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Current Position: Researcher

Current Affiliation:
Department of Research Infrastructure for Marine Biological Resources - Core Facility MOtax
Stazione Zoologica Anton Dohrn, Napoli (Italy)

Education/Training/Experience

Institute and Location	Degree / Function	Year	Field of Study
Stazione Zoologica Anton Dohrn, Napoli, Italy	Researcher	June 2022 - present	Ecology of phytoplankton, species identification and morpho-functional traits approach, confocal microscopy and bioimaging
National Research Council (CNR)	Researcher	December 2021- June 2022	Ecology of phytoplankton, species identification and morpho-functional traits approach, confocal microscopy and bioimaging
Stazione Zoologica Anton Dohrn, Napoli, Italy	Researcher (fixed-term contract)	June 2021- December 2021	Ecology of phytoplankton, species identification and morpho-functional traits approach, confocal microscopy and bioimaging
Agency for the Environmental Prevention and Protection, Lecce, Italy	Professional technician	2016- 2021	Sampling, identification and counting phytoplankton in marine environments, ecology of non-indigenous and bloom-forming species
University of Salento, Lecce, Italy	Postdoc	2009- 2016	Species identification and morpho-functional community structure of phytoplankton, confocal microscopy and bioimaging
National Research Council (CNR) - Institute of Marine Sciences (ISMAR), Italy	Research Fellowship	2006- 2009	Coastal lagoon ecology, nutrient dynamics and eutrophication processes
University of Naples Federico II, Italy.	PhD	2008	Hydrological spatio-temporal variability and nutrient dynamics of coastal lagoons
University of Naples Parthenope, Italy	Degree in Environmental Science	2004	Dynamic interactions at the Bocca Piccola of Capri (Mediterranean Sea)

Appointments and awards

2021
Highlight in *Science Magazine*. Size, shape, and diversity in phytoplankton. Vol 371 Issue 6530, 2021

2017
Cover photo for *Journal of Plankton Research*. 3D-reconstructed images by confocal microscopy of various phytoplankton showing their wonderful morphological traits variation.

2014
Prize winner "Premio Brusarosco" at Elena Litchman's Lab, Kellogg Biological Station -Michigan State University (with Prof. Elena Litchman). Topic: Trait based approach to phytoplankton community ecology

2008
Short Term Mobility Program at University of Algarve, Portugal (with Prof. Alice Newton). Topic: Physiography, hydrology and trophic status of coastal lagoons.

2005
Leonardo da Vinci fellowship at Plymouth Marine Laboratory, UK (with Dr. Roger Harris). Topic: Microzooplankton grazing on phytoplankton communities in coastal waters at L4 off-shore long term station

Other
Member of Società Italiana di Ecologia (SItE), Member of Gruppo Italiano di Algologia, Member of *Elena Litchman's Lab* at Kellogg Biological Station - Michigan State University

Referee for several peer-reviewed journals

Participation in numerous sampling oceanographic cruises and daily monitoring activity.

2016 - 2021
Responsible for the accredited test Identification and Counting of Phytoplankton according UNI EN 15204 at Laboratorio di Biologia delle Acque, Agency for the Environmental Prevention and Protection - Responsible for Marine Strategy Framework Directive activities (Descriptor Biodiversity and Alien Species)

2015 – 2016
Scientific responsible of the *Confocal Microscopy and Image Analysis* at BIOforIU Research Infrastructure for study Biodiversity at University of the Salento http://bioforiu.unisalento.it/it-it/staff/nodo1unisalento/learoselli.aspx

2015 – 2018
Coordination for development and implementation of a *Virtual Research Environment Phytoplankton* at LifeWatch-ERIC Research Infrastructure
http://www.lifewatchservicecentre.eu/web/guest/phyto-vre

Students' Supervision
Supervisor e co-supervisor of several Master degree students at University of Salento, Italy

Publications

List of publications of the last 10 years (2012-present):
Peer-reviewed publications:

1. **Roselli L**., Bevilacqua S., Terlizzi A. (2022). Using null models and species traits to optimize phytoplankton monitoring: An application across oceans and ecosystems. Ecological Indicators, 138, 108827.

2. **Roselli L**., Caroppo C., Bevilacqua S., Ciciriello P.C., Ungaro N., Vadrucci M.R. (2022). Harmful algae and pressure-impact relationship: noxious blooms and toxic microalgae occurrence from coastal waters of the Apulia region (Adriatic and Ionian Seas, Mediterranean). Marine Environmental Research, https://doi.org/10.1016/j.marenvres.2022.105791

3. Gómez F., Zhang H., **Roselli L**., Lin S. (2021). Detection of *Prorocentrum shikokuense* in the Mediterranean Sea and evidence that P. *dentatum*, P. *obtusidens* and P. *shikokuense* are three different species (Prorocentrales, Dinophyceae). Acta Protozoologica, 2021, Volume 60, p. 47-59, lut. 2022. ISSN 1689-0027.

4. Ryabov A., Kerimoglu O., Litchman E., Olenina I., **Roselli L**., Basset A., Stanca E., and Blasius B. (2021). Shape matters: the relationship between cell geometry and diversity in phytoplankton. Ecology Letters. doi: 10.1111/ele.13680.

5. Durante G.*, **Roselli L.***, De Nunzio G., Piemontese U., Marsella G., Basset A. (2020). Plankton Tracker: A novel integrated system to investigate the dynamic sinking behavior in phytoplankton. Ecological Informatics, 60, 101166.
   * These authors contributed equally

6. **Roselli L**., Vadrucci M.R., Belmonte M., Ciciriello P., Rubino F., Ungaro N., Caroppo C. (2020). Two-stages bloom of *Margalefidinium* cf. *polykrikoides* in a Mediterranean shallow bay (Ionian Sea, Italy). *Marine Pollution Bulletin,* 151 110825.

