

Paracou Forest Research Station French Guiana

Research rules

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) and to the technical coordinator Laetitia Proux (laetitia.proux@cirad.fr) **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 Laetitia Proux 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 hectares 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), and on plots of

Imbalance-P project from Laetitia Brechet (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 Laetitia Proux.

Research and logistic facilities

- Each tree (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 through a Web platform (<https://paracoudata.cirad.fr>).
- All spatial data (topography, pedology, geographical unit, hydrography, logging and inventory) are accessible through a Web platform (<https://paracoumaps.cirad.fr/>).
- 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 Laetitia Proux 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 refrigerator. A large work carbet is also available. More detailed on living facilities can be found on the website (<https://paracou.cirad.fr/website/working-in-the-station/living-facilities>). Accommodation fees are indicated on the website (<https://paracou.cirad.fr/working-in-the-station/website/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.

And/or mention Paracou station in the acknowledgments as follow: Paracou Forest Research Station in French Guiana is managed and supported by CIRAD, UMR EcoFoG

(<https://paracou.cirad.fr/>), and benefit from financial support by a French Investissement d'Avenir program (Labex CEBA ANR-10-LABX-25-01).

- 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>*
- For any publication using botanical identification, please also mention the source of identification as follow, in the methods section or the acknowledgment: *“Botanical identification have been done using the IRD herbarium of Guyane (CAY) <http://publish.plantnet-project.org/project/caypub>, the work herbarium of EcoFoG in Kourou, and references to the botanical inventory of the Guyadiv network of the UMR AMAP.”*
- Send a pdf copie of publications to carole.legrand@ecofog.gf, geraldine.derroire@cirad.fr and laetitia.proux@cirad.fr 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.

Please note that if your research falls under the APA regulation (*“Accès et Partage des Avantages”*), you are responsible for getting the required agreement directly from the *“Ministère de la Transition écologique et solidaire”*. For more information: <https://www.ecologique-solidaire.gouv.fr/acces-et-partage-des-avantages-decoulant-lutilisation-des-ressources-genetiques-et-des-connaissances>

Phone

The station is equipped with a telecommunication antenna allowing the reception of 4G mobile phone signal from local operators (Digicel, Orange, SFR...). It works on an area covering about 1 000 m² around the base camp (kitchen carbet and laboratory carbet). Each user can use their individual cell phones for calls and internet access.

If the case or you don't have any mobile, and for emergency only: a phone is available at the “kitchen carbet”. The phone is reserved for the safety of visitors and is not intended for personal uses. This phone can be reached at the following number:

Phone number: (+594) (0)6.94.14.90.49