



Sylvain Schmitt

Experience

- 2017 **Master 2 thesis: Biodiversity and resilience of tropical forest ecosystem after disturbance**, UMR ÉCOLOGIE DES FORÊTS GUYANAISE (ECOFOG), Kourou, French Guiana.
- 2016 **Research internship: Wood and leaf strategy in a low elevation rainforest of Western Ghats**, FRENCH INSTITUTE OF PONDICHERRY (FIP), Pondicherry, India.
- 2015 **Research internship: Species distribution modelling (SSDM)**, INSTITUT AGRONOMIQUE NÉO-CALÉDONIEN (IAC), Nouméa, New-Caledonia.
- 2015 **Master 1 thesis in soil ecology**, HELMOLTZ ZENTRUM, Munich, Germany.

Education

- 2017-Present **PhD in Ecology and Evolution**, Univ. Bordeaux.
- 2013-2017 **Msc Biodiversity Ecology Evolution / Forest Engineer**, AgroParisTech, Univ. Montpellier.

Scientific Visits & Fellowships

2 scientific visits longer than 1 month, and 3 grants (congress and mobility).

Publications & Communications

- Published Articles **Schmitt, S.**, Pouteau, R., Justeau, D., de Boissieu, F., & Birnbaum, P. (2018). SSDM: an R package to predict distribution of species richness and composition based on stacked species distribution models. *Methods in Ecology and Evolution*. 8:1795–1803. R package <https://github.com/sylvainschmitt/SSDM>.
- Schmitt S.**, Chave J., Fischer F., Maréchaux I., Piponiot C., Traissac S., & Hérault B. (2019). Functional diversity improves tropical forest resilience: insights from a long-term virtual experiment. *Journal of Ecology*. 108(3):831–843.
- Kattge J., Bönsch G., . . . , **Schmitt S.**, . . . , *et. al* (2020). TRY plant trait database – enhanced coverage and open access. *Global Change Biology*. 26(1), 119–188.
- Schmitt, S.**, Hérault B., Ducouret E., Baranger A., Tysklind N., Heuertz M., Marcon E., Cazal S.O. & Derroire G. (2020). Topography consistently drives intra- and inter-specific leaf trait variation within tree species complexes in a Neotropical forest. *Oikos*. In press.
- Submitted Articles **Schmitt, S.**, Tysklind N., Derroire G., Heuertz M., & Hérault B. (submitted). Topography shapes the local coexistence of tree species within species complexes of Neotropical forests. Manuscript submitted to *Oecologia*.
- Schmitt, S.**, Tysklind N., Hérault B. & Heuertz M. (submitted). Topography drives microgeographic adaptations of closely-related species in two tropical tree species complexes. Manuscript submitted to *New Phytologist*.
- Articles in preparation **Schmitt, S.**, Tysklind N., Heuertz M., & Hérault B. Forest gap dynamics: an underexplored factor that drives divergent adaptive growth strategies within tropical tree species. Manuscript in preparation for *PNAS*.
- Schmitt, S.**, Raevel, V., Réjou-Méchain, M., Ayyappan, N., Balachandran, N., Barathan N., & Munoz, F. (in prep). Topography and canopy height differently shape the functional composition of canopy and understory guilds in an Indian rainforest. Manuscript in preparation.
- Communications 2 posters and 1 oral communication invited in international conferences.

Teaching & Supervision

- Teaching Schmitt S. (November 2018 and 2019). Introduction to Bayesian modeling with WinBUGS. 6h, Master 2 Ecology of the Forests of French Guiana.
- Supervision Master 2 thesis (É. Ducouret, N. Page), Internship of gap year (A. Baranger), Student Engineer Project.

Research Support Activities

Evaluation of articles for *Ecological informatics* and *Functional ecology*.

Interests

Member of the SEPNEB, Presidency of the ADEF, Presidency of a student association, Photography, Cycling, Battery.