Luca DA ROS

ORCID: 0000-0001-5493-5571
www.linkedin.com/in/luca-daros/

WORK EXPERIENCE

DOLOMITISCH s.r.l. – *Founder*   Jun 2022 – Present
Bolzano (Italy)
Strategic vision and operations, expertise in innovative product R&D, international market positioning. Leadership, financial and economical strategies, commitment to sustainable business practices in a dynamic startup environment.

Free University of Bolzano - *Research Assistant*   Apr 2022 – Present
Bolzano (Italy)
Industrial research and experimental development on smart-forestry (IoT devices), forest carbon and nitrogen stocks, atmospheric N deposition, permanent field-scale manipulative experiment, terrestrial LiDAR and remote sensing

EtiFor Benefit Society – *Consultant*   May 2023 – Apr 2024
Padova (Italy)
To identify and secure reforestation areas in locations affected by *VAIA* storm and bark-beetle pest. Responsibilities include liaising with local forestry authorities for project approval, connecting with local companies for project execution.

Kloka Berry doo – *Consultant*   Mar 2022 – Apr 2023
Belgrade (Serbia)
To strategize and execute sustainable blueberry crop designs with a focus on agro-ecological practices. To develop a preliminary feasibility plan aimed at attracting international investors for forest preservation and restoration initiatives in central Serbia.

EDUCATION

Master Executive in Leadership for International Relations and Made in Italy   Mar 2023 – Mar 2024
Full scholarship offered by the Italy-USA Foundation
United Nations Academic Impact & Fondazione Italia USA – Rome (Italy)

Ph.D. in Mountain Environment and Agriculture   Nov 2018 – Jul 2022
Investigating the biogeochemical cycling of nitrogen and carbon, quantifying stocks in temperate forests
Co-founded by Free University of Bolzano / Fondazione Edmund Mach (Italy)

Fulbright Visiting Student Researcher fellowship   Feb 2021 – Aug 2021
Flagship international academic exchange program sponsored by the U.S. government
Cornell University – Ithaca, New York (USA)

M.Sc. in Management of Agro-territorial, Forest and Landscape Ecosystems   Sep 2015 – Sep 2017
Graduated with honors (110/110 cum laude)
University of Bologna (Italy)

Qualité de l'Environnement et Gestion des Ressources (Erasmus+ scholarship)   Aug 2016 – Feb 2017
Institute National Polytechnique de Toulouse - ENSAT (France)

Bachelor in Natural Sciences   Sep 2011 – Dec 2014
University of Bologna (Italy)

INVOLVEMENT IN PROJECTS

TREETALKER NETWORK: continuous large-scale monitoring of tree functional traits and vulnerabilities to climate change (ItTREEnet)
Free University of Bolzano (Bolzano, Italy) – Research assistant (SSD AGR-05)

National Science Foundation: Terrestrial Denitrification and Environmental Change
Hubbard Brook (New Hampshire, USA) / Cornell University (Ithaca, NY, USA) – Fulbright VSR fellowship

INSIDE : Stable Isotopes Techniques in Trees
Free University of Bolzano / Fondazione Edmund Mach (Italy) – PhD fellowship

ANR TRAM project : trace metal legacy in mountain environments
EcoLab (Toulouse, France) - ERASMUS + traineeship

GLOCHARID : Global Change in Arid Zones
Universidad de Almeria (Spain) – LLP/ERASMUS PLACEMENT

TEACHING & CAPACITY BUILDING

Lecture in "Forestry in Fragile Mountain Landscapes: Responsible Strategies for the Built Environment in Northeast Italy
Università Iuav di Venezia (Italy)
Dec 2024

Lecture in "Forest Trail Design: Strategies for Integrating Trail Design and Ecosystem Services in Landscape Architecture"
Polytechnic of Milan (Italy)
Nov 2024

Lecture in "Forestry as a tool for rural and touristic development"
Polytechnic of Milan (Italy)
Oct 2023

Teaching assistant in "Management of Mountain forests"
Free University of Bolzano (Italy)
Oct 2022 – Jan 2023

Teaching assistant in "Wood anatomy and productive silviculture"
Free University of Bolzano (Italy)
Oct 2019 – Jan 2020
Oct 2020 – Jan 2021

LANGUAGES & SKILLS

- **Languages: Italian** (native proficiency), **English** (IELTS 8.0/9.0), **Spanish** (C1), **French** (B2+), **German** (A1.2)
- **Computer:** Data Scientist with R (Datacamp), FARO Scene, CloudCompare, Word and Excel (advanced), QGIS (Grass, SAGA), Adobe InDesign, Adobe Illustrator, AutoCAD, Solidworks 3D, Rhinoceros, Lantek Expert
- **Environmental sensing technologies:** professional experience with carbon stock calculation, IoT-TreeTalkers network maintenance and data gathering/data treatment – Dry and wet deposition sampling/monitoring – Terrestrial laser scanner field and computer operations – satellite data gathering and treatment
- **Others:** Driving license (B1), Certified in climbing and working on eddy covariance towers

