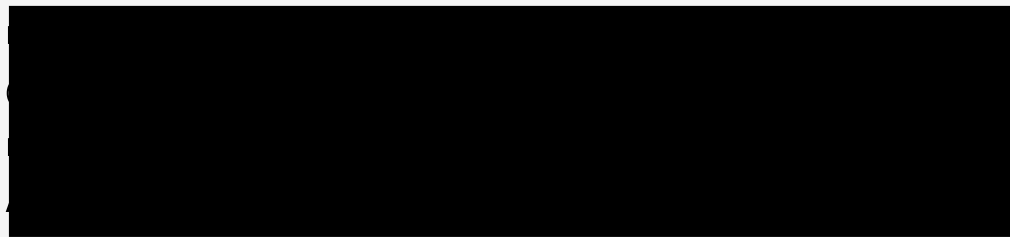




Gregorio Sgrigna



● ABOUT ME

I am a Technologist at the Research Institute on Terrestrial Ecosystems (IRET) of the National Research Council (CNR). Since 2010, I have been focusing my interest on the analysis of Nature-based solutions (NBS), through my master's thesis, doctoral studies, and my role as a Post-doc researcher. Specifically, I have been working on urban forests and green infrastructure (GI) for urban ecosystem services (UES) maximization. In 2016 I accomplished an International PhD in "Management and Conservation Issues in Changing Landscape" at Molise University, with a thesis on the analysis of Particulate Matter (PM10 and PM2.5) deposition on urban trees (*Quercus ilex*) in an urban-industrial context.

● WORK EXPERIENCE

02/05/2023 – CURRENT Lecce (LE), Italy

TECHNOLOGIST CNR - IRET

- ITINERIS PNRR Project: Italian Integrated Environmental Research Infrastructures System
- WP2 Activity: implementation of FAIR principles within research infrastructure (Findability; Accessibility; Interoperability; Reusability)
- Responsible for FAIR enabling best practice for the WP4 sub-domain of the project (Atmosphere RIs)

03/03/2023 – CURRENT Massafra (TA), Italy

MEMBER AND CO-FOUNDER OF SPIN-OFF COMPANY PHYTOTECH S.R.L.

- NbS and Green Infrastructure expert
- Counselor for NbS and phytoremediation projects, with specific expertise in atmospheric issues

Phytotech activities:

PhytoTech is an innovative start-up company that specializes in innovative environmental solutions, utilizing plants strategically. Their services encompass land remediation, urban green infrastructure development, greenhouse gas emission calculations, naturalization initiatives, advanced environmental monitoring, and comprehensive ecosystem management. Additionally, technical and scientific training and consulting are provided with a focus on sustainability, including remediation, bioenergy, and bioeconomy. Phytotech offerings include vegetative system design, ecosystem service assessment, environmental monitoring, risk analysis, and Life Cycle Analysis (LCA).

10/01/2017 – 31/12/2022 Porano (TR) / Lecce (LE), Italy

POSTDOCTORAL FELLOW CNR - IRET

Fellow on ProGireg ("productive Green Infrastructure for post-industrial urban regeneration", www.progireg.eu), ICOS project (greenhouse gases monitoring network, www.icos-ri.eu), and EUFORICC project (National PRIN "Establishing Urban FOREst based solutions In Changing Cities", www.euforicc.it).

- Experimental approach: Scanning Electron Microscopy (SEM) and X-ray dispersion analysis (EDX); laboratory, quali-quantitative analysis of PM deposition on leaves; output combination with Eddy Covariance data and PM dispersion/deposition models.
- Model approach: i-Tree and TAPM application.
- EUFORICC Prin project coordination activities.
- Sampling and analysis of leaf samples of tree and shrubs species typical in the urban environment (cities of Napoli, Terni, Torino, Taranto, and Dortmund)
- Master thesis and scholar students' coordination activities for laboratory and data analysis.
- H2020 Project "Progireg" active collaborator (www.progireg.eu).

- Focus: use of nature for urban regeneration with and for citizens.
- Front runner cities involved: Dortmund (Germany), Turin (Italy), Zagreb (Croatia), Ningbo (China)
- COST Action FP1204 "Greeninurbs" project output dissemination.

Activities certifications: Protocolli n. 3155,3156,3157,3161,3162; 19/11/2018 IRET-CNR

03/2013 – 06/2017 Porano (TR), Italy

SCIENTIFIC SECRETARY CNR - IBAF

COST Action FP1204 www.greeninurbs.com: Green infrastructure approach: linking environmental with social aspects in studying and managing urban forests.

- Meetings organization
- Working groups (WGs) connection and inter – communication
- WG1 member (Environmental Services)
- Organizing Committee Member for the final conference (April 2017)

Activities certifications: Protocolli n. 3152,3153; 19/11/2018 IRET-CNR

09/2016 – 12/2016 Leipzig, Germany

ADVISOR - EXPERT HELMHOLTZ-ZENDRUM FUR UMWELTFORSCHUNG GMBH – UFZ

Research and development for EKLIPSE (Establishing a European Knowledge and Learning Mechanism to Improve the Policy-Science-Society Interface on Biodiversity and Ecosystem Services)

- Literature scoping and paper review: NBS (Nature Based Solutions) in urban environment.
- Teamwork organization and publication editing.

