

Information and Equipment Checklist for Costa Rica Research Technicians

Mennill & Doucet Lab Research Projects

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Welcome to our field team! Below, we provide details on our field site, suggestions for what you should bring to Costa Rica, and list contact information that you can leave with your family or loved ones. At the bottom is a checklist of things to bring.

1. **General Background:** You will need a current passport and your driver's license. You do not need a special visa or an international driving license/permit for Costa Rica. We will be staying at Santa Rosa National Park, which is part of the Area de Conservacion Guanacaste (ACG). We live in a small field research house called "Base Cero" (it means "Base Zero") just outside the main park entrance. The park is 35 km north of the largest town in northwestern Costa Rica, Liberia (approx. 40,000 people). There is an international airport in Liberia. Out of convenience, we usually fly into and out of Liberia. There is another major airport in San Jose, the capital, which is a 5-hour drive or bus ride from our field site. The park is home to many Costa Rican field biologists and 5-20 seasonal field researchers (like us) who work on a variety of plants and animals. The park is a historical landmark (the scene of two major historical battles with Nicaragua), and hosts a museum, gift shop, and many nature trails. Playa Naranjo is a famous surfing beach that is also part of the park. Another nearby beach, Playa Nancite, is a protected sea turtle nesting habitat. There are several active volcanoes within two hours' drive of the park. A few volcanoes are quite close and have superb nature trail with waterfalls, lots of birds, boiling mudpots, etc. There are several good snorkeling and swimming beaches within 1-1.5 hours' drive which we sometimes visit on our weekly day off.

2. **Goals:** Our main goal is to do research. We will discuss the specific goals for the field season and how our field activities fit into the bigger picture of our research program. We expect everyone on the team to commit themselves fully to the project for 6 days of the week. This will mean getting up before dawn (4:00 AM!) six days per week, working outside in a variety of weather conditions, and tolerating bugs. Daily activities will include lots of hiking around, operating mist nets, collecting field observations, collecting field recordings, and conducting various field experiments, so you should be in very good physical condition. We often spend afternoons in our field house logging data, building equipment, repairing equipment, and planning for the next day, but we may do afternoon field work as needed. Everyone should be fully involved with the project and we expect you to make suggestions and take on tasks without being asked, etc. By the end of the field season, we should all feel good about what we have accomplished. Each week, we will take one day off to relax and recuperate.

3. **Climate and clothing:** The province of Guanacaste is very hot, dry and windy in the dry season (mid-Dec to mid-May), and is hot, humid, and rainy during the wet season (mid-May to mid-Dec). You will want shorts, cool shirts (t-shirts or tank tops), and sandals to wear around the house when we are not in the field. In the field, you will want a hat with a brim, long sleeved but lightweight shirts, and long pants (no shorts in the field). Pants that dry as quickly as possible are preferable during the rainy season. You will want rubber boots (to mid-calf or higher) and/or hiking boots to be worn with snake gaiters (we have several pair of the less-expensive sort of gaiters at the field house that you can borrow). It is usually very difficult to find appropriate rubber boots in Costa Rica, so bring some from Canada or the US (make sure you get a good fit; sometimes it is worth buying a half-size too big and adding a comfortable insole for support). We often go to the beach or to the local swimming hole on our day off, so bring a swimsuit and maybe a beach towel. Most people also like to have a pair of

sunglasses. You will want sun screen, especially for days off. We will provide bedding in the form of a sheet, a fitted sheet, and a pillowcase. Sleeping bags are usually too hot, although cold-sensitive people sometimes appreciate a light blanket for the cooler pre-dawn hours. See detailed equipment list below.

