

Maria Cristina Mangano



Born in Italy (Catania) on 25/10/1981

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Current Position: ricercatore I° livello, Scientist

Current Affiliation:

Section Integrated Marine Ecology, Stazione Zoologica Anton Dohrn, Napoli (Italy), Sicily Marine Centre, Palermo

Education/Training/Experience

Institute and Location	Degree / Function	Year	Field of Study
Biologia ed Ecologia Marina, Università di Messina, Messina (Italy)	BSc (Laurea Triennale)	2004-2007	Marine Biology and Ecology
Biologia ed Ecologia dell'Ambiente Marino Costiero, Università di Messina, Messina (Italy)	MSc (Laurea Specialistica)	2007-2009	Marine Biology and Ecology
Scuola di dottorato in Scienze Ambientali: Ambiente Marino e Risorse XXV ciclo, University of Messina, Messina (Italy)	Ph.D.	2010-2013	Fishery ecology and management, benthic communities, biodiversity
Laboratory of Ecology, Dipartimento di Scienze della Terra e del Mare, University of Palermo (Italy)	Postdoc	2014-2019	Disturbance ecology, climate change, sustainability
Fisheries & Conservation Science Group, School of Ocean Sciences, Bangor University,	Fisheries Research Officer	2018-2019	Evidence-based management, socio-ecological systems

Wales, UK, Bangor (United Kingdom)			
Stazione Zoologica Anton Dohrn, Napoli, Italy	3° Ricercatore	2019 - present	Conservation ecology, fisheries management

Appointments and awards

03/11/2021 – Present. Horizon Europe (HORIZON) - Expert evaluator of project proposals. Appointed by the Research Executive Agency – REA

03/09/2020 to 03/09/2022 Marie Skłodowska-Curie Action - Individual fellow at Universitat de les Illes Balears - UIB presso Mediterranean Institute for Advanced Studies – IMEDEA. MSCA IF EU 2020 "MIRROR - Through the lookingglass: investigating the effectiveness of fish condition in mirroring trawling disturbance". <https://cordis.europa.eu/project/id/835589/it>

2021 – Present. Advisor Member at ICES "Stakeholder Engagement Strategy - WKSHOES" International Council for the Exploration of the Sea, Workshop "Stakeholder Engagement Strategy" <https://www.ices.dk/sites/pub/Publication Reports/Forms/DispForm.aspx?ID=37985>

2019 – Present. Advisor Member and Co-Chair at ICES WG COMEDA on Comparative Ecosystem-based Analyses of Atlantic and Mediterranean marine systems. Term of Reference leader ToR Socio-Ecological Systems (and Invited Expert Member since 2014).

2020 – Present. Member ICES WG "Strategic Initiative on the Human Dimension - SIHD" <https://www.ices.dk/community/groups/Pages/Members.aspx?Acronym=SIHD>

2020 – Present. Member of the Mediterranean observatory for fisheries “Osservatorio della Pesca del Mediterraneo”.

2019 – Present. Invited Expert Member at ICES WG SOCIAL on Social Indicators.

2018 – 2019 Invited Expert Member at GFCM WG on Vulnerable Marine Ecosystems and Marine Protected Areas.

2008 – Present: Invited Expert Member at ICES WG FBIT on Fisheries Benthic Impact and Trade-offs.

2008 – Present: Member of scientific surveys on board both research and commercial vessels (longer than 6 days at sea, 6 in the Atlantic Sea, 1 in Baltic Sea, and more than 30 in the Mediterranean Sea).

2018 – Present: Review Editor in Marine Fisheries, Aquaculture and Living Resources at Frontiers in Marine Science.

2018 – Winner of CA COST Action CA15121 - Short Term Scientific Missions (STSM) Fellowship. Proposal Acronym “PerceptCons” in the framework of MARCONS Cost Action WG2 “Present challenges and limitations in marine conservation”.

2018 – Winner of Santander Universities Research and Mobility Awards panel “Environment”. Project aim: develop Towed Underwater Vehicle to explore Vulnerable Marine Ecosystems in collaboration with Dr. Hilmar Hinz, University of Balearic Island.

2017 – Winner of NRN-LCEE Proposal Writing Fellowship Award R39GO1/CC8004/PWF008 in the framework of Sêr Cymru National Research Network for Low Carbon, Energy and Environment Proposal Writing Fellowship Scheme.

2017 – Invited speaker at the “EUROMARINE European Marine Research” Workshop entitled “Network Forecasting and responding to ecological, social and economic impacts of environmental effects on European species”.

