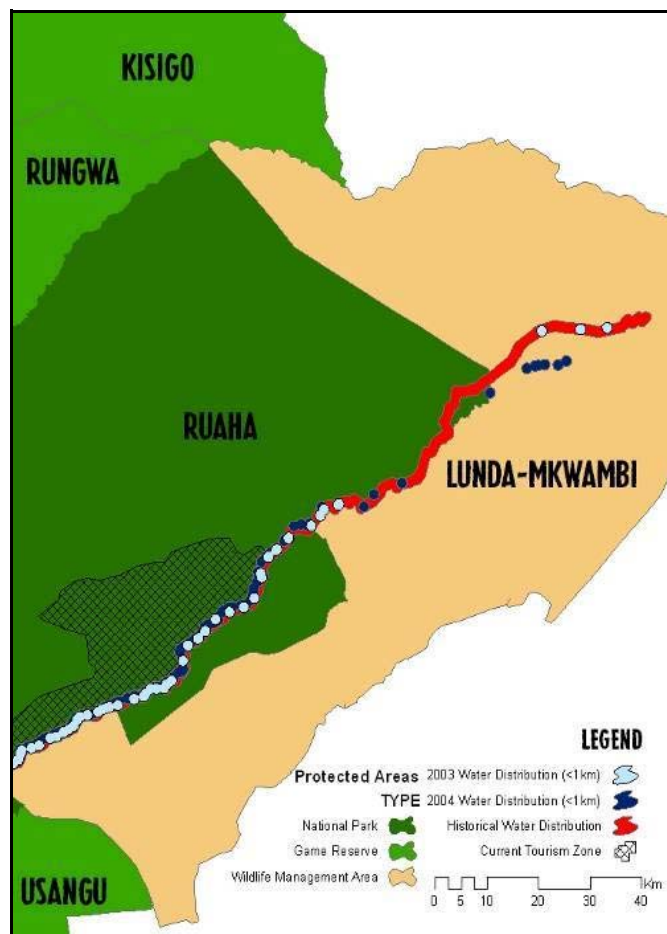
words, in addition to the loss of the Ruaha River, Ihifu Swamp, the largest and only "protected" wetland in the Ruaha ecosystem has also been severely affected.

The economic losses are equally significant. Probably the most immediately noticeable loss is the future tourism potential in eastern Ruaha N. P. and Lunda-Mkwambi pilot Wildlife Management Area. It is difficult to put a dollar value on the lost potential, because tourism in RNP has actually increased during the last 11 years, but during this time, visitor satisfaction began to decline, perhaps in part due to crowding along the river drive during peak season. Because tourism in Ruaha is mostly concentrated within less than 10% of the park, future development will have to be spread out if Ruaha is to maintain its wilderness character.

Another wildlife-related cost can be seen in the Mtera Fishery, which has declined substantially with the shrinking of Mtera Reservoir. And reaching far beyond the ecosystem, are the costs of reduced hydroelectric production. DANIDA noted that Tanzania's electricity is the most expensive in East Africa which together with a lack of reliability, constitute major constraints to in-country industrial development.

As we work toward 'fixing' the Ruaha River, it is important to consider both the ecosystem services it provides (fisheries, hydropower, tourism potential) and its value to wildlife, not only depending on the River itself, but also on the Ihifu Swamp and wider Usangu Wetlands. How these complementary goals relate to each other is still unknown.

So, while our direction is clear—toward more water in the river—our destination, or exactly how much water is needed, remains a question.



some surface water remains throughout the dry season, particularly in the western (upstream) reaches of the river, none is flowing. But for other species the picture is more complex. Many water dependent species, like waterbuck and buffalo for example, must remain within about a kilometer of water. The area available for these species has declined by almost 60%, as is shown in the map. (It should be pointed out that this map shows *areas within one km of water, not surface water*, and as such, it over-represents the

effect of the 2 major hydrological disturbances, namely livestock disturbances in Usangu Game Reserve and water abstraction upstream. Cattle grazing in particular has its own direct effects on wildlife. In 2003, WWF and WCS conducted an aerial survey of Usangu Game Reserve, which revealed that the Ihifu Swamp, once teeming with elephant, hippo, buffalo, topi, and tens of thousands of waterbirds, was virtually overrun with livestock. During that survey the ratio of livestock to wildlife counted was more than 150:1. In other

FORS
P.O. Box 692
Iringa
Tanzania

Phone:
255 26 2700424 (Kate)

Email:
friendsof ruaha@yahoo.com
www.friendsof ruaha.org

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like to get in
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contact any of
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at the postal or
email addresses
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page.

Tanzania:
National Bank of Commerce
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NBC IBD SWIFT:
NLCBTZTX
Iringa Branch
Iringa, Tanzania
Branch code: 851528
Friends Of Ruaha Society
Account No.
028103002483

Overseas:
The Ruaha Trust
Courtts & Co. Duncannon
Branch
4440 Strand London WC2R
0QS

FORS Environmental Education Teachers Are Experts!

