

Timeline and Checklist

In preparing for your upcoming Earthwatch expedition, please ensure that you:

Immediately

- Read this Expedition Briefing and all enclosed materials thoroughly.
- Book an appointment with a doctor; you will need him or her to sign the Health section of your Earthwatch Participation Form.
- Make sure you understand and agree to Earthwatch policies and participant responsibilities.

At least 90 days prior to your expedition start date

Complete and return your volunteer forms. **Below are the specific forms required for this expedition:**

- Earthwatch Participation Form for Adults
- Travel Form

European volunteers can download forms on: earthwatch.org/europe/volunteerforms

US/North American volunteers can download forms at: earthwatch.org/volunteerforms

Australian volunteers can download forms on: earthwatch.org/australia/expeditions/volunteer_forms/

Japanese volunteers can download forms on: earthwatch.jp/getinvolved/condition/formdownload-i.html

- Pay any outstanding balance on the minimum contribution for your expedition.
- Book travel arrangements (see the *Rendezvous* section for details).
- If you plan to purchase additional travel insurance, note that some policies require purchase when your expedition is booked (see the *Insurance* section for more information).
- If traveling internationally, make sure your passport is current and obtain a visa for your destination country, if necessary (see the *Passports and Visas* section for more details).
- Make sure you have all the necessary vaccinations for your project site (see the *Health Information* section).
- Purchase a guide book for your destination country.
- Bring your level of fitness up to the standards required (see the *Project Conditions* section).

At least 60 days prior to your expedition start date

- Review the packing list to make sure you have all the clothing and any special equipment needed.
- Obtain any necessary prescription medications that will be needed for your travels.

Up to 30 days before you leave for the expedition

- Read any required reading or websites recommended by the Earthwatch scientist(s) for your expedition.
- Make sure you have enough personal funds for your expedition (see the *Travel Planning* section).
- Leave the Earthwatch emergency contact number with a friend or relative (see the *Emergency Contacts* section).
- Leave a copy of your passport, visas and airline tickets with a friend or relative.
- Confirm your travel arrangements.

Note: If you have signed up for an expedition within 90 days of the start date, you must return your fully completed volunteer forms as soon as possible.

Conserving Grevy's Zebras in the Samburu

Table of Contents

GENERAL INFORMATION.....	1
THE RESEARCH	4
PROJECT STAFF	7
DAILY LIFE IN THE FIELD	9
VOLUNTEER TRAINING AND ASSIGNMENTS	9
TEAM ITINERARY AND DAILY SCHEDULE	10
ACCOMMODATIONS.....	12
FOOD.....	14
TRAVEL PLANNING.....	15
RENDEZVOUS.....	15
PASSPORTS AND VISAS.....	15
INSURANCE	17
ADDITIONAL TRAVEL INFORMATION.....	18
RECOMMENDED READING	21
HELPFUL RESOURCES	21
PROJECT CONDITIONS.....	22
POTENTIAL HAZARDS.....	23
HEALTH INFORMATION	25
EMERGENCIES IN THE FIELD	27
COMMUNICATIONS	27
APPENDIX	28
EARTHWATCH INSTITUTE POLICIES & PARTICIPANT RIGHTS AND RESPONSIBILITIES	29
EXPEDITION PACKING CHECKLIST.....	32

General Information

Project title	Conserving Grevy's Zebras in the Samburu	
Earthwatch scientists	Dr. Paul Kimata Muoria , Species and Sites Programme Manager, Nature Kenya Dr. Nicholas Oguge , Professor, University of Nairobi and Director, Earthwatch Kenya	
Research site	Samburu National Reserve, Kenya	
Expedition length:	13 days	Minimum age of participation: 18 years*
Team size max:	10 participants	
*Note: Team 2 is reserved for participants 15 to 18 years of age. (18-year-olds may only participate if they have just finished their last year of high school.) Volunteers on this team will receive a separate Expedition Briefing. It may also be possible for 16- and 17-year-olds to participate on standard teams if accompanied by a parent or guardian. Contact Earthwatch for more information and see <i>Volunteers Under 18 Years of Age</i> in the <i>Passports and Visas</i> section for traveling advice for minors..		

Emergency Contacts

Emergency contact number at Earthwatch headquarters in the US:

+1 (978) 461-0081

+1 (800) 776-0188 **Note:** The 800-number works as a toll free call *only* for calls placed within the US.

After business hours, leave your message with our live answering service. State that you have an emergency communication and leave a clear message with the name of the field program, your name, location from which you are calling, and if possible, a phone number where you can be reached. An Earthwatch staff person will be contacted and will respond to your call within one hour.

Medical and Security Assistance Helpline Numbers (For assistance while in the field)

When calling any of the helplines, please mention Earthwatch and policy reference number 560020011200.

CEGA Emergency Medical & Travel Assistance:

+44 (0) 20 3059 8770

You may call this number collect or reverse charges if necessary in a medical emergency.

Henderson Risk Security Assistance and Advice:

+44 (0) 20 3059 8772

axisenquiries@hendersonrisk.com



Dear Earthwatcher,

Welcome to Earthwatch! We greatly appreciate your decision to contribute to hands-on environmental science and conservation. As an Earthwatch volunteer, you have the opportunity to create positive change. Each year we connect thousands of people just like you with research projects—approximately 65 projects in more than 35 countries—where they can participate in the fieldwork necessary to understand and help an array of species, habitats and cultures. These projects focus on: **climate change, cultural heritage, ecosystem services, and oceans.**

We are committed to caring for the safety of all those involved in our activities anywhere in the world. Although risk is an inherent part of the environments in which we work, through careful risk management and diligent planning we believe that all participants can have educational and inspirational Earthwatch experiences. We've been providing volunteer field experiences **for 40 years**, so you're in good hands.

It is essential that you carefully read your Expedition Briefing and fully complete the volunteer forms so that you are prepared. Your Expedition Briefing includes important information such as instructions for reaching the rendezvous point, what risks are present on the research project and how to avoid them, what to pack, what immunizations you need, how to physically prepare for your expedition, and more. It also explains the research being conducted on the project, why it's important, and what role you'll play as an Earthwatch volunteer.

Well-prepared volunteers are better able to enjoy the unique and exciting experiences that an Earthwatch expedition offers and will be more helpful to the scientists' important work. Open-mindedness, the ability to work on a team, and a desire to learn are all keys to a successful and enjoyable Earthwatch experience. We hope this expedition will inspire you to get more involved in conservation and sustainable development priorities—not just out in the field but also when you return home. We encourage you to share your experiences with others, and to transfer your skills and enthusiasm to environmental conservation efforts in your workplace, community, and home.

If you have questions as you prepare for your expedition, contact your Earthwatch office. Thank you for your support, and enjoy your expedition!

Sincerely,

A handwritten signature in black ink, appearing to read "Ed Wilson", with a large, stylized flourish extending from the end of the signature.

Ed Wilson
President and CEO

Dear Earthwatcher,

Welcome to the Centre for Drylands Research, Wamba. The centre was set up in 2003 to provide a base for Earthwatch scientists, volunteers, and fellows to undertake research and education to conserve the fragile landscape, wildlife, and lifeways of the Samburu people. We will strive to make your visit safe, enjoyable, and memorable.

From this centre, we undertake research that covers an area of about 10,000 square kilometers within the Samburu pastoral lands, community conservancies, and wildlife reserves between the Ewaso Nyiro River and the Matthews Range. We will be working at the northern end of our study area, at the foothills of the Matthews. You may travel, therefore, for a period of up to 2 hours one way to get to the furthest end of our study sites to the south.

The Samburu community is very friendly and welcoming, and you will have an opportunity to experience their culture. If conditions and time allow, you will also have an opportunity to visit the Samburu and Buffalo Springs National Reserves, which teem with unique northland specialists such as the reticulated giraffe and Grevy's zebra, the subject of our study.

Your safety and comfort are important to us, so remember to observe the safety measures that will be provided to you on arrival. We look forward to partnering with you towards our noble cause in conserving biodiversity in this unique pastoral land. In Kiswahili, we say *karibu*.

Dr. Paul Muoria
Nicholas Oguge, Ph.D.

The Research

Conserving Grevy's Zebras in the Samburu

The current population of the endangered Grevy's zebra (*Equus grevyi*) is estimated at about 2,500, dramatically less than the estimated 15,000 in the 1970s. These mammals have lost most of their historical range and are currently restricted to the Samburu area, with only a small fraction of their population remaining in other parts of northern Kenya and in Ethiopia. Since 2003, this project has studied Grevy's zebra in the southern Samburu area to monitor its population size and structure, use of space, interactions with humans, and the key threats it faces. We have also worked to help craft and implement conservation strategies and actions that will ensure the survival of this species. Initially, researchers believed that hunting and competition for resources with livestock were the primary threats to this species' survival. However, our findings and those of colleagues show that recurring droughts, along with disease and predation by lions, are the main factors limiting the recovery of this species, even with the current intensification of conservation efforts by the local communities, government, and conservation organizations. In addition, the impact of climate change on this species is not clearly understood. The aim of this project is to gather information that will help to reverse the decline in Grevy's zebra.

To achieve this aim, we will:

- *Monitor Grevy's zebra population size, structure, and distribution in relation to that of other wild animals and livestock.*
Data on the population size, status, and spatial and temporal distribution of Grevy's zebra are necessary for effective management and conservation of this endangered species. To achieve this objective, we will continue gathering population size, status, and distribution data in southern Samburu. Specifically, we will continue gathering detailed data on the Grevy's zebra population in West Gate and Meibae conservancies and also from Samburu and Buffalo Spring national reserves.
- *Monitor the abundance of the Grevy's zebra's key food plants and habitat.*
Rapid habitat degradation is evident as a result of overgrazing and possibly climate change. There are also evident vegetation changes, with some areas being threatened by invasive species. Luckily, the local people in the study area, who are primarily pastoralists, are setting up conservancies to generate income from ecotourism and conserve Grevy's zebra and other wild animals. We propose to initiate an ecological monitoring program that will shed light on whether the creation of conservancies is helping in habitat restoration.
- *Survey disease in Grevy's zebra.*
The rapid decline in the Grevy's zebra population has been attributed to competition for resources with expanding human and livestock populations and the resultant habitat degradation (Williams 1998; Williams & Low 2004). Other factors thought to be limiting the Grevy's zebra population have been reduced water supply and poaching. Disease outbreaks can cause sudden and unexpected local declines in the abundance of endangered animals (Woodroffe & Ginsberg 1999; Cleaveland et al. 2002). In their extensive review of disease concerns of wild equids, Radcliffe and Osofsky (2002) found little information on diseases affecting Grevy's zebra. However, disease outbreaks could have been the silent cause of the documented decline in Grevy's zebra. For example, at least 53 Grevy's zebras died during an anthrax outbreak in southern Samburu (Muoria et al. 2007). It is therefore crucial that the risk of zoonotic diseases (diseases that can be transmitted between animals and humans) to Grevy's zebra be addressed comprehensively in order to formulate conservation and management policies that might lower this risk. We propose to conduct disease surveillance by working with the relevant partners (Kenya Wildlife Service, the Government Veterinary Department, the local community, and any other interested parties).

