



**WILD  
NATURE  
INSTITUTE**

**2012**

**ANNUAL REPORT**



## **Annual Report Photography**

All photos in this annual report by Monica Bond and Derek Lee © 2012 Wild Nature Institute  
Cover : Impala / Inside cover: Research Camp, Tarangire National park

# Letter from the Founders

2012 was an exciting and productive year for the Wild Nature Institute. Our research pushed the bounds of conventional wisdom on wildlife and forest fire, and we made fascinating discoveries in Tanzania that will help conserve that nation's threatened national animal, the Masai Giraffe.



The Institute had major achievements in all our program areas of the Western U.S. Snag Forest Campaign, Masai Giraffe Conservation Project, Tarangire Ungulate Observatory, and Northern Plains Corridor Campaign.

The Wild Nature Institute is currently working on an integrated science, education, and advocacy campaign to protect the last remaining wildlife movement corridor for rapidly declining herds of wildebeests, zebras, gazelles and other migratory animals in a biologically rich area of northern Tanzania. The reward will be a lasting conservation legacy of a critical movement corridor that, if lost, would surely be the end of the great migratory herds of this region.

In all of this, we depended on your support. Our deepest thanks,

Derek E. Lee and Monica L. Bond  
Founders and Principal Scientists

# Protecting Snag Forest Habitats



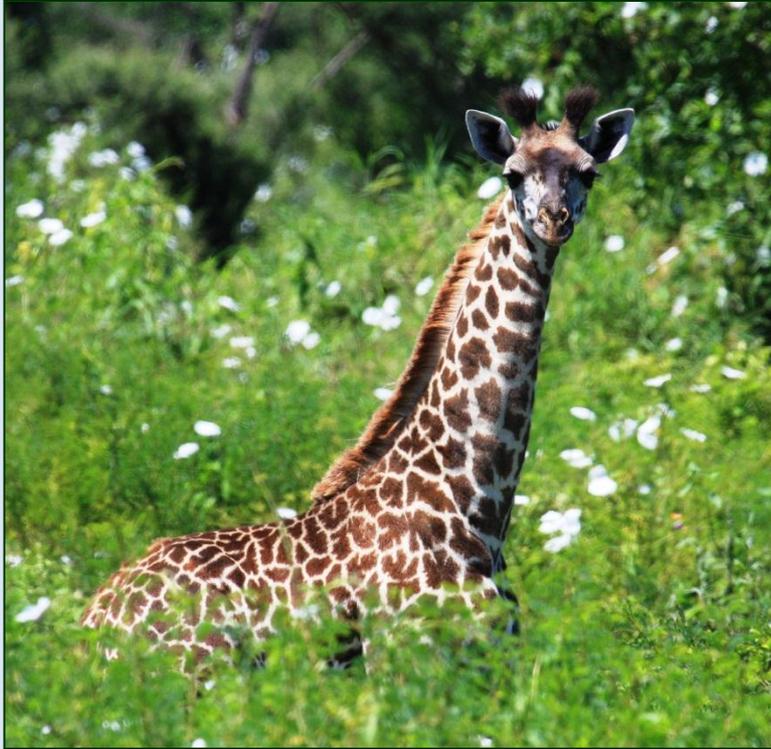
In 2012 Wild Nature Institute scientists continued studying fire impacts to Spotted Owls in the western U.S., with the ultimate goal of protecting burned and unburned forest habitat from harmful and unnecessary commercial logging.

We also continued our public outreach campaign to ensure that scientific research demonstrating the ecological value of intensively burned forests is translated into acceptance of fire and insects as important natural disturbances, thereby debunking some of the most widely used justifications for commercial logging. These efforts, combined with those of our partners, are providing much-needed legal tools to protect forests through analyses and publications that are contributing to a larger paradigm shift about the importance of intense fire in forests of the western U.S.

