CV Manuele Bazzichetto

2023



Contacts and socials

• Personal e-mail: manuele.bazzichetto@gmail.com

• Website: https://mbazzichetto.netlify.app

ResearchGate: Manuele Bazzichetto
GoogleScholar: Manuele Bazzichetto

• Twitter: MBazzichetto

• ORCID: https://orcid.org/0000-0002-9874-5064

• Web of Science Research ID: K-5616-2019

• Scopus Author ID: **57190729868**

Short summary

I am a vegetation ecologist broadly interested in the mechanisms driving plant diversity patterns and processes across spatiotemporal scales. The tools I use to address my research questions are quantitative ecology, the R programming language, and remote sensing. In 2019, I completed a PhD in Science, Technology and Biotechnology for Sustainability, which dealt with analysing the effect of natural and anthropogenic factors on coastal dune vegetation through the integration of field-collected floristic data and remotely sensed imagery. A large part of my PhD focused on plant invasion in Mediterranean coastal dunes, as well as on the use of species distribution models for understanding what determines the outcome of biological invasions on coastal dune ecosystems. After my PhD, I was as a postdoctoral researcher at the Université de Rennes 1 (France), where I investigated how human-related and climatic factors affect the invasion dynamics of non-native plants on French sub-Antarctic islands. From January 2021 to September 2022, I was a visiting researcher at the Centro de Investigaciones sobre Desertificación (CSIC-UV-GV, Spain), where I investigated the effect of extreme drought on the stability of biomass production of central European grasslands. Since October 2022, I am a Marie Skłodowska-Curie fellow at the Czech University of Life Sciences (Prague), where I am running COCOS (effects of Climatic extremes On eCOsystem Stability), a project investigating how different ecosystem types respond to temperature- and precipitation-related extreme climatic events.

Research interests

Vegetation ecology; Ecosystem stability; Biological invasions; Ecological informatics; Remote sensing; Ecological modelling; Spatial ecology; Species distribution modelling; Extreme Climatic Events.

Current position

• 10/2022 - (ongoing): Marie Skłodowska-Curie postdoctoral fellow (HORIZON-MSCA-2021-PF-01-01). Project title: "COCOS – effects of Climatic extremes On eCOsystem Stability" (Grant number: 101066324). Host Institution: MOBI lab, Department of Spatial Sciences, Czech University of Life Science, Prague (Czech Republic).

Previous positions

- 01/2021 09/2022: Visiting researcher. Host Institution: Functional Diversity Lab, Department of Ecology and Global Change, Centro de Investigaciones sobre Desertificación CSIC-UV-GV, Moncada, (Spain). PI: Dr. Francesco de Bello.
- 12/2018 12/2020: **Postdoctoral researcher** (Ingénieur de recherche). **Phenome Research Team**, Département Ecosystèmes, Biodiversité, Evolution (ECOBIO), Université de Rennes 1, Rennes (France). PI: **Prof. David Renault**.

Education

- 05/2019: PhD in Science, technology and biotechnology for sustainability (s.s.d. BIO/07 Ecology; XXXI cycle). Thesis: "Monitoring plant diversity in Mediterranean coastal landscapes: integration of field collected and remotely sensed data". Università degli Studi della Tuscia, Viterbo (Italy).
- 02/2015: Master's Degree in *Biodiversity and ecosystems management* (110/110 cum laude). Thesis: "Beach litter composition and accumulation dynamic along two coastal sites of central Italy". Università degli Studi di Roma Tre, Rome (Italy).
- 10/2011: Bachelor's Degree in *Ecology* (101/110). Thesis: "Analysing skeleton anomalies in *Atherina boyeri* (Risso, 1810) to assess the environmental quality of two Albanian lagoons". Università degli Studi di Roma Tor Vergata, Rome (Italy).

Publications

Since 2016, I published 25 scientific manuscripts in peer-reviewed international journals.

