

Postdoc position in Caribbean Biogeography and Phylogenetics at Memorial University of Newfoundland

We are searching for a postdoc to be part of a new project entitled “Subduction Triggered Terrestrial Evolution in the Caribbean” (SUBUTTEC) funded by the French Agence National de la Recherche and the Canadian Natural Sciences and Engineering Research Council. **The project aims at combining biological and geological data to understand how changes in landmasses and seas induced the evolution of plants and animals using the Caribbean islands as a case study.** We are particularly interested in understanding the evolution of life in archipelagoes located along subduction zones. This project brings together an international team of academics mostly from France but also from Germany, the Netherlands, Canada, and Mexico. The researchers are grouped into four working packages (WP) with the following objectives: WP1 will conduct phylogenetic and biogeographic analyses of Caribbean plants and animals. WP2 will conduct geological mapping, date emersion surfaces, quantify erosion rates and surface uplift to provide a chronology for land emergence and drowning during the last 30 million years. WP3 will conduct numerical modeling of the vertical motions that control the land-sea mask to unravel the triggers and amplitude of the emersion and drowning events. The biological and geological results will be merged in WP4 testing alternative hypotheses of organisms’ dispersal and evolution. The postdoc will be integrated into WP1 and WP4 and will work under the supervision of Dr. Julissa Roncal at Memorial University of Newfoundland in Canada.

- Salary range: 50,000-60,000 CAD/year depending on previous experience plus [20% benefits](#)
- Start date and location: September 2024 in St. John’s, Newfoundland, Canada
- Position duration: 2 years with a possibility of a 1-year extension

PREFERRED QUALIFICATIONS

- Ph.D. degree completed
- Demonstrated knowledge on phylogenetics/genomics and/or biogeographic modeling
- Excellent writing skills.
- Some experience programming in languages such as Perl, Python, or R
- Experience managing large datasets

SUMMARY OF MAJOR DUTIES

- Using published dated phylogenies, the postdoc will conduct a meta-analysis of plant colonization and speciation events in the Caribbean through time. Will work in close collaboration with a PhD student and another postdoc. We are interested in seeing patterns partitioned by dispersal mode, plant habit (trees versus shrubs), and inter-island migrations.
- Lead a case study of the Antillean species in the genus *Sloanea* (Elaeocarpaceae). There are 9 native *Sloanea* species in the Greater and Lesser Antilles for which we would like to reconstruct their history of colonization, and linking with land emergence and drowning findings from WP2. Fieldwork in the Caribbean and/or continental America will be necessary. Other case studies of interest to the postdoc could be addressed as long as they are within Caribbean biogeography.

- Assist with the development of GEN3SIS eco-evolutionary models within WP4, which will predict the evolution of the biosphere upon prescribed paleogeographic and paleoclimatic reconstructions.
- Co-supervision of PhD, MSc and undergraduate students.
- Write research reports for NSERC and peer-reviewed publications in collaboration with supervisor and other partners.
- Dissemination of research to scientists, the general public, government, land managers, etc through presentations or lay publications.

APPLICATION INSTRUCTIONS

- Please send an academic CV, a statement of research interests and career goals, three references (contact information only) and a sample peer-reviewed publication into a single pdf to Dr. Julissa Roncal: jroncal@mun.ca. Only postdocs who are short listed will be contacted for a remote interview. Applications will be reviewed continuously until the position is filled. More information on the lab [here](#).

The department of Biology at Memorial University has 29 faculty members and over 100 graduate students. Memorial University is Atlantic Canada's largest university offering a multicultural environment. Individuals from traditionally underrepresented groups in science (e.g. women, people of colour, people with disabilities, 2SLGBTQ+) are encouraged to apply.

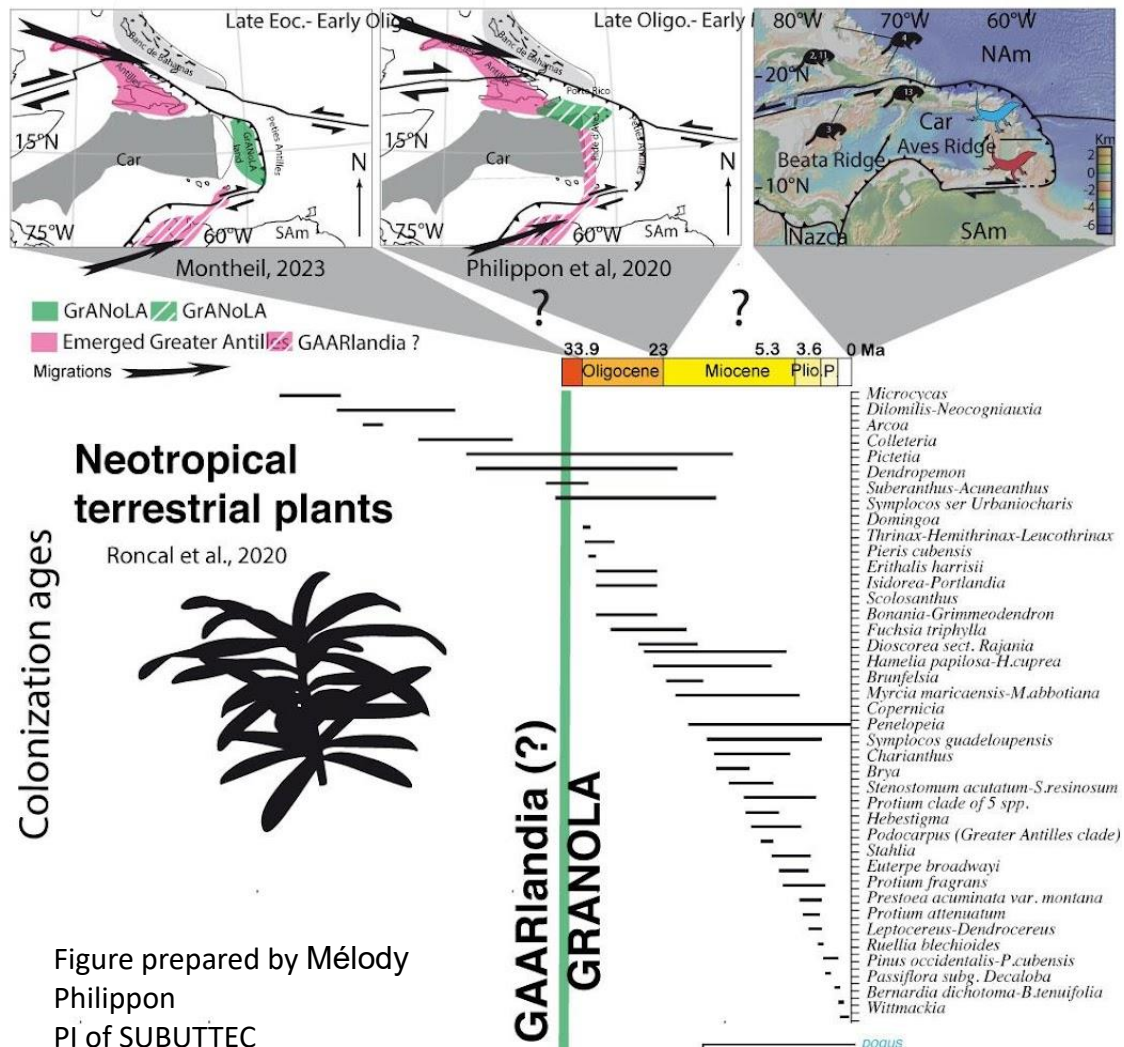


Figure prepared by Mélody Philippon
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