
WORK EXPERIENCE

- 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

Teaching assistant in “Tree physiology and climate change” <i>Free University of Bolzano (Italy)</i>	Oct 2025 – Jan 2026
Lecture in “Forestry in Fragile Mountain Landscapes: Responsible Strategies for the Built Environment in Northeast Italy” <i>Università Iuav di Venezia (Italy)</i>	Dec 2024
Lecture in “Forest Trail Design: Strategies for Integrating Trail Design and Ecosystem Services in Landscape Architecture” <i>Polytechnic of Milan (Italy)</i>	Nov 2024
Lecture in “Forestry as a tool for rural and touristic development” <i>Polytechnic of Milan (Italy)</i>	Oct 2023
Teaching assistant in “Management of Mountain forests”	Oct 2022 – Jan 2023
Teaching assistant in “Wood anatomy and productive silviculture” <i>Free University of Bolzano (Italy)</i>	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, RIEGL suite, CloudCompare, QGIS (Grass, SAGA), Adobe InDesign, Adobe Illustrator, AutoCAD, Solidworks 3D, Rhinoceros, Lantek Expert
 - **Environmental sensing technologies:** professional experience with stable isotopes, 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
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TRAINING

Training school “Interdisciplinary summer school on Forest Ecosystems 2025”
Oxford (UK), 4-8 August 2025 - COST actions 3DForEcoTech, ARiF, CLEANFOREST and PANGEOS

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

CLIMO Training School - Multiscale monitoring tools for smart management of mountain forests
San Michele all’Adige (TN), Italy, 1-3 July 2019

PUBLICATIONS AND ESSAYS

- D. Minikaev, G. Tonon, M. Ventura, F. Fornasier, **L. Da Ros**, B. Du Toit, & Wellstein, C. (2025). *Carbon dynamics and potential nutrient limitations in an oak forest under experimental canopy nitrogen deposition*. *Science of the Total Environment*, 994, 180027. [10.1016/j.scitotenv.2025.180027](https://doi.org/10.1016/j.scitotenv.2025.180027)
- L. Da Ros**¹, A. Bortolazzi¹, M. Rodeghiero, M. Ventura, R. Tognetti (2025): *Simulated nitrogen deposition does not affect greenhouse gas emission in a sessile oak stand in Northern Italy*. Submitted to *Scientific Reports*
- S. Raniolo, **L. Da Ros**, 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 $\delta^{15}N$ Ratio*. *Sustainability*, 17(5), 2165. [10.3390/su17052165](https://doi.org/10.3390/su17052165)
- M. Torresani, L. Montagnani, D. Rocchini, V. Moudrý, A. Andreoli, C. Wellstein, K. Koyanagi, **L. Da Ros**, 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. [10.1016/j.agrformet.2024.110267](https://doi.org/10.1016/j.agrformet.2024.110267)
- L. Da Ros**, E. Tomelleri (2024): *Specific Response of Norway Spruce to Drought Conditions in the Italian Alps*. IUFRO 26th World Congress.
- L. Da Ros**, M. Rodeghiero, M. Ventura, R. Tognetti, C. L. Goodale, D. Gianelle (2024): *An in situ ^{15}N labeling experiment unveils distinct responses to N application approaches in a mountain beech forest*. *Tree Physiology*, 44(9), tpae104. doi.org/10.1093/treephys/tpae104
- G. Vaglio Laurin; A. Cotrina-Sanchez; L. Belelli-Marchesini; E. Tomelleri; G. Battipaglia; C. Cocozza; F. Niccoli; J. Piotr Kabala; D. Gianelle; L. Vescovo; **L. Da Ros**; R. Valentini (2024): *Comparing ground below-canopy and satellite spectral data for an improved and integrated forest phenology monitoring system*. *Ecological Indicators*. <https://doi.org/10.1016/j.ecolind.2023.111328>
- L. Da Ros**, 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; **L. Da Ros**; 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>
- A. Bortolazzi¹, **L. Da Ros**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>
- L. Da Ros**, 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, **L. Da Ros**, 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.