- Da Re, D.^, Tordoni, E.^, Lenoir, J., Lembrechts, J.J., Vanwambeke, S. O., Rocchini, D., Bazz-ichetto, M.^ (2023). USE it: uniformly sampling pseudo-absences within the environmental space for applications in habitat suitability models. Methods in Ecology and Evolution, 14(11), pp 2873-2887. https://doi.org/10.1111/2041-210X.14209
- Bazzichetto, M., Lenoir, J., Da Re, D., Tordoni, E., Rocchini, D., Malavasi, M., Barták, V., Sperandii, M. G. (2023). Sampling strategy matters to accurately estimate response curves' parameters in species distribution models. Global Ecology and Biogeography, 32(10), 1717-1729. https://doi.org/10.1111/geb.13725
- Marchetto, E., Da Re, D., Tordoni, E., **Bazzichetto**, M., Zannini, P., Celebrin, S., . . . & Rocchini, D. (2023). Testing the effect of sample prevalence and sampling methods on probability-and favourability-based SDMs. Ecological Modelling, 477, 110248. https://doi.org/10.1016/j.ecolmodel.2022.110248

- Malavasi, M., Bazzichetto, M., Bagella, S., Barták, V., Depalmas, A., Gregorini, A., ... & Bagella, S. (2023). Ecology meets archaeology: Past, present and future vegetation-derived ecosystems services from the Nuragic Sardinia (1700–580 BCE). People and Nature, 5(3). https://doi.org/10.1002/pan3.10461
- Rocchini, D., Tordoni, E., Marchetto, E., Marcantonio, M., Barbosa, A. M., **Bazzichetto, M.**, . . . & Malavasi, M. (2023). A quixotic view of spatial bias in modelling the distribution of species and their diversity. npj Biodiversity, 2(1), 10. https://doi.org/10.1038/s44185-023-00014-6
- De Toma, A., Carboni, M., **Bazzichetto**, M., Malavasi, M., & Cutini, M. (2022). *Dynamics of dwarf shrubs in Mediterranean high-mountain ecosystems*. Journal of Vegetation Science, 33(4), e13143. https://doi.org/10.1111/jvs.13143
- Poeta, G.^, Bazzichetto, M.^, Gallitelli, L., ... & Malavasi, M. (2022). One year after on Tyrrhenian coasts: The ban of cotton buds does not reduce their dominance in beach litter composition. Marine Policy, 143, 105195. https://doi.org/10.1016/j.marpol.2022.105195
- Renault, D., Hess, M. C., Braschi, J., Cuthbert, R. N., Sperandii, M. G., **Bazzichetto, M.**, . . . & Massol, F. (2022). Advancing biological invasion hypothesis testing using functional diversity indices. Science of The Total Environment, 155102. https://doi.org/10.1016/j.scitotenv.2022.155102
- Lembrechts, J. J., van den Hoogen, J., Aalto, J., Ashcroft, M. B., De Frenne, P., Kemppinen, J., ... Bazzichetto, M., ... & Hik, D. S. (2022). Global maps of soil temperature. Global Change Biology, 28(9), 3110-3144. https://doi.org/10.1111/gcb.16060
- Yannelli, F., Bazzichetto, M., Conradi, T., Pattison, Z., Andrade, B.O.,, & Sperandii, M.G. (2022). Fifteen emerging challenges and opportunities for vegetation science A horizon scan by early career researchers. Journal of Vegetation Science, e13119. https://doi.org/10.1111/jvs.13119
- Sperandii, M.G., de Bello, F., Valencia, E., Götzenberger, L., **Bazzichetto, M.**, Galland, T., . . . , & Leps, J. (2022). *LOTVS: a global collection of permanent vegetation plots*. Journal of Vegetation Science, e13115. https://doi.org/10.1111/jvs.13115
- Bazzichetto, M., Massol, F., Carboni, M., Lenoir, J., Lembrechts, J.J., Joly, R., & Renault, D. (2021). Once upon a time in the far south: Influence of local drivers and functional traits on plant invasion in the harsh sub-Antarctic islands. Journal of Vegetation Science, 32(4), e13057. https://doi.org/10.1111/jvs.13057; Recommended by PCI Ecology
- Malavasi, M., Bazzichetto, M., Komarek, J., Moravec, D., Moudry, V., Rocchini, D., Bagella, S., Acosta, A.T.R. & Carranza, M.L. (2021). Unmanned aerial systems-based monitoring of the ecogeomorphology of coastal dunes through spectral Rao's Q. Applied Vegetation Science, 24(1), e12567. https://doi.org/10.1111/avsc.12567
- 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. (2021). rasterdiv: an Information Theory tailored R package for measuring diversity from space: to the origin and back. Methods in Ecology and Evolution, 12(6): 1093-1102. https://doi.org/10.1111/2041-210X.13583
- Bazzichetto, M., Sperandii, M.G., Malavasi, M., Carranza, M.L, & Acosta, A.T.R. (2020). Disentangling the effect of coastal erosion and accretion on plant communities of Mediterranean dune ecosystems. 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. (2019). *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