The first vital step to countering fire hysteria is to provide scientific data from empirical studies about fire ecology, and the relationship between wildlife and fire patterns. To date, research conducted by Wild Nature Institute scientists generated the following important results:

- A study of fire severity during a bark beetle epidemic in Southern California found that snag forests are not more susceptible to higher-severity fire than green forests, and thus logging snag forests to reduce fire intensity is ineffective and counter-productive (Bond et al. 2009, *The Open Forest Science Journal*).
- A radio-telemetry study documented California Spotted Owls in the Sierra Nevada actually preferred to forage in intensely burned forests when that habitat was available (Bond et al. 2009, *Journal of Wildlife Management*).
- A continuation of the above-described radio tracking study during the winter found that burned forests potentially represent important winter habitat for California Spotted Owls (Bond et al. 2010, *Western Birds*).
- A study of pre- and post-fire occupancy rates using Forest Service survey data and state-of-the-art statistical methodology concluded that forest fires from 1997-2007 did not cause California Spotted Owls in the Sierra Nevada to abandon their territories, as some forest managers have claimed (Lee et al. 2012, *The Condor*).
- A study of space use and diets of California Spotted Owls documented no significant difference between home-range sizes of owls in burned and unburned forests of the Sierra Nevada, countering the claim by some forest managers that fire forces owls to range farther to find food (Bond et al. in press, *Western Birds*).
- A study of occupancy rates in relation to habitat variables concluded that although very large areas of high-intensity fire in Spotted Owl territories resulted in lower occupancy rates than unburned territories in Southern California, the majority of fires in owl sites in Southern California did not cause territory abandonment (Lee et al. in press, *Journal of Wildlife Management*).
- We have conducted public presentations documenting the value of snag forest habitat for many species at scientific conferences, activist conferences, and to conservation organizations, and published an article in a popular magazine for wildlife managers.
- We are creating two short films about the ecological value of intensely burned forest using original video from our research sites in California's intensely burned forests. These films will be available on our website, submitted to environmental film festivals, and distributed through other appropriate channels.

# Masai Giraffe Conservation



The Wild Nature Institute is conducting a detailed study of Masai Giraffe, the national animal of Tanzania and an indicator species for the health of savanna ecosystems.

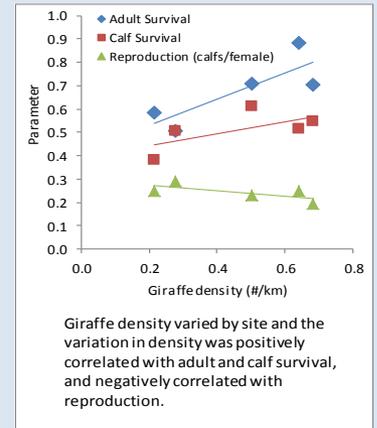
Many believe giraffe populations are doing fine, but our work with the IUCN indicates giraffe are threatened throughout their range with population declines of 30% in recent years.

We use pattern-recognition software to track 1,500 individuals throughout the Tarangire Ecosystem, so areas with the highest giraffe survival and reproduction can be identified, protected, and connected.

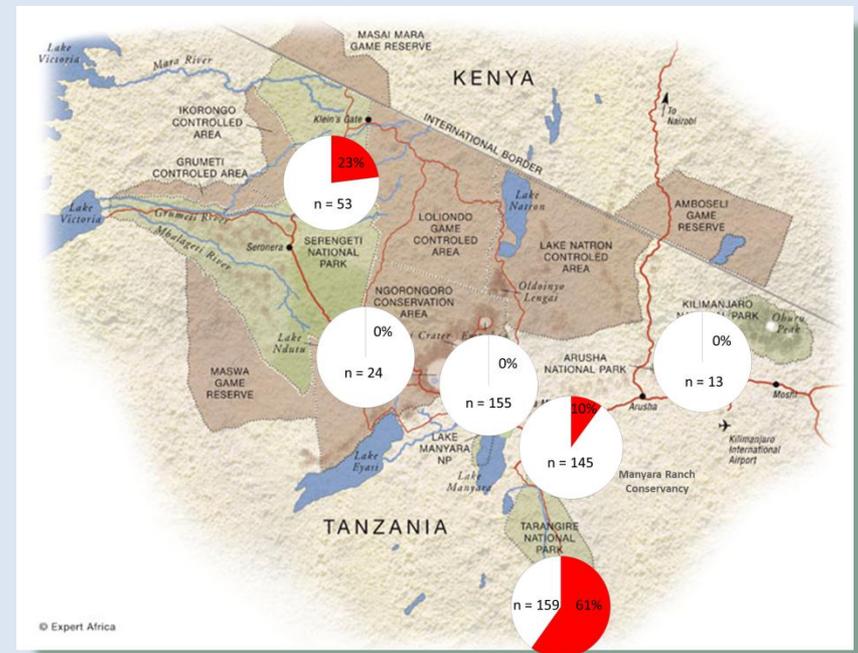
The primary objective of this year's Masai Giraffe research was to estimate population size, survival, reproductive success, and movement among different management areas of the Tarangire Ecosystem.

