

# 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 or
- Earthwatch Participation Form for Teens
- Travel Form

European volunteers can download forms on: [earthwatch.org/europe/volunteerforms](http://earthwatch.org/europe/volunteerforms)

US/North American volunteers can download forms at: [earthwatch.org/volunteerforms](http://earthwatch.org/volunteerforms)

Australian volunteers can download forms on: [earthwatch.org/australia/expeditions/volunteer\\_forms/](http://earthwatch.org/australia/expeditions/volunteer_forms/)

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

# Costa Rican Coffee From Community to Cup

## Table of Contents

<b>GENERAL INFORMATION.....</b>	<b>1</b>
<b>THE RESEARCH .....</b>	<b>4</b>
PROJECT STAFF .....	6
<b>DAILY LIFE IN THE FIELD .....</b>	<b>8</b>
VOLUNTEER TRAINING AND ASSIGNMENTS .....	8
TEAM ITINERARY AND DAILY SCHEDULE .....	9
ACCOMMODATIONS.....	12
FOOD.....	13
<b>TRAVEL PLANNING.....</b>	<b>14</b>
RENDEZVOUS.....	14
PASSPORTS AND VISAS.....	14
INSURANCE .....	17
ADDITIONAL TRAVEL INFORMATION.....	18
RECOMMENDED READING .....	19
HELPFUL RESOURCES .....	19
<b>PROJECT CONDITIONS.....</b>	<b>20</b>
POTENTIAL HAZARDS.....	21
HEALTH INFORMATION .....	22
EMERGENCIES IN THE FIELD .....	24
COMMUNICATIONS .....	24
<b>EARTHWATCH INSTITUTE POLICIES &amp; PARTICIPANT RIGHTS AND RESPONSIBILITIES .....</b>	<b>25</b>
<b>EXPEDITION PACKING CHECKLIST.....</b>	<b>28</b>

# General Information

<b>Project title</b>	Costa Rican Coffee from Community to Cup
<b>Earthwatch scientists</b>	<b>Sebastián Castro Tanzi</b> , Ph.D. Student, Plant and Soil Science Department, University of Vermont <b>Dr. John E. Banks</b> , Professor of Environmental Science, Director of Undergraduate Education and Director of International Programs, University of Washington, Tacoma <b>María del Milagro Granados Montero</b> , Adjunct Professor and Sub-Director of the Crop Protection Research Center, University of Costa Rica
<b>Research site</b>	Gran Hotel Costa Rica, San José, Costa Rica
<b>Expedition length:</b> 8 days	<b>Minimum age of participation:</b> 18 years of age*
<b>Team size max:</b> 12 participants	

**\*Note:** Teams 2-4 are reserved and will receive separate briefings. Teen Teams are reserved for participants 15–18 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 *Volunteers Under 18 Years of Age* in the *Passports and Visas* 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.

### Emergency medical and evacuation assistance provider:

To contact International SOS in the event of an emergency, dial:

- For assistance **within the US:** ISOS Philadelphia, +1 (215) 942-8459
- For assistance **outside the US:** ISOS London, +44 (0) 208-762-8008
- For assistance **within Australia:** ISOS Australasia, +61 (0) 2-9372-2468

State that you are on an Earthwatch expedition. The following information must be provided:

1. The Insured Person's name
2. The Assured is **EARTHWATCH**, the Certificate No: **GP 0010214** and SOS reference **#14ACPA000075**
3. The telephone number and facsimile number where the Insured Person can be reached
4. The Insured Person's address abroad
5. The nature of the emergency



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", written over a faint, illegible printed name.

Ed Wilson  
President and CEO

# Coopetarrazú R.L.

Dear Earthwatch Volunteer,

We are delighted to welcome you to *Costa Rican Coffee from Community to Cup*, the Earthwatch field research initiative taking place in the Tarrazú region of Costa Rica. We hope this experience will be transformative for you as you learn more about coffee cultivation and culture, sustainability, and the role you can play in creating a more sustainable future.

You will be participating in a large-scale research project with the Coopetarrazú farmers' cooperative in central Costa Rica. The overall goal of this project is to understand the practices that lead to more sustainable production of coffee under the risk of climate change and soil acidification. To assist in that process, you will help to collect information from fourteen different coffee farms along the altitudinal gradient found in Tarrazú. You will sample coffee plants and gather data on important features of the landscape such as shade trees, soils, and coffee productivity. In addition, we will map the location of the farms using Global Positioning Systems (GPS) and Geographical Information Systems (GIS). This data, combined with existing soil fertility maps and digital elevation models, will allow us to identify farms at risk of soil degradation and those with high yielding potential. It will also support the development of less intensive, more agroecological strategies for managing soil fertility.

As a volunteer in this project, you will also help establish ways of enhancing tree biodiversity in the landscape while avoiding outbreaks of fungal disease which affect the coffee crop. For this, you will help to develop a protocol to characterize the incidence and severity of fungal diseases, and help characterize the community of shade trees and ground cover plants.

This Expedition Briefing includes important information that will be useful to you in preparing for your trip. Please read it carefully to ensure that you are prepared for your expedition. Within this Expedition Briefing, you will find a brief description of the project, information about traveling to Costa Rica, a suggested packing list for things to take with you, and a link to forms that you must fill out prior to your expedition. Please get started on these materials right away so you have time to resolve any issues or problems that come up.

Thank you for your passion and your commitment to this project. We look forward to working with you in Costa Rica!

Best Wishes,

Sebastián Castro Tanzi  
*Earthwatch scientist*

Dr. John E. Banks  
*Earthwatch scientist*

Natalia Ureña Retana  
*Field Center Manager*

# The Research

## Costa Rican Coffee from Community to Cup

### Introduction

Coffee is one of the most widely grown perennial crops and is a major source of export revenue for many tropical countries. It is the world's fifth most widely traded commodity, with annual sales exceeding US\$70 billion, of which only US\$5 billion remains in producing countries. In the tropics, over 25 million farmers in 56 countries export coffee, and an estimated 100 million people are dependent on coffee for income (International Coffee Organization: [ico.org](http://ico.org)).