- *Explore Grevy's zebra movements and the impacts of climate change on their population ecology.*
Since 2003, we have been collecting long-term daily rainfall and temperature data at three weather stations in Wamba area and one in Samburu National Reserve. We also have data that can be used to calculate the density, distribution, and movement patterns of Grevy's zebra and other wild animals and livestock. With funding from the African Wildlife Foundation, we collared five Grevy's zebras in 2010 using GPS-GSM (Global Positioning System-Global System for Mobile Communications) technology. This enables us to monitor more closely how the zebras use their habitat and thus to collect data that will help in modeling various climate change scenarios. We are working with our colleagues in the GIS (Geographic Information Systems) Department to implement this component.
- *Work with other stakeholders to implement the national Grevy's zebra conservation strategy.*
The reversal of the decline in the Grevy's zebra population requires the implementation of coordinated strategies among all stakeholders. This realization led to the development of the National Grevy's Zebra Conservation and Management Strategy. Launched in 2008, this strategy has nine objectives and forms the framework for conservation actions. Our project goals and activities have been revised to ensure that we contribute to implementation of the strategy. We propose to continue participating in this implementation by refocusing our activities to ensure relevance to the strategy.

Research Area

Physical Environment

The study area has scarce water resources; the Ewaso Nyiro River is the only permanent source of water. The river drains along the southern border of the region and is inaccessible to most people who live further north. The high demand for water for irrigation of export crops has changed the status of the river from perennial to seasonal. Other water sources include boreholes, springs, and water pans.

Rainfall is unpredictable, and frequent and persistent droughts that last several months to several years may occur. This erratic rainfall pattern generally influences the grazing practices of the pastoralists in Samburu. The pastoralists cope with this situation by migrating with their herds to areas where grazing resources can be found.

The soil in Samburu, especially in the lowlands, is sand or sandy clay. These soils are highly susceptible to erosion from water and wind, and, along with the low vegetation cover and high temperatures, this contributes to increasing land degradation. As is characteristic of arid and semiarid conditions, the soil in Samburu is low in fertility and has poor water-holding capacity and organic matter content, which lowers the quality of vegetation and the carrying capacity of the land.

Cultural, Social, and Political Environment

The Wamba area is in the Samburu West District of Kenya. Wamba is communally owned, and the nomadic Samburu pastoralists, their livestock, and wild animals live in close proximity. The area is rich in wildlife, including Grevy's zebra, elephant, gerenuk and various other antelopes, cheetah, lion, leopard, hyena, wild dog, birds, and an array of invertebrates. There are no fences to keep wildlife within certain areas, and human-wildlife conflict over critical resources (water, food, etc.) contributes to a greater dispersal of wildlife. However, there are also several wildlife reserves and conservation areas in the vicinity, including Buffalo Springs, Samburu, Shaba, Namunyak, Kalama, West Gate, and Meibae Community Conservancies.

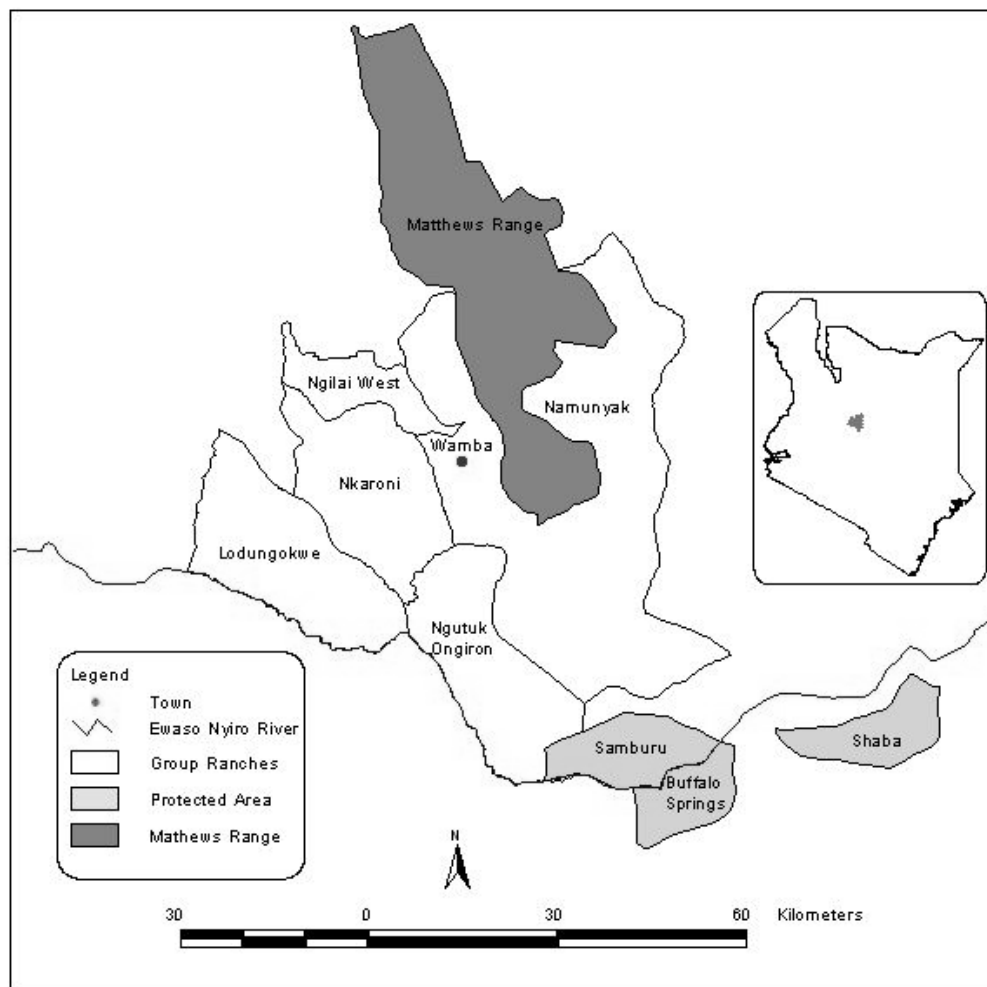
The town of Wamba is one of the larger population centers in Samburu and has been the base for Earthwatch operations since 2003. Wamba is a rural town with almost no tourism, although many tourists visit the nearby reserves. The people in and around Wamba live the traditional lifestyle of the Samburu people. While in Wamba, volunteers will have the opportunity to get to know some of the community members who are crucial partners in Earthwatch's efforts in this area. Volunteers will also learn more about the local Samburu culture. The Samburu

people share a language and many cultural practices with the Maasai. They have a nomadic lifestyle and are believed to have emigrated from Sudan (which borders Kenya to the north) at the beginning of the 15th century.

Research Goals and Achievements

This research project will enable a better understanding of the basic ecology of Grevy's zebra, offering insights as to why their population has not expanded after hunting has ceased. By working with local communities and enlisting their support in gathering important environmental data, this project will be in a position to share data on movements, aggregations, the impact of grazing on habitat, and the nature of livestock–wildlife interactions. The information we collect will be useful to conservationists as they develop the land-use policy that helps protect Grevy's zebra and stimulates economic development in sustainable ways. In addition, the Kenya Wildlife Service, the government corporate body mandated with oversight of all aspects of wildlife conservation in Kenya, will be able to integrate the project's findings with those of studies they are likely to undertake on Grevy's zebra in protected areas. Drs. Paul Muoria and Nick Oguge are members of the National Grevy's Zebra Technical Committee, which is charged with the responsibility of advising the Kenya Wildlife Service on species conservation.

This project has already made an impact on a local level. Many area conservation managers, teachers, and university students have gained training and work experience through internships and other field research opportunities with the project.



The research area (Muoria et al, 2007)

PROJECT STAFF

Earthwatch Scientists

Dr. Paul Kimata Muoria is a professional ecologist with 19 years of field experience. He was a senior research scientist with the Institute of Primate Research, National Museums of Kenya from 1993 to 2006, when he joined the African Wildlife Foundation (AWF) in the same capacity. He left AWF in 2011 and joined Nature Kenya as their species and sites programme manager, which is where he is currently based. From 2009 to date he has also been working as a part-time lecturer at Kenyatta University and African Nazarene University. He has extensive field experience, having worked with a variety of mammals, including baboons, elephants, the endangered Tana River crested mangabey, red colobus monkeys, and, currently, Grevy's zebra. His areas of interest include animal ecology, conservation, and human-wildlife conflict. He will be responsible for overall project coordination and logistics, and overseeing all aspects of project execution and preparation of project reports and publication of the results. Dr. Muoria will be on site for part of each expedition as his schedule allows.

Dr. Nicholas Oguge is a professor at the University of Nairobi and the director of Earthwatch Kenya. He is a Kenyan scientist with extensive international experience. He earned his Ph.D. in reproductive physiology from Lincoln University in New Zealand, and has over two decades of research experience on biodiversity, wildlife physiology and ecology, environmental policy, parasitology, genetics, and small mammal management, including teaching and research stints in Belgium, the United Kingdom, Sri Lanka, Uganda, and the United States, and for the United Nations Food and Agriculture Organization. He has over two dozen publications to his credit. The year prior to joining Earthwatch, Dr. Oguge was a visiting associate professor of biology at Duke University while on sabbatical from Kenyatta University in Nairobi, where he was the Zoology Department chair from 1999 to 2001. Dr. Oguge will be on site with teams when his schedule allows.

