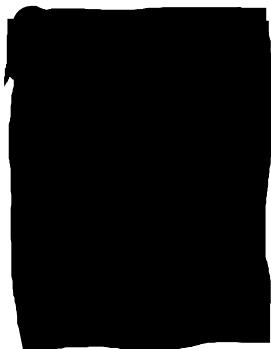


## Lucia Rizzo



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**Current Position:** Researcher

### **Current Affiliation:**

Istituto di Scienze delle Produzioni Alimentari - Consiglio Nazionale delle Ricerche (CNR-ISPA)  
Via Monteroni, CAP 73100, Lecce (LE), Italy

### **Education/Training/Experience**

<b>Institute and Location</b>	<b>Degree / Function</b>	<b>Year</b>	<b>Field of Study</b>
Lecce University, Italy	Master of Science	2010	Environmental Sciences
Lecce University, Italy	Master PostLauream	2012	Master in Research and development (R&D)
Ca' Foscari University of Venice, Italy	Ph.D.	2015	Environmental Sciences
Mediterranean Agronomic Institute of Bari (MAIB)	Fellowship	2014-2015	Coralligenous assemblages
University of Lecce, Italy	Course Postlauream	2015	Manager of Protected Areas
National Interuniversity Consortium For Marine Sciences, CoNISMa, Roma	Postdoc	2015-2018	Coralligenous assemblages, MSFD
Labomar, Universidade Federal do Ceará, Fortaleza, Brasil	Visiting scientist	August/September 2019	Benthic Habitat Health
Stazione Zoologica Anton Dohrn, Napoli, Italy	Researcher	2018-2022	Marine Biology and Ecology

Institut de Ciència i Tecnologia Ambientals, Universitat autònoma de Barcelona (ICTA-UAB), Cerdanyola del Vallès, Barcelona	Visiting scientist	June/July 2023	Conservation of Marine Animal Forests
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## Projects

Member of Management Committee Cost Action CA20102 - Marine Animal Forest of the world (2021-ongoing).

WP Co-Leader “WP1: Coordination” Cost Action CA20102 - Marine Animal Forest of the world (2021-ongoing).

WP Co-Leader “WP2: Conservation status of benthic communities structuring coralligenous formations” in CRIMAC (Centro Ricerche ed Infrastrutture Marine Avanzate in Calabria) Project CORE-Calabria “Coralligenous Formations in Calabrian SAC” (2021-ongoing).

Task Leader “T3.2 Sessile Protected Species” in PO-FEAMP Campania (2014–2020), European Maritime and Fisheries Fund (2019-ongoing).

Vice-PI of the project ABBACO aimed at restoring the post-industrial site of Bagnoli-Coroglio (2019-2021).

Participation in national and international projects: MSFD, ADRI-PLAN, PRO.ACT. NATURA 2000, CoCoNet, MAREA, BIOMAP, BIG- Project, Pulmo, AMARE, AFRIMED.

## Oceanographic cruises

Oceanographic Survey MARINE STRATEGY (Adriatic Sea). R/V Minerva Uno. Supervisor: Dr. L. Angeletti. Aug 2017

Oceanographic Survey MARINE STRATEGY (Central Mediterranean Sea). R/V Minerva Uno. Supervisor: Dr. L. Angeletti. Aug - Sep 2016

Oceanographic Survey BIOMAP (Ionian and Adriatic Sea). R/V Minerva Uno. Supervisor: Dr. A. Savini. May 2012

## Students' Supervision

2021/2022. SZN Research scholarship. Researcher: Dr. Francesca Necci. Tutor: Dr. Lucia Rizzo.

2021/2022. SZN Research scholarship. Researcher: Dr. Andrea Picciolo. Tutors: Dr. Lucia Rizzo, Dr. Marco Munari.

2020/2021. SZN Research scholarship. Researcher: Dr. Silvia Stranges. Tutors: Dr. Lucia Rizzo.

2022. SZN Intership (Master in Capitale Naturale e Aree Protette. Pianificazione, progettazione e Gestione, La Sapienza Università di Roma). Student: Dr. Francesca Necci. Tutor: Dr. Lucia Rizzo.