Strategies for producing coffee crops vary globally, from the more traditional rustic practices, where coffee is grown under the natural shade canopy of the original forest cover, to polyculture systems with moderate diversity and varied tree canopy, to much more intensive farming practices involving either a limited number (1–2) shade tree species, or no shade trees at all, with coffee bushes fully exposed to the sun.

The intensification of farming practices in sub-optimal growing conditions has been compounded by a history of less desirable farm management practices. These include the use of lower quality, but higher yielding coffee varieties, high input of fertilizer, lack of liming to increase nutrient availability in highly acidic soils, conversion to full-sun coffee, farming on excessively steep slopes, and use of highly toxic pesticides and herbicides. Currently there is increased recognition that such intensive farming practices are unsustainable for the farming community, for maintaining coffee yield, and for the environment.

Coffee production in Costa Rica exemplifies one of the most dramatic shifts toward intensive coffee production, where many farmers are producing coffee under full sun using external inputs such as synthetic fertilizers, herbicides, fungicides and pesticides.

Most Costa Rican farms (92%) are small (less than five hectares) and are situated in regions with high environmental heterogeneity. Within a farm, fields can be as little as 0.2 hectares and each field may differ greatly in altitude, exposure, and slope. In addition, it is expected that warmer temperatures will occur in this region as a consequence of climate change. These variables impact the type of land management, disease incidence, productivity, and the quality of coffee.

### Research Objectives and Outcomes

Our current research project builds on our ongoing collaboration with Coopetarrazú R.L., a local coffee processing cooperative. We are developing strategies jointly with farmers to conserve the beneficial properties of soil and reduce their carbon footprint.

Specific goals coffee farmers in Tarrazú are working toward include:

1. Improving soil quality
2. Increasing and diversifying the shade tree canopy and ground cover in their coffee plantations
3. Reducing the dependence on agrochemicals
4. Maintaining or increasing the cup quality of their coffee

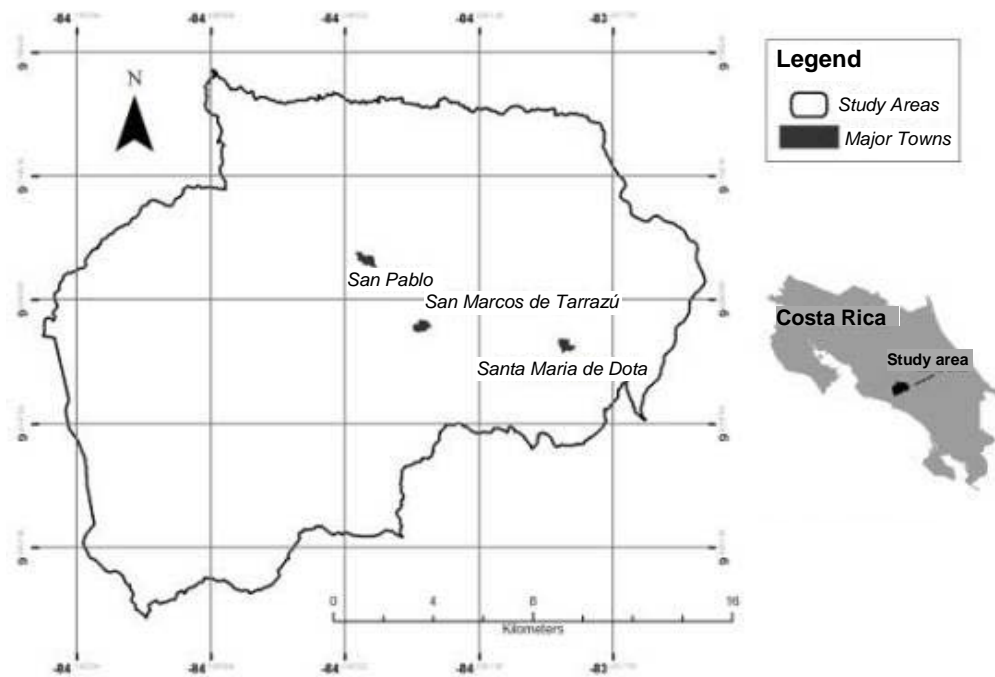
Earthwatch has been supporting the achievement of these goals through outreach and field research initiatives for the past five years.

This project also investigates the impacts of conserving nearby forest fragments, and their potential to boost populations of native pollinators, especially bees, and to substantially improve yield. The program is participatory and includes major stakeholders (farmers, buyers, and the general public) in its design, as well as field research and dissemination components. Regional stakeholders include Tarrazú coffee farmers, Coopetarrazú, the University of Costa Rica, Instituto Nacional de Biodiversidad (INBio), and the Starbucks Agronomy Unit, among others.

Finally, the *Costa Rican Coffee From Community to Cup* expedition is researching fungal diseases that affect the coffee plants, as these are currently considered to be among the most important constraints to coffee production in the Los Santos region. In the 2010-2011 Costa Rican coffee harvest, approximately 12% of the total national production was lost due to the American leaf spot disease (*Mycena citricolor*), known locally as *ojo de gallo*. Current management practices of the fungus rely on excessive use of fungicides and pruning of shade trees and canopy. Given the potential increase of temperature in this region associated with climate change, there is concern that epidemics of this fungal disease will only get worse. A better understanding of the development and growth of the disease will inform the design of more sustainable management strategies.

Volunteers will assist in the collection of data toward these objectives by visiting fourteen coffee farms strategically located across seven sites that characterize the elevation and soil gradients found in the Los Santos

### Study area in Los Santos Region, Costa Rica



region. At these farms, volunteers may collect soil samples, characterize the shade tree, coffee canopy, and ground cover plants, estimate coffee production in plots receiving different nitrogen (N) rates, and identify site and environmental factors associated with the survival of *ojo de gallo*.

These data will help scientists, cooperative managers, and farmers to make comparisons and draw conclusions about how to better manage their land sustainably.