Activity certification: Protocollo n. 3154; 19/11/2018 IRET-CNR

01/2016 – 06/2016 Terni, Italy

SCIENCE TEACHER SECONDARY SCHOOL PUBLIC NATIONAL INSTRUCTION INSTITUTE

Permanent Territorial Centre at "IPSIA Pertini" high school, Terni Italy

- Arithmetic, Geometry and Natural Sciences
- Italian language for foreign people levels A1 and A2

10/2011 – 02/2012 Rome, Italy

CENSUS TAKER ISTAT – ITALIAN NATIONAL STATISTICAL INSTITUTE WWW.ISTAT.IT

Interviews collection for the ten-year Italian population census (2011)

● **EDUCATION AND TRAINING**

10/01/2012 – 05/04/2016 Italy

PH.D IN MANAGEMENT AND CONSERVATION ISSUES IN CHANGING LANDSCAPE University of Molise

International Ph.D course in Management and Conservation Issues in Changing Landscape (Landscape Ecology).

- Green Infrastructure analysis and its interaction with air pollution impact; laboratory approach through quali-quantitative analysis of particulate matter accumulated on leaf blades (Vacuum filtration; SEM-EDX analysis on *Quercus ilex*); modelistic approach, local and regional scale (i-Tree; TAPM models). Case study: city of Terni (Italy).

- STSM mobility grant: PM deposition on leaf surfaces and epicuticular waxes, leaf waxes quantitative analysis;

Hosting institutes: Bioforsk, Norwegian Institute for Agricultural and Environmental Research (Klepp, Norway); SGGW, Laboratory of Basic Research in Horticulture Faculty of Horticulture and Landscape Architecture Warsaw University of Life Sciences (Poland).

- International PhD mobility grant. TAPM model application (The Air Pollution Model) and ground data comparison: environmental control stations and leaf deposition; Hosting institute: CESAM, University of Aveiro (Portugal), Department of Environment and Planning.

- Summer and training school (Green Infrastructure Research - FP1204):

- *Microclimatic qualities of local green structure*; (2014) – Green Infrastructure Research, Alnarp (Sweden)

- *Implementation of GI approach to link environmental and social aspects in the research on UF* (2015), Pieve Tesino (Italy)
- *From brownfields to green infrastructure and urban forests* (2016); Duisburg (Germany)

Website www.unimol.it | **Field of study** Forestry |

Thesis Particulate Matter dispersion in an urban-industrial environment and deposition on *Quercus ilex*

C1 ADVANCED (CAE) Cambridge Assessment English

Website www.cambridgeenglish.org

10/2007 – 03/2011 Bologna, Italy

MASTER IN IN NATURAL HERITAGE CONSERVATION AND MANAGEMENT University of Bologna

Website www.unibo.it |

Field of study Natural environments and wildlife , Environmental sciences , Biology , Earth sciences |

Final grade 110/110 cum Laude | **Thesis** Atmospheric pollutants absorption by urban forest: Perugia a case study

01/07/2007 – 31/07/2007 Pisa, Italy

ADVANCED TRAINING COURSE IN AGRO-FORESTRY-PASTORAL SYSTEMS IN DEVELOPING COUNTRIES. COOPERATION AND DEVELOPMENT. Scuola Superiore Sant'Anna

Address Piazza Martiri della Libertà, 33, 56127, Pisa, Italy | **Website** <https://www.santannapisa.it/en>

● LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
PORTUGUESE	C1	C2	C1	C1	B2
SPANISH	C1	C1	B1	B2	B1
FRENCH	B1	B2	B1	B1	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● DIGITAL SKILLS

Research

Scanning Electron microscopy | GIS software: ArcGIS, QGIS | Data analysis | Microsoft Teams | Microsoft Excel | ImageJ Fiji

Communication and Team-work

Team-work oriented | Internet user | Good listener and communicator | Organizational and planning skills | Skype | Facebook | Written and Verbal skills

Basic digital

Microsoft Office | Google Drive | Power Point | LinkedIn | Zoom

● ADDITIONAL INFORMATION

PUBLICATIONS

[Nature-based solutions in post-industrial sites: Integrated evaluation of atmospheric pollution abatement and carbon uptake in a German city](#)

– 2023

Ristorini M., Guidolotti G., Sgrigna G.,..., Baldacchini C., Calfapietra C., et al., 2023

[Facing Multiple Environmental Challenges through Maximizing the Co-Benefits of Nature-Based Solutions at a National Scale in Italy](#)

– 2022

Di Pirro, E.; Sallustio, L.; Castellar, J.A.C.; Sgrigna, G.; Marchetti, M.; Lasserre, B.

[Strengthening the implementation of national policy agenda in urban areas to face multiple environmental stressors: Italy as a case study](#)

– 2022

Di Pirro, E., Sallustio, L., Sgrigna, G., Marchetti, M., Lasserre, B.

[Experimental Characterization of Particulate and Gaseous Emissions from Biomass Burning of Six Mediterranean Species and Litter](#)

– 2022

Nestola E., Sgrigna G., Pallozzi E., Caccavale L., Calfapietra C.

