# Luciano Bosso



Born in Castellammare di Stabia (Italy) on 24/06/1983

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**Current Position:** postdoctoral researcher

ERC sectors: Ecology (theoretical, community, population, microbial, evolutionary ecology)

(LS8 1); Conservation biology, ecology, genetics (LS8 5)

Academic Fields and Disciplines List: Ecology (BIO/07), Zoology (BIO/05)

Advisor: Prof.ssa Maria Luisa Chiusano

Appointed on project: FAIR-EASE (HORIZON-INFRA-2021-EOSC-01-04)

# **Affiliation:**

Department of Research Infrastructures for Marine Biological Resources (RIMAR), Stazione Zoologica Anton Dohrn, Naples (Italy)

# **Education/Training/Experience**

Institute and Location	Degree /	Year	Field of Study
	Function		
Department of Agricultural	Bachelor's	2004-	Environmental and forestry
Sciences, University of Naples	Degree	2007	sciences
"Federico II", Naples, Italy			
Vesuvius National Park, Naples,	Scientific	2007	Ecology and zoology
Italy	Consultant		
Department of Agricultural	Master's	2007-	Environmental and forestry
Sciences, University of Naples	Degree	2009	sciences
"Federico II", Naples, Italy			
Calanchi di Atri Natural	Scientific	2010	GIS analyses and ecological

Reserve, Atri, Italy	Consultant		modelling
Department of Agricultural	International	2010-	Microbial ecology
Sciences, University of Naples	Ph.D. in	2014	
"Federico II", Naples, Italy	Natural		
	Resources and		
	Environmental		
	Sciences		
	(Italy/Chile)		
Departamento de Ingegneria	Visiting	2011-	Microbial ecology
Quimica, Universitad de La	Research	2012	
Frontera, Temuco, Chile			
Natural History Museum "La	Scientific	2012	Macroecology and
Specola", Florence, Italy	consultant		conservation
Department of Agricultural	Scientific	2013	GIS analyses and ecological
Sciences, University of Naples	consultant		modelling
"Federico II", Naples, Italy			
Agriculture & Food Science	Visiting	2013	Soil ecology
Centre, University College	Research		
Dublin, Dublin, Ireland			
INNOVA scarl, Naples, Italy	Scientific	2019	GIS analyses and ecological
	consultant		modelling
Department of Agricultural	Post Doc	2016-	Macroecology and
Sciences, University of Naples		2020	conservation
"Federico II", Naples, Italy			
Department of Research	Post Doc	2021-	GIS analyses, WebGIS
Infrastructures for Marine		2023	technologies and ecological
Biological Resources (RIMAR),			modelling
Stazione Zoologica Anton			
Dohrn, Naples, Italy			
Department of Research	Post Doc	2023-	Data management, GIS
Infrastructures for Marine		present	analyses and ecological
Biological Resources (RIMAR),			modelling
Stazione Zoologica Anton			
Dohrn, Naples, Italy			

#### **Appointments and awards**

2020-2029: national scientific qualification for Associate Professor of Zoology (code: 05/B1)

2018-2027: national scientific qualification for Associate Professor of Ecology (code: 05/C1)

2021: guest Editor of "Forests - MDPI" for the Special Issue: "Mediterranean Forest Changes in Response to Climate and Human Activity during the Holocene"

2020-2021: guest Editor of "Journal for Nature Conservation - Elsevier" for the Special Issue: "Biological uniqueness: tools and advances to protect endemism"

2019-2020: guest Editor of "Sustainability - MDPI" for the Special Issue: "Remote Sensing, Spatial Analysis and Ecological Modelling to Predict Potential Distributions of Invasive Species"

2020: Forests 2020 Best Paper Award with the manuscript titled "Coastal Pine-Oak Glacial Refugia in the Mediterranean Basin: A Biogeographic Approach Based on Charcoal Analysis and Spatial Modelling - <a href="https://www.mdpi.com/1999-4907/11/6/673">https://www.mdpi.com/1999-4907/11/6/673</a>". Further informations on the Forests 2020 Best Paper Award can be found here: <a href="https://www.mdpi.com/about/announcements/3704">https://www.mdpi.com/about/announcements/3704</a>

2019-present: editorial Board Member of "Scientific Reports - NATURE" (category: Ecology and Evolutionary Biology)

2019-present: associate Editor of "Ecology and Evolution - WILEY"

2018-present: associate Editor of "Conservation Science and Practice - WILEY"

2018-present: associate Editor of "Frontiers Ecology and Evolution - FRONTIERS" (category: Biogeography and Macroecology)

2017-present: academic Editor of "Landscape and Ecological Engineering - SPRINGER"