We found that among areas, the relationship of density with reproduction and survival indicates there may be source-sink metapopulation dynamics in this system.

We also documented previously unknown connectivity of all areas through long-distance giraffe movements. We found evidence that the most productive calving grounds are in completely unprotected village lands.



Our secondary goal for giraffe conservation was to document the spatial pattern of occurrence for the newly emerging Giraffe Skin Disease in northern Tanzania. The disjunct spatial pattern of Giraffe Skin Disease prevalence indicates there may be ecological factors contributing to the susceptibility of giraffes in different areas. We will continue to investigate this disease and attempt to assess factors contributing to variation in disease prevalence.



# Tarangire Ungulate Observatory (TUNGO)



The Wild Nature Institute's TUNGO Project developed and implemented the first ever landscape-level population research program for 19 species of ungulates (hoofed mammals) in the Tarangire Ecosystem.

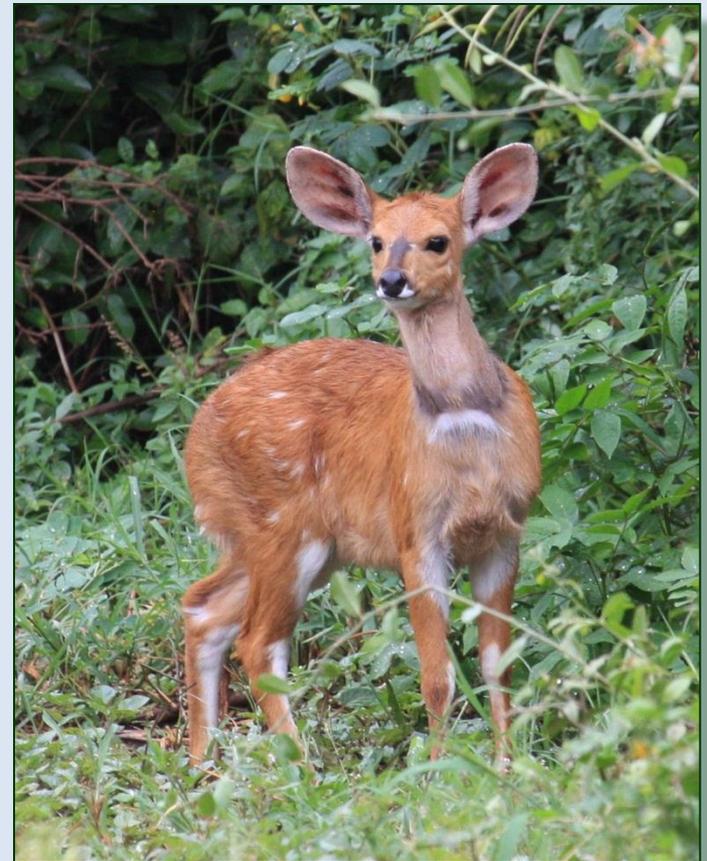
The dry savanna habitat of the Tarangire Ecosystem of northern Tanzania is one of the richest areas on the planet for large mammal diversity and abundance, and is a global hotspot for ungulate and carnivore diversity.

Between 1988 and 2001, wildebeest, hartebeest, and oryx populations declined in the Tarangire ecosystem by 88%, 90%, and 95%, respectively. The goal of TUNGO is to gather population parameters for ungulates in the Tarangire Ecosystem along with environmental data that may provide reasons for observed trends, and the means to reverse them.