# PROJECT STAFF

## Earthwatch scientists

**Sebastián Castro Tanzi** is originally from Costa Rica, and is the lead field scientist for the project. After finishing studies in agronomical engineering with an emphasis on plant production sciences, Sebastián worked in the commercial landscaping industry, where he became aware of the negative impact of development on land resources. He later went on to obtain a professional master's degree in geo-information sciences and earth observations with an emphasis on planning and coordination in natural resource management at the International Institute for Geo-information Science and Earth Observation in The Netherlands. He is currently enrolled in the Ph.D. program in the Agroecology and Rural Livelihood Group in the Plant and Soil Science Department of the University of Vermont in the US. Sebastián's current interests include the integration of information technologies in natural resource management to improve monitoring and further planning toward sustainability. He believes Tarrazú offers an ideal setting for this, due to the farmers' capabilities and interest in improving the way they manage their coffee farms. He hopes that participants in these Earthwatch expeditions will have the chance to experience how state-of-the-art information technologies can be combined with traditional cropping practices to procure more sustainable coffee production.

**Dr. John E. Banks** is a professor of environmental science and the director of international programs at the University of Washington in Tacoma. He earned a Ph.D. in zoology at the University of Washington in Seattle, a master's degree in applied mathematics at the University of Southern California, and a bachelor's degree in mathematics from Pomona College in California. Dr. Banks has been using a mixture of field experiments and mathematical models to explore issues among insects and managed and natural vegetation for the past several years. He is particularly interested in the effects of integrating natural vegetation into agro-ecosystems in order to bolster crop production, insect pest control, and biodiversity. His recent research projects include conservation studies in Yucatán, Costa Rica, and Kenya, and collaborations with colleagues in Sweden and the US using mathematical models to explore population dynamics in biological control and ecotoxicology. Dr. Banks plans to lead Team 2 of the *Costa Rican Coffee from Community to Cup* expedition in April, 2012.

**María del Milagro Granados Montero** is an adjunct professor at the Universidad de Costa Rica (UCR) where she received her bachelor's degree in agronomy and her master's degree in crop protection. She is also the sub-director of the Crop Protection Research Center at UCR. Milagro is currently in the second year of a doctoral program in sustainable tropical agricultural systems with UCR and Iowa State University in the US. Her work focuses on the American leaf spot disease (*Mycena citricolor*), a fungal disease which affects coffee plants and can have a significant impact on success of coffee production in the region. Milagro plans to lead the first and last teams (Teams 1 and 9) of the 2012 season.

## Earthwatch field staff

**Natalia Ureña Retana** is the field center manager for the *Costa Rican Coffee From Community to Cup* project, and has been working at the Earthwatch Field Center in Tarrazú since its inception in 2007. In addition to running all volunteer teams, Natalia works throughout the year with regional stakeholders, including the general managers of the coffee cooperatives, agronomists, and farmers. She also leads farmer engagement programs, like the Sustainable Coffee Leadership Program, in four coffee cooperatives in Los Santos Coffee Region. She is a tropical biologist and a specialist in integrated watershed management from the Tropical Agricultural Research and Higher Education Center (CATIE), located in Turrialba, Costa Rica. Natalia received her B.S. from the National University of Costa Rica in 2002, and her M.Sc. from CATIE in 2004.

Natalia hails from the Los Santos region in the small mountain valley of Santa María de Dota, which borders San Marcos de Tarrazú. Her father and many other members of her family are coffee farmers in this region. Natalia loves coffee and is passionate about promoting sustainable coffee production in Los Santos. She works with local schools, leading educational programs for children about conservation, the environment, and natural resources. She enjoys working and coordinating activities with stakeholders, especially farmers, and is excited to show expedition participants the many beautiful things about the area's culture, natural resources, and more.

## Staffing Schedule (Subject to Change)

Staff Member Present	Team 1	Team 5	Team 6	Team 7	Team 8	Team 9
Sebastián Castro Tanzi		x	x	x	x	
Dr. John E. Banks						
Maria del Milagro	x					x
Natalia Ureña Retana	x	x	x	x	x	x
Teen Team Facilitator				x		

# Daily Life in the Field

## VOLUNTEER TRAINING AND ASSIGNMENTS

### Training

The Earthwatch scientists and research staff will provide training on the history and culture of the Tarrazú region and Costa Rica, as well as on potential hazards and how to stay safe in the field. On the first evening, volunteers will introduce themselves and share their expectations for the trip. Throughout the expedition, volunteers will work in groups with different staff in order to allow team members to share their expertise and experiences. Coopetarrazú staff will also speak to the group, and volunteers will have the opportunity to talk with local farmers about issues and concerns in the region.

Over the course of the expedition, volunteers will have the opportunity to become immersed into the coffee community, and to gain an understanding of how people live in the region and how vital coffee production is to their livelihoods. Volunteer may also visit two of the most important coffee mills in the region in order to learn how coffee is processed. All data collection methods will be demonstrated during the second day of the expedition, and work will be carefully supervised in the field. Most of the methods used are fairly straightforward, and volunteers who pay attention to detail should be able to learn them quickly.

The Earthwatch scientists will give the team a more detailed onsite project briefing when you arrive.

### Assignments

Volunteers will visit between five and eight farms throughout the expedition. You will be organized in small groups, usually pairs, to conduct research tasks. Below are the tasks to be carried out by volunteers. *Note:* Not all teams will conduct all tasks. Each team will conduct a combination of the tasks below, depending on research needs.

- *Coffee plant productivity and health assessment:* You will sample random coffee plants to model their productivity and assess their health. This includes counting the number of nodes with fruits in specific branches and noting spores and wound counts of fungal diseases in leaves and pests in roots.
- *Shade tree and ground cover plant characterization:* You will note different characteristics of shade trees, such as species, height, diameter at breast height (DBH), presence of epiphyte plants, etc. The community of ground cover plants will also be described by recording species abundance and biomass. Microclimatic data may also be tracked using dataloggers.
- *Mapping coffee fields:* Using GPS receivers, you will map fields to accurately estimate their area.
- *Foliar and soil sample collections:* Volunteers will collect foliar (leaf) and soil samples to estimate the nutrient conditions both in the plant and the soil. Some vegetation samples will be collected for incubation in the lab in order to investigate initial inoculums of fungal diseases.
- *Pollinator studies:* Team 2 will help collect observational data on pollinators visiting coffee flowers and help capture and identify pollinators from coffee farms and nearby forests.