4. Shots, Prophylaxis, and Medicines: You will be best protected if you have (i) an up-to-date typhoid vaccination (these are usually good for 2 to 4 years depending on the type) (ii) an up-to-date tetanus vaccination (you probably had this when you were young but may need a booster depending on your age), (iii) up-to-date Measles, Mumps, and Rubella vaccinations (you may need a booster depending on age) and (iv) vaccinations for Hepatitis A and B. There is malaria in CR, but not much in Guanacaste in our experience. Some people take malaria prophylaxis, but many long-term field researchers do not because of the toll the prophylaxis takes on your liver (Dan and Stephanie do not take malaria prophylaxis during the field season). We also highly recommend that you bring a general antibiotic that could be used in an emergency (Cipro is probably the best option). Although the water is very good at our field site, one always takes a risk of getting *E. coli*, *salmonella*, or other gut parasites in a tropical country. Imodium is good for diarrhea, but sometimes it takes a serious antibiotic to remove the cause. You can buy most regular medicines, tampons, deodorants, shampoos in Liberia, although the stores may not have your favorite brand. Some items, like contact lens solution, may be more expensive than you are accustomed to in Canada. Vaccinations usually need to be started a few weeks before departure, so visit a travel health clinic as soon as possible!

5. Liability and Insurance: Our research grant does not provide medical insurance for you. If you are enrolled as a student at a university, find out whether you might be covered by your school. Alternatively, find out if your parents' health plan may cover you. Otherwise, you should investigate traveler's health insurance. Our past assistants have found some good deals on the internet, including <http://www.worldnomads.com/insurance.aspx>. (Special Note: One of our recent students used worldnomads.com health insurance in a recent year and got quite sick [due to something independent of tropical field work]. The insurance covered all aspects of his illness including many doctor's bills, a hospital stay, and a return flight to Canada. Therefore, we think that this is a comprehensive company that impressed us in the past. It costs about a dollar per day.) CAA also offers travel health insurance. However you get insurance, find out how you would be covered if you need medical help in CR and please bring a printed copy of the number you need to call in the event of a medical emergency. The hospitals and clinics are very good in CR, on par with the Canadian system, but they are not free.

6. Equipment: Please bring your binoculars (waterproof/nitrogen-purged and 8 x 35 or better; talk to us if you don't have waterproof binoculars). We expect everyone to have a digital wrist watch, an alarm clock to wake up early (you may use your watch alarm), a headlamp or flashlight, and a small backpack or fanny pack for daily use. We encourage you to have a pocket knife as well. Many people like to have a camera: Costa Rica is very photogenic. You may want to bring a few of your favorite CDs and DVDs. Many of the principal investigators have laptop computers with DVD players, which means that watching movies can be a popular evening activity. Voltage in CR is 120 V/60 cycle, as in Canada or the US, so you do not need converters.

7. Pests and Risks: Mosquitoes and black flies are common during the rainy season (May-December) and present, but fairly rare, in the dry season (December-May). For perspective, the mosquitos are not nearly as bad as May/June in northern Ontario, but they are present enough to be a nuisance. Our house is well-screened, so bugs are not a problem at home. We use a mosquito net over our beds at night, mostly for peace-of-mind, and we highly recommend that you bring a mosquito net. In the field,

we use bug spray on a daily basis (we can buy good medium-level DEET bug repellent at the supermarkets in Liberia; you do not need 100% DEET). The park supports a diverse population of ants, bees, wasps, spiders and scorpions. If you are allergic to insect bites or stings, it is essential that you let us know ahead of time and bring necessary medicines. Africanized bees are present in CR and you need to listen for swarms and stay clear of them (though they are usually high up in the sky; we will teach you to recognize them). There are a variety of snakes in the forest at our site. Although there are no fer-de-lance, there are other poisonous snakes and you must watch where you step. As a precaution, we always wear rubber boots in the field or else snake gaiters overtop of our hiking boots to protect our lower legs. We will teach you how to walk in the tropical forest and how to avoid snake bites. There are peccaries and several species of wild cats in the park. These animals are rarely seen, but if you do see them, treat them with caution by staying a good distance away. The most dangerous risk in the country is the Pan American highway. We always drive defensively, slowly, and with caution.

8. Living Conditions: Depending on how many people are working on our projects at the time, you will likely share a room with one other person. You will have access to a single bed and some shelf space. We have electricity (most of the time) and good, drinkable water. The water is unheated, but the cold showers are usually tolerable and even desirable given the hot temperatures. We have a small kitchen with basic cooking facilities. We buy food once a week in Liberia. Everyone is expected to contribute to cooking and cleaning up. We forage for ourselves for breakfast and lunch. For dinner, we usually rotate through the field team for who is charge of cooking each night, so bring your favourite recipes. We usually wash all of our clothes by hand and hang them to dry. There is a laundry service in town (with 24-hour turnaround) for when your clothes get really dirty.