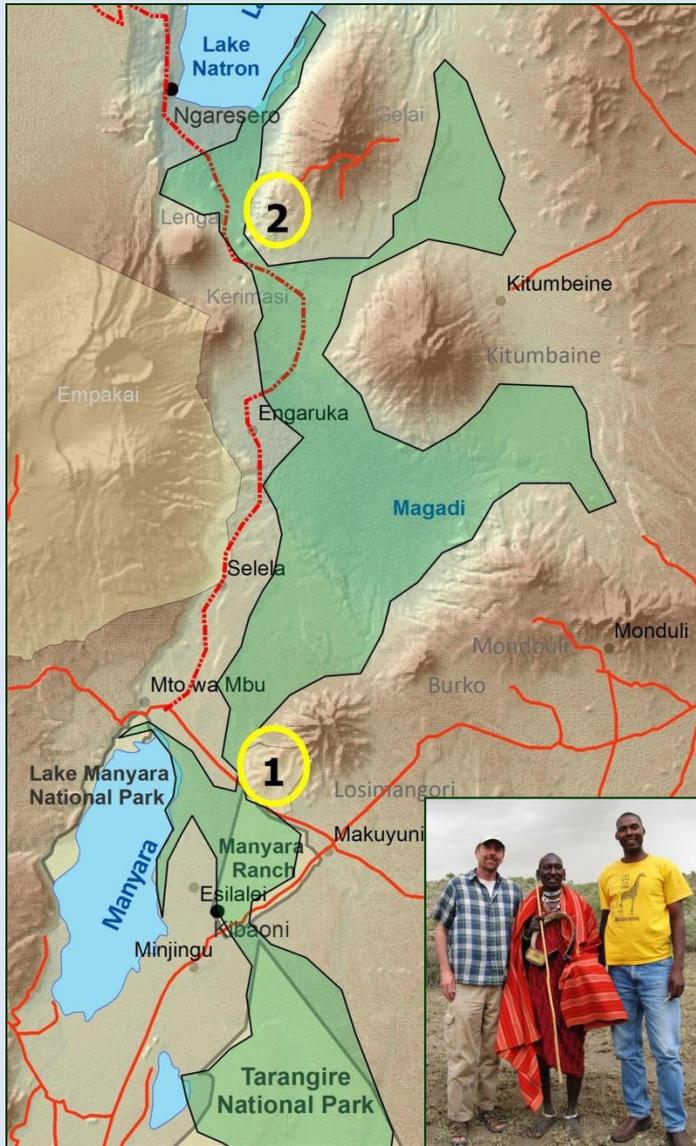
TUNGO research ensures that reliable data are available for scientific management, land planning, anti-poaching enforcement, and conservation. The Tarangire Ecosystem lacks comprehensive monitoring, and reliable data are urgently needed to guide management and supply the metrics necessary to evaluate the success of regional conservation strategies.

### Ungulate species we are monitoring with TUNGO:

Masai Giraffe	Greater Kudu
Cape Eland	Lesser Kudu
African Buffalo	Gerenuk
East African Oryx	Impala
Coke's Hartebeest	Thomson's Gazelle
Burchell's Zebra	Grant's Gazelle
Steenbok	Bushbuck
Klipspringer	Bohor Reedbuck
Kirk's Dik Dik	Common Waterbuck
Eastern White-bearded Wildebeest	



# Northern Plains Corridor



The Wild Nature Institute's Northern Plains Corridor Campaign is an integrated research, education, and advocacy initiative to catalyze community conservation of threatened wildlife in the Tarangire Ecosystem of Tanzania.

Due to severe poaching (illegal hunting) and lack of land management (natural habitat being converted into agriculture), the great herds of East Africa have declined more than 50% in just the last 10 years, but a timely intervention over the next few years will make a huge difference.

We are in the process of creating a Wildlife Management Area (WMA) with the five Masai villages in the migration corridor. The formation of WMAs has been incredibly successful in many other regions of Tanzania by significantly increasing the health of wildlife populations and creating a grassroots ecotourism economy.

