

Elisabetta Sgarbi is an Associate Professor in the Academic Scientific Group BIOS-01/C – Environmental and Applied Botany and at the Life Sciences, Department at the University of Modena and Reggio Emilia, research area AgriFood & Environment. Since 2010, she joined the Interdepartmental Centre for the Improvement and Valorisation of Biological Food Resources BIOGEST-SITEIA (Tecnopolo UNIMORE), carrying out activities of applied research and technology transfer. She is member of REPRISE (register of scientific experts established at the MUR Ministry of University and Research).

Education PhD in Cellular and Molecular Biology and Pathology, Post-graduate specialisation in Methodology of Laboratory Research, BSc in Biological Sciences at the University of Modena. Certification of Professional Biologist.

Professional experience at the University of Modena and Reggio Emilia.

1995 - 2006: Laboratory Technician for the Plant Cytology and the *In vitro* Plant Cells Cultures Laboratories at the Botanical Garden in Modena.

December 2006: Associate Professor of Environmental and Applied Botany at the University of Modena and Reggio Emilia.

2007 – 2008: Vice-Director in the Department of Agrarian and Food Sciences.

2007 - 2012: reference for disability for the Department of Agrarian and Food Sciences

2007 – 2012: joined the Council of Interdepartmental Centre for Large Instruments (CIGS)

2007 – 2013 member of the board for the School of Postgraduate Research in ESS (Earth System Sciences).

Multiple-times member of the Board of State Exams for the profession of Agronomists and Foresters and Agricultural Biotechnologist y and the profession of Biologist.

Since October 2018, she was member of the Group for Quality Assurance for BSc Agricultural and Food Sciences and Technologies, that assess and ensure the quality of the degree. She was elected Course Director of the BSc Agricultural and Food Sciences and Technologies, for the academic years 2020-21, 2021-22 and 2022-23 and re-elected for the following three-year period (2023/24 – 2025/26).

Assignments held at other Italian universities

She was a member of the jury for the final exam of the PhD in Science and High Technology – Fungi Biology and Biotechnology at the University of Turin and in Plant Biology at the University of Parma. President of the jury for the final exam of PhD in Environmental Sciences at the Ca' Foscari University of Venice. External Reviewer of PhD Thesis at Alma Mater Studiorum – University of Bologna

Lines of research

ERC areas of research:

LS8 Ecology, Evolution and Environmental Biology, LS8_2 biodiversity, conservation biology, conservation genetics

LS9 Applied Life Sciences, Biotechnology and Molecular and Biosystems Engineering, LS9_4 applied plant sciences (including crop production, plant breeding, agroecology, forests, soil biology).

Research projects in the field of conservation and characterisation of plant biodiversity

-Since September 2022 she joins NBFC (National Biodiversity Future Centre). Among the activities carried out for Spoke 3, on terrestrial and freshwater biodiversity, there is the study of plant biodiversity, with a special focus on the conservation of wild species, rare or threatened by climate change and anthropic pressure, with an innovative and integrated approach.

Other

-P.I. in the Acque Chiare Project – floristic survey on wetlands of the Reggio Emilia hill – with ProNatura Reggio Emilia Association, 2020.

-P.I. in the project on “Study, conservation and valorisation of plant biodiversity in the Fontanile di Ariolo - Gavasseto di Reggio Emilia”, an area included in the Natura 2000 Network as SIC - Rio Rodano and Fontanili di Fogliano e Ariolo – funds from Reggio Emilia Council, 2013-2014.

-P.I. in project “Cryo- Germplasm Bank UNIMORE” – funded by Fondazione Cassa di Risparmio di Reggio Emilia "Manodori", 2010-2013.

She carried out experiments on the behalf of Friuli-Venezia-Giulia Region, concerning:

-Techniques of propagation and acclimatisation of native orchids, cultivated *in vitro*, characteristics of the Community Habitat 62A0 (project Life Natura LIFE 10/NAT/IT/243 Restoration of dry grasslands (magredi) in four sites of community importance of Friuli lowland), 2013-2015.

-Techniques of *in vitro* propagation of orchids characteristics of alkaline fens of the Friuli lowland (project Life06/NAT/IT000060 “conservation and restoration of calcareous fens in Friuli”), 2009-2010.

Conservation and Valorization of agro-biodiversity

-P.I. Project “Characterizing male and female sterility in hazelnut cultivars”, studying reproductive biology in *Corylus avellana*, 2020-2023. Research committed by an International Company.

