



Marie Curie Postdoc Fellowship

2026



1. Supervisor

Supervisor: Stefano Chelli – School of Biosciences and Veterinary Medicine

Stefano Chelli (ORCID: <https://orcid.org/0000-0001-7184-8242>) is an Associate Professor in Botany and Ecology. His research is mainly focused on forest ecosystems, where diversity patterns and drivers are studied through functional (trait-based) approaches across space and time. He has 70 papers, with >3,800 citations and has participated in several national and international projects, both as Principal Investigator (PI) and as a member of the UNICAM research group. As PI, he coordinated a national project on patterns and drivers of multitaxonomic diversity in Italian ICP Forests monitoring network. As research member, he participated to LIFE Moder(NEC) project on forest monitoring and he is part of the core group of the FIS starting grant project “Evaluating the role of protected areas in conserving biodiversity and ecosystem multifunctionality under global change” led by Dr. Alessandro Bricca.

The 5 most significant and recent publications are:

De Benedictis et al. (2026). Forest structure and understory functional diversity at multiple scales: The importance of median tree height. *Ecological Indicators*. 10.1016/j.ecolind.2026.114687

Zhu et al. (2025). How effective are different protection strategies in promoting the plant diversity of temperate forests in national parks? *Forest Ecology and Management*. 10.1016/j.foreco.2025.122602

Chelli et al. (2024). The diversity of within-community plant species combinations: A new tool for assessing changes in forests and guiding protection actions. *Ecological Indicators*. 10.1016/j.ecolind.2024.112089

Chelli et al. (2024). Unravelling the clonal trait space: Beyond above-ground and fine-root traits. *Journal of Ecology*. 10.1111/1365-2745.14265

Chelli et al. (2024). Multiple drivers of functional diversity in temperate forest understories: Climate, soil, and forest structure effects. *Science of the Total Environment*. 10.1016/j.scitotenv.2024.170258

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2. Research Group and Facilities

Laboratory & Facilities: The research group manages national Italian databases on long-term monitoring (permanent plots with resurveys) in forest ecosystems, collaborates at the European level within forest monitoring networks (ICP Forests), and manages an Italian LTER site in the Central Apennines (Montagna di Torricchio strict Nature Reserve), where long-term vegetation data and multi-taxonomic datasets in beech forests are available. The group also has expertise and basic instrumentation for measuring plant functional traits, with particular reference to leaf traits, belowground traits, and anatomical traits.

Research Network: The research group consists of three research members (Prof. Roberto Canullo, Prof. Giandiego Campetella, Dr. Alessandro Bricca), one technician (Dr. Marco Cervellini), and four PhD students. The group has taxonomic and functional expertise (trait-based ecology) in the study of plant communities along spatial and temporal gradients, using national and international research infrastructures (ICP Forests, LTER Network, Italian National Forest Inventory), mainly in forest ecosystems.



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3. Research Thematic Area/Project Idea

Title of the project: Conserving forest biodiversity: a multitaxonomic assessment of protected areas effectiveness

Macroarea: MSCA panel “Environmental and Geosciences (ENV)”

Level 1 keywords: V3-Evolutionary, population and environmental biology

Level 2 keywords: biodiversity, conservation biology, ecology

Project Overview:

The project aims to assess the effectiveness of protected areas in conserving multitaxonomic biodiversity in forest ecosystems under ongoing global change. By integrating taxonomic and functional approaches, the research will investigate biodiversity patterns within protected areas (e.g., national parks, Natura 2000 sites) and outside protected areas, focusing on one or more selected taxa (including vascular plants, lichens, bryophytes, fungi, soil arthropods, gastropods, and saproxylic insects). The project will take advantage of existing UNICAM infrastructures and ongoing research initiatives.

Special attention will be given to key forest types widely represented in southern Europe (e.g., Mediterranean evergreen oak forests) as well as in central Europe (e.g., deciduous beech forests). The research will be embedded within an active and multidisciplinary research group with strong expertise in plant ecology, biodiversity monitoring, and trait-based approaches.

The project will contribute to advancing the understanding of how protected areas support biodiversity conservation and ecosystem multifunctionality. Its outcomes will provide scientific evidence to improve conservation strategies and forest management policies, ultimately supporting more effective biodiversity protection across European forest landscapes.

4. Candidate and Career Plan

Expected background of the candidate:

The candidate should have a strong background in ecology, biodiversity science, environmental biology, or a related discipline. Experience in plant ecology, community ecology, or forest ecology will be considered an asset. Familiarity with biodiversity monitoring, field sampling in forest ecosystems, and ecological data analysis is desirable. Knowledge of statistical tools commonly used in ecological research (e.g., R) and experience in handling biodiversity datasets will be advantageous. Previous exposure to functional ecology, trait-based approaches, or multi-taxa biodiversity studies will be positively evaluated.

Competences and knowledge to be developed by the candidate:

During the project, the candidate will develop advanced skills in multitaxonomic biodiversity assessment and ecological data integration across spatial and temporal scales. The fellow will gain expertise in the analysis of long-term ecological datasets, functional trait approaches, and the evaluation of biodiversity patterns in relation to protected area effectiveness. The project will also provide training in ecological modelling, biodiversity indicators, and the integration of multi-source monitoring data from international research infrastructures (e.g., ICP Forests, LTER). In addition, the candidate will strengthen competencies in interdisciplinary research, scientific communication, and the translation of ecological knowledge into conservation and forest management strategies.