2022. Thesis (Università Federico II di Napoli). Title: Assessing the effectiveness of the Marine Protected Area Torre Guaceto (Apulia, Italy) using coralligenous formations. Student: Dr. Wiem Bouaziz. Tutor: Prof. Simonetta Frascchetti. Co-tutor: Dr. Lucia Rizzo.

2021. Thesis (Università Federico II di Napoli). Title: Criteria for Site Selection Prioritization in a Restoration Framework. Student: Marianna Coppola. Tutor: Prof. Simonetta Frascchetti. Co-tutors: Dr. Lucia Rizzo; Dr. Marco Munari.

2017. Thesis (Università del Salento). Title: *Corallium rubrum* (Linnaeus, 1758): Distribuzione, Pressioni e Conservazione. Student: Carola Prato. Tutor: Prof. Simonetta Frascchetti. Co-tutor: Dr. Lucia Rizzo.

2017. Thesis (Università del Salento). Title: Valutazione quantitativa della presenza di Marine Litter sull'habitat a coralligeno nel Mar Ionio. Student: Lara Fumarola. Tutor: Prof. Simonetta Frascchetti. Co-tutor: Dr. Lucia Rizzo.

2012. Thesis (Università del Salento). Title: Il coralligeno lungo alcune coste italiane: analisi della letteratura. Student: Gianluca Pappaccogli. Tutor: Prof. Simonetta Frascchetti. Co-tutor: Dr. Lucia Rizzo.

## Lectures

October 2022 Lecturer, Ecosystem Conservation and Management (18 hours). Course for PhD student. University of Teramo, Italy.

2-6 September 2019 Invited Instructor, Fortaleza's Austral Spring School: Global Change and Marine Biodiversity, Fortaleza, Brasil.

2016/2017 Lecturer, Microbiology and Hygiene (24 hours), Training course for academic courses in Biology and Medicine Degrees. Scientific and Classical Lyceum, Tricase (LE), Italy.

2017/2018 Lecturer, Microbiology and Hygiene (32 hours), Training course for academic courses in Biology and Medicine Degrees. Scientific and Classical Lyceum, Tricase (LE), Italy.

## Publications:

**Rizzo, L.**, Vega Fernández, T. (2023). Can the Invasive Seaweed *Caulerpa cylindracea* Represent a New Trophic Resource in the Mediterranean Sea?. *Water*, 15(11), 2115. DOI: 10.3390/w15112115

Bundone, L., **Rizzo, L.**, Fai, S., Hernandez-Milian, G., Guerzoni, S., Molinaroli, E. (2023). Investigating Rare and Endangered Species: When a Single Methodology Is Not Enough—The Mediterranean Monk Seal *Monachus monachus* along the Coast of Salento (South Apulia, Italy). *Diversity*, 15(6), 740. DOI: 10.3390/d15060740

Fabbrizzi, E., Giakoumi, S., De Leo, F., Tamburello, L., Chiarore, A., Colletti, A., Coppola, M., Munari, M., Musco, L., Rindi, F., **Rizzo, L.**, Savinelli, B., Franzitta, G., Grech, D., Cebrian, E., Verdura, J., Bianchelli, S., Mangialajo, L., Nasto, I., Sota, D., Frascchetti, S. (2023). The challenge of setting restoration targets for macroalgal forests under climate changes. *Journal of Environmental Management*, 326, 116834. DOI: 10.1016/j.jenvman.2022.116834

Stabili, L., **Rizzo, L.**, Caprioli, R., Alabiso, G., Piraino, S. (2022). How Much Recurrent Outbreaks of the Moon Jellyfish May Impact the Dynamics of Bacterial Assemblages in Coastal Lagoons?. *Water*, 14(23), 3908. DOI: 10.3390/w14233908

**Rizzo, L.**, Minichino, R., Virgili, R., Tanduo, V., Osca, D., Manfredonia, A., Consoli, P., Colloca, F., Crocetta, F. (2022). Benthic litter in the continental slope of the Gulf of Naples (central-western

Mediterranean Sea) hosts limited fouling communities but facilitates molluscan spawning. *Marine Pollution Bulletin*, 181, 113915.