Under review:

• Bazzichetto, M., Sperandii, M. G., Penone, C., Keil, P., Allan, E., Lepš, J., ... & de Bello, F. (2023). Functional components of biodiversity mediate stability of grasslands under extreme drought. Under review in Journal of Ecology. https://doi.org/10.32942/X24017

Attended conferences

- The future of vegetation in the 22nd century. 65th Annual Symposium of the International Association for Vegetation Science, 3rd 8th September 2023, Coffs Harbour (Australia).
- Vegetation science and global changes: scenarios, challenges and innovation. 55th Congress SISV (Società Italiana di Scienze della Vegetazione), 16th 17th June 2022, L'Aquila (Italy).

[^] Shared first authorship.

- Revegetating Europe contribution of the EVS to the ecological restoration decade. 29th Congress of the European Vegetation Survey, 6th 7th September 2021, virtual online conference.
- Vegetation diversity and global changes. 28th Congress of the European Vegetation Survey, 2nd 6th September 2019, Madrid (Spain).
- Vegetation science and biodiversity research. 62th Annual 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 (Iernia, 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 Annual Symposium of the International Association for Vegetation Science, 20th 24th June 2017, Palermo (Italy).
- Research days. Università degli Studi del Molise, 1st 2nd March 2017, Pesche (Isernia, 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 (Italy).
- Research days. Università degli Studi del Molise, 1st 2nd March 2016, Pesche (Isernia, 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 at conferences

I presented my work at 6 international (5 oral communications) and 3 national conferences.

- Oral communication: **Bazzichetto M.**, de Bello, F., Perrone, M., Götzenberger, L., Keil, P. **COCOS: effects of Climatic extremes On eCOsystem Stability**. 65th Annual Symposium of the International Association for Vegetation Science, 3rd 8th September 2023, Coffs Harbour (Australia).
- Oral communication: **Bazzichetto M.**, Lenoir J., Da Re D., Tordoni E., Rocchini D., Malavasi M., Sperandii M.G. **Effects of data sampling on the response curves estimated by plant distribution models**. 55th Congress SISV (Società Italiana di Scienza della Vegetazione), 16th 17th June 2022, L'Aquila (Italy).
- Oral communication: **Bazzichetto M.**, de Bello F., Sperandii M.G., the German Biodiversity Exploratories, Gossner M.M. **Drivers of community resistance under extreme climatic events**. 29th EVS (European Vegetation Survey) symposium, 6th 7th September 2021, virtual online conference.
- 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 Annual Symposium of the International Association for Vegetation Science, 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 Annual Symposium of the International Association for Vegetation Science, 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).

Invited talks

- Bazzichetto M., de Bello F., Götzenberger L., Perrone M., Keil P. COCOS: effects of climatic extremes on ecosystem stability. University of Graz, 7th November 2023, Graz (Austria). Contact person: Prof. Adam Thomas Clark (adam.clark@uni-graz.at).
- Bazzichetto M. COCOS: effects of climatic extremes on ecosystem stability. Czech University of Life Sciences, 06th January 2022, Prague (Czech Republic). Contact person: Dr. Petr Keil (keil@fzp.czu.cz).
- 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 degli Studi di Roma Tre, 23rd January 2020, Rome (Italy). Contact person: Prof. Alicia Teresa Rosario Acosta (aliciateresarosario.acosta@uniroma3.it).
- 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). Contact person: Dr. François Massol (francois.massol@univ-lille.fr).

