CV Manuele Bazzichetto

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Current position

I'm a postdoctoral researcher at the Université de Rennes 1 (**Phenome Research Team**, PI: **Prof. David Renault**), where I'm dealing with plant invasion in the sub-Antarctic islands. (End of contract: 02/12/2020).

Research interests

Vegetation ecology; Biological invasions; Ecological informatics; Remote sensing; Ecological modelling; Spatial ecology; Species distribution modelling; Landscape ecology; Conservation biology.

Education

- 05/2019: PhD in Science, technology and biotechnology for sustainability (Università degli Studi della Tuscia). Thesis: "Monitoring plant diversity in Mediterranean coastal landscapes: integration of field collected and remotely sensed data"
- 02/2015: Master's Degree in *Biodiversity and ecosystems management* (Università di Roma Tre). Thesis (110/110 cum laude): "Beach litter composition and accumulation dynamic along two coastal sites of central Italy"
- 10/2011: Bachelor's Degree in *Ecology* (Università di Roma Tor Vergata). Thesis: "Analysing skeleton anomalies in *Atherina boyeri* (Risso, 1810) to assess the environmental quality of two Albanian lagoons"

Publications

• Bazzichetto, M., Massol, F., Carboni, M., Lenoir, J., Lembrechts, J.J., Joly, R., & Renault, D. Once upon a time in the south: local drivers of plant invasion in the harsh sub-Antarctic islands. (PCI Ecology - recommendation process underway). https://doi.org/10.1101/2020.07.19.210880

- Malavasi, M., Bazzichetto, M., Komarek, J., Moravec, D., Moudry, V., Rocchini, D., Bagella, S., Acosta, A.T.R. & Carranza, M.L. *UAV-based monitoring of eco-morphological processes in Mediterranean coastal dunes.* (under review in Applied Vegetation Science).
- Bazzichetto, M., Sperandii, M.G., Malavasi, M., Carranza, M.L, & Acosta, A.T.R.. Disentangling the effect of coastal erosion and accretion on plant communities of Mediterranean dune ecosystems. (2020). Estuarine, Coastal and Shelf Science, 106758. https://doi.org/10.1016/j.ecss.2020.106758
- Filibeck, G., Sperandii, M.G., **Bazzichetto, M.**, Mancini, L.D., Rossini, F., & Cancellieri, L. (2019). Exploring the drivers of vascular plant richness at very fine spatial scale in sub-Mediterranean limestone grasslands (Central Apennines, Italy). Biodiversity and Conservation, 1-25. https://doi.org/10.1007/s10531-019-01788-7
- Malavasi, M., Barták, V., Jucker, T., Acosta, A.T.R., Carranza, M.L., & Bazzichetto, M. (2019). Strength in Numbers: Combining Multi-Source Remotely Sensed Data to Model Plant Invasions in Coastal Dune Ecosystems. Remote Sensing, 11(3), 275. https://doi.org/10.3390/rs11030275
- Sperandii, M. G., Bazzichetto, M., Gatti, F., & Acosta, A.T.R. (2019). Back into the past: Resurveying random plots to track community changes in Italian coastal dunes. Ecological Indicators, 96, 572-578. https://doi.org/10.1016/j.ecolind.2018.09.039
- Marzialetti F., Bazzichetto M., Giulio S., Acosta A.T.R., Stanisci A., Malavasi M., & Carranza M.L. (2019). Modelling Acacia saligna invasion on the Adriatic coastal landscape: An integrative approach using LTER data. In: Mazzocchi MG, Capotondi L, Freppaz M, Lugliè A, Campanaro A (Eds) Italian Long-Term Ecological Research for understanding ecosystem diversity and functioning. Case studies from aquatic, terrestrial and transitional domains. Nature Conservation 34: 127–144. https://doi.org/10.3897/natureconservation.34.29575
- Sperandii, M. G., Bazzichetto, M., Acosta, A.T.R., Barták, V., & Malavasi, M. (2018). Multiple drivers
 of plant diversity on coastal dunes: A Mediterranean experience. Science of The Total Environment, 652,
 1435-1444. https://doi.org/10.1016/j.scitotenv.2018.10.299
- Bazzichetto, M., Malavasi, M., Bartak, V., Acosta, A.T.R., Rocchini, D., & Carranza, M. L. (2018). Plant invasion risk: A quest for invasive species distribution modelling in managing protected areas. Ecological Indicators, 95, 311-319. https://doi.org/10.1016/j.ecolind.2018.07.046
- Bazzichetto, M., Malavasi, M., Barták, V., Acosta, A.T.R., Moudrý, V., & Carranza, M. L. (2018). Modeling plant invasion on Mediterranean coastal landscapes: An integrative approach using remotely sensed data. Landscape and Urban Planning, 171, 98-106. https://doi.org/10.1016/j.landurbplan.2017.11.006
- Battisti, C., Bazzichetto, M., Poeta, G., Pietrelli, L., & Acosta, A.T.R. (2017). Measuring non-biological diversity using commonly used metrics: Strengths, weaknesses and caveats for their application in beach litter management. Journal of coastal conservation, 21(2), 303-310. https://doi.org/10.1007/s11852-017-0505-9
- Bazzichetto, M., Malavasi, M., Acosta, A.T.R., & Carranza, M. L. (2016). How does dune morphology shape coastal EC habitats occurrence? A remote sensing approach using airborne LiDAR on the Mediterranean coast. Ecological indicators, 71, 618-626. https://doi.org/10.1016/j.ecolind.2016.07.044
- Poeta, G., Battisti, C., Bazzichetto, M., & Acosta, A.T.R. (2016). The cotton buds beach: Marine litter assessment along the Tyrrhenian coast of central Italy following the marine strategy framework directive criteria. Marine pollution bulletin, 113(1-2), 266-270. https://doi.org/10.1016/j.marpolbul.2016.09.035