Volunteers should be in fairly good physical condition, and able to walk on steep, often slippery slopes. Because it often rains during summer afternoons, volunteers usually spend the mornings working outdoors and the afternoons may contain a mixture of outdoor and indoor activities; indoor activities will include lectures, data entry, and preparation for the following day. On some afternoons the team will work outdoors or go on outings, as weather permits. The ability to speak some Spanish is helpful but not required.

# 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

Time of Day	Activity
3:00 p.m.	Team introductions
	Travel to San Marcos
6:30 p.m.	Dinner
Evening	Orientation and introduction to the project

## Day 2

Time of Day	Activity
6:00 a.m.	Breakfast at the accommodations
6:30 a.m.	Depart for the field center
7:00 a.m.	Training sessions in the morning, including a health and safety briefing, orientation to the project site and daily schedule, and an introduction to farming practices, sustainability issues, and the research program
12:00 noon	Lunch
1:00 p.m.	Training sessions
7:00 p.m.	Dinner
8:00 p.m.	Discussion in the evening

## Days 3–6

Time	Activity
5:00 a.m.	Rise and get ready for fieldwork
6:00 a.m.	Breakfast
7:00 a.m.	Fieldwork (lab work in the event of rain)
12:00 noon	Lunch in the field/lab
1:00 p.m.	Continue fieldwork or return to Coopetarrazú for lab work in the event of rain (a visit to and tour of a coffee cooperative will take place on one or two afternoons)
6:00 p.m.	Return to accommodations for a short break before dinner
7:00 p.m.	Dinner
Evening	Relaxation time, lab work, presentations, and/or discussions. A visit to and tour of a coffee cooperative will take place on one or two afternoons. One evening, the team will be invited to dinner at the home of a local coffee farmer.

## Day 7

Time of Day	Activity
6:00 a.m.	Breakfast
7:00 a.m.	Final day of fieldwork
12:00 noon	Lunch in the field/lab
1:00 p.m.	Volunteers will finish data entry and organize the lab. Research staff will present a summary of the team's contributions to the project.
7:00 p.m.	Final celebratory dinner in the evening
9:00 p.m.	Return to accommodations to pack up

## Day 8

Time of Day	Activity
7:00 a.m.	Breakfast at the accommodations
8:30 a.m.	Departure just after breakfast in order to reach the airport in time for afternoon flights

**Recreational Time:** Volunteers will have down time during some afternoons and evenings. Activities during these times may include discussions about coffee sustainability, documentaries and videos related to coffee production, presentations on the results of the research, learning and training programs conducted with farmers from the coffee cooperatives to date.

Possible additional optional activities may include:

- Visit Los Quetzales National Park.
- Go to a Barista Show in Coopedota R.L.
- Visit an Organic and Biointensive Farm in León Cortés.
- Visit an artisanal cheese farm in Copey de Dota.
- Walk through the cloud forest in Santa María de Dota (diurnal or nocturnal walk).
- Visit a Butterfly Garden at the Technical High school in Santa María de Dota.
- Other options may be pursued depending on volunteer preferences.

Optional activities will be at the volunteers' own expense; average costs range from \$5 to \$10 for each activity. Volunteers may wish to bring spending money for optional activities and the purchase of souvenirs, coffee, and other personal items (\$100–150 is generally recommended but you may need more or less depending on your spending habits).

The team accommodations are within walking distance of the town of Santa María de Dota. Santa María de Dota is generally considered safe and peaceful but walking in groups of two or more is always highly recommended.

## 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 twenty-four-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 Cabinas de Cecilia (Cecilia's Cabins) in the quiet and quaint town of Santa María. The cabins are rustic but comfortable, and each has its own décor and layout with a combination of single and double bedrooms, or a triple bedroom. Single and double rooms will be assigned at random, but can also be requested on a first-come, first-served basis (please contact Earthwatch with this request, and note that no room assignments can be guaranteed). At times, there may be dogs in the area that bark at night, so it is recommended that volunteers bring ear plugs.

## Bathrooms

Each cabin has a bathroom with toilet, sink, and warm showers.

## Internet and Communications

The cabins are equipped with Wi-Fi, so it is possible to access the Internet. One computer will be made available for the use of volunteers.

## Facilities and Amenities

There is a common area where volunteers may gather, which is partially enclosed to allow guests to enjoy the breezes and surrounding gardens while staying out of the rain. Cecilia's offers breakfast on-site. There is also an area for checking email and watching movies; we recommended that, if you like, you bring movies or interesting documentaries to share and watch in group.

For a small additional fee, volunteers may request laundry services directly from the accommodations. Visit their website at [cabinascecilia.com](http://cabinascecilia.com).

## Distance to Field Site

The accommodations are located in Santa María de Dota, one of the three towns in Los Santos coffee region. The Earthwatch Field Center office is located in San Marcos de Tarrazú where Coopetarrazú and many of the fields that we visit to collect data are located. The distance between Santa María and San Marcos is about fifteen minutes driving, on average approximately ten kilometers.

## Services and Restaurants in Walking Distance

The town center has various restaurants, one bank with an ATM, small shops, supermarkets and an Internet café, and is about a fifteen-minute walk from the cabins.

# FOOD

On a typical day, breakfast will be provided at the accommodations. Lunch is usually served at noon in the lab facilities, but may also be packed and taken to the field. The team will eat a homemade dinner together at the cabins in the evenings. The team may also be invited to have dinner at the home of a local farmer.