Follow-up visits to schools are an important part of FORS' Environmental Education Program. Recently, during one such visit we were delighted to be told by the Ward Education Officer that, *"the Idodi teachers were experts at the Klerruu workshop in Nzibhi!"*

In January 2005, teachers from Ismani, Idodi and Pawaga districts took part in a workshop run by Klerruu Teachers' Col-

lege, Iringa. The workshop focused primarily on participatory teaching techniques. Teachers from Idodi were already familiar with the methods introduced as a direct result of their involvement with FORS' Environmental Education Program. From the start we have emphasized learner-centered constructivist methodologies such as role-plays, group discussion, projects and field work. Teachers working with the FORS program were thus able to help lead and en-

courage others as they explored these new ways of thinking about teaching and learning.

The teachers' confidence was enhanced as a result of this experience and they are very positive about their ongoing work with FORS' Environmental Education Program:

"No matter how busy we are, we always have time for FORS!"- Teacher from Mlowa

"Congratulations to FORS who support and enable us to effectively teach environmental conservation for the benefit of us and future generations"-Teacher from Kitaneva.

Learning Lab at Msembe

Continuation of page 8

including insects, dung, feathers, tracks, seeds

7. A solar-powered computer/audio center
8. Activities that highlight the current urgent issues facing Ruaha, including that of the drying of the Great Ruaha River.
9. Field Guides

We are in close collaboration with Charles Ngendo, RUNAPA'S Community Outreach Coordinator as we plan

for this project. We have current support in the form of expertise and research from environmental educators Val and Leslie Veirs from the United States (see article page 2) and the Wildlife Conservation Society's Rungwa/Ruaha Project. In addition, we hope to have active input and participation from the Msembe teachers and students as we commence work on this project before the end of 2005. If you are interested in contributing to this exciting project please email us at:

friendsof ruaha@yahoo.com

UNDP Assessment Visit

In November 2004, Kate, Anna-Maria and Sarah went to Dar and met representatives from UNDP, who showed great interest in FORS' Environmental Education Program. They encouraged us to apply for one of their small development grants of up to \$50,000.

FORS has submitted a proposal to bring the Environmental Education Program to Pawaga Division, which is adjacent to Idodi Division along the eastern border of Ruaha National Park. As these teachers and

students are also living alongside this precious protected area it is the obvious next step in environmental education in the Ruaha ecosystem.

This May, two representatives from UNDP came to Iringa to talk through our proposal. Although Anna and Sarah were out in the field, Chris and Kate were in town and had a long meeting with them to discuss every detail of our proposed program. They seemed to be impressed with what they heard!

In September, our proposal will be presented to a steering committee who will select projects for funding.

FORS Environmental Education Receives Generous Funding

Mrs. Ans de Winter and Mr. Harry Vlek from Holland made a recent trip to Ruaha National Park. They liked it so much that they are coming back later this year, this time in part to visit FORS' Environmental Education Program in Idodi that de Winter and Vlek are generously funding this year.

Ans and Harry are consultants who assist with purchasing for several textile and daily needs supermarket companies in Europe. The partners have started a network of offices in the countries where the products are sold (mostly developing Asian countries) which allows them to follow markets, follow-up on orders and help buyers in many ways. The work takes de Winter and Vlek, along with their buying teams, all over the world, including recent trips to China, Bangladesh, India, Pakistan, Philippines, Indonesia, Turkey, Syria, Vietnam and Sri Lanka.

During a recent tour, de Winter and Vlek visited Ruaha National Park. There they met Sue Stolberger and learned about Friends of Ruaha. Mr Vlek says that, "the combination of preservation of environment and assisting the local population in order to give them understanding, schooling and even jobs gave us the inspiration to support FORS. We will certainly come back very soon in order to see with our own eyes what is developing."

The funding from Harry and Ans is providing support for this year's Environmental Education Program in Idodi, from teacher trips to the park, to FORS' ongoing teacher training and follow-up visits, to continued development of curricular activities and materials. It is this kind of generous support that allows FORS to continue assisting local teachers in their efforts to provide relevant environmental education to their students. FORS thanks Ans de Winter and Harry Vlek for this timely and generous funding.



Subscription Form

Friends Of Ruaha Society is a Non-Government Organisation registered in 1984 with the Registrar of Societies, Tanzania under Charity Number SO 6394
FORS, P.O. Box 692, Iringa, Tanzania
email: FORS@iringanet.com, website: www.friendsof ruaha.org

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Account No. 028103002483

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Account No. 49773270

We welcome new and old members,
the greater our membership the better our ability to achieve
our aims and objectives.

Those who would like to become a member for the present year are requested to fill in this form and send to the address mentioned above or contact FORS by email!

Those with an account in Tanzania wishing to continue to subscribe by Standing order are requested to fill in the necessary form (each bank has its own) and ask their bank to pay their subscription or make an annual donation on their behalf on the 15th of January each year without further reference to them. Donations made in this fashion are tax deductible under Tanzanian law.

Membership fees	Student/Volunteer	Individual	Family	Corporate
Tanzanian citizen (Tsh)	2,000.00	10,000.00	24,000.00	200,000.00
Expatriate (Tsh)	12,000.00	20,000.00	50,000.00	200,000.00
Overseas (US\$)	24.00	40.00	100.00	400.00
Overseas (£ Sterling)	15.00	25.00	55.00	225.00

Cheques in Tsh. Should be made payable to FORS and sent to P.O.Box 692, Iringa
Cheques in Dollars or Sterling should be made payable to the Ruaha Trust and sent to:
Emma Forrester, 16 Fernwood, Albert Dr., London SW19 6LR, UK, emma@yseski.co.uk

To avoid confusion, please let us know if you have made a payment to the bank!

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