2016: Elsevier certificate for highly cited research in recognition of the contribution to the quality of "Journal for Nature Conservation" made by the publication: "Bosso et al., 2013. Modelling geographic distribution and detecting conservation gaps in Italy for the threatened beetle Rosalia alpina. Journal for Nature Conservation, 21:72-80"

2015: "Italian Agricultural Scientific Association (AISSA)" award for the best Ph.D. thesis in microbial ecology discussed in Italy

2014: "Accademia Ercolanese" award for the best Ph.D. thesis discussed at the University of Naples Federico II

2012: finalist of the "Start Cup Campania Competition" with the project: "BioCoReTech: new biorimediation technology"

2011: "Italian literary" award for the best manuscript in environmental issues (provided by the Italian Ministry of the Environment and Protection of Land and Sea)

2010-present: reviewer for several journals in Ecology, Macroecology, Conservation Biology and Evolution (e.g. Diversity and Distribution, Journal of Biogeography, Global Change Ecology, Ecography, Ecology and Evolution, Biological Conservation, Mammal Review, Journal for Nature Conservation).

2010: "Formica Onlus" award for the best applied ecological studies on threatened species and biodiversity issues

2009: "XXVII Giovanni Binaghi" award for the best master degree thesis in ecological entomology discussed in Italy

2008: "Città del Castagno" award for the best bachelor degree thesis in forest eco-pathology discussed in Italy

# Other matters relevant to scientific career

2022-2025: member of the committee for the promotion of scientific dissemination - outreach at the Stazione Zoologica Anton Dohrn, Italy

2022: lecturer for the "Introductory Course on Bioinformatics" at the Stazione Zoologica Anton Dohrn, Naples, Italy

2020/2022: adjunct professor of Zoology (BIO/05), bachelor degree in Environmental Sciences, Department of Chemistry and Biology "Adolfo Zambelli", University of Salerno, Italy

2019-present: laboratory assistant of the course "How to write a scientific article" for all the students of the Department of Agricultural Sciences, University of Naples Federico II, Italy

2017-present: member of the Italian Society of Ecology (SItE) and Italian Teriological Association (ATIt)

2016-present: scientific outreach activities in the European Researchers' Night

2014-present: scientific outreach activities in the International Day for Biological Diversity

2010-present: laboratory assistant of Plant biology/ecology (BIO/01) and Conservation Biology (BIO/07) for undergraduate students in Environmental and Forest Sciences, of the Department of Agricultural Sciences, University of Naples Federico II, Italy

# My research in media

Bats and wildfire

http://www.nationalgeographic.it/natura/

https://www.ilmattino.it/napoli/citta/vesuvio

https://www.lifegate.it/persone/news/pipistrelli-incendio-vesuvio

https://www.montagna.tv/cms/133007/parco-del-vesuvio-i-pipistrelli-come-bioindicatori-in-caso-di-incendio/

http://www.unina.it/-/17861801-effetti-ecologici-sulla-fauna-dell-incendio-che-ha-colpito-il-vesuvio-nel-2017-

http://napoli.repubblica,it/vesuvio pipistrelli

*Xylella fastidiosa* in the Mediterranean basin

www.scientificamerican.com/article/italy-s-olive-trees-didn-t-have-to-die/

http://xylellacodiro.blogspot.com/2016/09/big-data-modeling-suggests-xylella-may.html https://www.unina.it/-/12437536-xylella-fastidiosa-nel-bacino-del-mediterraneo-

Ciconia nigra and human impact

https://www.repubblica.it/ciconianigra

Littorina saxatilis and failed invasions

https://www.repubblica.it/green-and-blue/2022/07/06/news/

https://www.lanuovaecologia.it/littorina-saxatilis-aliena-a-meta/

#### **Publications**

Author of 51 publications on ISI-journals

# List of publications of the last 10 years:

**Journal Papers** (Selected Publications)

Di Febbraro M, Bosso L, Fasola M, Santicchia F, Aloise G, Lioy S, Tricarico E, Ruggieri L, Bovero S, Mori E, Bertolino S. (2023). Different facets of the same niche: integrating citizen and science data to predict invasion risk under multiple global change drivers. Global Change Biology, *in press*.

Bosso L, Smeraldo S, Russo D, Chiusano ML, Bertorelle G, Johannesson K, Butlin RK, Danovaro R, Raffini F. (2022). The rise and fall of an alien: why the successful colonizer Littorina saxatilis failed to invade the Mediterranean Sea. Biological Invasions, 24, 3169-3187.