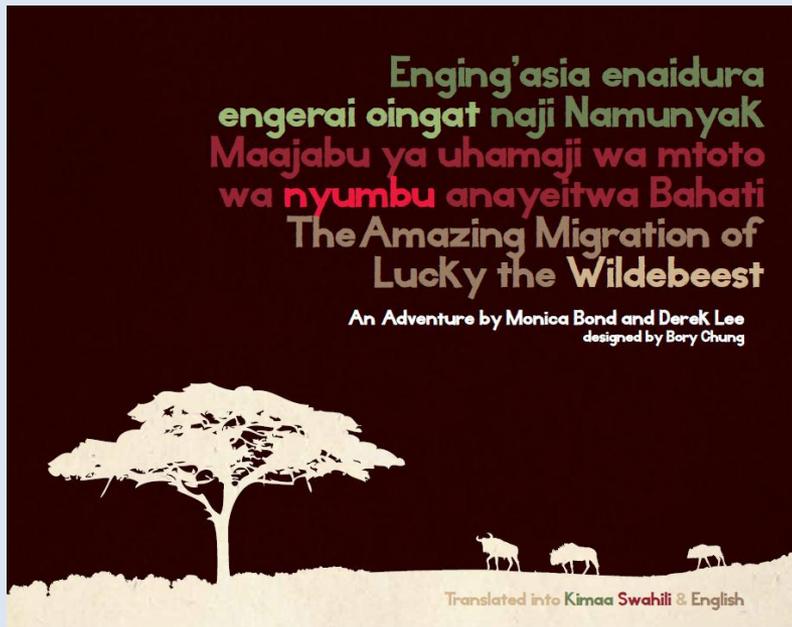
In a WMA, the federal government relinquishes much of the responsibility for tourism and wildlife protection to the local villagers, and the villagers in turn earn direct monetary compensation from the ecotourism businesses. Without a WMA, the local people receive no economic benefit from the wildlife on their lands, so they have no incentive to protect them. With a WMA, the Masai people, whose traditional livelihoods are threatened by the same external forces that are causing the disappearance of the great herds, will benefit economically by protecting their grazing lands from outside poachers and unscrupulous land-grabs.

A Tigress Productions film crew interviewed Wild Nature Institute scientists about their work with Masai Giraffe.



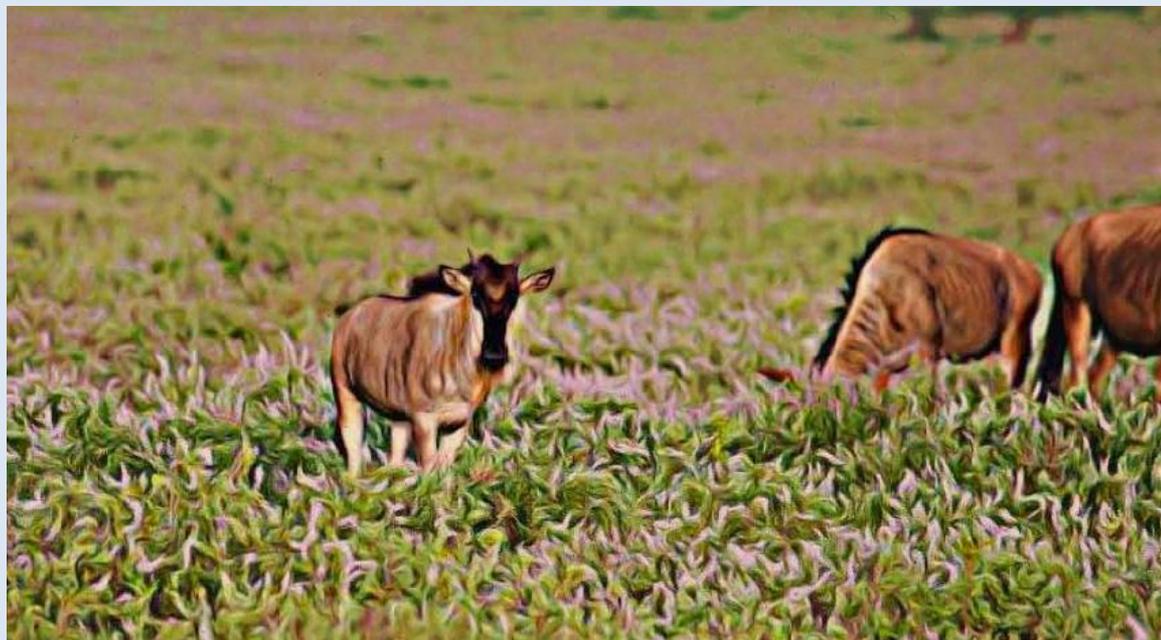
Wild Nature Institute scientists gave several presentations at Tanzanian schools about the importance of hoofed mammals in the Tarangire Ecosystem.





