

# CURRICULUM VITAE – WILLIAM TRENTI

Born in 1995, based in Modena (Italy)

**PhD student in Pedology** at the University of Bologna. My research interests are the turnover of organic matter and microbial biomass according to soil forming factors, both in natural and agricultural ecosystems. I am especially keen in field pedology, GIS analysis with QGIS and data analysis with R. During the last 4 years I have had the opportunity to describe over 300 soil profiles in several settings, both for research and as part of the environmental monitoring of a railway construction site.

## EDUCATION

- Nov 1, 2022 - present: **PhD** at the Department of Agricultural and Food Sciences of the University of Bologna, Italy (supervisor Prof. Livia Vittori Antisari). Pedodiversity, soil biodiversity and ecosystem services in protected areas of Italy.
- 2021 – **MSc** in Planning and management of agri-forest ecosystems, curriculum A: Ecosystem analysis and monitoring. 110/110 cum laude. Thesis in Sensitivity and vulnerability of the water-soil system (Prof. Livia Vittori Antisari): “Pedogenetic factors in the high Modena Apennine: lithology, vegetation and forest management”.
- 2018 - **BSc** in Sciences of the agro-forest environment. 110/110 cum laude. Thesis in Agrometeorology and agricultural ecology (Prof. Francesca Ventura): “Agricultural crops in bioregenerative life support systems for space exploration”.

## PUBLICATIONS

- Rossi, M.; De Feudis, M.; **Trenti, W.**; Gherardi, M.; Vianello, G.; Antisari, L.V. GIS-Based Geopedological Approach for Assessing Land Suitability for Chestnut (*Castanea sativa* Mill.) Groves for Fruit Production. *Forests* **2023**, *14*, 224. <https://doi.org/10.3390/f14020224>
- Vittori Antisari, L.; **Trenti, W.**; Buscaroli, A.; Falsone, G.; Vianello, G.; De Feudis, M. Pedodiversity and Organic Matter Stock of Soils Developed on Sandstone Formations in the Northern Apennines (Italy). *Land* **2023**, *12*, 79. <https://doi.org/10.3390/land12010079>
- Vittori Antisari, L.; **Trenti, W.**; De Feudis, M.; Bianchini, G.; Falsone, G. Soil Quality and Organic Matter Pools in a Temperate Climate (Northern Italy) under Different Land Uses. *Agronomy* **2021**, *11*, 1815. <https://doi.org/10.3390/agronomy11091815>

## OTHER LEARNING ACTIVITIES

- III course in Statistical methodologies for the Agricultural sciences «Dario Sacco» (Italian Society of Agronomy, 2023)
- Soil management for sustainable agriculture (EJP Soil PhD School 2022)
- Paleosols in the badlands of Civita di Bagnoregio. Evidence of pedogenesis in the plio-pleistocene. Bagnoregio, 15-17 september 2022 (Italian Society of Pedology 2022)
- Vocation of soils and landscapes: tools for reading the territory (AL.FO.N.S.A 2022)

- Publicly owned forests in the Apennine highlands and C sequestration in soils. Cartography and statistics (GIS and R) (AL.FO.N.S.A 2021)
- School of Soil Biodiversity and Bioindication XIII cycle: Biological indicators of soil biodiversity for healthy soils and ecosystem services in response to climate change (Italian Society of Soil Sciences 2021)

#### ACADEMIC WORK

- Nov 1, 2022 – present: **PhD student** at the Department of Agricultural and Food Sciences of the University of Bologna, Italy (supervisor Prof.ssa Livia Vittori Antisari). Pedodiversity, soil biodiversity and ecosystem services in protected areas of Italy. Additionally, **co-supervisor** of Bachelor and Master theses regarding Soil characterization, soil organic matter and soil quality in mountain ecosystems; **teaching assistant** on the topic of QGIS and R for environmental and pedological analysis (MSc course in Ecosystem analysis and monitoring); **field assistant** in the practical activities of the course in Pedology (BSc Natural sciences).
- Apr 2022 – Oct 2022: **Research fellow** at the Department of Agricultural and Food Sciences of the University of Bologna, Italy (supervisor Prof.ssa Livia Vittori Antisari). Pedologic research about the ecological functionality of forest soils in the northern Apennine. **Co-supervisor** of Bachelor and Master theses in the field of pedology in forest and/or mountain ecosystems. **Teaching assistant** in the course “Sensitivity and vulnerability of the water-soil system”, on the topic of QGIS and R for environmental and soil analysis.
- May 2021 - Feb 2022: **Grant researcher** at the Department of Agricultural and Food Sciences of the University of Bologna, Italy (supervisor Prof.ssa Livia Vittori Antisari). Pedologic research on the quality of mountain and lowland soils.

