

# BRUNO BELLISARIO, PhD

## PERSONAL INFORMATION

Date of birth: 23/10/1976

Marital status: Married

Personal website: <https://brunobellisario.github.io>

Google Scholar: <https://scholar.google.it/citations?user=8F5hnJAAAAAJ&hl=it&authuser=1>

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## EDUCATION & TRAINING

01/10/2007 - 15/03/2010 - PhD in Ecology and Biological Resources Management, Department of Ecology and Economic Sustainable Development (DECOS), University of Viterbo, Italy.

Thesis's title: *Eco-functionality in artificial aquatic ecosystem: linking abiotic dynamics to community stability*

09/09/2004 - 15/03/2005 - Post-graduate 2<sup>nd</sup> level master's degree in GIS and Remote Sensing for Geological and Environmental Planning, Department of Geology, University of Roma 3, Italy.

Thesis's title: *High resolution digital terrain model (DTM) for monitoring Alpine glaciers, a case study: La Vedretta del La Mare*

01/10/1995 - 14/11/2002 - MSc in Environmental Sciences (*pre*-Bologna, 5 years), Department of Ecology and Economic Sustainable Development (DECOS), University of Viterbo, Italy.

Thesis's title: *Hydrogeology of coastal aquifers between Mignone River and the city of Civitavecchia and relationships with the use of deep-water*

30/09/2013 - 11/10/2013 - Post-graduate International course: *Ecological Consequences of Climate Change: Integrating Research Approaches*, Estacion Biologica de Doñana, Sevilla, Spain.

Invited speakers: Isabelle Chuine, CEF (CNRS), Montpellier, France; Solomon Dobrowski, University of Montana, USA; Mary Edwards, University of Southampton, UK; Arndt Hampe, BIOGECO (INRA), France; Ingolf Kühn, Helmholtz Centre for Environmental Research-UFZ, Germany; Jorge Lobo, Museo Nacional de Ciencias Naturales (CSIC), Spain; Fernando Valladares, Museo Nacional de Ciencias Naturales (CSIC), Spain.

22/06/2009 - 27/06/2009 - Post-graduate National course: *Multivariate analysis for ecological data*, University of Parma, Italy (IT).

Prof. Michael Greenacre (professor of Statistic at the University of Pompeu Fabra, Barcelona, Spain)

Prof. Raul Primicerio (professor of Ecology at the University of Tromsø, Norway)

13/07/2009 - 17/07/2009 - Post-graduate National course: *R statistical software for large ecological dataset*, University of Viterbo, Italy.

Prof. Giovanna Jona Lasinio, University of Roma La Sapienza, Italy (IT)

15/06/2008 - 20/06/2008 - International Summer School: *A primer in ecological network*, University of Parma, Italy.

Scientific committee: Giulio de Leo, Antonio Bodini, Stefano Allesina and Cristina Bondavalli. Invited speakers: Andy Dobson, Jane Memmott, Neo D. Martinez, Jennifer Dunne, Mercedes Pascual, Louis Felix Bersier.

## ACADEMIC POSITION

01/03/2021 - Assistant researcher, Department of Agricultural and Forestry scieNcEs (DAFNE), University of Viterbo (Viterbo, Italy).

01/10/2016 – 28/02/2021 - Assistant researcher, Department of Ecological and Biological Science (DEB), University of Viterbo (Viterbo, Italy).

07/11/2019-31/07/2020 – Postdoc research fellow, Centre of Molecular and Environmental Biology (CBMA), Universidade do Minho (Braga, Portugal).

01/10/2012-30/09/2016 - Postdoc research fellow, Department of Ecological and Biological Science (DEB), University of Viterbo (Viterbo, Italy).

## FELLOWSHIP & AWARDS

15/03/2019 - Seal of Excellence for the Marie Curie project proposal *METABIONET - Metabarcoding network inference for meiofauna research and biomonitoring*, submitted under the Horizon 2020's Marie Skłodowska-Curie actions, call H2020-MSCA-IF-2018.

The Seal of Excellence is the high-quality label awarded to projects submitted to Horizon 2020 which were deemed to deserve funding but did not receive it due to budget limits.

01/10/2007 - 15/03/2010 - Italian Ministry of University - PhD Scholarship (3 years).

13/06/2006 - 17/06/2006 - Grant within the European Conferences and Forum for Integrated Coastal Management and Geo-Information Research MSCF-CT-2003-504444 (Marie Curie Actions) for the participation in the conference: '*Building Coastal Knowledge & GI*', Cork (IE).