A staple of Costa Rican cuisine is rice and beans. In general, meals often include starches (rice, potatoes, plantains, etc.) with meat (chicken, beef, pork, seafood), and are not usually too spicy. While vegetarians may find meatless meals, these meals will likely be heavy on starches, and/or lacking in variety. Plenty of fresh fruits, such as mangos, papaya, pineapple, bananas and oranges, will be available throughout the day. Volunteers are welcome to request changes to the breakfast menu if they have particular preferences.

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.

<b>Breakfast:</b> Bread, cereal, eggs, fruit, <i>gallo pinto</i> (Costa Rican rice and beans)
<b>Lunch:</b> Rice, beans, seafood, chicken, sausage, pork, beef, tortillas, pizza. Packed lunches in the field, will generally consist of sandwiches.
<b>Dinner:</b> Rice, beans, seafood, chicken, sausage, pork, beef, tortillas, pizza
<b>Snacks/Other:</b> Fruit, bread, cheese
<b>Beverages:</b> Water, coffee, tea, juice. Other beverages may be purchased at your own expense to drink with dinner.
<b>Water:</b> Bottled water will be available, though the tap water is fine to drink.

## 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 and strict vegetarians:** Please be aware that it is often difficult to accommodate strict vegetarians and 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 seriously reconsidered.

# Travel Planning

**Note:** Earthwatch Institute's international emergency medical and evacuation assistance provider, International SOS, has a wealth of useful information available at their website, including visa, passport, currency, medical, etc. information for the country in which this project takes place. See [internationalsos.com](http://internationalsos.com) and enter Earthwatch's member identification number: **14ACPA000075**. Under "Select Resource" choose "English Country Guide," and then select this project's country from the list.

You are encouraged to register your travel itinerary with your embassy. For information on embassies around the world, see [embassyworld.com](http://embassyworld.com).

- Citizens of Australia may register online at: [orao.dfat.gov.au](http://orao.dfat.gov.au).
- British citizens may register online at: [fco.gov.uk/en/travel-and-living-abroad/staying-safe](http://fco.gov.uk/en/travel-and-living-abroad/staying-safe).
- Citizens of the United States may register online at: [travelregistration.state.gov](http://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. Please do not make any travel arrangements to join an expedition on this project without receiving 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 our website to get in touch with us and we will be very happy to help you. This information is provided in the printed version of this Expedition Briefing.

## PASSPORTS AND VISAS

### Visa Information

Citizens of the US, EU, Australia, Canada and Japan **do not** need a tourist visa for entry (for stays of less than 90 days). 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.

**Note: If you are traveling from outside the US to Canada, Mexico, Latin America, South America, the Bahamas or the Caribbean and have a stopover in the US, you are required to register through the ESTA program.**

### Passport Information

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

## Electronic System for Travel Authorization (ESTA)

Online registration is now mandatory for all visitors traveling to the United States without a visa. The Electronic System for Travel Authorization (ESTA) is used to screen short-term visitors who are citizens of the 36 countries eligible for the US Visa Waiver Program (for a list of participating countries, see [http://travel.state.gov/visa/temp/without/without\\_1990.html](http://travel.state.gov/visa/temp/without/without_1990.html)).

Visitors are required to complete ESTA **at least three days before traveling to the US**. Once approved, the authorization will be valid for up to two years if the individual's passport does not expire in the meantime. Applications can be submitted through the ESTA website [esta.cbp.dhs.gov/esta](http://esta.cbp.dhs.gov/esta). **Note:** As of September 2011, ESTA costs approximately US\$14.00.

Citizens of countries covered by the Visa Waiver Program (VWP) traveling to the US for tourism or business for 90 days or less do not need to obtain a visa provided they have a valid passport (for exceptions see the VWP Quick Reference Guide on [travel.state.gov/pdf/VWP-QuickReferenceGuide.pdf](http://travel.state.gov/pdf/VWP-QuickReferenceGuide.pdf)).

## For Volunteers Requiring Visas ONLY: Essential Information

<b>Type of Visa</b>	Volunteers requiring a visa must get a <b>TOURIST VISA</b> .
<b>Where to Get a Visa</b>	Contact the nearest <b>Costa Rican embassy or consulate</b> to find out how to apply for your visa. Please note that this process can take weeks or more. We strongly recommend using a <b>visa agency</b> , which can both expedite and simplify the process. See below for a list of visa agencies.
<b>Required Information</b>	You will need to send your <b>passport</b> (valid for at least six months beyond your stay), a <b>Visa Application and Immigration Form</b> , <b>2-4 passport-size photos</b> , and <b>payment</b> to the embassy or visa agency (if applicable). Please be sure that your passport is valid for at least six months beyond your stay.
<b>Contact Information</b>	You may be required to list the following contact information on your Visa Application and Immigration Form:  Cabinas Cecilia 500 Sur, 100 Sureste del Parque de Santa Maria de Dota San Jose, Costa Rico +506 (2) 541-1233
<b>Cost of a Visa</b>	Generally between US\$40-100, but varies from country to country and can potentially cost <b>up to US\$180</b> . A visa agency will charge an additional fee.

**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: <a href="http://trivisa.com">trivisa.com</a> (*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: <a href="mailto:info@uk.cibt.com">info@uk.cibt.com</a> Web: <a href="http://uk.cibt.com">uk.cibt.com</a> (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/exit points to protect minors. Thus, if a minor will be traveling with only one guardian, or if for any reason they 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 they 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](http://rainbowt.jp/travel/visa_top.html)
- For Australian citizens: [passports.gov.au](http://passports.gov.au) and [dfat.gov.au/visas/index.html](http://dfat.gov.au/visas/index.html)
- For US citizens: [passportvisasexpress.com](http://passportvisasexpress.com)
- Travel Document Systems: [traveldocs.com/index.htm](http://traveldocs.com/index.htm)

# INSURANCE

MedEvac assistance, advice and insurance are included in the contribution you pay to Earthwatch. It covers your travel medical risks, including medical expenses and emergency medical evacuation, while you are traveling. It doesn't provide personal liability insurance. Please ask your Earthwatch office about optional trip cancellation coverage, which is available for an extra fee. This coverage is valid in the country of your Earthwatch expedition and during travel to and from your expedition (**Note:** For US volunteers, the coverage is valid only when the expedition is over 100 miles from your place of residence). For information about when coverage starts and ends, and other frequently asked questions, see [earthwatch.org/europe/downloads/Insurance/post15Jan\\_FAQs.pdf](http://earthwatch.org/europe/downloads/Insurance/post15Jan_FAQs.pdf).