Rossi, S., Bramanti, L., Horta, P., Allcock, L., Carreiro-Silva, M., Coppari, M., Dennis, V., Hadjioannou, L., Isla, E., Jimenez, C., Johnson, M., Mohn, C., Orejas, C., Ramšak, A., Reimer, J., Rinkevich, B., **Rizzo, L.**, Salomidi, M., Samaai, T., Schubert, N., Soares, M., Thurstan, R., Vassallo, P., Ziveri, P., Zorrilla-Pujana, J. (2022). Protecting global marine animal forests. *Science*. DOI: 10.1126/science.abq7583

Tamburello, L., Chiarore, A., Fabbrizzi, E., Colletti, A., Franzitta, G., Grech, D., Rindi, F., **Rizzo, L.**, Savinelli, B., Frascchetti, S. (2022). Can we preserve and restore overlooked macroalgal forests?. *Science of The Total Environment*, 806, 150855. DOI: 10.1016/j.scitotenv.2021.150855

Stabili, L., **Rizzo, L.**, Caprioli, R., Leone, A. Piraino, S. (2021). Jellyfish Bioprospecting in the Mediterranean Sea: Antioxidant and Lysozyme-Like Activities from *Aurelia coerulea* (Cnidaria, Scyphozoa) Extracts. *Marine drugs*, 19(11), 619. DOI: 10.3390/md19110619

**Rizzo, L.**, Fiorillo, I., Rossi, S. (2021). Seasonal trends of the polyp expansion and nutritional condition of *Alcyonium acaule* (Octocorallia, Alcyonacea) *PeerJ* 9:e12032. DOI:10.7717/peerj.12032

Basso, L., Papadia, P., **Rizzo, L.**, Migoni, D., Fanizzi, P.F., Piraino, S. (2021). Trace Metals Do Not Accumulate Over Time in The Edible Mediterranean Jellyfish *Rhizostoma pulmo* (Cnidaria, Scyphozoa) from Urban Coastal Waters. *Water*, 13(10), 1410. DOI: 10.3390/w13101410

Rossi, S., **Rizzo, L.** (2021). The Importance of Food Pulses in Benthic-Pelagic Coupling Processes of Passive Suspension Feeders. *Water*, 13(7), 997. DOI: 10.3390/w13070997

**Rizzo, L.**, Musco, L., Crocetta, F. (2021). Cohabiting with litter: Fish and benthic assemblages in coastal habitats of a heavily urbanized area. *Marine Pollution Bulletin*, 164, 112077. DOI: 10.1016/j.marpolbul.2021.112077

Mammone, M., Ferrier-Pagés, C., Lavorano, S., **Rizzo, L.**, Piraino, S., Rossi, S. (2021). High photosynthetic plasticity may reinforce invasiveness of upside-down zooxanthellate jellyfish in Mediterranean coastal waters. *Plos one*, 16(3), e0248814. DOI: 10.1371/journal.pone.0248814

**Rizzo, L.**, Pusceddu, A., Bianchelli, S., Frascchetti, S (2020). Potentially combined effect of the invasive seaweed *Caulerpa cylindracea* (Sonder) and sediment deposition rates on organic matter and meiofaunal assemblages. *Marine Environmental Research*, 159. DOI: /10.1016/j.marenvres.2020.104966

Stabili, L., **Rizzo, L.**, Basso, L., Marzano, M., Fosso, B., Pesole, G., Piraino, S. (2020). The Microbial Community Associated with *Rhizostoma pulmo*: Ecological Significance and Potential Consequences for Marine Organisms and Human Health. *Marine Drugs*, 18(9), 437. DOI: 10.3390/md18090437

Crocetta, F., Riginella, E., Lezzi, M., Tanduo, V., Balestrieri, L., **Rizzo, L.** (2020). Bottom-trawl catch composition in a highly polluted coastal area reveals multifaceted native biodiversity and complex communities of fouling organisms on litter discharge. *Marine Environmental Research*, 104875. DOI: 10.1016/j.marenvres.2020.104875