- She coordinated the research in a project for *ex situ* conservation of wheat (*Triticum aestivum*), with the characterization of ancient and modern cultivars and analysis of their phenolic pattern – Germplasm Bank BIOGEST-SITEIA.

-She participated to the project of national relevance AGER - An Italian Vitis database with multidisciplinary approach, for exploitation and valorisation of the regional genotypes – funded by Fondazione in Rete for Agrofood research (2011-2015), with a focus on the study of reproductive biology in local cultivars of grapevine.

Participation in research projects with Public Organizations for plant-based solutions fighting climate changes

-P.I. in the project to evaluate the effect of the plantings carried out in the parking lot of the Mediopadana Station (Reggio Emilia) and in the Clear Water Park on the microclimate – funds from Reggio Emilia Council, 2019-2022

-Scientific support and co-planning in the experimental project “Climate-friendly parks” - LIFECITYADAP3 (Action C1) –Reggio Emilia Council, aimed to carry out four Parks and a wetland in Reggio Emilia, 2023-2024.

Collaboration in research projects with a transdisciplinary approach: Food, Bioeconomy, Natural Resources, Agriculture and Environment

- Studying the degradation process of nitrocellulose occurring in a contaminated site, aiming to valorise the contaminant (End of Waste) as a fertilizing product at the site “Sipe Nobel-Le Basse” – partners: Unimore – Spilamberto Council, 2024-2025.

-Project Proof of Concept Empowering and Speeding-up Technology Evolution (PoC ESTE): fertilising light materials and polymeric insulating panels from char, acronym Char4Mat – within PNRR, 2023-2025.

-Project FAR 2020 – Research Interdisciplinary Project Mission Oriented: GREW (Garden from Recycling & Wastes), a new integrated system for home cultures and vertical gardens through synergistic application of innovative fertilisers and LED-Lighting; a circular economy strategy that gives waste a new second life (Head of W.P.), 2020 -2022.

- Interdisciplinary research projects on Bioageing, studying and characterising the biological aging of building materials (in collaboration with EELab - Laboratory for Energy Efficiency - Department of Engineering Enzo Ferrari - UNIMORE), until 2022.

Projects of Applied Botany with algae and cyanobacteria for production of useful metabolites

-Project “Algenfor” – the use of algae for a new generation of baked products, PR FESR 2021-2027 – Regione Emilia-Romagna (Head of di W.P.), 2021-2027

P.I. in the project “Response to abiotic stress and production of metabolites with bioactive action in microalgae - FAR Project 2019 Department, 2019-2020.

Professor Sgarbi is the author of *publications in extenso* in national and international journals, of 3 books of a botanic character, some contributions on scientific volumes and of communications presented at national and international congresses.

Public Engagement Activities

She is a teacher in bachelor’s and master’s degree of the Department of Life Sciences. She has supervised about 40 theses part of bachelor’s degree Agricultural and Food Sciences and Technologies, Biotechnology, Biological Sciences; Master’s degree in Sciences for Environment and Territory, Experimental and Applied Biology, Integrated Sustainability of Agricultural Systems, Didactic and Communication of Sciences; and 3 PhD theses.

She is Reviewer for International Journals in the field of botany and agronomy.

She is a member of the Italian Botanical Society (SBI) – GdL Nature Conservation – GdL Botanical and Historical Gardens Gruppo, of the Italian Horticultural Society (SOI) – GdL Micropropagation and *in vitro* technologies – and of the Mathematicians and Naturalists Society of Modena.

Since 2017 she has been organising together with the technical staff of the Interdepartmental Centre for Large Instruments (CIGS) an annual course of electron and confocal microscopy in the botanical field.

She has held numerous conferences and lectures by invitation, especially on the conservation of plant biodiversity

In the three-year period 2008-2010, she was a member of the Board of Directors of the Society of Mathematicians and Naturalists of Modena.

She has been a member of the Consulta Verde for Reggio Emilia City.

She was part of the Local Stakeholder Group of Reggio Emilia City Council (UNIMORE component) for the Interreg Europe Project "PROSPERA_Promoting Sustainable development and regional attractiveness trough PERI-urban Areas (PGI05897)".

Last updated: 9 August 2024

A handwritten signature in blue ink, reading "Elisabetta Spadri". The signature is written in a cursive style with a large initial 'E'.