Earthwatch Field Staff

Mr. Paul Gacheru is the field team leader and assistant principal investigator on the Grevy's zebra project. He has B.S. and M.Phil. degrees in wildlife management. His master's thesis is entitled, "The response of baboon behavior in respect to invasive plant species in Mukogodo division Laikipia District." Paul was a research assistant on the Earthwatch project *Saving Kenya's Black Rhinos* at the Ol Pejeta Conservancy in 2008 and 2009. In 2007, he was an assistant manager at the Colobus Trust on the southern coast of Kenya, where he was in charge of international and local volunteer welfare as well as running research projects within the organization. In addition, Paul has been involved in other field projects around the country which have helped him gain hands-on experience in conservation science. Paul will be in the field with all the teams, and will be responsible for field logistics, volunteer training, and management of data collection.

Earthwatch Research Advisors

Dr. Dan Rubenstein serves in an advisory role to help meld the behavioral and ecological data gathering on the two zebra species with that of the monitoring program. He is chair of the Department of Ecology and Evolutionary Biology and director of the Program in African Studies at Princeton University, and is a leading expert in the fields of animal behavior, evolutionary ecology, and sociobiology, with particular interest in equid behavior and conservation. He has served as the editor of *Evolutionary Ecology Research* since 1986 and as the associate editor of *Behavioral Ecology and Sociobiology* since 1991. He has published 75 academic papers and co-edited two books on a wide range of subjects in these fields, from aquatic invertebrates to megafauna. Dr. Rubenstein serves as an advisor to the project and will not be in the field with the Earthwatch teams.

Dr. Philip Muruthi is the senior director of conservation science for AWF and will serve as science advisor for this project. He earned his Ph.D. in ecology and evolutionary biology from Princeton University and has extensive experience in wildlife research and management. His research interests include animal ecology, especially the ecology of disturbed populations, and the impact of humans on wildlife populations. Dr. Muruthi has managed and overseen AWF's species conservation portfolio since 1997. He is a member of a senior team at AWF, charged with shaping its program in conservation through strategic diversification and expansion. He develops new initiatives in species and landscape-scale conservation, coordinating activities with other AWF conservation approaches and with AWF partners. Dr. Muruthi is the AWF liaison for conservation staff within and outside Africa, and stays current on key issues and trends to shape AWF species and landscape-scale conservation initiatives and activities. Dr. Muruthi serves as an advisor to the project and will not be in the field with the Earthwatch teams.

Additionally, local community members will act as translators and guides for the project.

Staffing Schedule (Subject to Change).

Staff Member Present	Team 1	Team 2	Team 3	Team 4
Paul Muoria	X	X	X	X
Nicholas Oguge				
Paul Gacheru	X	X	X	X

Daily Life in the Field

VOLUNTEER TRAINING AND ASSIGNMENTS

Training

Earthwatch scientists will give the team a detailed on-site project briefing when you arrive, covering all aspects of fieldwork and research, including detailed training on project tasks, equipment, and data collection and entry.

Data Sheets

Volunteers will be trained in the different data sheets that will be used for the census of Grevy's zebra from slow-moving vehicles or while walking along transects where we conduct research.

Project Equipment

- **Digital photography and identification of Grevy's zebra individuals:** Each Grevy's zebra has a unique stripe pattern. On this project, we will use digital photography intensively to distinguish individual zebras. To be objective in our analysis, we only photograph the right flank of each individual encountered. Volunteers will be trained on taking appropriate photographs for analysis.
- **GPS units:** On this project, GPS units will be used to monitor the distribution of Grevy's zebra and other wild animals. We also use the units to navigate along transects and to measure the compass bearings of animal sightings. Volunteers will be trained to use GPS units to record the locations of Grevy's zebra, other wildlife, and livestock and also to navigate along transects.
- **Range finders:** Volunteers will be trained on using laser range finders to measure their distance from Grevy's zebra and other animals.
- **Compasses:** Volunteers will be trained on using a compass to measure the bearing of Grevy's zebra from the observer and also to navigate along transects.

Some or all of the following topics will be covered in talks and on-site briefings, depending on the time available to the team and the interests of the volunteers:

- Conservation policies currently in place in Kenya
- Economic and cultural importance of livestock to the different people of the study area
- The different challenges to conservation of wildlife outside protected areas
- The different forms of human-wildlife conflict occurring within the study area

Assignments

Earthwatch volunteers will mainly work in the Wamba area. However, some teams might work in and visit Samburu and/or Buffalo Springs National Reserves. The volunteers will help in the following tasks:

- **Conducting censuses of Grevy's zebra, other wild animals, and livestock:** Volunteers will help in collecting animal census data. Volunteers will also be involved in photography for identifying individual zebras, monitoring the movements of zebras either from tracks or from sightings, and recording GPS locations. In addition, they will record any sightings of predators they encounter while collecting other data or while on game drives (**Note:** such sightings are very rare).

- **Monitoring environmental conditions and resource availability:** Rainfall and temperature will be recorded daily at Wamba, collected from local communities and other sites when appropriate. Volunteers will assist with counting and measuring the size of erosion gullies, recording the abundance and frequency of Grevy's zebra food plants, and estimating the abundance of invasive plants.
- **Data entry:** Each volunteer will enter and summarize the data he or she collects each day. We use Microsoft Excel spreadsheets and Microsoft Access for data entry. Depending on the interest of individual volunteers, they may participate in data analysis.

TEAM ITINERARY AND DAILY SCHEDULE

Please be aware that weather and research needs can lead to changes in the daily schedule. Should this situation arise, your cooperation and understanding are appreciated.

Day 1: Rendezvous

Time	Activity
11:00 a.m.	Rendezvous
1:30 p.m.	Arrive at Wamba and receive safety briefing, introduction to project, and field training

Days 2 – 6: Field Training and Fieldwork

Time	Activity
6:00 a.m.	Rise, breakfast, pack for the field
7:00 a.m.	Drive to research location
8:00 a.m.	Fieldwork
12:00 noon	Lunch in field or back at the research station
2:00 p.m.	Fieldwork or lab work
5:30 p.m.	Return to accommodations
6:00 p.m.	Data entry, lab work, or rest and relaxation
7:00 p.m.	Dinner and day's wrap-up discussion; volunteers will be encouraged to talk about themselves, their work, and reasons for participating in the project
8:00 p.m.	Time for relaxation and recreation; occasionally, a seminar, guest speaker, or visitor
10:00 p.m.	Generator turned off, lights out

Day 7: Recreational Day

Days 8-12: Field Training and Fieldwork

Same schedule as Days 2-6

Day 13: Departure Day

Recreational Time: Volunteers will probably have one full recreational day during the expedition. Optional activities for this day will be discussed, and any costs associated with the activities will be at the volunteer's expense. Some possible optional activities may include cultural activities, visits to Samburu homesteads/manyattas or schools (approximately US\$50 – \$100 if you would like to purchase some souvenirs; otherwise probably free), a visit to Samburu National Park (US\$100 for transport, park entry, and meals), a hike on the Matthews Range, or just a rest at the accommodations. Consult a travel guidebook for information on local attractions.

Earthwatch Recreational Time Policy

Earthwatch will generally accompany participants from the rendezvous to the end of the expedition, with the exception of recreation time.

- For days when no research activities are scheduled, referred to as recreational days, Earthwatch scientists will offer either a planned team activity or a range of recreational activities that have been vetted and comply with Earthwatch standards. Participants will also have the option of remaining at camp or project accommodations to rest.
- Participants who are determined to pursue options other than those recommended by the project staff will be required to sign a release before doing so. If there is a period of time during a regular research day when no research activities are scheduled, adult participants may have the opportunity to leave the project site on their own; they will be asked to sign out of the project giving their intended destination. Not appearing for the next scheduled activity will trigger the Emergency Response Plan (ERP) regarding missing people. Earthwatch will assess the general risks of adult participants leaving the project site on their own at night after work hours, but cannot guarantee participant safety or an awareness of all issues.
- In some cases, due to local conditions, it may be advisable to restrict adult participants to the project camp or accommodation after dark. This will be clearly communicated in the on-site safety briefing. However, if the local conditions are such that adult participants can go out at night under their own recognizance, there will be a sign-out process through which participants should state their proposed destination and estimated return time. Participants will be given 24-hour contact information for project staff should assistance be needed. The sign-out is informational only and will not be used to enforce a curfew on adult participants. Adult participants should understand that unless contacted for help, project staff will not start a search for a missing participant unless he or she fails to appear the following morning or for the next scheduled research activity.

ACCOMMODATIONS

Sleeping

Volunteers will stay at the Earthwatch Centre for Drylands Research in Wamba. The facility consists of comfortable houses on the scenic foothills of the Matthews Range, alongside the Kenya Wildlife Service offices.

The houses are basic but comfortable wood cottages with shared rooms (two or three people to a room). Couples may be able to get one double room, but this is not guaranteed and will depend on the number of volunteers in the team and the male-female ratio. All rooms will be single-gender unless couples have requested shared accommodation and notified Earthwatch in advance. Bedding, mosquito nets, and towels will be provided.

Bathrooms

The center has indoor plumbing with hot and cold showers and flush toilets.

Electricity

Electricity is provided by a generator that is normally switched off by 10:00 p.m. Volunteers can bring along small electronic equipment with low power usage, such as electronic cameras, shavers, etc. Electronic equipment must be able to operate on 220-240 volts, with plugs with three-square pins (the same as those used in the UK), so volunteers may need to bring appropriate plug adaptors and transformers.



The center.

Internet and Communications

The site is quite remote. There are no telephone, Internet, or fax services available in the area. However, GSM-based cellular phones may be accessed from the center and in the field. Please see the *Communications* section for more information.

Facilities and Amenities

The center is gated and fenced to provide privacy and protection from the wildlife living in the Namunyak conservation lands; for safety reasons, volunteers should expect to stay within this area during most non-research time. Within the gates is a simple garden with flowering trees to provide some shade. The site offers great views of Wamba, amazing sunsets, and the surrounding green hills. There is a kitchen, dining area, and common room.

Laundry services are available at the volunteer's expense of KES 1,000 (US\$15) for the duration of the expedition; the center staff will hand-wash and line-dry items.

Distance to Field Site

Volunteers will be within relatively easy access of various wildlife protected areas, including the Namunyak and West Gate Conservancies, as well as the Samburu, Shaba, and Buffalo Springs Reserves. The residence is also central to the research area and just on the outskirts of the town of Wamba. The teams may cover up to a distance of 70 kilometers (44 miles) from the camp by vehicle each day; due to the terrain, this distance can take up to 1.5 hours to travel.

