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LONG LIVE THE KING

THE FUTURE OF EAZA'S KING
PENGUIN POPULATION



Gene genius

HOW GENETIC STUDIES CAN BENEFIT THE GREAT APES



Age of aquariums

MEET JOAO FALCATO, CHAIR OF EAZA'S AQUARIUM COMMITTEE



Reaching through teaching

HOW CAN EDUCATORS AT THE ZOOLOGICAL SOCIETY OF LONDON (ZSL) HELP TACKLE A RHINO POACHING THREAT 8,000KM AWAY IN ZAMBIA? IT ALL BEGAN WITH AN EAZA CAMPAIGN

Kate Oliver, Education Officer, Zoological Society of London and Cathy Dean, Director, Save the Rhino International

In North Luangwa National Park, in the spectacular Luangwa Valley of northern Zambia, a conservation education project is ambitiously attempting to change the hearts, minds and, ultimately, behaviour of local communities. The park contains a wide variety of species including elephants, buffalo, hippo, zebra, lion and wild dog; more recently, it has become home to a population of reintroduced black rhino. Technical support for running the park is provided by the North Luangwa Conservation Programme (NLCP), a partnership between Frankfurt Zoological Society and the Zambian Wildlife Authority. These organisations work together to protect the park's impressive biodiversity, from training wildlife officers to developing road access to remote areas of the park.

In the 1970s, Zambia had Africa's third largest black rhino population, estimated at 12,000. Approximately 4,000 lived in the Luangwa Valley and about 2,000 of those were found in North Luangwa National Park. By 1990, these had been virtually

exterminated and black rhino were declared nationally extinct in 1998.

NLCP was originally set up to bring elephant poaching under control. The success of the law enforcement and community outreach programmes led to a proposal being put forward in 2001 to reintroduce a founder population of black rhinos. Translocations took place in 2003, 2006, 2008 and 2010 bringing a total of 25 black rhino to NLNP to establish a viable population of black rhino; the ongoing challenge is to ensure that they have sufficiently adapted and are protected from poaching.

Traditional measures focused on security: anti-poaching patrols, observation posts, aerial surveillance, telemetry and so on all play a vital part in protecting North Luangwa's rhinos. But community engagement was key, and a fledgling education strand was launched in 2001 – now named Lolesha Luangwa, meaning 'Look after Luangwa'.

After 2008, following EAZA members' fundraising for the 'Save the

Rhinos' 2005-6 campaign from which NLCP benefited, Lolesha Luangwa expanded considerably. A Lolesha Luangwa Officer (LLO), Sylvester Kampamba, made regular visits to 22 schools in the Game Management Areas (GMAs) around the National Park, usually involving around 1,400 children per year in Grade 5 (around 11 years old). The communities in these GMAs are acutely involved in conservation issues facing the park, from poaching to destructive farming practices, and so were key audiences for the programme's conservation messages. Save the Rhino International (SRI), a UK-based NGO, continued to support NLCP's black rhino work and education programme after the EAZA Rhino Campaign and, by 2012, Lolesha Luangwa had become a popular and informative part of school life for children in North Luangwa, but Claire Lewis, Technical Advisor for NLCP, knew it could achieve so much more. Through SRI, she sought education expertise to develop and expand the programme, to evaluate its impact,



CLOCKWISE FROM FAR LEFT: MANGWERE SCHOOL PUPILS PROUDLY SHOWING OFF THEIR ACTIVITY BOOKLETS; IN THE CENTRE IS MICHAEL ELIKO, THE LLA, IN THE BRIGHT BLUE T-SHIRT. THEY ARE ALL IMITATING A RHINO WITH THEIR HAND SIGNALS! © NLCP; MANGWERE SCHOOL CAME FIRST IN THE 2012 CONSERVATION CELEBRATION DAY IN CHAMA DISTRICT. AS PART OF ITS PRIZE, THE SCHOOL WAS GIVEN A SIGN, WHICH IS BEING HELD ON THE LEFT BY SYLVESTER KAMPAMBA, LLO, AND ON THE RIGHT BY MICHAEL ELIKO, LLA © NLCP; FAR LEFT, BACK ROW, PAUL BAMFORD FROM ZSL, AND NEXT TO HIM MICHAEL ELIKO, LLA AT LOLESHA LUANGWA. FAR RIGHT, BACK ROW, CLAIRE LEWIS, TECHNICAL ADVISOR TO NLCP, AND NEXT TO HER, KATE OLIVER FROM ZSL. IN BETWEEN ARE THE CONSERVATION TEACHERS FROM ONE OF THE FIRST TWO WORKSHOPS HELD IN MARCH 2013 AT BACHELORS CAMP IN NORTH LUANGWA NATIONAL PARK, ZAMBIA © ZSL; ONE OF THE PERFORMANCES AT THE MUKUNGULE CONSERVATION CELEBRATION DAY IN OCTOBER 2013. IN THIS SCENE, THE POACHERS ARE STANDING TRIAL IN A COURTROOM DECORATED WITH A PICTURE OF THE ZAMBIAN PRESIDENT. THE JUDGE IS ABOUT TO PRONOUNCE SENTENCE © NLCP



and to take its aims beyond the level of just teaching children knowledge about their environment; she wanted to affect their attitudes and behaviours as well.