TRAINING

Training school on "Joint effects of climate Extremes and Atmospheric deposition on European forests"
Lisbon (Portugal), 6-9 May 2024
3DForEcoTech Training school: 3D forest ecosystem monitoring by terrestrial based technologies
Helsinki (Finland), 18-22 July 2022
ISOCAMP 2021 – *Summer school on Stable Isotopes Techniques*
University of New Mexico - Center for Stable Isotopes - Albuquerque (New Mexico), USA, 3-14 August 2021
Master the Art of Public Speaking – *Advanced course*
NOI Techpark, Bolzano (BZ), Italy, 21-22 September 2021
IRSAE Summer School - *Applied Ecology*
Hòlar, Iceland, 2-9 July 2019
CLIMO Training School - *Multiscale monitoring tools for a smart management of mountain forests*
San Michele all'Adige (TN), Italy, 1-3 July 2019

PUBBLICATIONS AND ESSAYS

S. Raniolo, <u>L. Da Ros</u>, L. Maretto, D. Gianelle, F. Camin, L. Bontempo, P. Stevanato, E. Sturaro, A. Squartini, M. Rodeghiero **(2025)**. *Grazing Intensity Accelerates Surface Soil C and N Cycling in Alpine Pastures as Revealed by Soil Genes and δ15N Ratio*. Sustainability, 17(5), 2165.

<u>L. Da Ros</u>, E. Tomelleri **(2024)**: *Specific Response of Norway Spruce to Drought Conditions in the Italian Alps.* IUFRO 26th World Congress.

M. Torresani, L. Montagnani, D. Rocchini, V. Moudrý, A. Andreoli, C. Wellstein, K. Koyanagi, <u>L. Da Ros</u>, G. Bacaro, M. Perrone, C. Salvatori, I. Menegaldo, E. Guatelli, R. Tognetti **(2024)**. *LiDAR insights on stand structure and topography in mountain forest wind extreme events: The Vaia case study.* Agricultural and Forest Meteorology, 359, 110267.

A. Candotti, I. Menegaldo, <u>L. Da Ros</u>, E. Tomelleri **(2024)**: *Disentangling Norway Spruce Responses to Bark Beetle Infestation and Drought Stress by Continuous Eco-Physiological Monitoring and Field Spectroscopy.* IUFRO 26th World Congress.

<u>L. Da Ros</u>[1], A. Bortolazzi[1], M. Rodeghiero, M. Ventura, R. Tognetti **(2024)**: *Simulated nitrogen deposition does not affect greenhouse gas emission in a sessile oak stand in Northern Italy.* Submitted (minor revisions) to Forest Ecology and Management

<u>L. Da Ros</u>, M. Rodeghiero, M. Ventura, R. Tognetti, C. L. Goodale, D. Gianelle **(2024)**: *High canopy retention of wet nitrogen deposition in a mountain beech forest: evidence from an isotope tracing study.* Accepted on Tree Physiology

<u>L. Da Ros</u>, M. Rodeghiero, C. L. Goodale, G. Trafoier, P. Panzacchi, F. Giammarchi, G. Tonon, M. Ventura **(2023)**: *Canopy ^{15}N fertilization increases short-term plant N retention compared to ground fertilization in an oak submountain forest.* Forest Ecology and Management, https://dx.doi.org/10.1016/j.foreco.2023.121001

I. Fracasso; C. Zaccone; N. Oskolkov; <u>L. Da Ros</u>; A. Dinella; L. Belelli Marchesini; P. Buzzini; C. Sannino; B. Turchetti; S. Cesco; G. Le Roux; G. Tonon; C. Vernesi; T. Mimmo; M. Ventura; L. Borruso **(2023)**: *Peatlands as ancient DNA archives for paleobiodiversity reconstructions*. Science of the Total Environment.https://doi.org/10.1016/j.scitotenv.2023.168159

G. Vaglio Laurin; A. Cotrina-Sanchez; L. Belelli-Marchesini; E. Tomellieri; G. Battipaglia; C. Cocozza; F. Niccoli; J. Piotr Kabala; D. Giannelle; L. Vescovo; <u>L. Da Ros</u>; R. Valentini **(2024)**: *Integrating ground below-canopy and satellite spectral data for an improved forest phenology monitoring system*. Ecological Indicators. https://doi.org/10.1016/j.ecolind.2023.111328

A. Bortolazzi[1], <u>L. Da Ros</u>[1], M. Rodeghiero, R. Tognetti, G. Tonon, M. Ventura **(2021)**, *The canopy layer, a biogeochemical actor in the forest N-cycle*, Science of the Total Environment, https://doi.org/10.1016/j.scitotenv.2021.146024

<u>L. Da Ros</u>, M. Ventura, M. Rodeghiero, D. Gianelle, G. Tonon **(2020)**, *Fate of atmospheric nitrogen depositions in two Italian temperate mountain forests assessed by isotopic analysis,* EGU General Assembly 2020. https://doi.org/10.5194/egusphere-egu2020-13067

G. Le Roux, S. V. Hansson, A. Claustres, S.Binet, F. De Vleeschouwer, L. Gandois, F. Mazier, A. Simonneau, R.Teisserenc, D. Allen, T. Rosset, M. Haver, <u>L. Da Ros</u>, D. Galop, P. Durantez, Anne Probst, J. M. Sanchez Perez, S. Sauvage, P. Laffaille, S. Jean, D. Schmeller, L. Camarero, L. Marquer, S. Lofts **(2020)**: *Trace metal legacy in mountain environments: a view from the Pyrenees mountains.* AGU Books. https://doi.org/10.1002/9781119413332.ch9

---

[1] These authors contributed equally.