## PROJECTS' PARTICIPATION

Date of participation	Designation	Funders	Role
2019-2020	NORTE-01-0145-FEDER-0000032 - <b>NextSea</b>	Norte 2020	Postdoc researcher
2019	<b>SEASAVE</b>	Italian Ministry of Agriculture, Forestry Food and Tourism	Assistant researcher
2016-2017	<b>Tyrrhenus</b>	Italian Ministry of Agriculture, Forestry Food and Tourism	Assistant researcher
2013-2016	<b>PARASITE</b>	European Commission Seventh Framework Programme, Belgium	Postdoc researcher
2012-2015	LIFE09 NAT/IT/000176 - <b>POSEIDONE</b>	European Commission Sixth Framework Programme, Belgium	Postdoc researcher
2007-2009	LIFE06 NAT/IT/000050 - <b>CO.Me.B.IS.</b>	European Commission Sixth Framework Programme, Belgium	Postgraduate researcher
2005-2007	<b>Integrated Coastal Zone Management (ICZM)</b>	Lazio Regional Administration	Postgraduate researcher

## SUPERVISION OF STUDENTS AND ACADEMIC APPOINTMENTS

Supervision of 14 student theses (11 bachelors, 2 PhD from the University of Viterbo and 1 PhD from the University of Minho) and 2 postdocs from the University of Viterbo, Italy.

Full member of the examining boards in Ecology and Zoology.

Subject Expert and Teaching Assistant in Ecology and Animal Biology.

Subject Expert and Teaching Assistant in Conservation Biology.

## ORGANIZATION OF CONFERENCES/MEETINGS/SYMPOSIA/ADVANCED SCHOOLS

(MOST RELEVANT ONLY)

06/02/2020-15/05/2020 – Co-organizer of the R Sessions, advanced course in R programming for ecological and evolutionary applications, Centre of Molecular and Environmental Biology (CBMA) & Institute of Science and Innovation for Sustainability (IB-S), Universidade do Minho (Braga, Portugal).

23/10/2008-25/10/2008 - Committee member for the 2<sup>nd</sup> Italian Conference LaguNet (Italian Network for Lagoon Research). Tarquinia, Viterbo, Italy.

19/09/2006-22/09/2006 - Committee member for the XVI Conference of the Italian Society of Ecology, Viterbo, Italy.

## PARTICIPATION TO INTERNATIONAL CONFERENCES/MEETINGS/SYMPOSIA/ADVANCED SCHOOLS

(MOST RELEVANT ONLY)

(\* INVITED SPEAKER)

\*20/11/2019 - *Surviving the Big Data Era in ecology: a network approach*. DBIO Seminars. Centre of Molecular and Environmental Biology (CBMA), Universidade do Minho (Braga, Portugal).

29/08/2019 - *From local to global: the network architecture of amphipod biodiversity in the Mediterranean Sea*. 18<sup>th</sup> International Colloquium on Amphipoda (ICA). University Bourgogne Franche-Comté, Dijon, France (Dijon, France).

27/08/2019 - *Cryptic diversity and ancient divergence in two species of amphipods from central Mediterranean Sea*. 18<sup>th</sup> International Colloquium on Amphipoda (ICA). University Bourgogne Franche-Comté (Dijon, France).

\*26/10/2018 – *Ecological and evolutionary implications in graph theory*. DEB Seminar Cycles. Department of Ecological and Biological Sciences, University of Viterbo (Viterbo, Italy).

\*22/06/2018 - *Climate change and conservation of migratory birds: the case of the Eurasian spoonbill, *Platalea leucorodia**. Ecology PhD Symposia. Ichthyogenic Experimental Marine Centre, CISMAR (Tarquinia, Italy).

\*06/06/2018 - *The network architecture of biodiversity: Improving network analysis in ecology and biomonitoring*. CBMA Seminar Cycles. Centre of Molecular and Environmental Biology (CBMA), Universidade do Minho (Braga, Portugal).

04/09/2017 - *Amphipod assemblages from *Posidonia oceanica* vary seasonally in Giannutri Island (Central Tyrrhenian Sea, Italy)*. 17<sup>th</sup> International Colloquium on Amphipoda (ICA). Università di Palermo (Trapani, Italy).

09/09/2015 - *Exploring patterns of amphipod distribution in *Posidonia oceanica* through the metacommunity approach: a proposed framework*. 16<sup>th</sup> International Colloquium on Amphipoda (ICA). Universidade de Aveiro (Aveiro, Portugal).