#### OTHER RELEVANT WORKING ACTIVITIES

- Sep 2022 and Sep 2023: **guest lecturer** at the Arrigo Serpieri Agricultural High School in Bologna. Courses: Pedology of forest ecosystems and importance of soil organic matter; Soil erosion.
- Aug 28 – Sep 1, 2023: **Lecturer** in the course “Methodology for the evaluation of pedodiversity and biodiversity in areas with different levels of protection”.
- Mar 2021 – Jan 2023: **Pedologist and soil surveyor** for Nexteco srl, Thiene, Italy. Description and sampling of over 150 soil profiles in the context of the environmental monitoring of the construction sites of the new Verona-Padua high-capacity railroad.
- Jun 2019 - Jul 2019: **Soil surveyor** for Geolab onlus, Imola, Italy. Pedological and physicochemical characterization of lowland soils for the assessment of feasibility of the cultivation of walnut orchards.
- 2015–2017: during my Bachelor studies I worked as a farmhand in a small farm in the Reggio Emilia Apennine.

#### AWARDS

- Italian Society of Soil Science Award 2023, awarded by the scientific committee of the Soil and water health conference in recognition of the particular interest of the communication “Soil health and microbial diversity in highland soils of the Northern Apennines”.
- Thesis award 2021 (Associazione Dottori in Scienze Agrarie, degli Alimenti ed Ambientali di Bologna). Fourth place.
- Best YOUng PEDologist graduation award (B.You Ped-2021) (Italian Society of Pedology). Second place.

### INTERNATIONAL CONGRESSES

- Soil and water health conference, Imola, Italy, 4-6 July 2023. **Trenti, W.**, De Feudis, M., Falsone, G., and Vittori Antisari, L.: Soil health and microbial diversity in highland soils of the Northern Apennines (oral presentation).
- EGU General Assembly, Vienna, Austria, 23-28 April 2023. **Trenti, W.**, De Feudis, M., Falsone, G., and Vittori Antisari, L.: Assessment of soil health in orchards of “Rosa Romana” apple of different ages in the Northern Apennines (Italy), EGU23-6945, <https://doi.org/10.5194/egusphere-egu23-6945>, 2023. (Oral presentation)
- EGU General Assembly, Vienna, Austria, 23-27 May 2022. **Trenti, W.**, De Feudis, M., Falsone, G., and Vittori Antisari, L.: Health status Assessment of state-owned forest soils in the northern Apennines (Italy) (oral presentation)
- Sustainable Management of Cultural Landscapes in the context of the European Green Deal (ESSC - Eurecys 2021), Santo Stefano di Camastra, Italy, 10-14 November 2021. **Trenti, W.**, De Feudis, M., Falsone, G., Vittori Antisari, L., "Influence of lithology on soil organic matter" (poster presentation)
- Workshop Soil conservation and environmental protection, Imola, Italy, 6–8 September 2021. **Trenti, W.**, De Feudis, M., Falsone, G., Vittori Antisari, L., "Influenza della litologia sulla sostanza organica del suolo" (oral presentation)

### ROLES IN SCIENTIFIC ORGANIZATIONS

- Jan 2023 – present: Italian Society of Soil Sciences. Division IV committee: Environmental and social role of soil.
- Sep 2020 – present: Italian Alpine Club, section of Modena. Member of the Scientific Committee.

### LANGUAGES

- **Italian** native
- **English** advanced, professional
- **Spanish** advanced, not professional
- **Catalan** intermediate

### CONTACTS

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