9. Mail, Phone, Email, and FAX: Communications are steadily improving at the park. Here are the various options:

a. **Mail:** Mail can be sent to: Your Name, Grupo de Investigadores, Area Conservacion Guanacaste, Apartado 169-5000, Liberia, Guanacaste, Costa Rica. Note that mail between Costa Rica and Canada or the US travels at unreliable speeds and is sometimes very slow (three to four weeks is not unusual). Mail is picked up in Liberia by park staff on a regular basis and brought to the Park office where we pick it up. We have experienced some problems with receiving packages (most packages thicker than an envelope never show up), but flat letters and postcards usually make it. We can send mail home from the post office in Liberia; again, delivery is slow.

b. **E-mail:** Email is our main form of contact with the outside world. Approximately once per week we go to one of several (air-conditioned!) email cafes in Liberia which have reasonably fast internet connections. For about a dollar an hour, you can sit at a terminal and do your email. We usually make one trip to Liberia each week and you can plan to do some of your emailing then. (Please keep in mind that our Liberia trips are usually errand trips to buy groceries and equipment, and we expect everyone to help with these tasks, so your e-mailing time may be limited.) The park headquarters now has a wireless internet that we can access, which works about 75% of the time. We usually go to the park specifically for this purpose one afternoon per week. Between trips to Liberia and trips to the park headquarters, it is likely that you can have a solid bout of email time twice per week (typically in the afternoons).

c. **Skype (or similar):** Given the price of phonecalls (see below) we have found Skype to be the most affordable way to talk to people at home. If you are running Skype on a laptop, and someone at home is running Skype on their computer, you can talk for free. The quality of the connection is variable, but is usually on par with a cell phone connection. Skype calls are usually

most enjoyable if both people are using headphones (better yet, a Skype Madonna-style headphone-and-microphone headset).

d. Using Pay Phones in the Park and in Liberia: There are pay phones located in the Park and in Liberia. To use any of these phones you must buy special Costa Rican phone cards at the sewing store in Liberia, which come at a reasonable price (although they are more expensive than phone cards in North America). The cheapest way to talk to someone in North America (after Skype) is the following: Phone out from a pay phone with your Costa Rican phone card. Right away, tell the person to call you back at the phone number listed on the phone. When they call you back at a pay phone, they're the only ones who have to pay (normal Canadian rates). There are several phone card companies in North America that have very cheap rates for international calls (for example, we use CiCi cards that are for sale at convenience stores in Canada; in America, a good option is www.nobelcom.com). Having someone call you at a pay phone will be substantially cheaper than having a long phone conversation on the Costa Rican phone card or on our cell phone. The quality of these calls is usually good, although there can be a short delay some times.

e. Our Cell Phone: In 2008 we bought a cell phone (and a big antenna) for the field house. Our number is 506-8-386-2666. (To phone this number from Canada, first dial 011, then this 11-digit number.) We're still working out the logistics of how it works, but so far it works quite well. We cover the maintenance fee for the phone, but you will be responsible for your personal long-distance charges. We are charged both for incoming and outgoing calls; we don't yet know the rates, but we think that they are moderately expensive (certainly more expensive than Skype or incoming calls at a payphone). We leave the phone plugged in throughout the afternoons and evenings, until we go to bed at around 8 PM Central Time. This can be an effective way to communicate in emergencies or for short chats with people at home.

f. Emergency Phone In Through the Park: In case of an emergency, and if our cell phone isn't working properly, someone can call into the main park phone (which will probably be answered by someone who speaks only Spanish) and leave a message for you. The park phone number is 506-666-5051 or 506-666-5020. (To phone these numbers from Canada, you must first dial 011, then these 10-digit numbers.) Because this line is shared with the park staff, do not have people call you on these lines unless it is very important. For regular phone calls, use the above methods.

e. FAX: Someone can send you a FAX at 506-666-5020 (from Canada, first dial 011 then this 10-digit number). Warn them that this line is often used for Park staff calls, so if it is busy, keep trying. The staff often forget to mention that faxes or mail has arrived, so you need to check for faxes in the park office where we get our mail.

