



EFN grantee Shivani Bhalla (center) and the Ewaso Lions team collect data during the collaring of a lion in Samburu National Reserve in Kenya. – © Paul Thomson

## Shivani Bhalla: In the Field with Lions and Warriors



Shivani Bhalla is founder of the Ewaso Lion Project. – Photo courtesy of Shivani Bhalla

### SAMBURU, NORTHERN KENYA –

Throughout the world, EFN grantees are engaged in important conservation work. For this issue of *EFN*ews, we interviewed EFN Professional Development Grantee Shivani Bhalla, who is founder of the Ewaso Lion Project and a Ph.D. candidate in zoology at the University of Oxford. We talked about Shivani's exciting work with large cats in Kenya.

**EFN:** Why did you decide to study predators?

**SB:** I've always had a passion for big cats. I was born and raised in Kenya, and my parents used to take me on safari. When I was 8 years old I spotted my first



Pablo Granados-Dieseldorff advocates tapping the knowledge of local fishers. (Story, p. 4)

### In this issue...

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In the Field: Shivani Bhalla.....	1
Integrating Artisanal Fishers' Knowledge into Fisheries Conservation.....	4
EFN Opportunities.....	5
Reaching Corporate Funders through Conservation Events .....	6
Early EFN Grantee Remains 'On the Job' .....	7
EFNNotes from the Field.....	8
Grantee Publications .....	9



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Samburu River, Samburu National Park, Kenya – © Mauri Rautkari / WWF-Canon.

cheetah in Samburu National Reserve. Ever since then I've had a special fondness for cheetahs, and even raised one at the Nairobi Animal Orphanage in 1999. When I began my undergraduate studies in 1996, I focused on the human impact on cheetahs in the Masai Mara National Reserve.

In 2002, I moved to Samburu, hoping to initiate a cheetah study. Beginning work on my master's degree, I searched for cheetahs for three months, but did not find any; however, I saw lions every day. Since no one had undertaken a lion study in this area before, I decided that this would be a good opportunity for me. Ironically, as soon as I started researching lions I began seeing cheetahs every day!

**EFN:** You are currently pursuing a Ph.D. in zoology at the University of Oxford in England. What is the basic question you are trying to answer for your doctoral work?

**SB:** I am looking at the factors affecting the population dynamics of lions inside protected areas compared to lions in community areas. Basically, I'm looking at how variations in prey and changes in human dynamics affect this fringe lion population.

**EFN:** What are the most exciting results so far?

**SB:** The most exciting results are the differences I have found between lions that live outside protected areas versus those that live inside protected areas. Lions living outside protected areas, in community areas, are solitary, less social, and generally don't announce their presence. They hide during the day and come out only at night. Their cubs learn how to hunt and survive in the wild earlier than cubs in safer areas. In comparison, lions in the protected reserves are social and generally stay together in loose units. In Samburu National Reserve they are also active during the day.

Another exciting result is seeing how the local communities that we work with are now reacting to lions living near their villages. They are surprisingly tolerant, interested, and enthusiastic about wildlife! It is because of their tolerance and interest that our lions in the community area have successfully raised cubs to more than a year old.

**EFN:** What have been your proudest moments?

**SB:** Well, it took more than a moment, but I am very proud of the development of the Warrior Watch program. I started this program in January 2010 when I brought together six warriors from Westgate Community Conservancy and trained them in conservation, predators, ecology, and more. These warriors, who were previously neglected when it came to decision making on wildlife issues, are now engaged and actively involved in wildlife conservation.



**Left to right:** Lion, Masai Mara National Reserve, Kenya – © Fritz Pölking / WWF; Cheetah observed by zebras, Masai Mara National Reserve – © Martin Harvey / WWF-Canon.

In June we had more than 130 warriors come together to meet with wildlife wardens from the region. It was the first time that Samburu warriors were engaged in conservation. In January of this year we expanded the program and trained an additional nine warriors.

One of my best moments was seeing the warriors who started the program in January 2010 training the new recruits. Our 2010 warriors can now read and write all the animals' names, record GPS sightings of wildlife, and much more. Definitely an achievement to be proud of!

**EFN:** What impact did the grant from EFN have on you as a conservationist?

**SB:** Thanks to EFN, I was able to attend the Society of Conservation Biologists Conference in Beijing in 2009, where I received the award for "Africa's Young Women Conservation Biologist of the

Year." I received this award in front of an audience of more than 1,000 people. I was very nervous at first, but as soon as I started talking about Samburu, it all came together and I was able to deliver my message effectively. I also presented my work on lions to another audience during the conference, which gave me great confidence in speaking about the project.