Smoking

Smoking in or within 5 meters (16 feet) of buildings or in public places is prohibited in Kenya. Persons who smoke in public places, except for designated smoking areas, risk heavy fines or encounters with law enforcement. Smoking is not allowed indoors at the research center and is restricted to certain areas outside.



Project staff and volunteers share dinner.

FOOD

The field center will provide a full-board service, with experienced cooks preparing high-quality meals. Unless they wish to be, volunteers will not be involved in the preparation of meals, shopping, or clean-up. There will be three substantial meals per day, modified to suit Western tastes. Meals in Kenya typically have a large meat component, but vegetarian meals will be available with advance notice.

Below are examples of the foods you might expect in the field. Please bear in mind that variety depends on availability. This list is intended to provide a general idea of food types, but it is very important that volunteers be flexible.

Breakfast:	Fruit juice, seasonal fruit, cereal, toasted bread, jam, eggs, sausage, and beans
Lunch:	Cheese or beef sandwich, seasonal fruit (lunch is the least substantial meal of the day, limited to what one can easily take into the field)
Dinner:	A main course, usually vegetables and meat; soups; seasonal fruit
Snacks/Other:	Biscuits (i.e., cookies)
Beverages:	Tea, coffee, and milk (beer for additional cost)
Water:	Water (boiled and filtered)

Special Dietary Requirements

Please alert Earthwatch to any special dietary requirements (e.g., diabetes, lactose intolerance, nut or other serious food allergies) as soon as possible and note them in the space provided on your volunteer forms.

Accommodating special diets is not guaranteed and can be very difficult due to availability of food, location of field sites, and other local conditions.

Special note to vegans: Please be aware that it is often difficult to accommodate vegans. It may be possible to get meatless meals, but vegans may have a problem avoiding animal products altogether. If this is an issue, then participation on this Earthwatch expedition should be carefully considered.

Travel Planning

You are encouraged to register your travel itinerary with your embassy. For information on embassies around the world, see embassyworld.com.

- Citizens of Australia may register online at: orao.dfat.gov.au.
- British citizens may register online at: fco.gov.uk/en/travel-and-living-abroad/staying-safe.
- Citizens of the United States may register online at: travelregistration.state.gov.
- Citizens of other countries are encouraged to check with their appropriate embassy or consulate regarding registration.

RENDEZVOUS

The rendezvous information for this project has been removed from this web version of the expedition briefing. It is only available in the printed version of the briefing. Please do not make any travel arrangements to join an expedition without having full and up-to-date rendezvous information from Earthwatch. Full rendezvous details, including places and times are available from Earthwatch upon request prior to registration for an expedition. Please use the “Contact Us” button on the top right-hand corner of the website to get in touch with an Earthwatch representative, who will be very happy to help you.

PASSPORTS AND VISAS

Visa Information

Citizens of the United States, EU, Australia, Canada, and Japan **do** need a tourist visa for entry. Citizens of other countries should check with their travel agent or a visa agency for specific visa and entry requirements. Travelers are advised to check visa regulations well in advance of traveling.

Passport Information

Most volunteers traveling from outside the host country will require a passport valid for at least 6 months beyond the dates of travel.

For Volunteers Requiring Visas ONLY: Essential Information

Type of Visa	Volunteers requiring a visa must get a TOURIST VISA .
Where to Get a Visa	Contact the nearest Kenyan embassy or consulate to find out how to apply for your visa. Please note that this process can take weeks or more. We strongly recommend using a visa agency , which can both expedite and simplify the process. See below for a list of visa agencies.
Required Information	You will need to send your passport (valid for at least 6 months beyond your stay), a Visa Application and Immigration Form , two to four passport-size photos , and payment to the embassy or visa agency (if applicable). Please be sure that your passport is valid for at least 6 months beyond your stay.

Contact Information	<p>You may be required to list the following contact information on your Visa Application and Immigration Form:</p> <p>Fairview Hotel, Nairobi (If staying at a different hotel than the Fairview, you should provide the contact information for that hotel) 10 Bishops Road, P.O. Box 40842 00100 Nairobi, Kenya +(254-20) 288 1000 +(254-20) 272-1320</p>
Cost of a Visa	<p>Generally between US\$40 and 100, but varies from country to country and can potentially cost up to US\$180. A visa agency will charge an additional fee.</p>

Note: The purpose of your visit is for vacation, holiday, or travel. Foreign immigration officials do not always understand the concept of a “working vacation” or “volunteering.” Words such as “working,” “volunteering,” “research,” or “scientific expedition” can raise questions concerning the country’s foreign labor laws and/or prompt questions about official scientific research permits and credentials, etc., to which volunteers on their own will not be equipped to respond. All required research permits for the project are in place and have been approved by the proper authorities.

Visa Agencies

In the United States	In Europe	In Australia
Trivisa* 290 5th Avenue, 4th Floor New York, NY 10001 Tel: (212) 613-2223 Fax: (212) 613-2287 Hours: 9:00 AM to 5:00 PM EST Web: trivisa.com (*See the website for additional offices)	CIBT, Inc.-UK 25 Wilton Road Lower Ground Floor Victoria SW1V 1LW Tel: 0844-736-0211 Fax: +44 (0) 207-828-5411 Calling from Europe outside UK: +44 (0) 207-802-1000 Email: info@uk.cibt.com Web: uk.cibt.com (has alternate address for urgent requests)	Ask your travel agency if it can send your visa application on your behalf.

Volunteers Under 18 Years of Age

Entry to Foreign Countries

It may be possible for 16- and 17-year-olds to participate on standard Earthwatch teams *if* accompanied by a parent or guardian. However, in an effort to prevent international child abduction, many governments have initiated procedures at entry or exit points to protect minors. Thus, if a minor will be traveling with only one guardian, or if for any reason he or she will be traveling alone (such as for a Teen Team), it may be necessary to have a notarized letter from all legal guardians stipulating that the minor may travel unaccompanied or in the presence of a single guardian. This letter must give an explanation for why only one parent or someone other than a parent is signing the letter. For example, if one parent is deceased, only one parent has legal guardianship, or someone other than the parents are legal guardians, the letter should state that.

Airline Documentation Requirements

Airlines may also have documentation requirements for unaccompanied minors. Parents of minors are responsible for checking with each airline that their child will be flying to ensure that sufficient documentation is provided. This could include a copy of a birth certificate or a notarized letter stating that the minor has his or her parent's permission to travel alone or with only one parent.

Note: Requirements by specific countries and airlines vary and change frequently. You MUST keep informed of the requirements on your own to avoid problems at immigration. If a letter is not available, the volunteer under 18 can be refused entry into the country or on a flight. There is nothing Earthwatch Institute can do to help in this circumstance.

Additional Passport and Visa Resources

- For Japanese citizens: rainbowt.jp/travel/visa_top.html
- For Australian citizens: passports.gov.au and dfat.gov.au/visas/index.html
- For US citizens: passportvisasexpress.com
- Travel Document Systems: traveldocs.com/index.htm

INSURANCE

MedEvac assistance, advice, and insurance are included in the contribution you pay to Earthwatch. This covers trip cancellation and your travel medical risks, including medical expenses and emergency medical evacuation, while you are traveling. This coverage is valid in the country of your Earthwatch expedition (**Note:** For US volunteers, as long as the expedition is over 100 miles from your place of residence) and during travel to and from your expedition. Please see the Earthwatch website for more information on insurance provision.

If you have additional vacation time before and/or after your Earthwatch expedition that forms part of your overall time away from your place of residence, this additional vacation time is not covered under this policy. If you are in any doubt as to whether your travel plans before and/or after your Earthwatch expedition constitute additional vacation time, please contact the insurance provider.

This insurance policy is secondary to your existing health insurance policy (e.g. the NHS in the UK).

If you signed up through Earthwatch UK/Europe, or Earthwatch Japan:

Details of the included insurance policy can be found at earthwatch.org/europe/insuranceinfo.

Please refer any queries regarding this policy to Earthwatch's Operations Department at +1 978 450 1232 or insurance@earthwatch.org

You can find information about additional insurance available to UK residents for coverage before or after your Earthwatch project at earthwatch.org/europe/insuranceinfo. Should you have any questions about whether you require coverage for your travel plans, please review the policy summary and the FAQs at the website above.

If you signed up through Earthwatch US:

Details of the US insurance policy can be found at earthwatch.org/insurance.

Please refer any queries regarding this policy to Earthwatch's Operations Department at +1 978 450 1232 or insurance@earthwatch.org

You can find information about additional insurance available for coverage before or after your Earthwatch project at earthwatch.org/insurance. Should you have any questions about whether you require coverage for your travel plans, please review the policy summary and the FAQs at the website above.

Emergency Medical and Evacuation Assistance (For All Volunteers)

Emergency medical and evacuation assistance is available for all Earthwatch participants from CEGA Medical, a twenty-four-hour international emergency medical and evacuation service. Please see the contact information on the *General Information* page.

For non-emergency information from CEGA, such as advice on visa and vaccine requirements, you may call the CEGA Non-Emergency Medical & Travel Advice helpline at **+44 (0) 20 3059 8770**.

ADDITIONAL TRAVEL INFORMATION

Personal Security

- *Safety:* The Kenya police issued a warning on 5 January, 2012, that a Somali-based Islamist militant group, al-Shabab, was planning terrorist attacks in the capital city of Nairobi in tandem with the al-Qaida network. While we cannot verify the information contained in the warning, **safety is always a top priority at Earthwatch**, and the alert highlights the potential for increased activity from extremist groups in Nairobi and the surrounding areas. Pre-existing travel warnings that pertain to the border area with Somalia and low-income areas of Nairobi are also still in effect.

Earthwatch is monitoring this situation closely through continued consultation with the UK Foreign and Commonwealth Office, the US State Department, Australia Smart Traveler, and our independent security advisor, and we will post updates as necessary.

At this time, please note:

- Travel to Kenya can continue.
- Be prepared for travel delays at transport hubs, government buildings, and Western country embassies due to stringent security measures.
- Carry personal identification documents (i.e., passport) at all times to ease passage through any security checkpoints, and have photocopies.
- Never use buses or public transportation. Utilize a taxi arranged by your hotel or at the taxi booth at the airport in Nairobi.
- Avoid all protests and public demonstrations as a basic security precaution.
- Monitor local news media and utilize local resources such as your hotel and local contacts to ensure that you remain alert to the current situation.
- If involved in an emergency or a serious security incident, contact the security coordinator at your hotel or your embassy for support.
- Register your travel and contact details with your local embassy or state department before you travel so that they can reach out to you and offer assistance in an emergency.
- Carry the CEGA Medical contact information found in the *Emergency Contacts* section while you travel. As an Earthwatch member, you can call CEGA for advice, information, and assistance at any time before, during, or after your trip.