## EDITORIAL SERVICES

Academic Editor: *PLoS ONE*

Journal Referee for: *PLoS ONE*, *PLoS Computational Biology*, *Fundamental and Applied Limnology/Archiv für Hydrobiologie*, *Ecological Modelling*, *Oecologia*, *Web Ecology*, *Current Zoology*.

## COMPUTATIONAL SKILLS

Programming/analysis languages: R (Professional), Python & Julia (Beginner)

Geographic Information Systems: QGIS (Professional), ArcGIS (Certified by ESRI Italia® for ArcGIS 8.3 base, Spatial Analyst and 3D Analyst).

## LANGUAGE SKILLS

	Understanding				Speaking				Writing	
	Listening		Reading		Spoken interaction		Spoken production			
<b>English</b>	C1	Advanced level	C1	Advanced level	C1	Advanced level	C1	Advanced level	C1	Advanced level
<b>Spanish</b>	A2	Basic level	B1	Intermediate level	A2	Basic level	A2	Basic level	A2	Basic level
<b>Portuguese</b>	A2	Basic level	B1	Intermediate level	A2	Basic level	A2	Basic level	A2	Basic level

\*Common European Framework of Reference for Languages

## PUBLICATIONS STATISTICS

(FROM GOOGLE SCHOLAR, UPDATED TO 10/10/2021)

Number of publications: 30

Total citations: 626 (522 since 2016)

h-index: 13

i10-index: 16

## PUBLICATIONS

### PREPRINTS<sup>(P)</sup>, IN REVIEW<sup>(R)</sup>, IN PREPARATION<sup>(PP)</sup>

<sup>(P)</sup>**Bellisario B.**, Fais M., Duarte S., Vieira P.E., Costa F.O. The spatial network structure of intertidal meiofaunal communities derived from environmental DNA metabarcoding surveys in Northwest Iberia. bioRxiv 2021.03.16.435605; doi: <https://doi.org/10.1101/2021.03.16.435605>.

<sup>(R)</sup>Cimmaruta R., Giovannini S., Bianchi J., Matiddi M., **Bellisario B.**, Nascetti G. 20XX. Microplastics occurrence in fish with different habits from the central Tyrrhenian Sea.

<sup>(PP)</sup>**Bellisario B.**, Cardinale M., Maggini I., Fusani L., Carere C. 20XX. Time after time: phenological shifts alter the network structure of avian assemblages at a Mediterranean spring stopover site.

<sup>(PP)</sup>Santoro M., **Bellisario B.**, Crocetta F., Uberti B., Palomba M. 20XX. Importance of species specific and physiological traits on the parasite communities of three sympatric benthonic sharks in the Gulf of Naples, Mediterranean Sea.

### PUBLISHED

1. Santoro M., **Bellisario B.**, Crocetta F., Uberti B., Palomba M. 2021. A molecular and ecological study of Grillotia (Cestoda: Trypanorhyncha) larval infection in small to mid-sized benthonic sharks in the Gulf of Naples, Mediterranean Sea. *Ecology and Evolution*. (In production, doi: 10.1002/ece3.7933).
2. **Bellisario B.**, Camisa F., Abbattista C., Cimmaruta R. 2021. Determinants of different facets of beta diversity in Mediterranean marine amphipods. *Marine Biology*. 168, 90.
3. Santoro M., Iaccarino D., **Bellisario B.** 2020. Host biological factors and geographic locality influence predictors of parasite communities in sympatric sparid fishes off the southern Italian coast. *Scientific Reports*. 10, 13283.
4. Fais M., **Bellisario B.\***, Duarte S., Vieira P.E., Sousa R., Canchaya C.A., Costa F.O. 2020. Meiofauna metabarcoding in Lima estuary (Portugal) suggests high taxon replacement within a background of network stability. *Regional Studies in Marine Science*. 38, 101341. (\*joint first author)
5. **Bellisario B.**, Camisa F., Abbattista C., Cimmaruta R. 2019. A network approach to identify bioregions in the distribution of Mediterranean amphipods associated with *Posidonia oceanica* meadows. *PeerJ* 7:e6786.
6. Cipriani P., Sbaraglia G.L., Paoletti M., Giulietti L., **Bellisario B.**, Palomba M., Bušelić I., Mladineo I., Nascetti G., Mattiucci S. 2018. The Mediterranean European hake, *Merluccius merluccius*: Detecting drivers influencing the *Anisakis* spp. larvae distribution. *Fisheries Research* 202: 79-89.
7. Cipriani P., Sbaraglia G.L., Palomba M., Giulietti L., **Bellisario B.**, Bušelić I., Mladineo I., Cheleschi R., Nascetti G., Mattiucci S. 2018. *Anisakis pegreffii* (Nematoda: Anisakidae) in European anchovy *Engraulis encrasicolus* from the Mediterranean Sea: Fishing ground as a predictor of parasite distribution. *Fisheries Research* 202: 59-68.
8. **Bellisario B.** 2018. Conserving migration in a changing climate, a case study: The Eurasian spoonbill, *Platalea leucorodia leucorodia*. *Biological Conservation*. 217: 222-231.

