

USER'S GUIDE TO LA SELVA BIOLOGICAL STATION



Organization for
Tropical Studies

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I. La Selva

- **When arriving...**

Please, go first to Reception, where you will fill out and sign your Registration Form. If you arrive outside regular operation hours, the key to your room, a ticket with an assigned number of meals, and your Registration Form will be left at the main guard station (Puesto 1).



- **Reception**

The schedule for the reception desk is Monday to Saturday from 7:00 am to 6:00 pm, Sundays and holidays from 7:00 am to 4:00 pm.

- **Dining room**

Meals are served according to the following schedule: Breakfast 6:00 - 7:30 am, Lunch 11:30 am - 1:00 pm, and Dinner 6:00 - 7:00 pm. You need to present a ticket for each meal. Most researchers memorize their assigned number so they don't have to carry the ticket. When you finish your meal, please take your dishes to the kitchen's window. To request a box lunch for the field, please fill out one of the forms available at the entrance of the kitchen the day before. If you ask for breakfast or lunch for the field, and then get a dining hall meal, you must pay for an extra meal. If you work in the evening and at night, you can request that meals be saved for you. Special refrigerators (with locks) are available in the dining room for night researchers. Please coordinate with the researcher representative to get a fridge key and with the kitchen staff to discuss your needs for meals at times outside the regular schedule.

If you have food allergies or are vegetarian, please indicate this in your reservation and/or in Reception. If you are arriving late to the station, please let Reservations (Ana Carter) know and they will pass the word to the kitchen to save you a meal. The dining room and outside terrace are good places to connect to the internet. Please do not use your computers in these areas during meal times when the station is crowded.

- **Rooms**

If the station is crowded, you might have to share a room with someone. If you want to move into a different room, please contact Reception. If you leave the station, but leave your belongings in the room, you will be charged for the room at the normal rate if you are here as a short-term researcher. In case of a long term stay (more than a month), you will have a reduced rate. Check-in is at 3:00 pm and check-out at 1:00 pm. Please contact Reception for further information about rooms and room rates.



- **Gift shop**

The store is located inside the Reception building. You can buy souvenirs, sodas, snacks, candies, ice-cream, soap for laundry, over-the-counter medicine, phone cards, etc. Working hours are from Monday to Saturday: 7:00 am - 5:00 pm, and Sundays: 7:00 am - 4:00 pm.

- **Laundry**

There are washing machines located in each sector of the station (see Map 1). They are free of charge and available from

Monday to Saturday after 2:00 pm and Sundays all day. Please only use biodegradable soap to avoid damaging the sewage treatment system. You can buy it at the gift shop.

And do not use the machines to clean shoes or other heavy objects; do not remove clothes that are inside the machines that have not finished the washing or drying cycle. Please clean the lint filter of the dryer after every load. Remember never to leave your clothes unattended! La Selva is not responsible for missing clothes.

- **Fees**

Reception cannot modify the fees assigned by Reservation. If you have any questions about your fees, please contact the Administrative Director.

- **Keys**

If you leave your keys inside your office or room, please do not force the door or damage the screen. Please contact Reception. If they are closed, call the Main Guard (Puesto 1). The cost for a lost key is \$50 because due to security reasons we have to change the locks.

- **Noise**

Please maintain low levels of noise at all hours in rooms, labs, and offices. For extracurricular activities like planning a special party, consult with Administrative Director or the Manager on duty. Remember that many researchers work at night and sleep during the day.

- **Seminars**

One researcher is usually invited once a week to give a talk for the residents. The Researcher Representative is responsible for organizing and announcing the seminars.

II. Communication

- **Internet**

Internet access (3 Mbps) is free and available 24/7. The main buildings have both wire and wireless connections. The network addresses are assigned automatically. On the public computers the use of pornographic websites, as well as music and games sites, is prohibited. For your personal and courses computers the use of pornographic websites is also prohibited. Please download music and games, outside of normal office hours.