This was a fantastic learning experience for me. I established new connections with various colleagues in other areas and this has helped me gather information, references, and advice on predator research and conservation. During the conference I also learned about new techniques such as DNA identification of predators (especially for conflict-related issues), camera-trapping techniques, and the effectiveness of scout efforts in the field. We have now started camera trapping and improved our scouts program as a result.

**EFN:** Do you have any last comments you'd like to share with your fellow EFN grantees?

**SB:** I highly commend everyone working on species conservation projects. Fieldwork is difficult and we face many challenges, but it is important to keep going and not be discouraged. All your efforts are making a difference in conservation. Congratulations to all the grantees for their successes! I am honored to be part of such a distinguished group.



**Left to right:** Snorkeling in the southern Belize reef, former Train Fellow Pablo Granados-Dieseldorff assesses the cross-shelf connectivity of juvenile snappers; Pablo (right) and marine biologist Vanna Noralez collect data. – Photos courtesy of P. Granados-Dieseldorff

## Integrating Artisanal Fishers’ Knowledge into Fisheries Conservation



*Courtesy of P. Granados-Dieseldorff*

Fisheries are an important source of food, income, and work for communities around the world. In the Caribbean, like many other places, artisanal fisheries—fisheries pursued at small scales using traditional methods—are very common. Artisanal fisheries usually involve many fishing methods (e.g., hand line fishing, dive gathering, netting and trapping), target a variety of species (e.g., snapper, lobster, conch), and are low capital and labor intensive using migrant and seasonal workers. Although the impact of artisanal fisheries has been studied, experts still struggle to address basic challenges such as controlled

access to common resources, geographically misplaced legislation, piecemeal governance, and underrepresentation of key stakeholders in management strategies.

For decades, scientists and resource managers believed that successful fishery management required extensive research, sophisticated models, and highly trained experts. But in the mid-1980s, this concept began to change as scientists and resource managers began to recognize and incorporate local and indigenous expertise in conservation science. This “reinvention of fisheries management” promoted simpler approaches that could be more effective and less expensive to implement.

Conservationists began discussing collaboration among scientists and fishers and collation of different knowledge systems. Conservationists found that in data-sparse situations, fishers’ knowledge filled the gap and provided increased understanding of stock structure, inter-annual and geographical variability in abundance, larval and juvenile behavior, spawning aggregations and locations,

migration, currents and hydrography, and sea turtle nesting site fidelity.

In 2008, Pablo Granados-Dieseldorff began his doctoral studies on fisheries conservation and management in the Gulf of Honduras. Located in the extreme western Caribbean Sea, the Gulf of Honduras is a 10,000 km<sup>2</sup> area that includes coastal and marine waters of Belize, Guatemala, and Honduras. It forms the southern basin of the Mesoamerican Reef, a highly diverse ecoregion of global importance and a priority place for WWF’s conservation work.

Pablo found that harvests from artisanal fisheries were glaringly absent from national landings statistics and associated fisheries policies. With a strong interest in using a holistic approach to fisheries management, Pablo became a proponent of using fishers’ knowledge to broaden the information available for conservation and management in this tri-national region. While admitting that anecdotal information from fishers was only a start, Pablo advocated the involvement of fishers, natural scientists, and social

scientists in the design, conduct, and review of research as the most promising strategy for attaining better management. This recognizes and values the fishers' expertise by collecting all knowledge in a systematic fashion and giving equal weight to different ways of understanding fisheries issues.

Fishers' participation in the science and management of fisheries empowers local knowledge-holders to contribute to biodiversity governance. Ultimately this type of collaboration will improve fisheries management and conservation and could also contribute to the safeguarding of traditional knowledge and practices. This approach is particularly powerful for gathering information about management at the regional level.

Pablo first worked in the field with his current doctoral advisor through a group called TRIGOH (Tri-national Alliance for the Conservation of the Gulf of Honduras). Formed in 1996, TRIGOH comprises nine local conservation-oriented NGOs that have direct relationships with local coastal

communities. Through them, Pablo gained firsthand experience of how inclusive approaches—involving fishers in the management process—could significantly improve the broader scientific understanding of the resources in question. The integration of artisanal fishers' knowledge also pinpoints biodiversity hotspots for management, provides field-based suggestions for management, and leads to increased management effectiveness through stakeholder involvement.