Enter ZSL. In May 2012, ZSL signed a three-way agreement with SRI and NLCP to become the education mentor to the programme. Paul Bamford from ZSL and Susie Offord from SRI visited the project in July 2012 and began a major review of the programme's curriculum – changing objectives to reflect attitudinal and behavioural goals, and creating new resources for both teachers and pupils. The curriculum was given a clearer narrative structure: at the start of the year the children learn life-science topics (lessons on plants, birds and reptiles), then link them into ecological processes like food chains, and they finally identify conservation problems and solutions in their local area. All the examples used in lessons are tailored to life in North Luangwa – in a lesson on water, classes make a plan to clear up a polluted water source in their area, and in another they write stories about how other animals would be affected if rhinos in Luangwa were to disappear.

Zambian school timetables are

wonderful in providing space for local extra-curricular programmes, so children in participating schools have a special Lolesha Luangwa lesson once a week, led by their Conservation Teacher (a volunteer from the schools' teaching staff). Sylvester and his Assistant (LLA), Michael Eliko, visit every school five times a year to deliver additional presentations, using black rhino conservation as an example to build on the content that the weekly lessons deliver.

The new curriculum hit desks in January 2013 and is just coming to the end of its first academic year of use. In March 2013, Paul and Kate Oliver (another educator from ZSL) travelled back to Luangwa to run training workshops for all the Conservation Teachers and Head Teachers, to fully embed the new curriculum, identify any issues and to learn as much as possible about how the schools were using it.

Sylvester and Michael also benefited from ZSL educators' mentorship during the trip. Although they are highly skilled presenters, they have no formal teaching background, and so have been hungry for information from Paul and Kate on learning styles, types of learning evaluation and much

more; this has raised their confidence in their work. Sylvester and Michael write regular reflective evaluations on their lessons and email them to Kate in the UK, who can offer suggestions and tips to continue their ongoing development.

A final key contribution by ZSL has been to update the monitoring and evaluation methods of Lolesha Luangwa. For many years, this has been based on feedback letters from teachers and outputs at annual Conservation Celebration Days, when children from each school travel to a central location to perform plays about rhino conservation, sing songs and display poems and pictures they've worked on throughout the year. The children look forward to these exciting days all year, and families and local people come to watch the performances – for some their only source of conservation information.

With the new aims of changing local attitudes and behaviours, deeper evaluation methods were needed. But how can you measure a person's feelings? In Zambia there is a strong culture of politeness that often gets in the way of finding out people's honest opinions – especially if they are negative! New Activity Books for



the children to use in lessons were designed with this in mind, including drawing and writing tasks about their local environment that can later be analysed. And last month, the first interviews with families and adult members of the community were undertaken at Conservation Celebration Days – year on year these will build up a picture of if and how local feelings have changed.

What's next for Lolesha Luangwa? A recent generous grant from USFWS has enabled the purchase of a truck to transport children into the National Park itself, to experience their local protected wildlife and habitats for the first time. These bus visits will start in 2014.

One of the best things about the programme, however, is how it has spread. All the organisations involved, from NLCP to ZSL, SRI and funders, agreed to share the new learning resources for teachers and children with other organisations. As a result, the curriculum is being used by environmental education programmes across Zambia and Africa, and is being adapted for possible use on an elephant

ABOVE: ONE OF THE PERFORMANCES AT THE MUKUNGULE CONSERVATION CELEBRATION DAY IN OCTOBER 2013. THE BLACK RHINOS ARE BROWSING ON SHRUBBERY © NLCP **BELLOW:** CHILDREN FROM ONE OF THE 22 SCHOOLS AROUND THE BOUNDARIES OF NORTH LUANGWA NATIONAL PARK THAT PARTICIPATE IN LOLESHA LUANGWA ("LOOK AFTER LUANGWA"). THEY ARE EACH HOLDING AN ACTIVITY BOOKLET, DESIGNED IN LATE 2012 AND LAUNCHED IN JANUARY 2013 © ZSL



protection project in Thailand. Local dignitaries in Zambia have been impressed by the programme's wide-ranging success, and the ultimate dream of including environmental education into the Zambian National Curriculum seems a little closer to reality.

We hope that the example of

Lolesha Luangwa shows that donating time and expertise from zoo educators (just a couple of days a month in this case) can result in huge benefits to *in situ* conservation programmes. Is it working? Well, to date – touch wood – no rhinos have been poached in North Luangwa since the reintroductions. Long may that continue!