The dining room and outside terrace are good places to connect to the Internet. Please do not use your computers in these areas during meal times when the station is crowded.

- **Phone**

Almost all the offices have a telephone and we also have several public phones. For external calls, you must ask for a code in Reception or buy a phone card in the gift shop. Although 800 numbers do not work inside the station, you can receive calls on the closest phone to your office. The phone number of La Selva is +(506)2766-6565.

- **Mail**

Reception staff can help you buy stamps, and they will also send and receive snail mail. Once a week, a car from La Selva goes to the OTS central offices in San José to collect the mail. If you have an important letter or package to send, please coordinate with Reception staff.

- **Fax**

Reception is office in charge of sending and receiving faxes. Please contact them for information.

III. Important documents for research

- **Approval letter**

All researchers must have the Director's authorization to conduct research in La Selva. In order to obtain it please contact the Director of the station or her assistant. Proposals with special requirements like collecting or marking of specimens, research that involves collecting for genetic or molecular studies, or permanent plots, must be approved by La Selva Advisory Committee (LSAC). Proposals submitted to this committee usually require a longer time to process, and therefore to approve. In those projects that need to access tree canopies or any other potentially dangerous activity, researchers must demonstrate proper training or previous experience in such activities before initiating the investigation.

- **MINAE permit**

The Costa Rican Ministry of the Environment and Energy (decree No. 32553-MINAE) requires that everyone conducting research and/or exporting biological samples must obtain a research permit. If you are working with DNA samples, you must also obtain a permit from the National Commission for the Management of Biodiversity (CONAGEBio). You may file your own research permit, or for a fee you may file through the OTS Costa Rican office. For more information, please contact the General Services Department (fcampos@ots.ac.cr).

IV. Research facilities

- **Work space**

Work space is assigned based on your needs (office, desk, or laboratory) and space availability. Please contact the Lab Manager for more information (lab-mgr@sloth.ots.ac.cr).



- **Laboratories**

The Lab Manager is normally available every day from 7:00 am to 5:00 pm.

Equipment and materials: La Selva has environmental and analytical laboratories, freezers, dryers, glassware, etc. All equipment and materials are available for researchers. In order to reserve them, you need to contact the Lab Manager for further information about purchases of lab supplies, quantities, availability and such. A list of the equipment is at www.ots.ac.cr/es/laselva/lab/equipment.shtml. Please keep in mind that a lot of materials and equipment are quite difficult to get in Puerto

Viejo, the nearest town. Once a week purchases are made in San José. Shipments from the U.S. can take two weeks or more.

Ovens and refrigerators: The Lab Manager is in charge of scheduling and coordinating use of the equipment. To prevent fires, it is important to avoid contact between plant materials and the heating elements in the drying ovens. Remember always to label clearly all your samples to prevent misplacement or losses. Please provide a complete list of your refrigerated and frozen items to the Lab Manager.

Chemical waste: Environmental protection is a priority for OTS. La Selva expects that all chemical wastes produced by your research will be treated and disposed of properly. For safety procedures or other inquiries, please contact the Lab Manager. General rules and guidelines are also at: www.ots.ac.cr/en/laselva/lab/lab1.shtml#rules

- **Geographic Information System (GIS)**

We have aerial photos, databases, and satellite image of La Selva and its surroundings. The GIS lab has several public computers available 24/7. For more information, please contact the GIS Manager or go to: www.ots.ac.cr/en/laselva/gis.shtml.

- **Computer room**

The station has several public computers with Internet access, located in the Academic Center (see map 1). Priority is given to those who are working on research. Due to regular computer cleaning and hard drive formatting, please keep a backup of all your files. Pornographic websites as well as music and games sites are prohibited in these computers.

- **Shade houses and flight cages**

We have eight 40 m² shade houses with different grades of shade clothes. We also have two flight cages, located behind the new lab and other near the cabins Arriera-Zompopa. Please contact the Lab Manager for reservations.