Other

2024 “DecarboNYT” Decarbonisation of the fishing fleet in the Mediterranean and Black Sea <https://decarbonyt.eu/> “Framework Contract for the provision of scientific advice for the Mediterranean and the Black Sea” FRAMEWORK CONTRACT – EASME/EMFF/2020/OP/0021

2024 “MEDiverSEAty” In quest of the human dimensions of MEDiterranean Marine Biodiversity <https://mediverseaty.eu/> European Union’s Horizon 2020 research and innovation programme under Marie Skłodowska-Curie grant agreement ID: 1011197002021

2023 “CapSenHAR” Capitalizzazione campagne di sensibilizzazione per una armonizzazione Italo-Maltese per un buono stato dell'ambiente <https://eeb.unipa.it/tracce-nel-mare/> INTERREG ITALIA MALTA

2023 “Rete3Golfi – 3G” Integrated network for the monitoring and production of a regional management model of resources and marine ecosystems in the Gulfs of Castellammare, Patti and Catania. FEAMP Sicilia M1.40

2023 "MAC-Isola" Fondi MiTE - Ministero della Transizione Ecologica. "Misure di conservazione e gli indirizzi di gestione al Sito di Interesse Comunitario ITA020047 - Fondali di Isola delle Femmine - Capo Gallo i cui confini combaciano con quelli dell'Area Marina Protetta di Capo Gallo - Isola delle Femmine".

2020 - 2022. SenHAR Project (Founded by INTERREG Italy-Malta Operational Program call n. 02/2019) “Campagne di sensibilizzazione per una armonizzazione Italo-Maltese per un buono stato dell’ambiente”.

03/10/2020 – Present. Lecturer of “Management of Aquatic Resources: Fisheries course” at Marine Sciences course, University of Milano Bicocca (IT).

2019 – 2022. Progetto Internazionale "BLEU-ADAPT - Invasion biologique marine et pêche:étude, atténuation des dommages et adaptation dans le contexte du changement climatique" INTERREG Italy-Tunisia 2014-2020 Priorité 3.1 - Actions conjointes pour la protection de l’environnement (14-20 CTE).

2018 – 2019 PUKFI Project UK Fishery Improvement funded by the European Maritime Fisheries Funds - EMFF. WP Co-Leader and Task’s leader.

2018 – Present. HARMONY Project (Founded by INTERREG Italy-Malta Operational Program 2014-2020 Project grant n. C1-3.1-31, Led by the University of Palermo). Project associate and WP Co-Leader and Task’s leader (Working Package 4 - Ecosystem integrity and functioning monitoring and analysis).

Students’ Supervision

PhD supervisor of eight Ph.D. students (external supervisor)MSc supervisor of twenty five master students

Publications

Author of 61 publications on ISI-journals (h index: 21)

List of publications of the last 10 years):

Peer-reviewed publications:

Soru, S., Berlino, M., Sarà, G., Mangano, M. C., De Vittor, C., & Pusceddu, A. (2024). Effects of

acidification on the biogeochemistry of unvegetated and seagrass marine sediments. *Marine Pollution Bulletin*, 199, 115983.

Berlino, M., Mangano, M. C., Di Bona, G., Lucchese, M., Terzo, S. M. C., De Vittor, C., ... & Sarà, G. (2024). Functional diversity and metabolic response in benthic communities along an ocean acidification gradient. *Marine Environmental Research*, 106520.

Mangano, M. C., Corbari, L., Giacoletti, A., Berlino, M., Kay, S., Ciraolo, G., & Sarà, G. (2023). Planning precision aquaculture activities in a changing and crowded sea. *Aquaculture*, 577, 739881.

Marchessaux, G., Chevalier, C., Mangano, M. C., & Sarà, G. (2023). Larval connectivity of the invasive blue crabs *Callinectes sapidus* and *Portunus segnis* in the Mediterranean Sea: A step toward improved cross border management. *Marine Pollution Bulletin*, 194, 115272.

Genovese, M., Mangano, M. C., Papa, F., Romeo, T., & Greco, S. (2023). Local businesses' consumption and perception of Single-Use Plastics: A preliminary assessment for conservation and mitigation plans in the Egadi Islands Marine Protected Area. *Marine Pollution Bulletin*, 194, 115252.

Mancuso, F. P., Giommi, C., Mangano, M. C., Airoidi, L., Helmuth, B., & Sarà, G. (2023). Evenness, biodiversity, and ecosystem function of intertidal communities along the Italian coasts: experimental short-term response to ambient and extreme air temperatures. *Science of the Total Environment*, 858, 160037.