*Pablo and Vanna conduct fieldwork off the coast of Guatemala. - Courtesy of P. Granados-Dieseldorff*

Currently, Pablo is using a holistic approach to small-scale fishery ecology and management in the southern Mesoamerican Reef region shared by Belize and Guatemala. In his work, fundamentals of ecology, fishery science, and oceanography are integrated—first to understand and describe the ecosystem, and ultimately to inform conservation and management. He is interested in identifying exploited fish populations and species threatened with extinction in order to suggest measures for rebuilding them, along with their associated ecosystems.

*Pablo Granados-Dieseldorff is a marine fisheries ecologist and a former Russell E. Train Fellow from Guatemala. He worked as the manager of a marine protected area in the Gulf of Honduras before enrolling in graduate school, and is currently a trainee under Dr. William D. Heyman's supervision in the Applied Biodiversity NSF-IGERT Doctoral Program at Texas A&M University.*



## EFN Opportunities

### Current & Upcoming EFN Grant, Fellowship and Workshop Opportunities

#### NOW ACCEPTING APPLICATIONS

##### EFN - Select WWF Priority Place Areas Professional Development Grants

These grants provide support for mid-career conservationists to pursue short-term, non-degree training to upgrade their knowledge and skills through short courses, workshops, conferences, and study tours, or through practical training such as internships and professional attachments. Professional Development Grants are awarded throughout the year, on a first-come, first-served basis, given the availability of funds.

**For more information: [worldwildlife.org/efn](http://worldwildlife.org/efn)**

#### NOW ACCEPTING APPLICATIONS

##### EFN - Select WWF Priority Place Areas Conservation Workshop Grants

These grants support nongovernmental organizations, community groups, government agencies and educational institutions in conducting training workshops. Costs covered include travel expenses, meals and accommodations, room rentals, materials and other related costs. Administrative costs should be no more than 15 percent of the requested amount. Typical grants are between US\$1,500 and US\$7,500.

**For more information: [worldwildlife.org/efn](http://worldwildlife.org/efn)**



Edwin Wanyonyi (right) and his associate, Dr. Fondo, join in the planting of trees during a fundraising event. - Photo courtesy of E. Wanyonyi

## Reaching Corporate Funders Through Conservation Events

Biodiversity is a point of national pride in Kenya, a country that is home to about 30 percent of East Africa's wildlife. Wildlife is found primarily in Kenya's 10 marine and 54 terrestrial parks and forms the base for the tourism industry, research, and education.

Wildlife conservation in Kenya faces many challenges, including a decline in wildlife populations, both inside and outside protected areas; illegal trade in wildlife species and their products; human settlements and conversion of wildlife migratory routes into commercial areas; encroachment on wildlife parks and reserves due to human population growth; human-wildlife conflict; climate change, which is augmenting drought in some places and floods in others; and volatility in the international tourism market. Managing these challenges requires substantial human and capital resources.

In Kenya, tourism revenue accounts for 65 percent of the Kenya Wildlife Service's (KWS) operational budget. But the influx of

these funds is volatile, affected by internal politics, international economic conditions, and other factors that can cause revenue to drop significantly. This decreased funding can threaten the integrity of the park system itself.



Publicity flyer for the "Cycle with the Rhino" fundraiser.

To address the myriad of issues facing KWS, Edwin Wanyonyi, KWS director of resource allocation and a 2009 EFN professional development grantee, began a conservation fundraising campaign by identifying interested individuals, development partners and

corporations through several special events. The aim of the campaign is to build the Kenya Wildlife Service Fund, an endowment with a goal of raising US\$100 million over 10 years. Interest earned from the KWS Fund will support conservation, while the principal will remain untouched and be allowed to grow.

To begin this process, Edwin developed two events: "To Hell's Gate on a Wheelbarrow" and "Cycle with the Rhino." To Hell's Gate is an annual June event held at Hell's Gate National Park, during which individuals and corporate donors are invited to race one another using wheelbarrows. For the Cycle with the Rhino event, held at Lake Nakuru National Park each September, individuals and corporate donors are permitted to cycle in the national park under the watchful eye of park security.