- **Library**

Located in the Orquídea building, the library works based on an open access system and has over 650 books, 200 theses and 1,300 printed papers. If you want to take a book to your room, please write its title and your name in the notebook, specifying hour and day of return. Put the book back on the return table. For articles, you can use the database BINABITROP-Costa Rica (National Bibliography in Tropical Biology) at: www.ots.ac.cr/en/rdmcnfs/binabitrop.shtml. Instruction for how to find pdf files on BINABITROP are posted in the library. If you do not find a book, magazine, or article, consult with the Library Manager. The librarian at CRO may be able to send you a book or article that is not available at the station.

- **Herbarium**

The Herbarium of La Selva has traditional specimen sheets for more than 1,500 species, as well as laminated photocopies of more than 1,600 species. In addition, we have a reference collection of lichens, seeds, pollen, and seedlings. Please take care not to mix samples and to maintain the taxonomic order when using herbarium specimens. The herbarium is open 24/7; for more information consult with the Manager. We also have representation of 80% of the vascular plant species of La Selva on www.ots.ac.cr/floradigital.



- **Arboretum**

Established in 1968, the arboretum has 3.5 hectares with over 1,000 individuals representing more than 260 plant species, the majority of which are native. All trees have a species label and you can request species list at reception or download one at http://sloth.ots.ac.cr/local/florula2/docs/arboretum_enero05.pdf

- **Researchers' lounge**

Located in the Orquídea building, the lounge has cable T.V., comfy armchairs, and a kitchen. Please tidy up after using the kitchen.

V. Fieldwork

- **Restricted areas and permanent plots**

It is prohibited to make any type of manipulation or capture in the Ecological Reserve and the permanent plots. For questions, or if you want to establish a permanent plot, please consult with the GIS Manager. If you need to work in some of these areas, you must ask for the Station Director's approval.

- **Marks and garbage**

If you need to place marks or any other objects in the forest, please use biodegradable material when possible. At the end of your research, you **MUST** pick up all the materials that were placed in the forest. On all your marks or objects, write your name and final date of the project. If you don't, the staff of the station will remove these marks.



- **Machetes and firearms**

The use of machetes and firearms inside the station is prohibited. Only security and forest rangers are allowed to use them. If you need to use a machete in the forest, consult first with the Director.

- **Trails**

We have 61 km of trails (16 km are paved). All are signed each 50 m. indicating the acronym of the trail and the distance. The distance increases as you move away from the labs.

- **Grid system**

You can locate any point in the forest using the grid system of 50x100 m. This system is formed by more than 3000 metal tubes placed in the forest, with x and y coordinates. The location of tubes is available in printed maps or in Internet at: www.ots.ac.cr/en/lasvelva/gis/lasvelva_gis/gis-instruction_manual.gif. For further information, please contact the GIS Manager.



- **Radios**

Due to security reasons, if you are working in the field by yourself, we have a white board between the old lab and the new one where you can have to write down your name, the location where you are working, time you are planning to come back, etc. We also recommend that you use one of our radios; however, our radios are limited. Use channel 3 to communicate directly with Security. Researchers are responsible for returning radios in working conditions. Coordinate with the Lab Manager about these or other options available to avoid accidents.

- **Hiring of field assistants**

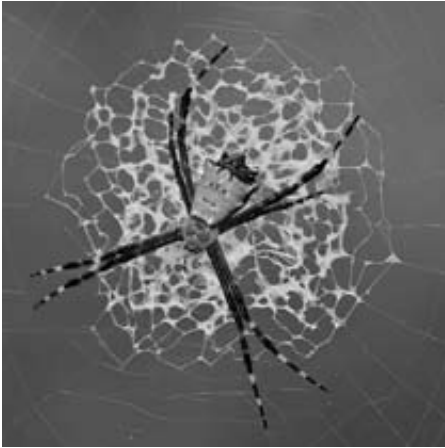
Everybody who works at La Selva needs a contract and insurance coverage. The contract must be signed by the employee at least 7 days before he/she starts working. For further information contact the Administrative Director or the Head of Accounting, and visit our webpage at: http://www.ots.ac.cr/en/research/guide_for_researchers_on_the_manage_of_human_resources.pdf

VI. La Selva Master Plan guidelines

OTS staff, LSAC, and researchers have developed a Master Plan with the purpose of coordinating the impact of increasing research and educational use of La Selva. In this section you will find important aspects that you need to consider for your proposal.