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 Sutton Winson.

**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 this insurance policy are included in your expedition briefing pack and can be found at [earthwatch.org/europe/insurance](http://earthwatch.org/europe/insurance). Please refer all queries regarding this policy to Sutton Winson in the UK at +44 (0) 1444 251 164 or on [earthwatch@swib.co.uk](mailto:earthwatch@swib.co.uk).

Information about additional insurance available to UK residents can be found at [earthwatch.org/europe/insurance](http://earthwatch.org/europe/insurance). Should you have any questions about whether you require additional coverage for your travel plans, please contact Sutton Winson. Earthwatch is not authorized by the FSA to give advice on any additional travel insurance you might require.

## **If you signed up through Earthwatch US:**

Details of the US insurance policy can be found at [earthwatch.org/insurance](http://earthwatch.org/insurance). Please refer any queries regarding this policy to Sutton Winson in the UK. From the US, dial 011 44 1444 251 164, or email [earthwatch@swib.co.uk](mailto:earthwatch@swib.co.uk). Please note the time difference between the US and the UK and call during UK business hours, which are from 08:45 to 17:00 GMT (from November to April) and GMT +1 (from April to November).

Information about additional insurance can be found at [earthwatch.org/insurance](http://earthwatch.org/insurance). Should you have any questions about whether you require additional coverage for your travel plans, please contact Sutton Winson. Earthwatch is not authorized by the FSA to give advice on any additional travel insurance you might require.

## **Emergency Medical and Evacuation Assistance (for all volunteers)**

Emergency medical and evacuation assistance is available for all Earthwatch participants from International SOS (ISOS), a twenty-four-hour, independently operated international emergency medical and evacuation service. Please see the contact information and card on the *General Information* page. Participants should carry the card with them on the expedition.

# ADDITIONAL TRAVEL INFORMATION

## 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 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. Many airlines have strict baggage policies. Please check with your airline(s) on baggage weight limits, liquid restrictions, fees for checked baggage, etc.
- *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.

## Money Matters

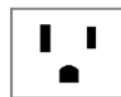
- *Local currency:* Costa Rican colones (CRC). US dollars are also often accepted, both in San José and at the field site. See the International SOS website and [xe.com/ucc](http://xe.com/ucc) for currency information and exchange rates.
- *Personal funds:* You shouldn't need much spending money during the expedition, but if you are arriving early, bring enough to cover the taxi from the airport to the rendezvous hotel and any additional expenses related to your early arrival (US\$70–100). Likewise, if you choose to remain in Costa Rica after the expedition, you will need to cover any related expenses. During the expedition, you may wish to purchase additional food and beverages, and/or buy souvenirs. Depending on how much you wish to spend on personal items, US\$100–200 or the equivalent should be plenty. In Los Santos Coffee Region volunteers can purchase high quality coffee and souvenirs related to coffee, so it is important to bring extra money for that if you would like to do so.
- *Airport fees and/or departure taxes:* Be prepared to pay the departure tax of US\$26 in cash (US dollars or Costa Rican colones) or by VISA credit card (processed as a cash advance) at the airport upon checking in for your flight home.

## Your Destination

- *Language:* Spanish. In San José and other cities, many people speak some English. The project will be conducted in English.
- *Cultural considerations:* Costa Rica is a somewhat conservative country with great pride and respect for traditions. Even in warm months, rural Costa Ricans do not generally wear revealing shorts and tank tops. Volunteers should respect the Costa Rican culture by dressing appropriately and avoiding overly revealing clothing.
- *Electricity:* 240 volts, 60 hertz, Type A and Type B plugs (like US). For more information, see [kropla.com/electric2.htm](http://kropla.com/electric2.htm).



Plug Type A



Plug Type B

- *Time zone:* GMT/UTC -6. For time worldwide with GMT/UTC, see [worldtimeserver.com](http://worldtimeserver.com).
- *Telephone Dialing codes:* When calling Costa Rica from another country, dial the home country's international dialing code, followed by (506) and the number. You will need to add a "2" after the "506" for all Costa Rican landline numbers and an "8" after the "506" for all Costa Rican cell phone numbers. When calling within Costa Rica, omit the (506) and dial the eight digit number (i.e. including 2 or 8 for landline and cell phone numbers respectively). When calling another country from Costa Rica, dial (00), followed by the other country's country code and the number. **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](http://kropla.com/dialcode.htm).

## Country Information

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

## RECOMMENDED READING

Below are additional recommended materials for those interested in further preparing for the expedition.

### Project-Related Websites

- Coopetarrazú: [cafeTarrazú.com](http://cafeTarrazú.com)
- Cabinas Cecilia: [cabinascecilia.com/](http://cabinascecilia.com/)

### Project Field Report

Each Earthwatch -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 at [earthwatch.org/FieldReportPDF/Tarrazu\\_FieldReport2009.pdf](http://earthwatch.org/FieldReportPDF/Tarrazu_FieldReport2009.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](http://earthwatch.org/volunteerresources)

Volunteers who sign up through our UK office, visit: [earthwatch.org/europe/volunteerresources](http://earthwatch.org/europe/volunteerresources)

# Project Conditions

Please show this section to a doctor when he/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/her health and safety, and to assess that he/she can participate fully and effectively.**

## General Conditions

Costa Rica is a small, mountainous country, and the terrain is generally steep. The climate varies significantly, from arid lowlands to cooler but humid highlands to hot and humid areas. It is usually mild at San Marcos de Tarrazú. The area is 1,350 m (4,400 ft) above sea level, and average daily temperatures are around 71°F/22°C. During the rainy season, from late April to December, nights can be chilly. The sun rises at approximately 5:00 a.m. and sets at approximately 6:00 p.m. each day. The weather is expected to vary within the limits below.