We are also publishing and distributing multi-lingual children's books educating young and old people about the ecological and economic benefits of wildlife conservation.

By presenting an interesting story simultaneously in Masai, Swahili, and English the books encourage and enable greater literacy and also instill conservation values in a generation of Masai people to provide greater understanding of the linkages between ecology, economy, and culture.



### Endasupa,

Kaaji engarna NamunyakKi engrai oingat.  
Aiuno tenoolong' Kake aidim aatusuja  
yeyoai baiKi tenekwet.

### Habari,

Jina langu ni Bahati, mtoto mchanga  
wa nyumbu. Nimezaliwa muda mfupi  
uliopita laKini naweza Kutembea na hata  
KuKimbia.

### Hello,

my name is Lucky. I am a baby  
wildebeest. I am only one hour old but  
I can already walk and even run.

# Thank You Donors, Supporters and Partners

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American Association of Zoo Keepers

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Dartmouth College

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The Institute for Bird Populations

Tanzania Land Conservation Trust

Tanzania National Parks

Tanzania Wildlife Research Institute

Tarangire Lion Project

Tigress Productions

Wild Lens, Inc.

## Officers

Monica Bond

Derek Lee

## Board of Directors (pending)

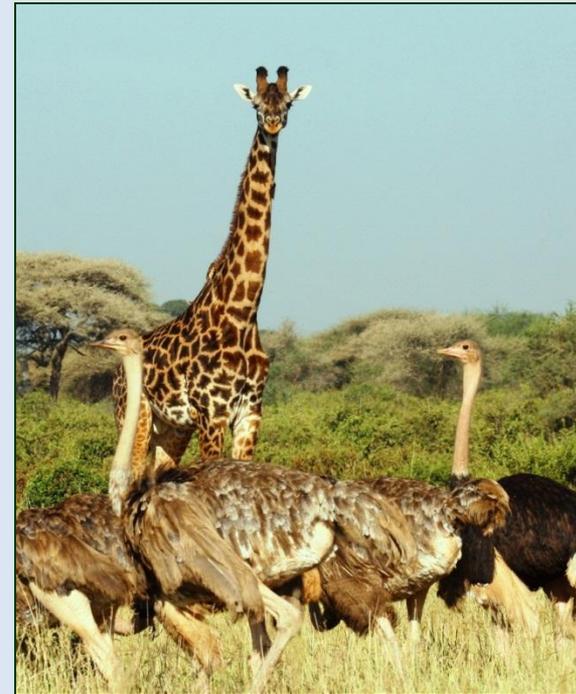
Carmen Mauk

Rodney Siegel

Shaye Wolf

# Statement of Activities 2012

SUPPORT AND REVENUE	\$USD
Donations	9,460.25
Grants	10,400.00
Fellowships	31,111.11
Investment income	363.84
Total	<u>51,335.20</u>
EXPENSES	
US expenses	7,616.26
TZ expenses	22,439.07
Salaries	38,611.11
Total	<u>68,666.44</u>
Beginning of Year Assets	36,384.01
End of Year Assets	19,052.77



The Fund for Wild Nature, a 501(c)3 corporation, acts as fiscal sponsor for Wild Nature Institute.

To learn more about the Wild Nature Institute, visit us online at [WildNatureInstitute.org](http://WildNatureInstitute.org)





# WILD NATURE INSTITUTE

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