

# Paracou Forest Research Station French Guiana

## Application to conduct research

Paracou Forest Research Station is a natural ecology laboratory for the study of tropical forest ecosystem managed by the Cirad. It welcomes around 150 international researchers every year. Prospective users of the research station are requested to apply for permission to conduct research by filling in the application form in *appendix 1* and sending it for approval to the scientific manager Géraldine Derroire ([geraldine.derroire@cirad.fr](mailto:geraldine.derroire@cirad.fr)) and to the technical coordinator ([aurelie.dourdain@ecofog.gf](mailto:aurelie.dourdain@ecofog.gf)) **at least one month** prior to the start of the planned research. Please fill in an application form per year and per project and avoid submitting several applications for work belonging to a same project.

The present document gives a quick overview of the research station and its facilities. You are invited to visit our website (<https://paracou.cirad.fr>) for more details. You are also welcome to contact Géraldine Derroire or Aurélie Dourdain to discuss your research project and its feasibility before sending your research application.

## Site Description

The Paracou Research Station encompasses 5000 ha of tropical rain forest near Sinnamary, French Guiana, and is accessible by paved road. The site includes several types of permanent forest plots on which trees are regularly measured, each with specific research objectives.

- **Logging experiment plots:** Fifteen 6.25 ha plots (no. 1 to 15) were established in 1984 and 1990 to study the impact of several logging treatments on tropical tree population structure. This zone is mainly designed for studies of the impact of the logging treatments on forest populations.

- **Undisturbed forest plot:** A 25 hectare plot (no. 16) was established in 1991 for studies of undisturbed forest. Researchers whose interests are unrelated to the effects of logging treatments are encouraged to conduct their work in this plot.
- **Clearcut plot:** a 6.25 ha plot (no. 17) was established in 1989 at a nearby reserve along the road to St. Elie to study the effects of clearcutting on tropical forest dynamics.

The rest of the Paracou Research Station (outside of the permanent forest plots) may be used for experiments/measurements that impact the ecosystem. This remains subject to authorisation.

To conduct fieldwork on Guyaflux plots and tower, authorisation to conduct research must be obtained from Damien Bonal ([damien.bonal@inra.fr](mailto:damien.bonal@inra.fr)), and on plots of Imbalance-P project from Laetitia Brechet ([laeti.brechet@gmail.com](mailto:laeti.brechet@gmail.com)), in addition to the authorisation granted by Géraldine Derroire. In such cases, please copy Damien Bonal or Laetitia Brechet in the email when sending the *appendix 1* to Géraldine Derroire and Aurélie Dourdain.

### Research and logistic facilities

- Each trees (DBH  $\geq 10$  cm) located in the permanent forest plots (plots 1-17) is listed in the Guyafor database giving its position, species identity and diameter for each census (<http://www.ecofog.gf/spip.php?article364>). The database also contains detailed information on tree regeneration in subplots. These data are available only upon motivated request to the scientific manager.
- All spatial data (topography, pedology, geographical unit, hydrography, logging and inventory) are accessible through a Web platform (<https://paracoumaps.cirad.fr/>). You are welcome to contact Aurélie Dourdain, the GIS specialist, for questions on spatial data and to request a password to download them.
- Field assistants with expertise in local fauna and flora and experimental research can be hired for the duration of your project. Requests for field assistance have to be made to Géraldine Derroire and Aurélie Dourdain at least one month in advance and are dependent on staff availability.
- Accommodation on-site is available in hammock in open-air shelters (carbets). Living facilities include cold water showers, lighting, and 220V solar electricity. Kitchen facilities include a gas stove and a gas refrigerator. A large work carbet is also available. More detailed on living facilities can be found on the website (<https://paracou.cirad.fr/working-in-the-station/living-facilities>). Accommodation fees are indicated on the website (<https://paracou.cirad.fr/working-in-the-station/authorizations-and-fees>).

### General rules

1. New projects must not interfere with other current research conducted in Paracou.
2. **All destructive manipulations are forbidden in the permanent forest plots (1-17), and in the plot buffer zones.** This includes especially sampling of plant individuals or tissue (with the exception of herbarium specimen), tree cutting, and removal of vegetation, litter, and soil. These activities can be conducted outside the plots but remain subjected to approval requested using the form in *appendix 1*. When motivated by the research question, sampling of seeds and short twigs can be allowed, the number and nature of such samples must be clearly stated in the methods section of the application form (*appendix 1*).

3. All sampling of animal tissue or individuals using firearms or any other means is prohibited within the permanent forest plots. Authorisations for such sampling can however be granted, when motivated by the research question. The number and nature of such samples must be clearly stated in the methods section of the application form (*appendix 1*).
4. The use of climbing spikes for canopy access is prohibited in the permanent forest plots (1-17).
5. The nature, location and number of all equipment and tags that will be set on site must be indicated in the application form (*appendix 1*). All equipment and tags must be removed from the site upon completion of the study. The presence of any field equipment in the absence of the investigator must be stated in the application form (*appendix 1*). If any equipment or tags are left on site after the indicated date of completion of the field study without permission, they will be removed by the Cirad, and the associated cost will be charged to the person in charge of the research.
6. The introduction of plant or animal species or genotypes from outside the site of Paracou is prohibited. Exceptions could be granted for temporary projects upon motivated request detailed in the application form (*appendix 1*).

All researchers whose projects are granted approval must agree to:

- Comply with all the conditions requested by the scientific manager in the research proposal form and with the safety rules (*appendix 2*).
- Provide upon completion of the project a list of the nature and location of all samples collected during the study.
- Provide within three months of departure a short report on activities conducted in Paracou.
- Cite the site of Paracou in all publications resulting from the work conducted at Paracou as follow:

Gourlet-Fleury S., Guehl J.-M., Laroussinie O. (Eds.), 2004. *Ecology and management of a neotropical rainforest: lessons drawn from Paracou, a long-term experimental research site in French Guiana*. Elsevier, Paris.

- All publications using the Guyafor database must cite the database as follow :  
*Guyafor, DataBase of the French Guyana Permanent Plot Network, Cirad-CNRS-ONF,*  
<http://www.ecofog.gf/spip.php?article364>
- Send a pdf copie of publications to [carole.legrand@ecofog.gf](mailto:carole.legrand@ecofog.gf), [geraldine.derroire@cirad.fr](mailto:geraldine.derroire@cirad.fr) and [aurelie.dourdain@ecofog.gf](mailto:aurelie.dourdain@ecofog.gf) for archiving.
- Whenever possible, give a seminar presenting the work being conducted in Paracou and more broadly on the research conducted by the PI to the staff of the EcoFoG joint research unit.

### **Internet and satellite phone**

The rules and obligations below apply to any person using Internet and satellite phone on the Paracou site. The internet and phone services are intended for professional use only, and in priority for security. These services are NOT intended for personal use (*social networks, music, downloading,...*). The use of Internet is subject to the rules of IT Charter of CIRAD:

<http://intranet-dsi.cirad.fr/si-et-dsi/le-systeme-d-information/charte-informatique-du-cirad>

Internet and satellite phone work with a limited volume of 13 Go/month. If the volume is consumed before the end of the month, the system becomes inactive. The resulting absence of satellite phone is then detrimental to the safety of the site users. To prevent this, there is a monitoring system of Internet consumption. No download or installations of plug-ins are allowed (*softwares, Windows update...*). The use of satellite phone takes priority over the use of the Internet.