Rainy season: April – December	
Humidity	75% to 83%
Temperature range	5°F (3°C) to 80°F (27°C)
Altitude	4,429 ft to 5,906 ft (1,350 m to 1,800 m)
Rainfall	118 in/ 300 cm per year

## Essential Eligibility Criteria

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

- Follow verbal and or visual instructions.
- Enjoy being outdoors all day in all types of weather (see *General Conditions*), in the potential presence of wild animals and insects.
- Tolerate approximately 27°C (80°F) heat, direct sun, high humidity levels, and cooler temperatures down to approximately 18°C (34°F) at night.
- Traverse uncleared, steep, rocky, often muddy or wet terrain, and possibly through thick underbrush. Total time hiking is less than approximately 5 – 6 hours per day; total distance is less than approximately 5 mi/8 km per day.
- Tolerate working at an altitude of up to approximately 5,906 ft/1,800 m above sea level.
- Tolerate working on agricultural lands, in the potential presence of pollens and insects, and where pesticides and fertilizers may be in use.
- Carry personal daily supplies such as lunch, water, and some small field equipment.
- Get low enough to access and collect samples on the ground and in the brush, up to 20 times a day.
- Get oneself up into and down out of a four-wheel-drive vehicle, minibus or car and ride, seated with seatbelt fastened, for up to approximately an hour at a time, for a total of about approximately 2 – 3 hours a day.

# 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	Volunteers will be transported in vehicles by project staff or professional drivers; volunteers are not permitted to drive. Four-wheel-drive vehicles will be used when appropriate. Seatbelts must be worn when the vehicle is in motion. Transportation risks include unsafe driving, poorly maintained roads (in particular, large potholes), poor visibility due to lack of lighting and fog/rain, the possibility of landslides in some areas during heavy and/or persistent rains, and the use of roads by pedestrians, bicyclists, and farm animals. Roads in urban areas are paved, but in rural and beach areas roads will likely be unpaved. Volunteers are advised to only use taxis that are licensed: official licensed taxis are red with yellow triangles, and at the airport the licensed taxis are orange.
Terrain/Walking/ Hiking	Costa Rica is mountainous and rocky. The coffee farms where we work are on steep slopes. Risks include tripping over rocks or holes and slipping on muddy, wet, or unstable surfaces. Be aware of your surroundings, heed staff instructions, wear appropriate footwear, walk slowly and carefully, and watch where you are stepping at all times.
Animals/Plants	Volunteers should watch where they place your hands and feet to avoid touching harmful animals and plants. Volunteers will be instructed on the identification and avoidance of plants and animals that could cause harm. There are four species of venomous snakes in Costa Rica; three of these are only mildly venomous, and though one can be fatal, it is not aggressive towards people. There are fuzzy caterpillars that may appear cute but, if the hairs are touched, they can be extremely painful. Costa Rica has several species of ants with painful bites as well. Volunteers should also avoid stray animals, particularly dogs.
Climate/ Weather	While the altitude may moderate the heat at times, the teams will be working in direct sun and high humidity in the tropics. Volunteers must protect themselves from the sun with appropriate clothing (wide brimmed hat, sunglasses, etc.) and high-factor sunscreen, and drink plenty of water throughout the day to avoid dehydration. High humidity, heavy rain, and strong wind can be uncomfortable, particularly in the rainy season (April to December). Do not overexert yourself, and inform a staff member right away if feeling tired or ill. A warm jacket or fleece is essential, as is a waterproof layer.
Working on Farms	<p>The teams will be working on agricultural land, and even those without known allergies may find themselves sensitive to some of the plants/pollens in the area. Bees and wasps may also be present. Participants with allergies to biting and/or stinging insects should bring medications as appropriate (antihistamines, at least two Epi-kits, etc.), indicate their specific allergy and treatment needs on their health form, and inform staff on site as to their treatment needs and medication location.</p> <p>Some farmers use pesticides and fertilizers on their farms. While volunteers will not be involved in the application or handling of these substances, please be aware of the fact that you may be in areas where they are in use, or are being or have been stored.</p>
Personal Security	Team members should take careful precautions for personal safety and use common sense due to the risk of petty and/or violent crime, particularly in urban centers (e.g. San José) and while traveling both before and after the expedition. Tourists may be targeted by thieves. It is best to travel in pairs or groups, to avoid displays of money or other valuables, to take taxis, and to avoid traveling at night. It is always best practice to leave unnecessary valuables at home. During the team, volunteers should stay in groups of two or more when walking in Santa María de Dota.

Disease	Diseases found in Costa Rica include malaria, dengue fever, filariasis, leishmaniasis, American trypanosomiasis (Chagas disease), hepatitis, rabies, and typhoid. Please see the <i>Health Information</i> section for inoculation recommendations. Most diseases are prevented with basic safety cautions. Please see the CDC ( <a href="http://cdc.gov">cdc.gov</a> ) or WHO ( <a href="http://who.int">who.int</a> ) websites for more information. If you feel sick after returning home, be sure to tell your Doctor that you have traveled to a tropical region. See additional advice regarding diseases below.
Traveler's Diarrhea	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 anti-diarrheal medication in your personal first aid kit. Speak to your doctor about other options for treating traveler's diarrhea and see the ISOS or CDC websites for advice on avoiding this condition.

## HEALTH INFORMATION

See [internationalsos.com](http://internationalsos.com) for information on the current health conditions in Costa Rica. At the homepage, enter Earthwatch's member identification number: 14ACPA000075. Under "Select Resource" choose "English Country Guide," and then select Costa Rica from the list.

### 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 chicken pox). 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 Center for Disease Control ([cdc.gov](http://cdc.gov)), the World Health Organization ([who.int](http://who.int)), and International SOS (see above) 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.

Vaccination chart available on ISOS member site (English Country Guide, medical summary).