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- de Oliveira Soares, M., Matos, E., Lucas, C., **Rizzo, L.**, Allcock, L., Rossi, S. (2020). Microplastics in corals: An emergent threat. *Marine Pollution Bulletin*, 161, 111810. DOI: 10.1016/j.marpolbul.2020.111810
- Colletti, A., Savinelli, B., Di Muzio, G., **Rizzo, L.**, Tamburello, L., Frascchetti, S., Musco, L., Danovaro, R. (2020). The date mussel *Lithophaga lithophaga*: Biology, ecology and the multiple impacts of its illegal fishery. *Science of The Total Environment*, 140866. DOI: 10.1016/j.scitotenv.2020.140866
- Angilè, F., Del Coco, L., Girelli, C.R., Basso, L., **Rizzo, L.**, Piraino, S., Stabili, L., Fanizzi, F.P. (2020). 1H NMR Metabolic Profile of Scyphomedusa *Rhizostoma pulmo* (Scyphozoa, Cnidaria) in Female Gonads and Somatic Tissues: Preliminary Results. *Molecules* 4(25):806. DOI: 10.3390/molecules25040806
- Fabbrizzi, E., Scardi, M., Ballesteros, E., Benedetti-Cecchi, L., Cebrian, E., Ceccherelli, G., De Leo, F., Deidun, A., Guarnieri, G., Falace, A., Fraissinet, S., Giommi, C., Macic, V., Mangialajo, L., Mannino, A.M., Piazzini, L., Ramdani, M., Rilov, G., Rindi, L., **Rizzo, L.**, Sarà, G., Souissi, J.B., Taskin, E. Frascchetti, S. (2020). Modeling Macroalgal Forest Distribution at Mediterranean Scale: Present Status, Drivers of Changes and Insights for Conservation and Management. *Frontiers in Marine Science*, 7, 20. DOI: 10.3389/fmars.2020.00020
- Basso, L., **Rizzo, L.**, Marzano, M., Intranuovo, M., Fosso, B., Pesole, G., Piraino, S., Stabili, L. (2019). Jellyfish summer outbreaks as bacterial vectors and potential hazards for marine animals and humans health? The case of *Rhizostoma pulmo* (Scyphozoa, Cnidaria). *Science of The Total Environment*, 692, 305-318. DOI: 10.1016/j.scitotenv.2019.07.155
- Rossi, S., Isla, E., Bosch-Belmar, M., Galli, G., Gori, A., Gristina, M., Ingrosso, G., Milisenda, G., Piraino, S., **Rizzo, L.**, Schubert, N., Soares, M., Solidoro, C., Thurstan, R.H., Viladrich, N., Trevor, J.W., Ziveri, P. (2019). Changes of energy fluxes in marine animal forests of the Anthropocene: factors shaping the future seascape. *ICES Journal of Marine Science*, 76(7), 20082019. DOI: 10.1093/icesjms/fsz147
- Rossi, S., **Rizzo, L.**, Duchêne, J. C. (2019). Polyp expansion of passive suspension feeders: a red coral case study. *PeerJ*, 7, e7076. DOI: 10.7717/peerj.7076
- Stabili, L., **Rizzo, L.**, Fanizzi, F. P., Angilè, F., Del Coco, L., Girelli, C. R., Lomartire, S., Piraino, S., Basso, L. (2019). The jellyfish *Rhizostoma pulmo* (Cnidaria): biochemical composition of ovaries and antibacterial lysozyme-like activity of the oocyte lysate. *Marine drugs*, 17(1), 17. DOI: 10.3390/md17010017
- Chimienti, G., Angeletti, L., **Rizzo, L.**, Tursi, A., Mastrototaro, F. (2018). Rov vs trawling approaches in the study of benthic communities: the case of *Pennatulula rubra* (Cnidaria: Pennatulacea). *Journal of the Marine Biological Association of the United Kingdom*. DOI: 10.1017/S0025315418000851