Marchessaux, G., Mangano, M. C., Bizzarri, S., M'Rabet, C., Principato, E., Lago, N., ... & Sarà, G. (2023). Invasive blue crabs and small-scale fisheries in the Mediterranean sea: Local ecological knowledge, impacts and future management. *Marine Policy*, 148, 105461.

Berlino, M., Sarà, G., & Mangano, M. C. (2023). Functional Trait-Based Evidence of Microplastic Effects on Aquatic Species. *Biology*, 12(6), 811.

Sarà, G., Mangano, M. C., Berlino, M., Corbari, L., Lucchese, M., Milisenda, G., ... & Helmuth, B. (2022). The synergistic impacts of anthropogenic stressors and COVID-19 on aquaculture: a current global perspective. *Reviews in fisheries science & aquaculture*, 30(1), 123-135.

Mangano, M. C., Berlino, M., Corbari, L., Milisenda, G., Lucchese, M., Terzo, S., ... & Sarà, G. (2022). The aquaculture supply chain in the time of covid-19 pandemic: Vulnerability, resilience, solutions and priorities at the global scale. *Environmental science & policy*, 127, 98-110.

van Denderen, P. D., Törnroos, A., Sciberras, M., Hinz, H., Friedland, R., Lasota, R., ... & Hiddink, J. G. (2022). Effects of bottom trawling and hypoxia on benthic invertebrate communities. *Marine Ecology Progress Series*, 694, 13-27.

Ascioti, F. A., Mangano, M. C., Marciandò, C., & Sarà, G. (2022). The sanitation service of seagrasses—Dependencies and implications for the estimation of avoided costs. *Ecosystem Services*, 54, 101418.

de Juan, S., Bremner, J., Hewitt, J., Törnroos, A., Mangano, M. C., Thrush, S., & Hinz, H. (2022). Biological traits approaches in benthic marine ecology: Dead ends and new paths. *Ecology and Evolution*, 12(6), e9001.

Marchessaux, G., Bosch-Belmar, M., Cilenti, L., Lago, N., Mangano, M. C., Marsiglia, N., & Sarà, G. (2022). The invasive blue crab *Callinectes sapidus* thermal response: Predicting metabolic suitability

maps under future warming Mediterranean scenarios. *Frontiers in Marine Science*, 9, 1055404.

Bevilacqua, S., Airoidi, L., Ballesteros, E., Benedetti-Cecchi, L., Boero, F., Bulleri, F., ... & Terlizzi, A. (2021). Mediterranean rocky reefs in the Anthropocene: Present status and future concerns. *Advances in marine biology*, 89, 1-51.

Giacoletti, A., Lucido, G. D., Mangano, M. C., & Sarà, G. (2021). Functional trait-based layers-an aquaculture siting tool for the Mediterranean Sea. *Aquaculture*, 532, 736081.

Sarà, G., Giommi, C., Giacioletti, A., Conti, E., Mulder, C., & Mangano, M. C. (2021). Multiple climate-driven cascading ecosystem effects after the loss of a foundation species. *Science of the total environment*, 770, 144749.

Salerno, M., Berlino, M., Mangano, M. C., & Sarà, G. (2021). Microplastics and the functional traits of fishes: A global meta-analysis. *Global Change Biology*, 27(12), 2645-2655.

Berlino, M., Mangano, M. C., De Vittor, C., & Sarà, G. J. E. P. (2021). Effects of microplastics on the functional traits of aquatic benthic organisms: A global-scale meta-analysis. *Environmental Pollution*, 285, 117174.

Sarà, G., Milisenda, G., Mangano, M. C., & Bosch-Belmar, M. (2021). The buffer effect of canopy-forming algae on vermetid reefs' functioning: A multiple stressor case study. *Marine Pollution Bulletin*, 171, 112713.

Corbari, L., Maltese, A., Capodici, F., Mangano, M. C., Sarà, G., & Ciraolo, G. (2020). Indoor spectroradiometric characterization of plastic litters commonly polluting the Mediterranean Sea: toward the application of multispectral imagery. *Scientific Reports*, 10(1), 1-12.

Falcini, F., Corrado, R., Torri, M., Mangano, M. C., Zarrad, R., Di Cintio, A., ... & Lacorata, G. (2020). Seascape connectivity of European anchovy in the Central Mediterranean Sea revealed by weighted Lagrangian backtracking and bio-energetic modelling. *Scientific reports*, 10(1), 1-13.