Luggage

- *General considerations:* Do not bring more luggage than you can carry and handle on your own. If traveling by air and checking your luggage, you are **strongly** advised to pack an extra set of field clothing and personal essentials in your carry-on bag in case your luggage is lost and/or takes several days to catch up with you. It is highly unlikely that delayed luggage will be sent to the field site. If your luggage does not arrive with you, you should plan to get what you need for the next 2 weeks while still in Nairobi.
- *Checking luggage:* Please note that if you will be taking an international flight that has one or more connections within the country of your destination, it will be necessary to collect any checked bags at the airport where you first arrive in the destination country. After proceeding through customs, you will have to recheck your luggage before flying on to your final destination.
- Many airlines have strict baggage policies. Please check with your airline(s) on baggage weight limits, liquid restrictions, fees for checked baggage, etc. **Air Kenya and Safarilink limit each person to 15 kilograms (33 pounds) of baggage (inclusive of hand luggage).** Excess baggage may be stored at the Fairview Hotel in a secure storage room for a small charge. If not staying at the Fairview, you should check with your hotel.

Money Matters

- *Personal funds:* You will be able to change money at the airport in Nairobi or at the Fairview Hotel if you choose to stay there; although you will not get the best possible rates, these are the most convenient options. It is a good idea to bring large-denomination notes or traveler's checks in dollars, pounds sterling, or euros to change while in Nairobi. Please note that cash is more widely accepted than traveler's checks. If you bring US bills, you must bring new (later than 2003) bills in good condition. Kenyans have had their share of counterfeiting problems and will not accept old bills or bills in poor condition. If you bring traveler's checks, you must also bring and show your receipt for them. Some Standard Chartered, Barclays Bank, and Kenya Commercial Bank branches in Nairobi have automated teller machines (ATMs) that accept bank cards (debit or credit cards) carrying international teller network symbols (e.g., Cirrus). Credit cards may be used at the Fairview or other hotels, but they are not widely accepted beyond larger facilities in Nairobi. **There are no currency exchange facilities, banks, or ATMs near the research area, so make sure you have exchanged money into Kenyan shillings before the rendezvous.** There will be opportunities to buy souvenirs, alcohol, and soft drinks at Wamba. Depending on how much you wish to buy, anywhere from US\$100 to 200 (KES 7,000 to 15,000) should suffice. You should also bring US\$100 for your visit to Samburu National Park. While in Nairobi, you must cover your hotel costs, any meals prior to the rendezvous, and taxi fare to and from the international airport.
- *Local currency:* Kenyan shilling (KES) = 110 US cents. Notes are in denominations of KES 1,000, 500, 200, 100, and 50. Coins are in denominations of KES 20, 10, 5, 1, and 0.5. Kenyan shillings are required at almost all shops. See xe.com/ucc for currency information and exchange rates.
- *Airport fees and/or departure taxes:* **Volunteers will be responsible for their own US\$60 entry fee upon arrival at the Samburu airstrip**, as the airstrip is within the national reserve. The fee should be paid with Kenyan shillings. No credit cards are accepted. It is recommended to have smaller bills in order to be able to give exact change. There is a US\$20 departure tax at the Jomo Kenyatta International Airport, Nairobi, but this is usually included in your airfare.

Your Destination

- *Language:* Kiswahili is the national language and is widely understood. English is used more frequently than Kiswahili inland, particularly in and around Nairobi. Most signs are in English. There are many other

languages spoken in Kenya. Most people in the Wamba area speak Samburu as their first language; some will also speak Kiswahili and English. The project will be conducted in English.

- *Cultural considerations:* In general, Kenyan dress is more conservative than that in most Western nations, so please pack appropriately. Note that when taking photographs of local people and/or their personal property and livestock, you must ask permission first. Many Samburu people are not comfortable being photographed. It is important to respect their concerns and wishes throughout your visit.
- *Electricity:* Kenyan power is 240-volt with UK-style three-pronged plugs. For additional information, see kropla.com/electric2.htm.



- *Time zone:* GMT + 3 hours. For time worldwide with GMT/UTC, see worldtimeserver.com.
- *Telephone dialing codes:* When calling Kenya from another country, dial the country's international dialing code, followed by 254 and the number. When calling within Kenya, omit the 254 and dial 0. When calling another country from Kenya, dial 000, followed by the other country's country code and the number. All calls to cell phones from within Kenya require a "0" in front of the number. The "0" is dropped if calling from outside Kenya. **Note:** You should check with your cell phone provider to obtain any carrier-specific dialing codes you may need; many providers have dialing procedures that may differ in whole or in part from these directions. For additional information, see kropla.com/dialcode.htm.
- *Smoking ban:* Smoking in or within 5 meters (16 feet) of buildings or in public places is prohibited in Kenya. People who smoke in public places, except for in designated smoking areas, risk heavy fines or encounters with law enforcement.

Country Information

- UK Foreign and Commonwealth Office: fco.gov.uk/en/travel-and-living-abroad/
- Country information from around the world: countryreports.org
- National Geographic Map Machine: plasma.nationalgeographic.com/mapmachine
- US State Department: state.gov
- Online unit conversions: onlineconversion.com
- Worldwide weather: wunderground.com or tutiempo.net/en
- ATM locator: visa.via.infonow.net/locator/global/ or mastercard.com/atmlocator/index.jsp

RECOMMENDED READING

Below are additional recommended materials for those interested in further preparing for the expedition. Some may be purchased online through popular vendors. See the *Helpful Resources* section for links to suggested vendor websites.

Scientific media

Books

- Amin, M., D. Willets and B. Tetley. *The Beautiful People of Kenya*. Nairobi: Text Book Centre, 1989.
- Jahadhmy, A.A. *Learners Swahili-English English-Swahili Dictionary*. Nairobi: Evans Brothers, 1981.
- Moss, C. *Portraits in the Wild*. London: Elm Tree Books, 1989.
- Packer, C. *Into Africa*. Chicago: University of Chicago Press, 1994.
- Pavitt, N. *Samburu*. London: Kyle Cathie Limited, 1991.
- Poole, J.C. *Coming of Age with Elephants*. London: Hodder and Stoughton, 1996
- Walker, C. *Signs of the Wild*. Cape Town: Struik Publishers, 1992.
- Hoffman, C. *The White Masai: My Exotic Tale of Love and Adventure*. New York: HarperCollins, 1998.
- Stoakley, R. *My Warriors and I*. London: Scriptmate, 1998.

Articles

- Kenya Wildlife Service. "Conservation and management strategy for Grevy's zebra (*Equus grevyi*) in Kenya 2007–2011." Nairobi: KWS, 2008. Available at: kws.org/export/sites/kws/info/publications/strategies/Grevyxs_Zebra_June_2008_final.pdf.

Popular media

Field guides

- Estes, R.D. *The Behaviour Guide to African Mammals*. Oxford, UK: University of California Press, 1991.
- Haltenorth, T. and Diller. *A Field Guide to the Mammals of Africa*. London: Collins, 1980.
- Kingdon, J. *The Kingdon Guide to African Mammals*. London: Academic Press, 1997.
- Palgrave, K.C. *Trees of Southern Africa*. Cape Town: Struik Publishers, 1983.
- Scott, J. and A. Scott. *Jonathan Scott's Safari Guide To East African Animals*. Nairobi: Kensta, 2001.
- Williams, J.G. *A Field Guide to the Birds of East Africa*. London: Collins, 1980.

Project-related websites

- Fairview Hotel (rendezvous site): fairviewkenya.com
- Kenya Wildlife Service: kws.org
- African Wildlife Foundation: awf.org
- National Museums of Kenya: museums.or.ke

Project Field Report

Each Earthwatch Institute-supported project submits a report on the past year's research and results to Earthwatch, generally on an annual basis. The most recent field report for this project is available on line through earthwatch.org/FieldReportpdf/Muoria_FieldReport2010.pdf. **Note:** Reports are not available for all projects.

HELPFUL RESOURCES

Please see Earthwatch's Volunteer Resources pages for additional information on:

- Travel agencies with whom Earthwatch volunteers can get preferential rates
- Recommended kit and clothing providers
- Recommended travel booksellers

Volunteers who sign up through our US office, visit: earthwatch.org/volunteerresources

Volunteers who sign up through our UK office, visit: earthwatch.org/europe/volunteerresources

Project Conditions

Please show this section to a doctor when he or she is completing the Health section of your Earthwatch Participation Form. Be sure to discuss vaccination requirements with the doctor well in advance of your departure date. See the Health Information section for vaccination information.

To the doctor:

This patient has volunteered to join a field research team that has specific physical demands of which you and the patient should be aware. **We need your accurate evaluation of this patient's ability to meet the conditions detailed below in order to care for his or her health and safety, and to assess that he or she can participate fully and effectively.**

General Conditions

The altitude ranges from 800 meters (2,625 feet) above sea level around the Samburu Reserve to 2,230 meters (7,316 feet) at Matthews Peak. Temperatures range between 24°C (75°F) and 35°C (95°F). Because of climate variability, rainfall patterns are erratic, unreliable, and poorly distributed. The long rainy season occurs from March through May and the short rains in October and November.

Conditions are expected to vary within the limits below.

Annual Weather Conditions	
Humidity	Low
Temperature range	75°F/24°C to 90°F/33°C
Altitude	900 meters/2,950 feet to 1,500 meters/4,920 feet
Rainfall	255-510 mm/10-20 255-510 mm/10-20 in per year

Eligibility Criteria

All participants must, independently or with the assistance of a companion, be able to:

- Follow verbal and visual instructions under varying circumstances, including in the presence of wildlife.
- Withstand physical activity in a hot, dry, sometimes dusty environment, and sometimes in full sun, for 4 hours at a time.
- Sit upright in a vehicle, using a seatbelt, for up to 7 hours per day on uneven terrain, while performing data collection.
- Walk, hike, and bend on uneven terrain, while performing data collection, for approximately 3 hours per day (5-8 kilometers/3-5 miles) without fatigue.
- Carry field equipment and some personal daily supplies, such as water (total weight of approx. 4 kg/9 lb) for up to 4 hours.
- Collaborate in an open, friendly, and productive way with local community members who have a very different lifestyle, culture, and language from their own.