[Particulate Matter in an Urban-Industrial Environment: Comparing Data of Dispersion Modeling with Tree Leaves Deposition](#)

– 2022

Sgrigna, G.; Relvas, H.; Miranda, A.I.; Calfapietra, C.

[Evaluating the impact of nature-based solutions - A handbook for practitioners](#) – 2021

European Commission Directorate-General for Research and Innovation Directorate C — Healthy Planet

[Relationships between air particulate matter capture efficiency and leaf traits in twelve tree species from an Italian urban-industrial environment](#)

– 2020

Sgrigna, G., Baldacchini, C., Dreveck, S., Cheng, Z., Calfapietra, C.

[Innovative characterization of particulate matter deposited on urban vegetation leaves through the application of a chemical fractionation procedure.](#)

– 2020

Ristorini, M., Baldacchini, C., Massimi, L., Sgrigna, G., Calfapietra, C.

[An ultra-spatially resolved method to quali-quantitative monitor particulate matter in urban environment](#)

– 2019

Baldacchini, C., Sgrigna, G., Clarke, W., Tallis, M., Calfapietra, C.

[Towards an integrative approach to evaluate the environmental ecosystem services provided by urban forest](#)

– 2019

Roeland, S., Niinemets, Ü., Paoletti, E., Sgrigna, G., Calfapietra, C. et al.

[How Does the Amount and Composition of PM Deposited on Platanus acerifolia Leaves Change Across Different Cities in Europe?](#)

– 2017

Baldacchini, C. Castanheiro, Sgrigna, G., Verhelst, J., Calfapietra, C.*, et al.

An Impact Evaluation Framework to Support Planning and Evaluation of Nature-based Solutions Projects.

– 2017

Raymond, C.M., Berry, P., Breil, M., Sgrigna, G., Calfapietra, C. et al.

Characterization of leaf-level particulate matter for an industrial city using electron microscopy and X-ray microanalysis

– 2016

Sgrigna, G., Baldacchini, C., Esposito, R., Calfapietra, C. et al.

Particulate Matter deposition on Quercus ilex leaves in an industrial city of central Italy – 2015

Sgrigna, G., Sæbø, A., Gawronski, S., Popek, R., Calfapietra, C.

Removal of Ozone by Urban and Peri-Urban Forests: Evidence from Laboratory, Field, and Modeling Approaches. Journal of Environmental Quality

– 2015

Calfapietra C., Morani A., Sgrigna G., Muzzini V., Pallozzi E. et al.

Role of Biogenic Volatile Organic Compounds (BVOC) emitted by urban trees on ozone concentration in cities: A review

– 2013

Calfapietra, C., Fares, S., Manes, F., Morani, a., Sgrigna, G., Loreto, F.

DATA PRIVACY

Autorizzo il trattamento dei dati personali in base all'Art. 13 GDPR 679/16

CONFERENCES AND SEMINARS PARTICIPATION

04/2013 – CURRENT

Oral presentations, keynotes and seminars in national and international contexts

- ITINERIS Project meeting 2023 – WP and project organization, Potenza (Italy) – oral presentation
- NBS National Hub 2023 – Portuguese NBS HUB, Portimao (Portugal) – keynote speech
- SISEF 2022 – Italian Society of Forestry and Ecology, Orvieto – oral presentation
- 3MUGIS 2021 – International Online Summer School – online lesson
- PM2020 – National Convention on Particulate Matter, Lecce – oral presentation
- Thinkgreen Ecofestival 2019 – Ecology and Sustainability Festival, Roma – Seminar
- WFUF 2018 – World Forum on Urban Forests, Mantova – oral presentation
- COST Connect 2018 – COST Experiences Comparison, Sofia – Experts Meeting
- EU GreenWeek 2018 – Green Cities for a greener future, Bruxelles – FP1204 Dissemination
- IUCN 2018 – NBS Implementation in Mediterranean cities, Malaga – Experts round table
- PISA 4.0 2017 – Città resilienti ed infrastrutture verdi – oral presentation
- WGIC 2017- World Green Infrastructure Congress, Berlino – oral presentation
- Workshop CREA – 2017, Servizi Ecosistemici e Foreste Urbane, Roma – oral presentation
- SISEF 2017 – Società Italiana di Selvicoltura ed Ecologia, Roma – oral presentation
- FP1204 2016 – Cost Action, Final Conference, Orvieto (Italy) – oral presentation
- IUFRO 2015 – International Union of Forest Research Organiz., Nizza – oral presentation
- EFUF 2014 – European Forum of Urban Forest, Lausanne – oral presentation
- FP1204 2013 – Cost Action members meeting, Sofia – oral presentation
- EFUF 2013 – European Forum of Urban Forest, Milano – oral presentation

REVIEWER ACTIVITY

2013 – CURRENT

Reviewer for peer-reviewed journals and Evaluator for European Projects

- Evaluator for COST Action Open Call proposals: External Expert and Rapporteur
- Reviewer for several international peer-reviewed journals (Elsevier; Springer; MDPI).