- **Collecting seeds and seedlings**

Collecting is allowed only within the borders of established trails (within 1 meter of the center of the trail), the arboretum, La Flaminea, and the lab clearing. To collect seeds or seedlings anywhere else, ask for the Director's permission and make sure you justify these collections in your proposal.



tor. To use bird bands, you must fulfill the regulation of the existing banding systems. This generally entails custom bands with your initials and a number. Please note that you must receive permission for work with vertebrates, according to your home institution's regulations (IACUC in the case of U.S. researchers).

- **Long-term plots**

For the establishment of long-term plots, please contact the Director to avoid conflicts with other projects and specify this in your proposal. Establishment of long-term plots requires LSAC approval in most cases. Some areas are zoned as high impact, meaning they are appropriate for large-scale manipulation. Areas zoned for low impact projects are not suitable for large manipulations. For further information, please contact GIS Manager.

- **Site restrictions**

- You should not mark plants within a meter from the center of any trail or within the obvious margin of any trail. Our staff is responsible for cleaning these areas on a regular basis and your marks will be removed in the course of trail maintenance.

- At the Ecological Reserve you are only allowed to do observational research from the trails (no marking, collecting, or walking off the trails).

- Plots I - III are off limits for all research. The restricted access to other areas changes frequently.

- **Exotic plants or animals**

Live plants or animals from outside La Selva (exotics or introduced) may be introduced to La Flaminea, the East sector, or the La Guaria Annex but are prohibited in the station/laboratory areas, in La Selva Vieja, or in the Sarapiquí Annex. Please make sure to mention any introduction of exotic organism in your proposal.

- **Marking**

Vegetation: If you plan on studying organisms or plots that may not be accessed by others, you will have to install obvious biodegradable-material markers (surveyor's measuring tapes, flags, cords), that clearly demarcate the plant/area involved. Please mention these markers in your proposal. On all your marks, put your name and final date of the project. At the end of your research you **MUST** pick up all your flags and tags.

Animals: Please make a list of all markers you plan to use on animals (except very short-lived markers) and give it to the Direc-

- **Artificial gene flow**

Experimental plantings in forest sites cannot be allowed to flower or fruit and must be removed at the end of the experiment. Hybrid fruits from hand pollinations must be carefully collected.

- **La Selva Advisory Committee (LSAC) issues**

Twice a year, the La Selva Advisory Committee (LSAC) meets to discuss all those experiments/manipulations that require their approval. Please review the following list for your proposal: Collecting vertebrates; collecting rare invertebrates or plants; large-scale destructive sampling; collecting large numbers of seeds or seedlings outside of the designated seed collection zones; long-term (more than six months) allocation of plots more than 100 square meters (10 m x 10 m); habitat manipulation at a scale of more than 100 square meters; application of substances such as radioisotopes, herbicides, pesticides, or fertilizers; introduction of exotic (non-La Selva) animals, plants, or microorganisms and installation of substantial equipment or infrastructure.

VII. Services

- **Storage room**

Storage for researchers' belongings is limited. All objects must be properly packed and clearly labeled: complete name, storage date, owner's phone number and email. Please consult with the Lab Manager for the space available in the storerooms and leave a copy of your list with him/her. For regulations and fees visit: www.ots.ac.cr/en/laselva/lab/lab1.shtml#stockrooms.