The Effects of High Altitude

Altitude has unique physiological effects, and different people react in different ways. Good physical fitness (primarily cardiovascular health) can help prevent altitude sickness; however, even some people in great physical condition can experience negative effects from high altitude. Do not assume that your good physical health guarantees a positive response. The only way to know exactly how your body will react is to slowly increase your elevation, resting frequently and exercising lightly with each stage of ascent. When this is not possible, plan to take it easy upon first arrival in high-altitude areas. It is recommended that you be well hydrated to ease the transition. Although alcohol and sedatives are not directly linked with altitude-related illnesses, avoiding them is also recommended. While the beginning of the project is designed to help you acclimatize to the altitude, taking additional precautions will put you in a better position to fully enjoy your Earthwatch expedition experience.

The effects of high altitude can include symptoms such as dizziness, nausea, headache, sleepiness, and shortness of breath. To acclimatize properly to high altitude, it is best to be in good physical health and thoroughly hydrated, and to ascend in stages. It is very important that each volunteer be aware of the effects of altitude on the body prior to the rendezvous.

Note: Reporting any signs of altitude-related illness (e.g., headache, nausea, or fatigue) to staff and fellow volunteers is absolutely critical. Early detection and treatment minimizes the risk of serious consequences. Detailed instructions on this will be provided at the beginning of the expedition.

POTENTIAL HAZARDS

If you feel ill once you return from your trip, make sure you inform your doctor that you have recently returned from a tropical region.

Hazard Type	Associated Risks and Precautions
Transportation	Roads in the research area are dirt and gravel, and are poorly maintained. They will be very bumpy and either dusty or muddy and slick, depending on weather. Washouts are possible. Some project work will involve driving off-road over extremely bumpy terrain with thorny vegetation, and tire punctures are not uncommon. Other road hazards include fast, reckless drivers (though there are few other vehicles in use around Wamba); livestock and wildlife; lack of lighting; and banditry. Driving at night is avoided, and volunteers may not drive. Seatbelts must be worn whenever available. Traffic moves on the left side of the road.
Terrain	The terrain will consist mostly of hard, rocky, uneven ground and sandy, dry riverbeds. Most areas are flat, but some, particularly in the Namunyak Conservancy, are hilly with relatively steep inclines. There is risk of sprains, strains, breaks, etc., due to falling or missteps. Good hiking boots will help protect feet and ankles from thorns and injury. Participants are encouraged to watch where they step and to walk slowly to avoid injury. Large rivers in the area are often dry. After heavy rain, flash flooding may occur.
Animals	Several potentially dangerous animals live in the research area, including leopards, buffalos, baboons, lions, crocodiles, venomous snakes, scorpions, and elephants. There are inherent risks involved when working where these animals may be. Remember that all wild animals can be dangerous. Do not approach, antagonize, provoke, or tease any animal. Due to the presence of wildlife in the area, volunteers are not permitted to leave the research camp area. The risks are mitigated by following camp protocols and staff instructions provided in safety briefings. Volunteers must adhere to these rules and protocols at all times. Boots with ankle protection are a good defense against the remote possibility of snakebites or scorpion stings. Note: When working in the field in the Wamba area, teams will most likely be accompanied by a member of the local Samburu community.

	<p>This person will most likely be a male community elder or soldier (<i>moran</i>) who can advise the researchers on the area, recent animal sightings, local plant names and uses, and potential hazards. This person will also act as a guard and will likely be armed with a spear, knife, and/or rifle. These weapons are for your protection, and guards are well versed in their use; it is standard practice for adult men in these communities to carry such arms. Volunteers are not permitted to handle firearms or other weapons at any time.</p>
Plants	<p>Volunteers may encounter thorny brush, which can puncture tires and shoes and scratch skin. To avoid being hurt by acacia and other thorns, volunteers should use high-quality boots with ankle protection. Euphorbia plants produce a sap that can be irritating to the skin and eyes on contact; project staff will point these plants out to volunteers in the field.</p>
Climate/Weather	<p>Because of the equatorial location and raised altitude, dehydration and sunburn are a constant concern. You may get severely sunburned within a very short time if you walk out without sunscreen or don't reapply on exposed areas. The air can seem cool due to comfortable breezes, which can lead to dehydration in addition to sunburn. You must drink plenty of water throughout the day and protect yourself from the sun with a wide-brimmed hat, protective clothing (long sleeves, etc.), sunscreen, and lip balm with SPF 30 or higher.</p>
Political/Social/Cultural	<p>After the 2007 elections in Kenya, demonstrations took place in market centers and other public places. Some of these gatherings turned violent, and people have been displaced from many areas of the country as a result. The risk of unrest tends to be heightened during national political events such as elections, and there may be political rallies or groups demonstrating in market centers during your time in Kenya. Avoid such gatherings, demonstrations, or protests while in Nairobi and other areas of the Central and Rift Valley provinces. Do not stop to photograph them and be aware of your surroundings at all times. The expedition accommodations and research sites are located well away from the urban centers where rallies and demonstrations generally occur, and although foreigners are not typically targeted, there remains the risk of being in the wrong place at the wrong time.</p> <p>Also, please see the <i>Additional Travel Information</i> section for details on recent terrorism-related security warnings.</p>
Personal Security	<p>Volunteers must follow safety precautions as advised by project staff, who will strive to ensure personal security. Risks in the Wamba area are low, but there have been some robberies in the larger reserves outside of the areas where Earthwatch teams typically operate. It is always best practice to leave unnecessary valuables at home. In Nairobi, as in many large cities, crime and theft are concerns. Always travel in pairs or groups, avoid conspicuous displays of money, electronics, or other valuables, and take taxis, especially if going out at night. Use official Kenatco taxis or taxis recommended by hotel desk staff. The Fairview Hotel and other hotels can provide reputable taxis, a safe in each room, and a secure storage area if you wish to leave some of your belongings in Nairobi during the expedition. Money belts and/or pockets with zippers worn close to the body are useful.</p>
Remoteness/Distance to Medical Care	<p>There is a local mission hospital in Wamba that can be up to 3 hours away, depending on where the team is. This hospital is only 10 minutes from the center. However, in the event of a serious emergency, it would be necessary to transport the injured or ill individual to a full-service hospital in Nairobi. Evacuations to Nairobi may be possible only in daylight hours, and can therefore take up to 24 hours to arrange. Participants should obtain routine medical and dental care prior to traveling and keep a copy of their personal health records and prescriptions with them. Participants must be sure to disclose any medical conditions to Earthwatch and project staff and inform a staff member immediately if they feel unwell.</p>
Traveler's diarrhea	<p>Traveler's diarrhea affects 20-50% of all international travelers. Always wash your hands with soap and water or a hand sanitizer before eating, and drink filtered or bottled water. You should also carry an over-the-counter ant-diarrheal medication in your personal first aid kit. Speak to your doctor about other options for treating traveler's diarrhea and see the CDC website for advice on avoiding this condition.</p>

HEALTH INFORMATION

Routine Immunizations

All volunteers should make sure to have the following up-to-date immunizations: DPT (diphtheria, pertussis, tetanus), polio, MMR (measles, mumps, rubella), and varicella (if you have not already had chickenpox). Please be sure your tetanus shot is current.

Project Vaccinations

Medical decisions are the responsibility of each volunteer, and the following are recommendations only. While Earthwatch can provide details regarding suggested vaccinations, we are not a medical organization, and decisions about which vaccinations to receive should be made between you and a doctor. Health conditions around the world are constantly changing, so keep informed and consult your physician, a local travel health clinic, the US Centers for Disease Control and Prevention (cdc.gov), and the World Health Organization (who.int) for the latest health information for travelers. Please consult a physician for guidance on vaccinations if you intend to travel to other parts of the country or other countries nearby.

	Required for Entry	Recommended for Health Reasons
Typhoid		X
Yellow fever	X - if traveling from countries or region where it is endemic, a Certificate of Vaccination is required.	
Hepatitis A		X
Hepatitis B		X
Polio		X- A one-time booster is recommended for all adults (in addition to an adequate primary series).

Advice Regarding Diseases

Diseases found in Kenya include hepatitis, rabies, HIV/AIDS, polio, tuberculosis, meningitis, measles, cholera, plague, schistosomiasis (bilharzia), leptospirosis, anthrax, and typhoid. Insect-borne diseases include malaria, onchocerciasis (river blindness), yellow fever, chikungunya, trypanosomiasis (African sleeping sickness), Rift Valley fever, dengue fever, filariasis, and leishmaniasis. Please see the CDC (cdc.gov) or WHO (who.int) websites for more information.

- **Malaria: Chloroquine-resistant malaria is present in the study sites and most other areas of Kenya.** To reduce your risk of exposure to malaria and other insect-borne diseases, use insect repellent with DEET, wear protective clothing, and/or sleep under a mosquito net. Please consult your physician to determine the best course of malaria prevention or prophylaxis. Note also that some antimalarial medications can increase sun sensitivity. Volunteers will regularly be exposed to the strong equatorial sun, which needs to be taken into consideration when choosing the appropriate antimalarial medication. Symptoms include fever, chills, headaches, and muscle aches; always be suspicious of a fever, and inform a staff member in order to get it checked out if you feel ill.
- **Rabies** vaccinations are not compulsory for this expedition, as volunteers are not going to be handling any wildlife as part of their assignments. However, volunteers may wish to consult with their health care providers about the rabies vaccine, given the regional prevalence of loose and stray dogs and the distance to medical

care. The rabies pre-exposure vaccination consists of three doses over a 28-day period. Please be sure to consult your physician or travel health clinic well in advance to ensure you have time for the full vaccination series. If you have previously been vaccinated, you must have a medical professional check your antibody levels; a booster shot may be required. Rabies is a fatal disease. Treatment after rabies exposure requires immediate care (within 24 hours), and this type of rapid response may not be available to volunteers on this project due to the remote location. Pre-exposure vaccination does not eliminate the need for post-exposure medical attention and treatment, but it does provide additional protection against the disease in event of a delay in treatment. In addition, any bites or scratches should be immediately and thoroughly washed with soap, clean water, and a topical povidone-iodine solution or ethanol. **Participants should avoid stray dogs at all times.**