In preparation:

- De Toma, A., Carboni, M., Bazzichetto, M., Malavasi, M., Cutini, M. Alpine shrub encroachment in the central Appenines: current patterns and temporal trends.
- Renault, D., Hess, M., Braschi, J., Sperandii, M.G., Bazzichetto, M., Chabrerie, O., Thiébaut, G., Buisson, E., Grandjean, F., Bittebiere, A., Mouchet, M., & Massol, F. The implementation of functional diversity indices for improved assessments of the ecological effects of biological invasions and restoration measures.
- Rocchini, D., Iannacito, M., Thouverai, E., Marcantonio, M., Da Re, D., Bacaro, G., **Bazzichetto, M.**, Bernardi, A., Foody, G.M., Furrer, R., Larsen, S., Lenoir, J., Malavasi, M., Montaghi, A., Moudrý, V., Naimi, B., Payne, D., Ricotta, C., ..., Wegmann, M. rasterdiv: an Information Theory tailored R package for measuring diversity from space: to the origin and back.

Conferences

- Vegetation diversity and global changes. 28th Congress of the European Vegetation Survey, 2nd 6th September 2019, Madrid, Spain.
- Vegetation science and biodiversity research. 62th Symposium of the International Association for Vegetation Science, 14th 19th July 2019, Bremen, Germany.
- Research days. Università degli Studi del Molise, 1st March 2018, Pesche (IS), Italy.
- Diversity patterns across communities in the frame of global change: conservation challenges. 26th Congress of the European Vegetation Science, 13th 16th September 2017, Bilbao, Spain.
- Vegetation patterns in natural and cultural landscapes. 60th Symposium of the International Association for Vegetation Science, 20th 24th June 2017, Palermo (PA), Italy.
- Research days. Università degli Studi del Molise, 1st 2nd March 2017, Pesche (IS), Italy.
- Challenges of Anthropocene and the role of Landscape Ecology. S.I.E.P. (Società Italiana di Ecologia del Paesaggio), 26th 28th May 2016, Asti (AT), Italy.
- Research days. Università degli Studi del Molise, 1st 2nd March 2016, Pesche (IS), Italy.
- In the Wake of Plastics International Conference. Università Ca' Foscari, 13th 15th October 2015, Venice, Italy.
- National Marine Litter Forum. MARLISCO, 16th January 2015, Rome, Italy.