9. Angeletti D., Cimmaruta R., Sebbio C., **Bellisario B.**, Carere C., Nascetti G. 2017 Environmental heterogeneity promotes microgeographic genetic divergence in the Mediterranean killifish *Aphanius fasciatus* (Cyprinodontidae). *Ethology Ecology and Evolution*. 29(4): 367-386.
10. Camisa F., Abbattista C., **Bellisario B.**, Angeletti D., Lattanzi L., Cimmaruta R. 2017. Seasonal variations of amphipod assemblages in a *Posidonia oceanica* (Linnaeus) Delile, 1813 meadow from the central Tyrrhenian Sea (Italy). *Crustaceana* 90: 1319-1335.
11. **Bellisario B.**, Camisa F., Nascetti G., Lattanzi L., Cimmaruta R. 2016. Spatial and temporal variation of coastal mainland vs. insular amphipod assemblages on *Posidonia oceanica* meadows. *Marine Biodiversity*. 46: 355-363.
12. Cafaro V., Angeletti D., **Bellisario B.**, Macali A., Carere C., Alessi J. 2016. Habitat overlap between bottlenose dolphins and seabirds: A pilot study to identify high-presence coastal areas in the Tyrrhenian Sea. *Journal of the Marine Biological Association of the United Kingdom*. 96: 891-901.
13. Cipriani P., Acerra V., **Bellisario B.**, Sbaraglia G.L., Cheleschi R., Nascetti G., Mattiucci S. 2016. Larval migration of the zoonotic parasite *Anisakis pegreffii* (Nematoda: Anisakidae) in European anchovy, *Engraulis encrasicolus*: Implications to seafood safety. *Food Control*. 59: 148-157.
14. Pesciaroli C., Barghini P., Cerfolli F., **Bellisario B.**, Fenice M. 2015. Relationship between phylogenetic and nutritional diversity in Arctic (Kandalaksha Bay) seawater planktonic bacteria. *Annals of Microbiology*. 65: 2405-2414.
15. Mattiucci S., Cipriani P., Paoletti M., Nardi V., Santoro M., **Bellisario B.**, Nascetti G. 2015. Temporal stability of parasite distribution and genetic variability values of *Contracaecum osculatum* sp. D and *C. osculatum* sp. E (Nematoda: Anisakidae) from fish of the Ross Sea (Antarctica). *International Journal for Parasitology: Parasites and Wildlife*. 4: 356-367.
16. Cipriani P., Smaldone G., Acerra V., D'Angelo L., Anastasio A., **Bellisario B.**, Palma G., Nascetti G., Mattiucci S. 2015. Genetic identification and distribution of the parasitic larvae of *Anisakis pegreffii* and *Anisakis simplex* (s.s.) in European hake *Merluccius merluccius* from the Tyrrhenian Sea and Spanish Atlantic coast: Implications for food safety. *International Journal of Food Microbiology*. 198: 8-23.
17. Mattiucci S., Cimmaruta R., Cipriani P., Abaunza P., **Bellisario B.**, Nascetti G. 2015. Integrating *Anisakis* spp. parasites data and host genetic structure in the frame of a holistic approach for stock identification of selected Mediterranean Sea fish species. *Parasitology* 142: 90-108.
18. Santoro M., Mattiucci S., Cipriani P., **Bellisario B.**, Romanelli F., Cimmaruta R., Nascetti G. 2014. Parasite communities of icefish (*Chionodraco hamatus*) in the Ross Sea (Antarctica): Influence of the host sex on the helminth infracommunity structure. *PLoS ONE*. 9:2.
19. **Bellisario B.**, Cerfolli F., Nascetti G. 2014. Climate effects on the distribution of wetland habitats and connectivity in networks of migratory waterbirds. *Acta Oecologica*. 58: 5-11
20. Sebbio C., Carere C., Nascetti G., **Bellisario B.**, Mosesso P., Cimmaruta R., Angeletti D. 2014. Interspecies variation in DNA damage induced by pollution. *Current Zoology*. 60: 308-321.
21. Mattiucci S., Cipriani P., Webb S.C., Paoletti M., Marcer F., **Bellisario B.**, Gibson D.I., Nascetti G. 2014. Genetic and morphological approaches distinguish the three sibling species of the *Anisakis simplex* species complex, with a species designation as *Anisakis berlandi* n. sp. for *A. simplex* sp. C (Nematoda: Anisakidae). *Journal of Parasitology*. 100: 199-214.
22. Cerfolli F., **Bellisario B.**, Battisti C. 2013. Detritus-based assemblage responses under salinity stress conditions in a disused aquatic artificial ecosystem. *Aquatic Biosystems*. 9:1.
23. **Bellisario B.**, Carere C., Cerfolli F., Angeletti D., Nascetti G., Cimmaruta R. 2013. Infaunal macrobenthic community dynamics in a manipulated hyperhaline ecosystem: A long-term study. *Aquatic Biosystems*. 9:1.