Academic services

Since 2019, I am actively involved in the International Association for Vegetation Science (IAVS), where I have been elected as a member of the Steering Committee of the Ecoinformatics working group.

- Member of the Steering Committee of the EcoInformatics working group (IAVS) (2022-ongoing).
- Member of the Steering Committee of the EcoInformatics working group (IAVS) (2019-2022).
- Member of the Scientific Committee of the 55° congress of the Italian Society of Vegetation Science (SISV). Congress title: Vegetation science and global changes: scenarios, challenges and innovation. 16th 17th June 2022, L'Aquila (Italy). For confirmation, see here.
- Member of the Doctoral Degree Board of the doctorate course in "Ecologia e Territorio" at the Università degli Studi del Molise. XXXIX cycle (course coordinator: Prof. Bruno Lasserre) (2023-ongoing).

Scientific societies memberships

- Member of the International Association for Vegetation Science (IAVS) (2019-ongoing).
- Member of the Young Scientists working group of the International Association for Vegetation Science (2019-ongoing).

Editorial services

- Reviewer for: Applied Vegetation Science; Journal of Vegetation Science; Scientific Reports; Diversity and Distributions; Journal of Ecology; Biological invasions; Estuarine, coastal and shelf science (for more details see my reviewer profile on the Web of Science).
- Biodiversity mapping in ecology and conservation: Pitfalls, uncertainties and creative ways forward (journal: Frontiers in Ecology and Evolution).

Research stays

I can count on several international experiences and many collaborations with researchers all around Europe: Università degli Studi di Roma Tre, Università degli Studi di Trento, Edmund Mach Foundation, Università degli Studi del Molise (Italy); Université de Lille, Université de Picardie Jules Verne (France); Czech University of Life Sciences (Czech Republic); University of Antwerp (Belgium).

- Institute of Biology, University of Graz, 5th 15th November 2023, Graz (Austria). Contact person: Prof. Adam Thomas Clark (adam.clark@uni-graz.at).
- Department of Biodiversity and Molecular Ecology, Edmund Mach Foundation, 12th November 12th December 2017, San Michele all'Adige (Trento, Italy). Contact person: Prof. Duccio Rocchini (duccio.rocchini@unibo.it).
- Department of Applied Geoinformatics and Spatial Planning, Czech University of Life Sciences, 5th April 5th June 2017, Prague (Czech Republic). Contact person: Prof. Vítězslav Moudrý (moudry@fzp.czu.cz).
- Department of Applied Geoinformatics and Spatial Planning, Czech University of Life Sciences, 10th October 10th November 2016, Prague (Czech Republic). Contact person: Vítězslav Moudrý (moudry@fzp.czu.cz).
- Department of Applied Geoinformatics and Spatial Planning, Czech University of Life Sciences, 21st May 21st June 2016, Prague (Czech Republic). Contact person: Vítězslav Moudrý (moudry@fzp.czu.cz).

Teaching

- 2-day course in 'Introduction to Likelihood and Bayes'. Czech University of Life Sciences, 17th 18th October 2023, Prague (Czech Republic). Material available at: https://github.com/ManueleBazzichetto/IntroLikelihoodToBayes.
- Contract Professor. Course in "Cartografia e tecniche GIS per le applicazioni ecologiche" (s.s.d.: BIO/03; CFU: 2), master degree in *Biodiversity and ecosystems management*. Università degli Studi di Roma Tre, academic year 2021/2022, Rome (Italy).
- Demonstrator. Course "GIS in Ecology", bachelor degree in *Biological sciences*. Università degli Studi di Roma Tre, December 2016, Rome (Italy).
- Demonstrator. Course "GIS in Ecology", bachelor degree in *Biological sciences*. Università degli Studi di Roma Tre, December 2015, Rome (Italy).