Talks and presentations

- Invited talk: **Bazzichetto M.**, Massol F., Lenoir J., Carboni M., Rocchini D., Lebouvier M. & Renault D. So far so close: history and future of plant invasion in sub-Antarctic islands in the context of global changes. Università di Roma Tre, 23rd January 2020, Rome, Italy.
- Invited talk: Bazzichetto M., Lenoir J., Massol F., Rocchini D., Lebouvier M. & Renault D. So far so close: history and future of biological invasions in sub-Antarctic islands in the context of global changes. Université de Lille, 11th October 2019, Lille, France.
- Oral communication: **Bazzichetto M.**, Lenoir J., Massol F., Rocchini D., Lebouvier M. & Renault D. Modelling the distribution of the non-native grass Poa pratensis (Poaceae) in sub-Antarctic islands. 62th IAVS (International Association for Vegetation Science) Symposium, 14th 19th July 2019, Bremen, Germany.
- Poster: Bazzichetto M., Malavasi M., Bartak V., Acosta A.T.R., Rocchini D. & Carranza M.L. Predicting alien species occurrence for plant biodiversity conservation in Natura 2000 coastal network. Research days, 1st March 2018, Pesche (Isernia), Italy.
- Poster: Bazzichetto M., Malavasi M., Bartak V., Acosta A.T.R. & Carranza M.L. Predicting alien species
 occurrence for plant biodiversity conservation in Natura 2000 coastal network. 26th EVS (European Vegetation Survey) Congress, 13th 16th September 2017, Bilbao, Spain.
- Oral communication: **Bazzichetto M.**, Malavasi M., Bartak V., Acosta A.T.R., Moudry V. & Carranza M.L. Modeling plant invasion on Mediterranean coastal dunes: an integrative approach using remotely sensed data. 60th IAVS (International Association for Vegetation Science) Symposium, 20th 24th June 2017, Palermo, Italy.
- Oral communication and poster: **Bazzichetto M.**, Malavasi M., Bartak V., Acosta A.T.R., Moudry V. & Carranza M.L. Influence of propagule pressure, abiotic and biotic factors on the invasion process of a non-native taxon (Carpobrotus sp.) on a Tyrrhenian dune system. Research days, 1st 2nd March 2017, Pesche (Isernia), Italy.
- Poster: Bazzichetto M., Malavasi M., Acosta A.T.R. & Carranza M.L. How does dune morphology shape coastal EC habitats distribution? A remote sensing approach using airborne LiDAR on the Mediterranean coast. "Challanges of Anthropocene and the role of Landscape Ecology", SIEP-IALE, 26th 28th May 2016, Asti, Italy.

$A cademic \ services$

- Member of the International Association for Vegetation Science (IAVS).
- Member of the "Young Scientists" working group (IAVS).
- Member of the steering committee of the "EcoInformatics" working group (IAVS).

Journal peer-review

Reviewer for: Applied Vegetation Science; Journal of Vegetation Science; Scientific Reports; Diversity and Distributions; Estuarine, coastal and shelf science (for details see https://publons.com/researcher/K-5616-2019/).

Research experiences

- Department of Biodiversity and Molecular Ecology, Fondazione Edmund Mach, 12th 12th December 2017, San Michele all'Adige (Trento), Italy.
- Department of Applied Geoinformatics and Spatial Planning, Czech University of Life Sciences, 5th April 5th June 2017, Prague, Czech Republic.
- Department of Applied Geoinformatics and Spatial Planning, Czech University of Life Sciences, 10th October
 10th November 2016, Prague, Czech Republic.
- Department of Applied Geoinformatics and Spatial Planning, Czech University of Life Sciences, 21st May 21st June 2016, Prague, Czech Republic.

Teaching

- Demonstrator. BSc Ecology: GIS in Ecology. Università di Roma Tre, December 2016, Rome, Italy.
- Demonstrator. BSc Ecology: GIS in Ecology. Università di Roma Tre, December 2015, Rome, Italy.

Funding

- 34 TOMST TMS4 microclimate loggers funded by the **SoilTemp consortium** (2720 eur.).
- IAVS travel grant (500 eur.).

Other activities

- Member of the 57° Summer Campaign "French Southern and Antarctic Lands" for the French Polar Institute. Collection of invasive plants occurrence data on Possession Island (Crozet archipelago) following a systematic sampling of the environmental space. Possession Island (Crozet archipelago), 7th November 2019 3rd January 2020.
- Workshop "Sampling and analyzing data in vegetation ecology", organized by the Ecological section of the Italian Botanical Society, 13th 14th June 2019, Siena (Italy).
- Working group meeting on Biological invasions organized by the Groupement de Recherche CNRS 3647 Invasions Biologiques, 3rd 7th June 2019, St. Malo (France).
- Fifth International SPLIT REMOTE SENSING ® PROFESSIONAL SUMMER SCHOOL 2018, 11th 17th June 2018, Prague, Czech Republic.
- Involvement in the writing of several projects (e.g. **Biodiversa calls**, check **https://www.coldregioninvasives.com/**).

References

- Prof. Maria Laura Carranza (carranza@unimol.it)
- Prof. Alicia Teresa Rosario Acosta (aliciateresarosario.acosta@uniroma3.it)
- Marta Carboni (marta.carboni@uniroma3.it)
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