- *Tuberculosis*: The World Health Organization estimates that one-third of the world's population is infected with the bacterium (*Mycobacterium tuberculosis*) that causes tuberculosis. The incidence of tuberculosis is higher in developing countries, particularly in Asia, Africa, the Caribbean, and Latin America. In general, approximately 10% of persons infected with *M. tuberculosis* are at risk for developing active tuberculosis during their lifetimes. Tuberculosis is considered highly treatable with medications that are of relatively low toxicity and cost. Volunteers returning from developing countries are encouraged to have a (PPD)-tuberculin skin test to screen for potential infection.
- *Dengue fever* is endemic in more than 100 countries in Africa, the Americas, the Eastern Mediterranean, Southeast Asia, and the Western Pacific and can occur throughout the year. Dengue fever is a flu-like virus spread primarily by day-biting mosquitoes. It is characterized by fever, headache, rash, vomiting, and severe muscle pains. There is no vaccine, and mosquito bites should be avoided whenever possible. Insect repellent and long sleeves and pants are highly recommended. There is no treatment for standard dengue fever other than acetaminophen (avoid aspirin), fluids, and rest. It is usually resolved after about 2 weeks. However, hemorrhagic dengue fever, characterized by bleeding and shock, can occasionally occur and requires medical care.
- *Yellow fever* is a viral infection that people can get if they are bitten by a mosquito carrying the virus. Very rarely, the virus can also spread if someone receives blood from an infected person; only a handful of such cases have been documented. The incubation period is 3-6 days. The majority of people infected with yellow fever develop only mild symptoms, and some may not have any symptoms at all. About 5% of people infected develop a more serious form of the disease. Symptoms include sudden headache, fever, and flu-like symptoms that can include sensitivity to light, chills, joint and muscle pain, and sometimes vomiting. Most people recover, although some will develop a severe toxic form of the disease. This can involve jaundice, which turns the skin and eyes yellow (hence the name "yellow fever"), with hemorrhagic (bleeding) symptoms and organ failure. Between 20% and 50% of people who have a severe case of yellow fever die from the disease. There is no cure for yellow fever; treatment is supportive. Laboratory diagnosis is via a blood test.

A vaccine protecting against yellow fever is available, given in the form of a single injection. Protection is effective 10 days afterwards and lasts for 10 years. Pregnant women and immunocompromised individuals cannot be vaccinated.

Your home country may require a Certificate of Vaccination for re-entry if you have traveled to an area where yellow fever is endemic.

- *HIV*: Note that the HIV infection rate in Kenya is 15%, so unprotected sexual activity is dangerous, particularly in tourist areas (which attract prostitutes, who have high rates of infection).
- *Meningitis*: Only the far northwestern part of Kenya is considered part of the meningitis belt. Vaccination is therefore not required, but it may be recommended by some health authorities.

Additional Health Information Resources

- Travel health website: mdtravelhealth.com
- The Travel Doctor: tmvc.com.au
- Australian Department of Health and Aging: health.gov.au
- Hospital for Tropical Diseases: thehtd.org
- Traveller's Healthline Advisory Service Tel: (020) 7950-7799
- MASTA Travelers' Healthline (UK) Tel: (0906) 8-224100 (within the UK)

EMERGENCIES IN THE FIELD

Proximity to Medical Care	
Physician, nurse, or EMT on staff	Project staff are not medical professionals
Staff certified in safety training	Wilderness First Responder: Nick Oguge, Paul Muoria
Nearest hospital	<p>Wamba Mission Hospital Emergency nurse's mobile: +254 (0) 713-258-730 No landline phone service available (approximately 10 minutes from the field center and up to 3 hours from the furthest field site)</p>
Nearest Full-Service Hospital	<p>Aga Khan University Hospital 3rd Avenue, Parklands Nairobi P.O. Box 30270-00100 GPO, Nairobi, Kenya Tel: +254 (0) 20-374-0000 Main Tel: +254 (0) 20-366-2025 Emergency Fax: +254 20 374-1749</p>
	<p>Nairobi Hospital Argwings Kodhek Road P.O. Box 30026 G.P.O 00100 Nairobi, Kenya Tel: +254 (020) 284-5000 Tel: +254 (020) 284-6000 Fax: +254(020) 272-8003</p>

COMMUNICATIONS

Emergency Communications in the Field

VHF radios will allow for emergency communication between field teams, and the center; project staff will have cell phones with them as well. Cell phone reception has recently improved in the region, although it is still not universal. Cell phone calls are possible from the center, thus substantially easing communication. Satellite phones have variable reception. Project phones will be limited to emergency and project-related communications.

The emergency contact number at Earthwatch in the United States is +1 (978) 461-0081 or +1 (800) 776-0188 (see *Emergency Contacts* for calling instructions).

Personal Communications

Please remember to reconfirm your flights while in Nairobi. The research site is not set up to allow Earthwatch volunteers to use the project communications devices except in emergency situations. Volunteers who wish to contact friends, family, etc. upon arrival must do so in Nairobi. Email facilities are available to guests at the Fairview and other hotels in Nairobi for a fee; although hours of availability may be limited. Email facilities will not be available to volunteers in Wamba.

Volunteers wishing to use their personal cell phones should first check with their service providers regarding rates, international calling capabilities, and service from Kenya. Volunteers may be able to rent a phone in Nairobi or at the airport. Coverage in the Wamba area is provided by Safaricom.

Family and friends of Earthwatch volunteers should be aware that personal communication with outsiders is not always possible while the volunteers are participating in an expedition. Earthwatch encourages volunteers to minimize outgoing calls; likewise, family and friends should restrict calls to urgent messages only. Measures have been taken to ensure that appropriate communication tools are available in cases of emergency.

All volunteers are asked to remember that Earthwatch expeditions offer a rare chance to escape from hearing ringing phones and others' phone conversations, and to regulate their cell-phone use with respect for fellow volunteers and staff accordingly.

Appendix

- Cleaveland, S., G.R. Hess, A.P. Dobson, M.K. Laurenson, H.I. McCallum, M.G. Roberts, and R. Woodroffe. The role of pathogens in biological conservation. In: *The Ecology of Wildlife Diseases*. New York: Oxford University Press, 2002:139-150.
- Muoria, P.K. Conservation of Grevy's zebra (*Equus grevyi*) in Samburu, Kenya. In: *Report to African Wildlife Foundation*. Nairobi, 2005.
- Muoria P.K., N.O. Oguge, D. Rubenstein, and P. Muruthi. *Conservation of Grevy's Zebras (Equus grevyi) in Samburu, Kenya*. Samburu Conservation Research Initiative, Earthwatch, 2004: 23-30.
- Muoria, P.K., P. Muruthi, D. Rubenstein, N.O. Oguge, and E. Munene. Cross-sectional survey of gastro-intestinal parasites of Grevy's zebras in southern Samburu, Kenya. *African Journal of Ecology* 2005: 392-395.
- P.K. Muoria, P. Muruthi, W.K. Kariuki, B. A. Hassan, D. Mijele, and N.O. Oguge. Anthrax outbreak among Grevy's zebra (*Equus grevyi*) in Samburu, Kenya. *African Journal of Ecology* 2007: 483-489.
- Woodroffe, R., and J.R. Ginsberg. Conserving the African wild dog *Lycaon pictus*. *Oryx* 1999:132-142.

Earthwatch Institute Policies & Participant Rights and Responsibilities

This document contains important information concerning Earthwatch Institute policies and participant rights and responsibilities for inclusion on an Earthwatch expedition. Please read this document thoroughly and sign the Liability Release section of your Earthwatch Participation Form to indicate that you understand and accept the risks inherent to your expedition and the policies, rights, and responsibilities enumerated in this document. Participants will not be permitted to partake in an expedition until Earthwatch has received the signed release form.

Intellectual Property Rights

It is permissible to share photos, videos, and stories of your expedition with family, friends, local media, and in a public forum. Sharing your new perspectives and experiences is welcomed and encouraged.

However, please recognize that all information, data, and images shared or gathered in the course of your expedition's fieldwork become the intellectual property of the Earthwatch scientist (ES). Co-opting or plagiarism of data, images or information gathered during an expedition for use in a scientific thesis, masters or PhD work, or for profit or for the academic or business use of a third party without the permission of the ES is strictly prohibited. Please be aware that data gathered during the interviewing of local people becomes the intellectual property of the ES. Earthwatch scientists have the right to place additional restrictions on your ability to share data or certain research-related images.

Conversely, an Earthwatch scientist may give written permission to use data and images for academic or profitable activity. Please be sure to ask what is acceptable to the Earthwatch scientist.

Fellows or scholarship recipients are sometimes required to submit a written report reflecting what they have learned on a project, sometimes as a step toward developing a curriculum. Earthwatch scientists have the right but not obligation to review and edit materials involving information gathered on one of their expeditions.

Discrimination

Earthwatch does not discriminate on the basis of race, religion, ethnicity, national origin, gender, sexual orientation, or any other reason prohibited by applicable law and respects participants' right to privacy. However, you must be aware that local laws in countries in which Earthwatch operates may not be anti-discriminatory and that the possibilities exist that local residents may not have an awareness of best practice regarding discrimination.

Discrimination on the basis of race, religion, ethnicity, or sexual orientation will not be tolerated on Earthwatch teams. Disruptive behavior, or verbal, physical or any other type of abuse or harassment will also not be tolerated. Violation of Earthwatch's non-discrimination policy is grounds for expulsion from the program without a refund.

Intimate relationships

Earthwatch scientists, their staff, their colleagues, and their associates are prohibited from becoming romantically involved with participants during the entire duration of the period that the team is in the field. Romantic relationships that may otherwise seem permissible may eventually create an unpleasant or unproductive work environment and are therefore strongly discouraged for the duration of an Earthwatch project.

Sexual Harassment

Please recognize that the relationship that exists between Earthwatch scientists and staff and participants is analogous to the student-teacher relationship. Therefore, please be aware of the following policies.

Sexual harassment of participants by the Earthwatch scientist or Earthwatch staff is prohibited. Likewise, sexual harassment of other participants, Earthwatch field staff, or local people by participants is also prohibited.

Sexual harassment infringes on an individual's right to an environment free from unsolicited and unwelcome sexual overtones of conduct either verbal or physical. Sexual harassment does not mean occasional compliments of a socially acceptable nature.