- **Car rental**

For research purposes, you can rent the La Selva car to access the neighborhood of La Selva or the Braulio Carrillo National Park. Our service includes the driver (subject to availability) and can be arranged for 6, 12 and 24 hrs. For the 12 and 24 hrs service, the researcher must pay the food and lodging of the driver. All the fees include the driver and a full gasoline tank. The car can only be driven by our drivers. For information about fees, please contact Reception and for a reservation, please contact the Head of Transportation.

- **Bicycles**

Our service of bike rental is a great way to move around the station. Bikes must be used inside the station and on authorized trails. Remember that pedestrians always have right of way. For fees and availability, please contact the Head of Transportation or Reception. If you have your own bicycle, please leave it at the bicycle rack in front of the new lab or in your office. We recommend locking your bike at all times when it is not in use. If you want to store your bicycle when you leave La Selva, please contact the Lab Manager.

- **Photocopying**

The photocopy machine is for public use, with a specific fee. Remember to write down the number of copies that you make on the list that is in one side of the machine. The copies can be charged to your account. For questions or malfunction of the machine, consult the Library Manager.

- **Workshop and maintenance**

You may request help on your projects from the workshop and maintenance staff (for example, for building apparatus or for installing equipment in the forest). This assistance will be given based on the work schedules and priorities of the staff. Small projects are done free of cost but larger projects must be paid for by the researcher. Depending on the kind of work, you will need the approval of the Administrative Director.

- **Purchases**

For the purchase of any material, equipment, or items that you need, please contact the Head of Purchasing.

VIII. Transportation

- **How to get to La Selva**

Bus: The buses leave San José from the Caribbean Terminal. It is important that you specify that you want to go to "Puerto Viejo de Sarapiquí por la pista". If you just say "Puerto Viejo", you will end up in Puerto Viejo de Limón on the Caribbean coast. Their tentative schedules are: 6:30 am, 7:30, 10:00, 11:30, 1:30 pm, 2:30, 3:30, 4:30, and 6:00. These schedules can vary; for more information about their scheduling, please call 2221-2596. Once you arrive in Sarapiquí, you have two options: 1) Go to Puerto Viejo and take a taxi to the OTS, the approximate cost is \$2-3; or 2) Get off the bus at OTS's bus stop, and walk about 1 km. (see maps 2 and 3).

Taxi: If you decide to take a taxi from San José to La Selva, the cost is around \$70-80. Travel time is approximately 2 hours.

Via OTS: The OTS can organize your transport. Please contact Ana Carter (ana-carter@ots.ac.cr) for more information.

- **Taxis**

If you need transportation once you are in La Selva, you can call a taxi to come from Puerto Viejo. You can ask Reception to make the call. Also there is a list of numbers of taxi drivers at the public phones located in the old lab, new lab and in the dining room. Going to Puerto Viejo from the station costs about \$2 or less.



- **Airport**

Confirm your flight two or three days ahead of time. Remember that for international flights you must be in the airport three hours before departure time. The exit tax at the airport is \$26 for US residents.

IX. Emergencies and security

- **Security**

Even though we have security cameras, guards, and safety boxes, theft occurs inside the station. Please remember to **DOUBLE LOCK** your office and room. This means inserting the key in the lock and turning it two full turns to engage the bolt. Merely closing the door does not engage the bolt and the door will be relatively easy to open by a determined thief. Also **DO NOT LEAVE ANY OBJECTS OF VALUE IN PUBLIC PLACES**, since the majority of thefts occur by the owner's negligence. Inside and outside the station, you must take special care of your passport.

If you need a safety box for your office, talk to the Lab Manager. If you prefer, you could keep your possessions at Reception in a safe lock box, but you will only have access during working hours.

- **Emergencies**

In case of an emergency, dial ext. 110 or 111 (Reception) from 7:00 am to 4:00 pm; after these hours, dial ext. 119 (Puesto 1). You can review our Emergencies Manual in the lab area or at: <http://sloth.ots.ac.cr>. Each building has a fire extinguisher. Locate the one closest to your office or room.