24. Santoro M., Mattiucci S., Work T., Cimmaruta R., Nardi V., Cipriani P., **Bellisario B.**, Nascetti G. 2013. Parasitic infection by larval helminths in Antarctic fishes: Pathological changes and impact on the host body condition index. *Diseases of Aquatic Organisms*. 105: 139-148.
25. **Bellisario B.**, Cerfolli F., Nascetti G. 2012. The interplay between network structure and functioning of detritus-based communities in patchy aquatic environment. *Aquatic Ecology*. 46: 431-441.
26. **Bellisario B.**, Cerfolli F., Nascetti G. 2011. Pattern of species occurrence in detritus-based communities with variable connectivity. *Web Ecology*. 11: 1-9.
27. **Bellisario B.**, Cerfolli F., Nascetti G. 2010. Evaluating nestedness in a spatially structured detritus-based systems. *Transitional Waters Bulletin*. 4: 71-82.
28. **Bellisario B.**, Novelli C., Cerfolli F., Angeletti D., Cimmaruta R., Nascetti G. 2010. The ecological restoration of the Tarquinia Salterns drives the temporal changes in the benthic community structure. *Transitional Waters Bulletin*. 4: 105-114.
29. **Bellisario B.**, Cerfolli F., Nascetti G. 2010. Spatial network structure and robustness of detritus-based communities in a patchy environment. *Ecological Research*. 25: 813-821.
30. **Bellisario B.**, Cerfolli F., Nascetti G. 2009 Macroinvertebrates assembly in a patchy environment: Centrality measures for the spatial network of detritus-based communities. *Transitional Waters Bulletin*. 3: 1-13.

#### BOOKS AND CONTRIBUTIONS TO BOOKS

(IN ITALIAN)

Nascetti G., Cimmaruta R., **Bellisario B.** 2009. Uno sviluppo sostenibile delle coste del lazio (Sperimentazione ICZM in aree pilota), Palombi Editore.

*A sustainable development of Lazio coasts (ICZM experimentation in pilot areas)*

**Bellisario B.**, Santini E., Cimmaruta R., Nascetti G. 2006 Il ruolo della gestione integrata delle zone costiere (ICZM) nella conservazione delle aree umide – In C.Battisti (ed.) - Biodiversità, gestione e conservazione di un'area umida del litorale Tirrenico: La Palude di Torre Flavia, Parte I, Introduzione generale. Gangemi editore, Provincia di Roma.

*The role of Integrated Coastal Zone Management (ICZM) in wetlands conservation*

**Bellisario B.**, Cecili A., Pignotti S. 2006. Valutazione in ambiente GIS della qualità di punti gps per la restituzione di modelli digitali di terreno da cartografia storica ed immagini satellitari. Le Top-ten del GIS Crisel-Trimble.

*GIS validation of GPS points for the reconstruction of digital terrain models from historical cartography and satellite images*

Pignotti S., Braico P., **Bellisario B.** 2005. Il telerilevamento e le montagne. Applicazioni e casi di studio per il monitoraggio ambientale e la gestione dei fenomeni di instabilità. Collana Quaderni Scientifici del CNR IBIMET.

*Remote sensing and the mountains. Applications and case studies for environmental monitoring and management of instability phenomena*