10. Cars: We will rent one 4-wheel drive car for research. This may be a manual transmission vehicle, although these are becoming less common. Unless we make another arrangement with you, we will do all of the driving. However please bring your driver's license in case of emergencies.

11. Costs: Our grants pay for your research fees, your food, and your housing while you are working with us. The cost of your phone cards, insect repellent, laundry in town, as well as any immunizations or medical bills are up to you. Often, we go to the beach, to nearby parks and attractions, or out to dinner on our days off. We will bear the costs of the car rental during these trips, but any accommodation or food costs will be up to you (hotels in Costa Rica are MUCH cheaper than in Canada; restaurants are slightly cheaper than Canada). If the day-off activity requires driving farther than Liberia, our grants cannot cover the cost of gas, so we expect everyone who participates in such a trip to chip in and cover the cost of the gas out of their personal budgets (this includes Dan & Stephanie).

12. **Money:** Banking in CR is fairly advanced. You can withdraw cash from your normal Canadian or American bank account at the ATMs of many banks using a debit card. We use debit cards and not traveler's checks when we are in CR. Some Canadian banks charge a \$3 service fee each time you withdraw in foreign currency. Traveler's checks can be cashed in Liberia, for a small fee, however there is usually a long wait at banks for cashing travelers checks, so we prefer to use bank cards and ATMs. Credit cards are a good idea as security in case of an emergency. Most hotels, restaurants, supermarkets, and many tourist shops, accept all major credit cards.

13. **Getting Along:** We expect everyone to maintain a positive and enthusiastic attitude throughout the duration of the project. When all goes well, the field crew usually becomes a big family. We get up very early 6 days a week, and we work under difficult, hot conditions, so it is likely that we will all get tired and cranky once in a while. However, we need to be able to help each other through the rough spots, ignore occasional curt comments, avoid nagging each other, and respect each others' preferences. If anyone feels unhappy, they should find a way to sort it out or speak to one of us so that we can work it out. We expect everyone to treat the local people with great respect and courtesy, which is easily done because the Costa Ricans are wonderful people.

14. **Baggage:** We usually have no trouble at CR customs. However, the airport security will often check your baggage by opening it and looking through it. If questioned, explain that you are studying birds in Santa Rosa National Park in Guanacaste (the Costa Ricans love their parks and will find this interesting). For most airlines, you are allowed two large luggage items of 50 pounds each. If your bag weighs more than 50 pounds, you will be charged extra, so make sure that you're not over the 50 pound limit.

15. **Illegal Drugs:** We have a zero tolerance policy on illegal drugs. Anyone found carrying or using illegal drugs will be ejected from the project immediately and flown home on the first flight to North America at your own expense. Please do not jeopardize our study and do not associate yourself with illegal drugs while you are in Costa Rica.

16. **Field Guides:** We have a copy of Stiles and Skutch's Field Guide to CR birds, Garrigues' Field Guide to CR birds, Daniel Janzen's book Costa Rican Natural History, a guide to neotropical mammals, a guide to butterflies, a guide to plants, and a guide to the reptiles and amphibians of Costa Rica. We also have a copy of the Green Pheonix by William Allen. This book documents the establishment of Santa Rosa National Park and the ACG. It is an inspiring conservation story and a great read either before coming to work in the park or once you are there experiencing it. You will probably want your own copy of Stiles and Skutch or Garrigues, and perhaps other field guides. If you plan to travel by yourself in Costa Rica, you should get a copy of the Lonely Planet guide to CR, or one of the other many good travel guides to the region. A small Spanish dictionary is also very helpful.

17. **Long Stays:** Canadian and US citizens automatically get a 3-month tourist visa for Costa Rica (some other countries only get 1 month) as soon as you enter the country. Anyone staying longer than 3 months may have to leave the country for three days, and then re-enter (which gives you an additional 3 months). Keep this in mind if you plan on staying in Costa Rica for more than 3 months. If working on the project requires that you stay for more than 3 months, we can arrange a trip to Nicaragua (a hour's drive from the Park) to renew your visa.