	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

## Advice Regarding Diseases

- *Malaria* is present in Costa Rica in Limón Province, and in rare cases in other parts of the country. The research project takes place in San José Province, with a possible recreational trip to Puntarenas Province. Although malaria is not considered a risk in the areas in which you will be traveling, please consult your physician to discuss the risks, especially if you are considering traveling elsewhere in the region or country before or after the expedition. The CDC recommends the use of chloroquine as a malarial prophylaxis for travelers to those areas of Costa Rica where malaria may be a risk.
- *Rabies* vaccinations are not required for this expedition, as contact with animals is not expected. However, volunteers are cautioned to avoid stray animals, particularly dogs. Any bites or scratches should be immediately reported to project staff and thoroughly washed with soap and clean water, and a topical povidone-iodine solution or ethanol applied. Jogging increases your risk of dog bite.
- *Tuberculosis*: The WHO estimates that one-third of the world's population is infected with the bacterium (*M. tuberculosis*) that causes tuberculosis (TB). 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 TB during their lifetimes. TB 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. Globally there has been a 30-fold increase in the number of reported cases of dengue fever over the past 50 years. 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 and ibuprofen), fluids and rest. It is usually resolved after about two weeks. However, hemorrhagic dengue fever, characterized by bleeding and shock, can occasionally occur and requires medical care.

### Additional Health Information Resources

- Travel health website: [mdtravelhealth.com](http://mdtravelhealth.com)
- The Travel Doctor: [tmvc.com.au](http://tmvc.com.au)
- Australian Department of Health and Aging: [health.gov.au](http://health.gov.au)
- Hospital for Tropical Diseases: [thehtd.org](http://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

If a volunteer needs to leave the project early due to an emergency, he or she may take a taxi from San Marcos de Tarrazú to San José; it will cost approximately \$100, and be at the volunteer's expense.

<b>Proximity to Medical Care</b>	
Physician, nurse or EMT on staff	Project staff are not medical professionals
Staff certified in safety training	Natalia Ureña Retana and Sebastián Castro Tanzi both trained in first aid/ CPR (Cardiopulmonary Resuscitation).
Nearest hospital and/or clinic	San Marcos Clinic (Dr. Iván Brenes) 100 m Este de la Iglesia de San Marcos de Tarrazú Tel: +506 (2) 546-6850
Distance	From the accommodations, the clinic is just 15 minutes away. From some of the field sites it may about an hour to reach the clinic driving off-road over rough terrain. Fully equipped hospitals are located in Cartago and San Jose within an hour or 90-minute drive from the accommodations, respectively.

## COMMUNICATIONS

### **Emergency Communications in the Field**

The project staff will carry cell phones, and coverage in the area is quite extensive. If the team breaks up into groups working out of sight/hearing range of one another, staff will also have two-way radios that may be used to communicate between the groups.

Police may be reached at 117 or +506 (2) 541-1233, and fire services may be reached at +506 (2) 546-6444.

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

### **Personal Communications**

Volunteers will be able to access the wireless Internet at the Earthwatch office at El Marqués de Tarrazú in Coopetarrazú R.L, the project accommodations, or at a local Internet café. Please keep in mind that the office computer is mainly for business and should not be relied on for personal email. You may also use your own cell phone if possible, as Costa Rica has coverage in many areas. Please contact your cell phone service provider to determine what you might need to do and expect to pay in order to send or receive calls or messages on your cell phone. Please note that international rates may be very expensive. It is also possible to rent a cell phone for use while you are in Costa Rica. In San Marcos de Tarrazú there is an office of the Electricity and Communication Institute, where you can get a temporarily cell phone if it is needed.

Family and friends of Earthwatch volunteers should be aware that personal communication with outsiders is not always possible while 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.

### **Contact Information**

This information is available in the print version of this document only.

# 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 field work 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.

(November 2010)

# 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)
- Calling card/mobile phone (with international calling capabilities if applicable)
- Credit card that may be used (internationally, if applicable) in the event of an emergency (travel delays, etc.)

## Clothing/Footwear for Fieldwork

- Be sure to bring your Earthwatch T-shirt and remember to wear it, as appropriate, throughout your expedition
- Lightweight, quick drying, long-sleeved shirts
- Lightweight, quick drying trousers
- One warm jacket, fleece, or sweatshirt (it will be cool in the mountains)
- Well worn-in, comfortable, waterproof hiking boots and waterproof gaiters
- Rain poncho/jacket
- Long socks that can be pulled up over your trousers
- Hat with a wide brim to protect face, neck, and head from the strong sun

## Clothing/Footwear for Leisure

- One set of clothing to keep clean for end of expedition
- One set of clothing to keep clean for evenings, visits to town, etc.
- Sandals to wear around the accommodations
- Spare shoes to change into when others are wet and muddy
- Warm pajamas (it can get quite chilly at night)

## Field Supplies

- Small daypack/rucksack
- Drybag or plastic sealable bags (good for protecting equipment such as camera from dust, humidity, and water)
- Insect repellent spray
- Two one-liter water bottle(s)
- Headlamp or flashlight/torch with extra batteries and extra bulb

### **Bedding and Bathing**

**Note:** Blankets, pillows and towels will be provided by the accommodations.

### **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. anti-diarrhea pills, antibiotics, antiseptic, itch-relief, pain reliever, bandages, blister covers, etc.) and personal medications
- Sunscreen lotion with SPF 30 or higher

### **Miscellaneous**

- Spending money in colones for any personal expenses and the airport US\$26 departure tax (see *Additional Travel Information* in the *Travel Planning* section)
- Camera, film/memory card(s), extra camera battery (if you bring a digital camera, bring your interface cables for downloading)

### **Optional Items**

- Earplugs
- Travel guide
- Books, games, journal, art supplies, etc. for recreational/rest time and travel
- Field guide on the birds/wildlife of Costa Rica
- Spanish/English dictionary
- Binoculars
- GPS (Global Positioning System) receiver
- Waterproof trousers/rain pants
- Blank CD or DVD for sharing digital photographs at the end of the expedition

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