Fraissinet M, Ancillotto L, Migliozzi A, Capasso S, Bosso L, Chamberlain DE, Russo D. (2022). Responses of avian assemblages to spatiotemporal landscape dynamics in urban ecosystems. Landscape Ecology, 38, 293-305.

- Di Pasquale G, Saracino A, Bosso L, Russo D, Moroni A, Bonanomi G, Allevato E. (2020). Coastal pine-oak glacial refugia in the Mediterranean basin: a biogeographic approach based on charcoal analysis and spatial modelling. Forests, 11(6), 673.
- Raffini F, Bertorelle G, Biello R, D'Urso G, Russo D, Bosso L. (2020). From nucleotides to satellite imagery: approaches to identify and manage the invasive pathogen *Xylella fastidiosa* and its insect vectors in Europe. Sustainability, 12, 4508.
- Smeraldo S, Bosso L, Fraissinet M, Bordignon L, Brunelli M, Ancillotto L, Russo D. (2020). Modelling risks posed by wind turbines and electric power lines to soaring birds: the black stork (*Ciconia nigra*) in Italy as a case study. Biodiversity and Conservation, 29: 1959-1976.
- Bertolino S, Sciandra C, Bosso L, Russo D, Lurz P, Di Febbraro M. (2020). Spatially-explicit models as tools for implementing effective management strategies for invasive alien mammals. Mammal Review 50: 187-199
- Mohammadi S, Ebrahimi E, Shahriari Moghadam M, Bosso L. (2019). Modelling current and future potential distributions of two desert jerboas under climate change in Iran. Ecological Informatics 52: 7 13
- Bosso L, Ancillotto L, Smeraldo S, D'Arco S, Migliozzi A, Conti P, Russo D. (2018). Loss of potential bat habitat following a severe wildfire: a model based rapid assessment. Interantional Journal of Wildland Fire, 27: 756-769
- Smeraldo S, Di Febbraro M, Bosso L, Flaquer C, Guixé D, Lisón F, Meschede A, Juste J, Prüger J., Puig-Montserrat X, Russo D. (2018). Ignoring seasonal changes in the ecological niche of non-migratory species may lead to biases in potential distribution models: lessons from bats. Biodiversity and Conservation, 27: 2425–2441
- Bosso L, Smeraldo S, Rapuzzi P, Sama G, Garonna AP, Russo D. (2018). Nature protection areas of Europe are insufficient to preserve the threatened beetle *Rosalia alpina* (Coleoptera: Cerambycidae): evidence from species distribution models and conservation gap analysis. Ecological Entomolology 43:192-203
- Kabir M, Hameed S, Ali H, Bosso L, Ud Din J, Bischof R, Redpath S, Ali Nawaz M. (2017). Habitat Suitability and Movement Corridors of Grey Wolf (*Canis lupus*) in Northern Pakistan. PLoSONE,12(11): e0187027
- Bosso L, De Conno C, Russo D. (2017). Modelling the risk posed by the zebra mussel *Dreissena* polymorpha: Italy as a case study. Environmental Management 60:304–313
- Smeraldo S, Di Febbraro M, Ćirović D, Bosso L, Trbojević I, Russo D. (2017). Species distribution models as a tool to predict range expansion after reintroduction: A case study on Eurasian beavers (*Castor fiber*). Journal for Nature Conservation 37: 12-20
- Russo D, Sgammato R, Bosso L. (2016). First sighting of the humpback whale *Megaptera novaeangliae* in the Tyrrhenian Sea and a mini-review of Mediterranean records. Hystrix, 27: 219-221

- Bosso L, Di Febbraro M, Cristinzio G, Zoina A, Russo D. (2016). Shedding light on the effects of climate change on the potential distribution of *Xylella fastidiosa* in the Mediterranean basin. Biological Invasion, 18: 1759–1768
- Russo D, Di Febbraro M, Cistrone L, Jones G, Smeraldo S, Garonna AP, Bosso L. (2015). Protecting one, protecting both? Scale-dependent ecological differences in two species using dead trees, the rosalia longicorn beetle and the barbastelle bat. Journal of Zoology, 297:165–175
- Russo D, Di Febbraro M, Rebelo H, Mucedda M, Cistrone L, Agnelli P, De Pasquale PP, Martinoli A, Scaravelli D, Spilinga C, Bosso L. (2014). What story does geographic separation of insular bats tell? A case study on Sardinian Rhinolophids. PLoS ONE 9(10): e110894
- Bosso L, Rebelo H, Garonna AP, Russo D. (2013). Modelling geographic distribution and detecting conservation gaps in Italy for the threatened beetle Rosalia alpina. Journal for Nature Conservation, 21:72-80