- Rizzo, L.**, Pusceddu, A., Stabili, L., Alifano, P., Frascchetti, S. (2017). Potential effects of an invasive seaweed (*Caulerpa cylindracea*, Sonder) on sedimentary organic matter and microbial metabolic activities. *Scientific Reports* 7:12113. DOI: 10.1038/s41598-017-12556-4.
- Stabili, L., **Rizzo, L.**, Pizzolante, G., Alifano, P., Frascchetti, S. (2017). Spatial distribution of the culturable bacterial community associated with the invasive alga *Caulerpa cylindracea* in the Mediterranean Sea. *Marine Environmental Research*, 125, 90-98. DOI: 10.1016/j.marenvres.2017.02.001.
- Basso, L., **Rizzo, L.**, Piraino, S., Stabili, L. (2017). Metabolic diversity of microbial community associated with *Rhizostoma pulmo* (Scyphozoa: Rhizostomeae). *Journal of Marine Microbiology*, 1(1).
- Basso, L., **Rizzo, L.**, Piraino, S., Stabili, L. (2017). Metabolic Diversity of Microbial Community associated with *Rhizostoma pulmo* (Scyphozoa: Rhizostomeae). *Biologia Marina Mediterranea* 24 (1).
- Stabili, L., Frascchetti, S., Acquaviva, M.I., Cavallo, R.A., De Pascali, S., Fanizzi, F.P., Gerardi, C., Narracci, M., **Rizzo, L.** (2016). The Potential Exploitation of the Mediterranean Invasive Alga *Caulerpa cylindracea*: Can the Invasion Be Transformed into a Gain? *Marine Drugs*, 14(11), 210. DOI:10.3390/md14110210.
- Pusceddu, A., Frascchetti, S., Scopa, M., **Rizzo, L.**, Danovaro, R. (2016). Meiofauna communities, nematode diversity and C degradation rates in seagrass (*Posidonia oceanica* L.) and unvegetated sediments invaded by the algae *Caulerpa cylindracea* (Sonder). *Marine environmental research*, 119, 88-99. DOI: 10.1016/j.marenvres.2016.05.015.
- Rizzo, L.**, Frascchetti, S., Alifano, P., Pizzolante, G., Stabili, L. (2016). The alien species *Caulerpa cylindracea* and its associated bacteria in the Mediterranean Sea. *Marine Biology*, 163(1), 1-12. DOI: 10.1007/s00227-015-2775-9
- Rizzo, L.**, Frascchetti, S., Alifano, P., Tredici, M.S., Stabili, L. (2016). Association of *Vibrio* community with the Atlantic Mediterranean invasive alga *Caulerpa cylindracea*. *Journal of Experimental Marine Biology and Ecology*, 475, 129-136. DOI: 10.1016/j.jembe.2015.11.013.
- Boero, F., Fogliani, F., Frascchetti, S., Goriup, P., Macpherson, E., Planes, S., ... & **CoCoNet Consortium** (2016). CoCoNet: towards coast to coast networks of marine protected areas (from the shore to the high and deep sea), coupled with sea-based wind energy potential. *SCIRES-ITSCientific RESEARCH and Information Technology*, 6, 1-95. DOI: 10.2423/i22394303v6Sp1
- Rizzo, L.**, Acquaviva, M.I., Cecere, E., Narracci, M., Petrocelli, A., Stabili, L., Cavallo, R.A. (2016). The invasive seaweed *Undaria pinnatifida* (Laminariales, Phaeophyceae): a source of antibacterial compounds. *Biologia Marina Mediterranea* 23 (1).
- Stabili, L., **Rizzo, L.**, Alifano, P., Frascchetti, S. (2014). Functional diversity of bacterial community associated with the invasive alga *Caulerpa racemosa*. *Biologia Marina Mediterranea* 21 (1), 127128.
- Martin, C.S., Giannoulaki, M., De Leo, F., Scardi, M., Salomidi, M., Knitweiss, L., Pace, M.L., Garofalo, G., Gristina, M., Ballesteros, E., Bavestrello, G., Belluscio, A., Cebrian, E., Gerakaris,

V., Pergent, G., Pergent-Martini, C., Schembri, P.J., Terribile, K., **Rizzo, L.**, Ben Souissi, J., Bonacorsi, M., Guarnieri, G., Krzelj, M., Macic, V., Punzo, E., Frascchetti, S. (2014). Coralligenous and maërl habitats: predictive modelling to identify their spatial distributions across the Mediterranean Sea. *Scientific Reports*, 4. DOI 10.1038/srep05073.

### ***Book chapters***

Rossi, S., **Rizzo, L.** (2020). Marine animal forests as carbon immobilizers or why we should preserve these three-dimensional alive structures. In *Perspectives on the Marine Animal Forests of the World* (pp. 333-400). Springer, Cham.