

Sarah (W.E.B.) van den Broek, MSc., Biosafety Officer (BSO)

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Education

Sep. 2021 – current **PhD Student Soil Microbial Ecology of Agroecosystems**
Department of Environmental Systems Science, ETH Zürich, Switzerland

Thesis title: “Understanding the impacts of antibiotics from human excreta derived fertilizers on the soil-microbial-plant nexus”, Supervisors: Dr. Inna Nybom, Dr. Martin Hartmann, Prof. dr. Doetterl, Dr. Gina Garland, PhD program: Plant Science Program

Sep. 2019 – Jun. 2021 **MSc Plant Science: Natural Resource Management**
Soil Biology Group, Wageningen University and Research, Wageningen

Thesis title: “Volatile-mediated inhibition of the parasitic plant *Striga hermonthica* germination”, Supervisors: Raul Masteling, Prof. dr. Wietse de Boer (Netherlands Institute of Ecology (NIOO-KNAW) , the Netherlands), Prof. dr. Thom Kuyper (Wageningen University and Research, the Netherlands), grade: 9/10

Internship title: “Soil physiochemical properties, microbial interactions and crop yield influenced by inorganic fertiliser and organic amendments”, supervisors: Dr. Marcio Leite, Prof. dr. Eiko Kuramae (NIOO-KNAW, the Netherlands), grade: 8,5/10

Sep. 2018 – Sep. 2019 **28.5 ECTS towards MSc Environmental Biology**
Fungal Biology Group, Utrecht University, Utrecht

Honours: Young Innovators Program

Sep. 2014 – Apr. 2018 **BSc Applied Science: Science & Life (cum laude)**
Fontys University of Applied Science, Eindhoven

Thesis title: “The effect of organic amendments on plant-microbe”, supervisors: Dr. Marcio Leite, Prof. dr. Eiko Kuramae (NIOO-KNAW, the Netherlands), grade: 8,5/10

Internship title: “Characterisation of bioplastic production by a thermophilic bacterium”, supervisor: Prof. dr. Matthew Stott (GNS Science, New Zealand), grade: 9/10

Honours: Achieved highest competency level Social Responsibility

Sep. 2012 – Aug. 2014 **BSc Chemical Engineering: Organic Chemistry (unfinished)**
University of Technology, Eindhoven

Work experience

Apr. 2018 – Jan. 2021 **Biosafety Administrator**
Netherlands Institute of Ecology (NIOO-KNAW), the Netherlands

- Write complex genetically modified organisms (GMO) permits for microbial and terrestrial research for containment levels ML-I, ML-II, PC/PK-I, PC/PK-II, PCM/PKM-I, PCM/PKM-II
- Conducting risk assessment for complex GMO experiments and writing standard operating protocols (SOPs) for biological agents
- Advise researchers on safe practices and risk prevention

Teaching experience

Feb. 2017 – Jul. 2017 **Mathematics student-assistant & substitute teacher**
Fontys University of Applied Science, Eindhoven

Sep. 2015 – Feb. 2017 **Student-assistant Bio-molecular techniques, Bioinformatics and Microbiology**
Fontys University of Applied Science, Eindhoven

Student supervision

BSc. Navia Graf, thesis completed August 2022

BSc. Dominik Senti, in progress

BSc. Lorenz Koschitz, started February 2023

BSc. Sorya Lagnaux, started February 2023

Publications

Sebastian Doetterl, Rose Abramoff, Jean-Thomas Cornelis, Aline Frossard, Peter Fiener, Gina Garland, Michael Kaiser, Moritz Laub, Sophie Opfergelt, Marijn Van de Broek, **Sarah van den Broek**, Sophie F. von Fromm (2022). Understanding soil organic carbon dynamics at larger scales. Book Chapter. *Burleigh Dodds Science Publishing*. [10.19103/as.2022.0106.05](https://doi.org/10.19103/as.2022.0106.05)

Leite, M., **van den Broek, S. W. E. B.**, Kuramae, E. E (2022). Current Challenges and Pitfalls in Soil Metagenomics. *Microorganisms* 10(10), 1900. [10.3390/microorganisms10101900](https://doi.org/10.3390/microorganisms10101900)

van den Broek, S., Verschuijten, R., Boesten, D., Rieter, E. (2017). De schijnveiligheid van antimicrobiële coatings in ziekenhuizen (Antimicrobial coatings create a false sense of security in hospitals). *NVML Analyse*, 4, 73-75