KWS hopes that these annual events will raise US\$1 million annually from participating individual donors and key corporations in the region. The sponsorship for these events has come from corporate donors such as Standard Chartered Bank, Safaricom, Kenya Electricity Generating Company (Kengen), Kenya Commercial Bank, and Kenya Airways.

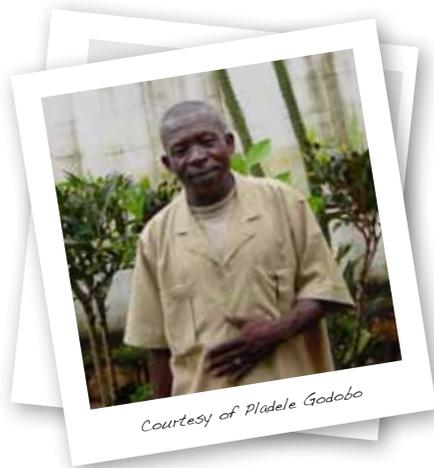
Another fundraising initiative is the Kenya Wildlife Adoption Program, which gives individuals and corporations opportunities to sponsor animals at the Nairobi Animal Orphanage. The orphanage is famous for caring for abducted, abandoned, and injured wild animals. Support from the Kenya Wildlife Adoption Program goes directly to the upkeep of the animals and provides food, medicine, translocations, cage construction, maintenance repairs, and supplies. Fifty percent of each wildlife adoption goes to the KWS Fund and provides a sustainable source of funding for wildlife conservation. In 2010, KWS raised a total of US\$200,000 from animal adoptions alone.

These fundraising programs are off to a good start and Edwin is optimistic that KWS will meet their 10-year goal. EFN sponsored Edwin's participation in the 11th General Assembly of the Latin America and Caribbean Network of Environmental Funds, which was instrumental in helping him to understand how to influence the direction of Kenya's conservation fundraising initiatives for endangered species and marine parks.



EFN grantee Pladele Godobo was an original staff member on the project to habituate lowland gorillas to human presence in Dzanga-Sangha National Park. – © Chloe Cipolletta

## Early EFN Grantee Remains ‘On the Job’



In 1998, Pladele Godobo received a Train Scholarship to pursue a diploma in forestry and freshwater at the Technical College of Sustainable Development in Grimari, Central African Republic (CAR), and a certificate in the same field from the University of Bangui. A passionate conservationist, Pladele was among EFN's early grantees. For more than

10 years now, Pladele has worked with WWF projects that conserve the landscape known as the Dzanga-Sangha Protected Area in CAR.

The land is home to western lowland gorillas and other endangered species, such as the forest elephant, bongo, buffalo and chimpanzee. WWF works in the Dzanga-Sangha Protected Area to protect the forest ecosystem and promote sustainable development. Tourism is economically important there, with half of park entry fees supporting park management and 40 percent going to promote rural development projects in the local community. The remaining 10 percent goes to a government fund.

Led by WWF, the Dzanga-Sangha project was among the first experimental ecotourism projects that aimed at habituating gorillas to human presence so that visitors could come closer to the animals. Pladele was

one of the original staff members on this project, and he continues to work there as an ecological program coordinator focusing on monitoring and inventory.

EFN's support enabled Pladele to learn the skills necessary to manage and monitor new projects in Dzanga-Sangha. Pladele is an accomplished guide and is the author of *Following the Gorillas at Bai-Hokou, Dzanga-Sangha National Park*. Today, having already achieved a lot for this protected area, Pladele remains ambitious and hopes to continue his studies in wildlife management.

*This story is by Clemence David, who worked as an intern at WWF while participating in American University's Washington Semester Program. She is now pursuing a bachelor's degree in international business at Euromed Management in Marseille, France.*

# EFN Notes from the Field



2003

**Nellie Chimwemwe**  
**Chiphwanya, Malawi**

EFN Professional Development Grantee

With EFN support, Nellie Chimwemwe completed an advanced certificate in environmental education. A few years later, she earned a master's degree in environmental education from Rhodes University, South Africa. Today, Nellie is the education manager for Lilongwe Wildlife Centre in Malawi, a wildlife rehabilitation sanctuary for orphaned, confiscated and injured wildlife.

Founded in 2007, the center is Malawi's only wildlife sanctuary. The center rescues and rehabilitates a wide variety of wild animals including lions, hyenas, pythons, leopards, duikers and tortoises, and has released hundreds of rescued primates and bush babies back into the wild. Nellie plays a critical role in the organization by developing educational programs for visiting school children, adults, and tourists, and by raising funds for the center's projects.

