



Semeraro-Mieville, Sarah

University of Neuchâtel

Thesis director: Rasmann, Sergio

Supervisor: Le Bayon, Claire

Title of thesis: Establishing soil-vegetation-humus forms relationships

Start of thesis: 01.08.2019

End of thesis: xx.xx.20xx (private defense) and xx.xx.20xx (public defense)

Summary of credits

Transferable skills

| | | | |
|----|--|------------------------|-----|
| EX | Mysteries of the soil, scientific workshop for children, Neuchâtel (organisation) | August 2019 | 1.0 |
| DS | Beyond standard texts: writing grant proposals and review articles | November 2019 | 0.5 |
| DS | Let's Create a Blog together! | November 2020 | 0.5 |
| DS | Scientific Writing | January 2021 | 2.0 |
| DS | Annual PhD Students Meeting 2021 (organization) | September 2021 | 1.0 |
| DS | Career Compass: How to set the direction of your professional development. | November-December 2021 | 0.5 |
| DS | Becoming a teacher: An Introduction to University teaching for PhD students (only 1st day) | January 2023 | 0.5 |
| EX | Troisième rencontre doctorale « Changements climatiques et société » (organization) | October 2023 | 1.0 |

Accumulated credits: 7.0 (DS 5.0), minimum required: 2 credits.

Research tools

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|----|--|----------------|-----|
| DS | Biostatistics for nonstatisticians: good practices, misuse and pitfalls | January 2020 | 1.5 |
| DS | Plant Metabolomics: from plant tissue to molecules | May 2021 | 0.5 |
| EX | Powder characterization and dispersion: from nanometers to millimeters and from theory to practice, EPFL | June-July 2021 | 2.0 |
| DS | Trait-Based Ecology: from theory to R tools - in coll. with the WSL Biodiversity Center | October 2021 | 2.0 |
| EX | ISRIC Spring school: Hands-on Digital Soil Mapping, Netherlands (online) | May 2022 | 1.1 |

Accumulated credits: 7.1 (DS 4.0), minimum required: 2 credits.

Scientific activities

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|----|---|---------------|-----|
| DS | Open Science: improving your research workflow to increase transparency and reproducibility - joint with CUSO StarOmics | February 2020 | 1.0 |
| DS | DPOB PhD Students Seminars (oral presentation) | May 2020 | 0.5 |
| EX | 18th Swiss Geoscience Meeting, online (poster presentation) | November 2020 | 0.5 |

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| DS | Annual PhD Students Meeting 2021 (talk) | September 2021 | 1.0 |
| EX | 20th Swiss Geoscience meeting, Lausanne (oral presentation) | November 2022 | 1.0 |
| EX | Wageningen Soil conference 2023, the Netherlands (oral presentation) | August 2023 | 1.0 |
| DS | Publication as 1 st author in International Peer-reviewed journals (3) | 2022-23 | 3.0 |
| EX | Centennial Celebration and Congress of the International Union of Soil Sciences, Florence (Oral presentation) | May 2024 | 1.0 |

Accumulated credits: 9.0 (DS 5.5), minimum required: 2 credits.

Total credits: 23.1 (DS 14.5). Required: 12 credits, minimum 6 credits within the Doctoral School program (DS).

Reports

First report (overview report): yes, received on 30.01.2020

Intermediary report (mid-thesis report): yes, received on 27.01.2021

Mid-thesis meeting (to discuss the mid-thesis report)

Mid thesis meeting: S.Rasmann & C. Le Bayon (University of Neuchâtel), Prof. Wim Van den Putten (Netherlands Institute of Ecology), Prof. Frank Hagedorn (WSL), Prof. Markus Egli (University of Zurich)

Date: 09.02.2021

Mid thesis committee report (1-3 pages): yes, received 16.02.2021

Publications

*first author

Semeraro, S., Kergunteuil, A., Sánchez-Moreno, S., Puissant, J., Goodall, T., Griffiths, R., & Rasmann, S. (2022). Relative contribution of high and low elevation soil microbes and nematodes to ecosystem functioning. *Functional Ecology*, 36(4), 974-986.

Semeraro, S., Kipf, P., Le Bayon, R. C., & Rasmann, S. (2023). Solar radiation explains litter degradation along alpine elevation gradients better than other climatic or edaphic parameters. *Frontiers in Microbiology*, 14, 1152187.

Semeraro, S.; Fazzari, M.; Kipf, P.; Rasmann, S.; Le Bayon, R.-C. Humus Forms and Organic Matter Decomposition in the Swiss Alps. *Int. J. Plant Biol.* 2023, 14, 729-745. <https://doi.org/10.3390/ijpb14030054>

other author