Funding

- HORIZON-MSCA-2021-PF-01-01 Marie Skłodowska-Curie fellowship. Grant number: 101066324. Project title: "COCOS effects of Climatic extremes On eCOsystem Stability". (150.438,72 €).
- Juan de la Cierva formación postdoctoral fellowship 2020. Grant number: FJC2020-044172-I. Refused for having been granted a Marie Skłodowska-Curie fellowship (see above).
- Provision of 34 TOMST TMS4 microclimate loggers funded by the **SoilTemp consortium**. (value ~ 2.720 €).

Awards

- Daikin award for the best PhD thesis in "Biodiversity Conservation". Promoted by Daikin Applied Europe S.p.a. and Dipartimento di Biologia e Biotecnologie "Charles Darwin" of the Università Sapienza di Roma, 27th September 2021, Ariccia (Rome, Italy). (2.000 €).
- International Association for Vegetation Science Travel Grant, 62th Annual Symposium of the International Association for Vegetation Science, 14th 19th July 2019, Bremen (Germany). (500 €).

Training activities

- Training course on "Theory-driven analysis for ecological data", organized by the Centre for the Synthesis and Analysis of Biodiversity (Cesab), Foundation for Research on Biodiversity (FRB) and Groupement de Recherche TheoMoDive, CESAB de la French Foundation for Biodiversity Research, 3rd 7th April 2023, Montpellier (France). (37.5 hours).
- Training course on "Introduction to Maximum Likelihood and Bayesian statistics", organized by the Department of Spatial Sciences of the Czech University of Life Sciences, on-line course, 28th-30th June 2020 (15 hours).
- Workshop "Sampling and analyzing data in vegetation ecology", organized by the Ecology section of the Società Italiana di Botanica (SBI), Università degli Studi di Siena, 13th 14th June 2019, Siena (Italy).
- Fifth International Split Remote Sensing Professional Summer School, organized by the International SPatial LITeracy (SPLIT) Remote Sensing for Land Ecosystems and Natural Hazards, Czech University of Life Sciences, 11th-16th June 2018, Prague (Czech Republic).

Research groups and collaborations

- Co-leader of the Working Package #3 ("Modelling species distributions taking into account biotic interactions and ecophysiological tolerances") for the Biodiversa research project "ASsessing and mitigating the effects of climate change and biological Invasions on the spatial redistribution of biodiversity in Cold environmentS" (ASICS, see **coldregioninvasives**). Biodiversa call 2019-2020. Principal Investigator: Prof. David Renault. (Funding: 2.108.217 €).
- Member of the 57th Summer Campaign "French Southern and Antarctic Lands" for the French Polar Institute. Sampling of invasive plants occurrence records at Possession Island (Crozet archipelago) following a systematic sampling of the environmental space. 7th November 2019 3rd January 2020, Possession Island, Crozet archipelago (Terres Australes et Antarctiques Françaises).
- Working group meeting on Biological invasions organized by the Groupement de Recherche CNRS 3647 Invasions Biologiques, 3rd - 7th June 2019, St. Malo (France).

$Bibliometric\ indicators$

Bibliometric indicators from **Scopus** (last update: 2023-11-24).

Overall bibliometric indicators

| Number.of.publications | Number.of.citations | H.index |
|------------------------|---------------------|---------|
| 24 | 448 | 12 |

Bibliometric indicators for the Italian qualification as Associate Professor in Applied Botany $(05/A1,\,Bio/03)$ and Ecology $(05/C1,\,Bio/07)$

Value/Qualification threshold

- Number of publications: 24 (Bio/03: 10; Bio/07: 14)
- Number of citations: 448 (Bio/03: 155; Bio/07: 215)
- *H index*: 12 (Bio/03: 8; Bio/07: 9)

$Scientific\ references$

- Dr. Petr Keil (keil@fzp.czu.cz)
- Dr. Francesco de Bello (Francesco.Bello@ext.uv.es)
- Prof. Duccio Rocchini (duccio.rocchini@unibo.it)
- Prof. Maria Laura Carranza (carranza@unimol.it)
- Prof. Alicia Teresa Rosario Acosta (aliciateresarosario.acosta@uniroma3.it)
- Dr. Marta Carboni (marta.carboni@uniroma3.it)