7. Durante G., Basset A., Stanca E., **Roselli L**. (2019). Allometric scaling and morphological variation in sinking rate of phytoplankton. Journal of Phycology DOI: 10.1111/jpy.12916.

8. **Roselli L**., Vadrucci M.R., Fanelli F., Ungaro N., Caroppo C. (2019) First bloom event of the small dinoflagellate *Prorocentrum shikokuense* in the Mediteranean Sea: cryptogenic or introduced? Marine Pollution Bulletin, 139 197-204.

9. Vadrucci M.R., **Roselli L**., Castelluccia D., Di Festa T., Donadei D., Florio M., Longo E., D'Arpa S., Maci F., Ranieri S., Spinelli M., Pastorelli A., Ungaro N. (2018). PhytoNumb3rs: An easy-to-use computer toolkit for counting microalgae by the Utermöhl method. Ecological Informatics, 46 147-155.

10. Newton A., Brito A.C., Icely D.J., Derolez V., Clara I., Angus A., Schernewski G., Inácio M., Lillebø A.I., Sousa A.I., Béjaoui B., Solidoro C., Tosic M., Cañedo-Argüelles M., Yamamuro M., Reizopoulou S., Tseng H., Canu D., **Roselli L**., Maanan M., Cristina S., Ruiz-Fernández A.C., de Lima R.F., Kjerfve B., Rubio-Cisneros N., Pérez-Ruzafa A., Marcos C., Pastres R., Pranovi F., Snoussi M., Turpie J., Tuchkovenko Y., Dyack B., Brookes J., Povilanskas R., Khokhlov V. (2018). Assessing, quantifying and valuing the ecosystem services of coastal lagoons. Journal for Nature Conservation, 44 50-65.

11. Caroppo C., **Roselli L**., Di Leo A. (2018). Hydrological conditions and phytoplankton community in the Lesina lagoon (southern Adriatic Sea, Mediterranean). Environmental Science and Pollution Research, 25 (2) 1784-1799.

12. **Roselli L**. and Litchman E. (2017). Phytoplankton traits, functional groups and community organization. Journal of Plankton Research, 39 (3): 491-493.

13. **Roselli L**., Litchman E., Stanca E., Cozzoli F., Basset A. (2017). Individual trait variation in phytoplankton communities across multiple spatial scales. Journal of Plankton Research, 39 (3): 577-588.

14. Bernardi Aubry. F., Pugnetti A., **Roselli L**., Stanca E., Acri F., Finotto S. Basset A. (2017). Phytoplankton morphological traits in a nutrient-enriched, turbulent Mediterranean microtidal lagoon. Journal of Plankton Research 39 (3) 564-576.

15. Rosati I., Bergami C., Stanca E., **Roselli L**., Tagliolato P., Oggioni A., Fiore N., Pugnetti A., Zingone A., Boggero A., Basset A. (2017). A thesaurus for phytoplankton trait-based approaches: Development and applicability. Ecological Informatics, 42 129–138.

16. Manzo C., Fabbrocini A., **Roselli L**., D'Adamo R. (2016). Characterization of the fish assemblage in a Mediterranean coastal lagoon: Lesina Lagoon (central Adriatic Sea). Regional Studies in Marine Science, 8: 192-200.

17. **Roselli L.** and Basset A. (2015). Decoding size distribution patterns in marine and transitional water phytoplankton: from community to species level. Plos One, 10 (5) e0127193.

18. **Roselli L**., Paparella F., Stanca E., Basset A. (2015). New data-driven method from 3D confocal microscopy for calculating phytoplankton cell biovolume. Journal of Microscopy, 258 (3) 200-211.

19. Renzi M., **Roselli L**., Giovani A., Focardi SE., Basset A. (2014). Early warning tools for ecotoxicity assessment based on Phaeodactylum tricornutum. Ecotoxicology 23 (6): 1055- 1072.

20. Dromph K.M., Agusti S., Basset A., Franco J., Henriksen P., Icely J., Lehtinen S., Moncheva S., Revilla M., **Roselli L.,** Sørensen K., (2013). Sources of uncertainty in assessment of marine phytoplankton communities. Hydrobiologia, 704:253–264.

21. **Roselli L.**, Stanca, E., Paparella, F., Mastrolia, T., Basset, A. (2012). Determination of Coscinodiscus cf. granii biovolume by confocal microscopy: comparison of calculation models. Journal of Plankton Research, 35: 135-45.

22. **Roselli L.**, Canedo-Arguelles M., Costa Goela P., Vitorino S.C., Rieradevall M., D'Adamo R., Newton, A. (2012). Do lagoon physiography and hydrology determine the physico- chemical properties and trophic status of coastal lagoons? A comparative approach. Estuarine, Coastal and Shelf Science, 117: 29-36.

23. Lugoli F. Garmendiad M., Lehtinen S., Kauppila P., Moncheva S., Revilla M., **Roselli L.**, Slabakova N., Valencia V., Dromph K.M., Basset, A. (2012). Application of a new multi- metric phytoplankton index to the assessment of ecological status in marine and transitional waters. Ecological Indicators, 23: 338-355.

24. Ludovisi, A., **Roselli, L.**, Basset, A. (2012). Testing the effectiveness of exergy-based tools on a seasonal succession in a coastal lagoon by using a size distribution approach. Ecological Modelling 245: 125– 135.