2010

**Eric Isai Ameca y Juarez, Mexico**

Russell E. Train Fellow

Eric Isai Ameca y Juarez was selected by his university, Imperial College London, to observe the UN Climate Change Conference, COP 16, in Cancun, Mexico. There he networked with key representatives of the Mexican commissions for biodiversity (CONABIO) and protected areas (CONANP). He also sought guidance from experts on his doctoral research topic, which is the development of vulnerability assessments for terrestrial mammals subject to abrupt population declines due to extreme natural events (ENE).

ENEs are a permanent latent threat to wildlife populations. This is important because most of our current conservation strategies focus on threats closely related to human activities, which are more predictable and (at least in theory) easier to tackle. To address this issue, Eric created a database of ENE-related population die-offs and identified some of the biological components shaping vulnerability to population crashes caused by different types of ENEs.

He is now investigating the intersection of the spatial distribution of terrestrial mammals known to have experienced non-predation die-off and the location of ENEs, with the goal of illustrating the geography of risk to local extinctions.

2010

**Marleine Aboumgone, Gabon**

Russell E. Train Scholar

In August 2010, Marleine Aboumgone began her first year of studies at the College of African Wildlife Management in Tanzania with support from EFN and the WWF Netherlands Forest Program. Upon completing her degree in July 2011, she will return to Gabon, where she will share her new knowledge and help address conservation challenges in Africa.

Marleine began her career in conservation in 2007, as an intern in the WWF Gabon Minkebe Program Office. After graduating with a diploma in forestry from Ecole Nationale des Eaux et Forêts, she became a junior consultant for the Minkebe/TRIDOM Gabon Program, where she worked with communities to promote sustainable hunting in the buffer zone of Mwagna National Park. She also drafted a management plan for the park.



All snapshots courtesy of grantees.

2009

**Erna Ikoso, Cameroon**

EFN Professional Development Grantee

Erna Ikoso used her EFN grant to attend a two-week course in South Africa on the sustainable management of natural resources. After completing the course, Erna says she was ready to “spring forward in her career.”

In July 2010, Erna attended a WWF-sponsored meeting for women working in conservation in the Congo Basin. For her, this gathering was a unique opportunity to meet and learn from other women from the region. She was inspired by their work on natural resources, protected areas, and conservation and by how they meet the special challenges they face as women working in a male-dominated field.

In Cameroon, Erna works with women and children on sustainable management of the natural resources on which they rely.

2008

**Nguyen Manh Cuong, Vietnam**

Russell E. Train Fellow

EFN helped make possible Nguyen Manh Cuong’s graduation from the University of Missouri with a master’s degree in conservation biology. He is currently conducting research on threatened and endangered species of gymnosperm in northwest Vietnam. (Manh Cuong is at center in photo above.)

Gymnosperms are plants with exposed seeds (such as pines and ginko), which differ from flowering plants that have enclosed seeds. Manh Cuong has spent several years working in Cuc Phuong National Park, which harbors six species of gymnosperms listed in the 2007 *IUCN Red List CPNP*. With funding from the Rufford Small Grant Program, Manh Cuong conducted several surveys and regeneration studies and found these species to be extremely isolated and rare.

He hopes to conserve gymnosperm species through participatory conservation activities involving local people, park staff, and British Embassy employees. To date he has run several reforestation projects that planted more than 400 gymnosperm saplings. His project is also continually upgrading a living gene bank of gymnosperm species.

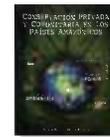
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Salinas, N., Malhi, Y., Meir, P., Silman, M., Roman Cuesta, R., Huaman, J., Salinas, D., Huaman, V., Gibaja, A., Mamani, M. and Farfan, F. (2011). The sensitivity of tropical leaf litter decomposition to temperature: results from a large-scale leaf translocation experiment along an elevation gradient in Peruvian forests. *New Phytologist*, 189: 967–977. doi: 10.1111/j.1469-8137.2010.03521.x



President Obama greets 2011 Goldman Environmental Prize winners, among them Prigi Arisandi (left of Obama), executive director of ECOTON. A 2004 EFN grant enabled ECOTON to conduct a youth workshop on river pollution. Since then, the Indonesian group has trained over 700 young "River Detectives." - Courtesy of Goldman Environmental Prize

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