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Nationality: Italia
Date of birth: 25/02/1986
Place of birth: Padova, Italia

Education:

- PhD student in Animal and Food Science (2022-)
- Master student in Natural Science (2010-2013)
- Bachelor student in Animal Science (2005-2010)

Research areas:

- Earthworm ecology and biodiversity
- Agroecology and Landscape agroecology
- Brief description of Ph.D project:

ANALYSIS OF EARTHWORM AND LANDSCAPE COMPOSITION FOR SUSTAINABLE AGRICULTURE

Earthworms, positively influencing biogeochemical cycles, have recently been considered among the most important taxonomic groups in the analysis of the vitality and fertility of agricultural soil.

This project will make it possible to enrich the knowledge on earthworm fauna in some agroecosystems of Veneto Region and to monitor its role in improving the fertility of the agroecosystem in relation to conservative agricultural practices through the application of different protocols: the use of cover crops, the use of earthworm humus (from vermicompost) and the use of agricultural waste in a perspective of a farm more linked to the circular economy.

Given the affinity between soil, earthworm fauna and agricultural landscape, the interactions of the qualitative and quantitative variations of earthworm fauna with the presence and composition of cover crops and landscape mosaic as strategic elements of ecosystem services will also be evaluated.

A further value to the project will be given by the analysis of the intestinal microbiological content of earthworms (using ITS and 16S) in different environments and the study of the systematic and genetic distribution within the territory of the earthworm by DNA barcoding.

Through these studies, tools will be proposed and improved to aid in the identification of the Italian earthworm fauna and, first of all, tools will be improved and developed which, through the same indicators, can be applied to the measurement of the agro-ecosystem, facilitating the farmer in reading his own agro-ecosystem. with a view to improving interventions for circular and more sustainable agriculture.

Supervisor:

Professor Giuseppe Concheri

Publications:

Google scholar link

https://scholar.google.com/scholar?hl=it&as_sdt=0%2C5&q=gavinelli+federico&dq=gavinelli+