- **Medical emergencies**

If you do not feel well or you have any medical emergency, please dial ext 110 or 111 from 7:00 am to 4:00 pm; after these hours, dial ext. 119 or contact any member of the staff. They will make the necessary arrangement to help you as soon as possible. There are emergency first aid supplies in the dining room, and in the analytical laboratory. Also we have a Committee of First Aid, with trained people to respond to most eventualities.

Allergies: If you are hyper-sensitive to insect bites and stings, always carry your medicine. Avoid sitting, lying down, or putting your hands anywhere without checking first for insects or dangerous animals.

Snake bite: Venomous snakes are relatively abundant and can appear anywhere. Be careful when you walk off the trails. We strongly advise that everybody uses boots or shoes and a light, especially at night. Do not walk in sandals on the trails.

X. Contacts

- **OTS La Selva Station Director,**

Deedra McClearn, deedra@sloth.ots.ac.cr, ext. 136.

- **Administrative staff**

- ✓ **Administrative Director,** Mariechen Lang, mlang@sloth.ots.ac.cr, ext. 105.

- ✓ **Head of Accounting,** Charles Acuña, charles@sloth.ots.ac.cr, ext. 108.

- ✓ **Chief of Administrative Operation,** Carmen Ramos, cramos@sloth.ots.ac.cr, ext. 109.

- ✓ **Academics Groups Supervisor,** Ronald Vargas, rvargas@sloth.ots.ac.cr, ext. 107.

- ✓ **Naturalist Guides Coordinator,** Rodolfo Alvarado, ralva@sloth.ots.ac.cr, ext. 139.

- ✓ **Chief of Transportation & Purchases,** José Walter Leitón, jwleiton@sloth.ots.ac.cr, ext. 177.

- ✓ **Head of Maintenance and General Services**, Lubin Brenes, lbrenes@sloth.ots.ac.cr, ext. 117.
- ✓ **Head of Housekeeping**, Ana López, analopez@sloth.ots.ac.cr, ext. 159.

• **Scientific staff**

- ✓ **Chief of Scientific Operation & Digital Flora Project, Head of Herbarium**, Orlando Vargas, ovargas@sloth.ots.ac.cr, ext. 154.
- ✓ **Director's Assistant & Scientific Services**, Ragde Sánchez, rsanchez@sloth.ots.ac.cr, ext. 181.
- ✓ **GIS Manager**, Cynthia Rossi, crossi@sloth.ots.ac.cr, ext. 130.
- ✓ **Manager of Informatics & Tech Support**, Enrique Castro, ecastro@sloth.ots.ac.cr, ext. 102.
- ✓ **Lab Manager**, Bernal Matarrita, lab-mgr@sloth.ots.ac.cr, ext. 169.
- ✓ **Collections and Library Manager** (also weekend lab manager), Danilo Brenes, brenes@sloth.ots.ac.cr, ext. 169.
- ✓ **Environmental Education**, Marilyn Veiman, mveiman@sloth.ots.ac.cr, ext. 112.
- ✓ **Researcher Representative**, check with the Lab Manager who is in charge.

• **Committees**

La Selva has the following Committees:

✓ **Sustainable Development:** In charge of the management of sustainable development of La Selva, and the execution of the program of Rainforest Alliance (water saving, electricity, environmental impact, relations with the community, etc.) green.ls@sloth.ots.ac.cr.

✓ **Occupational Health:** In charge of the health and safety of employees at their workplace (adequate use of protecting equipment, unsafe places/machines for the personnel, etc.) saludocupac@sloth.ots.ac.cr.

✓ **Security:** In charge of preventing break-ins in our facilities, promoting physical safety, and managing the risk of robbery. vigilancia.ls@sloth.ots.ac.cr.

✓ **Emergencies:** In charge of any type of emergency: fire, floods, people lost in the forest, people with serious health problems (snakes bites, poisonings, etc.) emergencias.ls@sloth.ots.ac.cr.