Sexual harassment refers to conduct which is offensive, which harms morale, or which interferes with the effectiveness of Earthwatch expedition teams; such conduct is prohibited. Lewd or vulgar remarks, suggestive comments, displaying derogatory posters, cartoons or drawings, pressure for dates or sexual favors and unacceptable physical contact or exposure are examples of what can constitute harassment. No one should be touched in areas that otherwise would be covered by a bathing suit. It is important to realize that what may not be offensive to you, may be offensive to participants, the local population, and Earthwatch field staff.

Any individual who feels subjected to sexual harassment or has any knowledge of such behavior should report it at once to his or her PI or to Earthwatch staff members. All Earthwatch scientists and Field Team Leaders (FTLs) will notify Earthwatch immediately when an accusation of sexual harassment or abuse is made or witnessed.

All reports of sexual harassment will be handled with discretion and will be promptly and thoroughly investigated. Any participant who is found to have engaged in conduct constituting sexual harassment will be immediately removed from the expedition at his or her own expense. If a minor is immediately involved in allegations of sexual harassment, his or her parents will be contacted.

Drugs

Laws on drug use in most countries are severe and may carry lengthy imprisonment or death penalties. I understand and accept that the manufacture, possession, use, purchase and/or sale of illegal drugs or other illegal substances while on an Earthwatch expedition is strictly prohibited. Prescription drugs may only be purchased and used by the individual indicated on the prescription in keeping with their intended use guidelines.

Alcohol

Local statutes, customs, practices, ordinances, and regulations with regard to the use, possession, sale, or purchase of alcohol are applicable to all participants and project staff in Earthwatch expeditions. Participants and project staff on Earthwatch expeditions must comply with the law of the country in which a project is located regarding the minimum age required to consume alcohol. In addition, restriction on the use, possession, sale, or purchase of alcohol may be set by the Earthwatch scientist. Any restrictions on the consumption of alcohol should be clearly outlined by the project staff in the briefing to participants at the start of the project, and in the Expedition Briefing.

Consumption or possession of alcohol or smoking is not permitted on any Earthwatch Teen Team, regardless of local law.

Excessive consumption of alcohol by staff or participants is not acceptable on any Earthwatch project. Intoxication can jeopardize personal safety, in addition to the safety of the team. It can also cause delay, and hinder response in the event of a crisis or emergency situation.

Earthwatch staff and the Earthwatch scientist have the discretion to remove individuals from the project who consume alcohol in a time and manner that endanger the safety and/or productivity of the expedition.

Minors

Earthwatch considers participants under eighteen (18) years of age to be minors. Minors are not permitted to participate on any of Earthwatch's standard teams unless accompanied by a parent or legal guardian in which case the minimum age is sixteen (16). Minors on regular teams do not receive additional guidance or supervision from Earthwatch beyond what is offered to the adult participants. The number of minors on regular teams is limited to two (2) per team. Earthwatch has developed teams specifically for 16 and 17 year olds ("Teen Teams") as well as teams specifically for families ("Family Teams") with children as young as 10 years old. These teams focus on the same research activities and have the same expectations as our regular teams, but with more facilitation and support. Exceptions for some projects are made at the discretion of Earthwatch and the Earthwatch scientist. Due to a more in-depth screening process for certain programs that select candidates based on school year rather than age, there may be 18 year olds fielding on the same team as 16 and 17 year olds. Please be aware that some Earthwatch projects do not allow participation by minors in any circumstance.

Participants and Driving

Participants are not allowed to drive project vehicles or aircraft during an expedition. In select circumstances, participants may be able to drive boats under the direct supervision by project staff. These circumstances are pre-determined by project staff in collaboration with Earthwatch. Participants must respect the restrictions for boat driving in place for each project.

If a project environment is such that participants can drive their own vehicles to the rendezvous, those who have driven themselves to the project may not drive their own vehicles to, from or for project activities, including the transport of project equipment after arriving at the site.

Participants who have driven themselves to the project may choose to utilize their own vehicle during recreational time, but project staff will brief them on the driving restrictions. All driving during recreational time is done at your own risk.

Please be advised that the only exception to the above driving restrictions is emergency situations.

Riding in other participants' vehicles is not covered under the participants' insurance policy for the expedition. Riding in another participant's vehicle is done at a participant's own risk.

In the Event of an Emergency

In the event of emergencies, judgments must be made by Earthwatch field staff and participants. While Earthwatch makes an effort to ensure that qualified people make the most informed decisions possible, occasionally first aid may be administered and other immediate steps taken by expedition participants who are not licensed medical providers.

Each Earthwatch expedition has safety protocols and emergency procedures in place. Earthwatch encourages team members (the field staff and participants) to exercise their best judgment with regard to their own safety and the safety of other team members. Other participants may perform "Good Samaritan" actions, or actions taken to assist fellow participants during emergency situations in the field. However, Earthwatch does not encourage or expect you to jeopardize your own safety or that of others in attempting to rescue or assist your fellow team members.

Right of Refusal

Earthwatch reserves the right to refuse an applicant's participation on Earthwatch projects at any time and to terminate any work being done by a participant and require the participant to vacate the project site if any of the Earthwatch Expedition Team in his or her absolute discretion considers it appropriate. In this event, the participant (and his/ her parent/ guardian, if appropriate) will be responsible for arranging and paying for any accommodation, travel or other arrangements which may be necessary following the termination of a participant's involvement in a project, for whatever reason and may not be eligible for a refund.

Earthwatch and the project staff may not refuse a participant for discriminatory reasons (race, religion, ethnicity, national origin, sexual orientation, or any other reason prohibited by applicable law). However, participants may be denied in the interest of team compatibility. Earthwatch will make reasonable efforts to accommodate participants with disabilities and the organization endeavors to find appropriate expeditions for those participants that have physical limitations. Refusal of a participant is an unusual event and is generally due to either an applicant's failure to meet the essential eligibility requirements of a particular project, or in the interest of team compatibility. In the event that an applicant is refused participation for health reasons, Earthwatch will refund in full any deposit or payment made toward the expedition.

Earthwatch scientists have the right to refuse special requests, such as media visits (film, photography or print), special groups or teams (students, donors, etc.), if they conflict with Earthwatch scientist schedules, safety, research objectives or general performance of the team.

Any participant found in violation of any of the policies described in this document ("Earthwatch Institute Policies & Participant Rights and Responsibilities") is subject to removal from the team at their own expense. By signing the Liability Release section of your Earthwatch Participation Form, participants are indicating that they have read and understand the policies in this document. Removal of a participant from a team is at the discretion of the Earthwatch scientist or Field Team Leader and Earthwatch staff. In addition, Earthwatch will support the right of the scientist to send participants away from a project once in the field should their behavior compromise the safety, research objectives or general performance of the team, or if the participant has violated a stated policy. In the event that a minor is dismissed from a project, Earthwatch will contact the participant's parents or legal guardian prior to their dismissal. Should a participant be removed from a team, he/she is responsible for any or all costs associated with departure from the team and will receive no refund of the share of costs of the expedition nor any expenses incurred in participation on the expedition.

Expedition Packing Checklist

Required Items

- This Expedition Briefing
- Photocopies of your passport, flight itinerary and credit cards in case the originals are lost or stolen; the copies should be packed separately from the original documents
- Passport and/or visa (if necessary)
- Certification of vaccination (if necessary)
- Documentation for travel by minors (if necessary) (see *Volunteers Under 18 Years of Age* in the *Travel Planning* section)

Clothing/Footwear for Fieldwork

Note: Clothing should be dull in color (either brown or green) and suitable for working in a hot, dry environment. Bright colors (e.g. red) should be avoided because of the wild animals. Shorts and sandals are not recommended for fieldwork due to thorns/vegetation and strong sun.

- Be sure to bring your Earthwatch T-shirt and remember to wear it, as appropriate, throughout your expedition
- Two or three pairs of lightweight trousers
- Several T-shirts
- Several lightweight, long-sleeved shirts
- Wide-brimmed hat to protect face, head, and neck from sun
- Well worn-in and comfortable hiking boots
- Two or more pairs of field socks
- Lightweight waterproof jacket or poncho during the wet seasons

Clothing/Footwear for Leisure

- One set of clothing to keep clean for end of expedition
- At least one set of casual clothes for use during social gatherings (e.g. visits to local community villages); women may wish to bring a long skirt and men may wish to bring a collared shirt.
- Shorts
- T-shirts
- Sandals or light canvas shoes to wear at the house or for around camp
- Flip-flops (thong sandals) for use in the shower
- Fleece jacket, sweater/jumper, or sweatshirt for cool nights
- Pajamas

Field Supplies

- Binoculars*
- Small daypack/rucksack
- Dry bag or plastic sealable bags (good for protecting equipment such as camera from dust, humidity, and water)

- Insect repellent spray with DEET
- 2 (two) 1-liter water bottle(s)
- Sunglasses
- Sunscreen lotion with SPF 30 or higher

* Binoculars with 10 x 42 magnification are recommended for wildlife viewing. Information on choosing and purchasing binoculars can be found at eagleoptics.com/. Each individual volunteer must bring his/her own.

Bedding and Bathing

Note: Bedding, mosquito nets for the beds, and towels will be provided.

Personal Supplies

- Personal toiletries (biodegradable soaps and shampoos are encouraged)
- Antibacterial wipes or lotion (good for cleaning hands while in the field)
- Personal first aid kit (e.g. antidiarrhea pills, antibiotics, antiseptic, itch-relief, pain reliever, bandages, blister covers, etc.) and personal medications
- Sunscreen lotion with SPF 30 or higher
- Spare glasses or contacts, for those who use them

Miscellaneous

- Headlamp and/or flashlight with extra batteries and extra bulb
- Spending money
- Camera, film/memory card(s), extra camera battery

Optional Items

- Earplugs for light sleepers
- Favorite snacks
- Kiswahili guide
- Field guides
- Hardware (e.g. flash drive, blank CD, camera cables) for sharing photographs at end of expedition
- Personal reading and writing materials, games, art supplies, etc. for down time
- Pocket knife (pack in checked luggage)
- Supplies to donate to a local primary school* or community cultural center, such as inflatable globes; wall maps of Africa and the world, and world atlases (in English is fine); footballs/soccer balls; calendars; writing materials, including pens, paper, pencils, chalk; books (particularly books about conservation or wildlife), or magazines.

Your team may visit a local primary school. Schools in the area have very limited resources. There is **no obligation to donate items. Please keep baggage weight limits in mind.*

Note: Required and Optional Items lists are accurate to the best of Earthwatch's knowledge at the time of publication.