

Education

- **University of Trieste, Italy**
 - Nov 2014 – Mar 2018
 - PhD in Environmental Life Sciences
 - Thesis title: *Analyses of diversity patterns of native and alien species in coastal plant communities: from local to global scale*
 - Supervisor: Prof. Giovanni Bacaro

Academic positions

- **Alma Mater Studiorum - University of Bologna, Italy**
 - Apr 2026 – to date
 - Tenure Track Researcher (RTT)
- **University of Tartu, Estonia**
 - Mar 2025 - Mar 2026
 - Researcher
 - Project: *PSG1021 BIODECODE - decoding biodiversity changes in the Anthropocene through functional, evolutionary, and species interaction dynamics across the Tree of Life*. Funded by Estonian Research Council; Role: PI.
- **University of Tartu, Estonia**
 - Oct 2021 - Mar 2025
 - Research Fellow
 - Project: *MOBJD1030 SPECTRA - a worldwide perspective on species extinction risk across taxonomic groups*. Funded by Estonian Research Council. Funded by Estonian Research Council; Role: PI.
 - Supervisors: Prof. Meelis Pärtel, Prof. Carlos Pérez Carmona.
- **University of Trieste, Italy**
 - Dec 2019 – Dec 2020
 - Postdoctoral researcher (Assegnista di Ricerca)
 - Project: Interreg project V-A Italia-Slovenia *SECAP – Support for energy and climate adaptation policies*.
 - Supervisor: Prof. Giovanni Bacaro.
- **University of Trieste, Italy**
 - Jun 2018 – Dec 2019
 - Postdoctoral researcher (Assegnista di Ricerca)
 - Project: Interreg V-A Italia-Austria AITAT2022 *NO WASTE - Improved biodiversity for exploitation without waste of traditional crops*.
 - Supervisor: Prof. Giovanni Bacaro.

Didactic activities and supervisions

- University of Bologna: “Habitat conservation and monitoring” (bachelor’s degree in Natural Science).
- University of Tartu: “Data Analysis in Community Ecology” (master’s degree in biology and Eco-innovation); “Phylogenetic Trees in Ecology and Evolution” (master’s degree in biology and Eco-innovation), PhD school Writing Retreat.

- University of Trieste: “Modelling and machine learning in ecology” (PhD summer school in data analysis).
- Teaching assistant for the master's course “Designing and analysis of environmental monitoring and experiment”, University of Trieste (Italy). Spring 2020.
- Supervisor of two PhD students (one ongoing and one completed in March 2025).
- Co-supervisor of 11 MSc and 4 BSc students.

Scientific activities

I authored 64 peer-reviewed articles since 2015 (35% as first, last or corresponding author; 32% without my PhD supervisor, updated 03/2026), including papers in *Nature*, *Nat. Ecol. Evol.*, *Glob. Change Biol.*, *Ecol. Lett.*, *Global Ecol. Biogeogr.*, and *Meth. Ecol. Evol.* I also authored 3 book chapter, 1 technical report, 2 software packages and 2 educational resources. Over 54% of my publications are in Q1 journals, increasing to 75% in the last two years.

Activities in R&D

Since 2017, I have been a member of the International Association for Vegetation Science (IAVS) and, since 2021 of the International Biogeography Society (IBS) and the British Ecological Society (BES). In 2022, I became a member of the Editorial Board of the *J. Veg. Sci.* and Associate Editor since 2026. Since 2023, I have also been a member of the editorial board in *npj Biodiversity*. I am actively reviewing papers (>60 reviews for >20 journals including *Nat. Comm.*, *Glob. Ecol. Biogeogr.*, *Ecol Lett.*, *New Phyt.*, *Meth. Ecol. Evol.*, *J. Ecol.*, *Ecography*) and I also acted as an external evaluator for the Evaluation of Research Quality (VQR) for Italian institutions in the period 2015-2019. I also served as a grant reviewer for French, Austrian and Czech research agencies (French National Research Agency, Austrian Science Fund and Czech Science Foundation) and the University of Parma (Research projects for young researchers). I've also served as a member of the PhD evaluation committee at the University of Tartu.

Selected publications

- 1) Puglielli, G., Carmona, C.P., Bissi, A., Tordoni, E. (2025). *Quantifying the influence of intraspecific variability in trait spaces*. *npj Biodiversity*, 4(1), 1-7.
- 2) Soto, I., Courtois, P., Pili, A., **Tordoni, E.**, ..., Leung, B. (2025). *Using species ranges and macroeconomic data to fill the gap in costs of biological invasions*. *Nature Ecology and Evolution*, 9, 1021–1030.
- 3) Partel, M., Tamme, R., Carmona, C. P., ...,Pärtel, M., Tamme, R., Carmona, C.P.,..., Tordoni, E., ..., Zobel, M. (2025). *Global impoverishment of natural vegetation revealed by dark diversity*. *Nature* 641, 917–924.
- 4) Puglielli, G., Bricca, A., Chelli, S., ..., Tordoni, E. (2024). *Intraspecific variability of leaf form and function across habitat types*. *Ecology Letters* 27, e14396.
- 5) Rodríguez-Alarcón, S., González-M, R., Carmona, C.P., Tordoni, E. (2024). *Trait–growth relationships in Colombian tropical dry forests: Incorporating intraspecific variation and trait interactions*. *Journal of Vegetation Science* 35, e13233.
- 6) Da Re, D., Tordoni, E., Lenoir, J., Lembrechts, J. J., Vanwambeke S. O., Rocchini, D., Bazzichetto, M. (2023). *USE it: uniformly sampling pseudo-absences within the environmental*

- space for applications in habitat suitability models*. *Methods in Ecology and Evolution* 14, 2873–2887.
- 7) Tordoni, E., Petruzzellis, F., Di Bonaventura, A., ..., Bacaro, G. (2022). *Projections of leaf turgor loss point shifts under future climate change scenarios*. *Global Change Biology* 28, 6640– 6652.
 - 8) Tordoni, E., Bacaro, G., Weigelt, P., ..., Kreft, H. (2021). *Disentangling native and alien plant diversity in coastal sand dune ecosystems worldwide*. *Journal of Vegetation Science* 32, e12861.
 - 9) Tordoni, E., Ametrano, C. G., Banchi, E., Ongaro, S., Pallavicini, A., Bacaro, G., Muggia, L. (2021). *Integrated eDNA metabarcoding and morphological analyses assess spatio-temporal patterns of airborne fungal spores*. *Ecological Indicators* 121, 107032.
 - 10) Tordoni, E., Casolo, V., Bacaro, G., Martini, F., Rossi, A., Boscutti, F. (2020). *Climate and landscape heterogeneity drive the spatial pattern of endemic plant diversity within local hotspots in the South-Eastern Alps*. *Perspectives in Plant Ecology, Evolution and Systematics* 43 125512.
 - 11) Tordoni, E., Petruzzellis, F., Nardini, A., Savi, T., Bacaro, G. (2019). *Make it simpler: alien species decrease functional diversity of coastal plant communities*. *Journal of Vegetation Science* 30, 498-509.