List of things to bring to Costa Rica

Required

- current passport (and photocopy)
- driver's license (and photocopy)
- alarm clock (battery operated; an alarm on a wristwatch will suffice)
- binoculars (talk to us if your binoculars are not waterproof)
- headlamp or flashlight (head lamps are preferable for pre-dawn hikes)
- wristwatch
- rubber boots
- hiking boots
- sandals (for around the house)
- field pants (long pants, lightweight)
- shorts (for around the house)
- socks, underwear
- t-shirts, tank tops
- long-sleeved field shirts
- pajamas (as light as possible)
- swim suit
- towel
- raincoat (no need for rain pants or umbrella really)
- sunglasses
- sun hat (with brim)
- mosquito bed net (recommend the round ones hung from the ceiling with a single rope; we have advice if you want)
- small knapsack or fanny pack to carry your field notebook and stuff in on a daily basis
- swiss army knife or other pocket knife
- water bottle (at least one - two wouldn't hurt)
- sunscreen (you can buy this in CR)
- insect repellent (you can buy this in CR)
- batteries (you can buy these in CR)
- soap, shampoo (you can buy these in CR)
- first aid: a general antibiotic (like Cipro), band-aids, ibuprofen, antibiotic ointment, anti-itch medication, pepto-bismol, immodium, and any prescription medication you might need
- ziplock bags (good for keeping your stuff dry)
- a little bit of rope for clothesline and for hanging up your mosquito net
- pens, pencils

Optional

- compass (if you have one; we have some)
- notebooks (we provide note books for your field work, but you may want a personal one)
- books for pleasure reading (people go through these surprisingly fast in Costa Rica!)
- bird field guide and/or other field guides
- Lonely Planet or similar guide
- Spanish dictionary
- some DVDs or CDs
- MP3 player
- camera, film
- contact lens solution (this is expensive in Costa Rica, so it is best brought from home if needed)

TIPS AND ADVICE

WHERE TO BUY MOSQUITO NETS

Most camping outfitters will sell mosquito nets. There are many different kinds. Mountain Equipment Coop (MEC) sells one called the “Spider Travel Bed Net”, but it seems overpriced at \$48. Forest City Surplus is a vendor in London who we have bought from before is www.fcsurplus.ca; I recall paying around \$30 there. The most selection seems to be online from www.rei.com. If you’re looking to save money, see advice below.

Mombasa Outback Travel Net
(Not as easy to hang up, b/c of four attach points!)



Mombasa Defender Mosquito Net
(Easy to hang up, but a bit cramped, esp around feet)



Mombasa Nimbus Mosquito Net
(Easy to hang, our favourite kind; spacious)



WHERE TO BUY SNAKE GAITERS

We have several pairs of slightly used “Wind River” snake gaiters (\$49.95 at www.cabelas.com) that you can use if you wish. In Liberia, there is an amazing leather craftsman named Jose Pastrona who makes the gaiters that we use, for about \$70 per pair (it takes him 2-4 weeks to make them).

TIPS FOR PEOPLE ON A TIGHT BUDGET

If you are on a tight budget, there are lots of ways that you can save money if you don’t already own things on the list. Here are some tips:

- (1) For mosquito nets and snake gaiters (if you decide that you want to buy snake gaiters) Stephanie and I would be happy to put you in touch with people who have taken field courses with us over the last years, and they may be willing to sell you their snake gaiters or nets at a good price.
- (2) For lightweight long-sleeved field clothes, you can get really nice quickdry stuff at any outdoor store, but they can be expensive. Outlet stores (like Columbia) as well as Canadian Tire often sell lightweight quickdry pants at good prices in the Fall, at the end of the Canadian summer. You can also go to a store like Value Village or Salvation Army and just find very lightweight cotton, long-sleeved shirts (men’s dress shirts) to save money. Remember: you don’t have to look good, you just have to be dressed to avoid sun and bugs.
- (3) For headlamps/flashlights etc... You can often find this stuff at Home Depot or Canadian Tire for about half the price of the fancy camping stores. Test to make sure that a cheap headlamp is bright enough.