Tempesti, J., Mangano, M. C., Langeneck, J., Lardicci, C., Maltagliati, F., & Castelli, A. (2020). Non-indigenous species in Mediterranean ports: A knowledge baseline. *Marine Environmental Research*, 105056.

Mangano, M. C., Mieszkowska, N., Helmuth, B., Domingos, T., Sousa, T., Baiamonte, G., ... & Sarà, G. (2020). Moving toward a strategy for addressing climate displacement of marine resources: a proof-of-concept. *Frontiers in Marine Science*, 7, 408.

Sinopoli, M., Allegra, A., Andaloro, F., Consoli, P., Esposito, V., Falautano, M., Mangano M. C., ... & Castriota, L. (2020). Assessing the effect of the alien seaweed *Caulerpa cylindracea* on infralittoral rocky benthic invertebrate community: Evidence from a Mediterranean Marine Protected Area. *Regional Studies in Marine Science*, 38, 101372.

Russo, E., Monti, M. A., Mangano, M. C., Raffaeta, A., Sara, G., Silvestri, C., & Pranovi, F. (2020). Temporal and spatial patterns of trawl fishing activities in the Adriatic Sea (Central Mediterranean Sea, GSA17). *Ocean & Coastal Management*, 192, 105231.

Bellino, A., Mangano, M. C., Baldantoni, D., Russell, B. D., Mannino, A. M., Mazzola, A., ... & Sarà, G. (2019). Seasonal patterns of biodiversity in Mediterranean coastal lagoons. *Diversity and Distributions*, 25(10), 1512-1526.

Mangano, M. C., Ape, F., & Mirto, S. (2019). The role of two non-indigenous serpulid tube worms in shaping artificial hard substrata communities: case study of a fish farm in the central Mediterranean Sea. *Aquaculture Environment Interactions*, 11, 41-51.

Mangano, M. C., Giacoletti, A., & Sarà, G. (2019). Dynamic Energy Budget provides mechanistic derived quantities to implement the ecosystem based management approach. *Journal of sea research*, 143, 272-279.

Mieszkowska, N., Benedetti-Cecchi, L., Burrows, M. T., Mangano, M. C., Queirós, A., Seuront, L., & Sarà, G. (2019). Multinational, integrated approaches to forecasting and managing the impacts of climate change on intertidal species. *Marine Ecology Progress Series*, 613, 247-252.

Giacoletti, A., Cappello, S., Mancini, G., Mangano, M. C., & Sarà, G. (2018). Predicting the effectiveness of oil recovery strategies in the marine polluted environment. *Journal of environmental management*, 223, 749-757.

Sarà, G., Gouhier, T. C., Brigolin, D., Porporato, E. M., Mangano, M. C., Mirto, S., ... & Pastres, R. (2018). Predicting shifting sustainability trade-offs in marine finfish aquaculture under climate change. *Global change biology*, 24(8), 3654-3665.

Capodici, F., Ciralo, G., Cosoli, S., Maltese, A., Mangano, M. C., & Sarà, G. (2018). Downscaling hydrodynamics features to depict causes of major productivity of Sicilian-Maltese area and implications for resource management. *Science of the Total Environment*, 628, 815-825.

Sarà, G., Porporato, E. M., Mangano, M. C., & Mieszkowska, N. (2018). Multiple stressors facilitate the spread of a non-indigenous bivalve in the Mediterranean Sea. *Journal of biogeography*, 45(5), 1090-1103.

Martinez, M., Mangano, M. C., Maricchiolo, G., Genovese, L., Mazzola, A., & Sarà, G. (2018). Measuring the effects of temperature rise on Mediterranean shellfish aquaculture. *Ecological indicators*, 88, 71-78.

Sarà, G., Mangano, M. C., Johnson, M., & Mazzola, A. (2018). Integrating multiple stressors in aquaculture to build the blue growth in a changing sea. *Hydrobiologia*, 809(1), 5-17.

Consoli, P., Mangano, M. C., Sarà, G., Romeo, T., Andaloro, F. (2018). The influence of habitat complexity on fish assemblages associated with extractive platforms in the central Mediterranean Sea. *Advances in Oceanography and Limnology*, 9(2), 59-67.

Mangano, M. C., Bottari, T., Caridi, F., Porporato, E. M. D., Rinelli, P., Spanò, N., ... & Sarà, G. (2017). The effectiveness of fish feeding behaviour in mirroring trawling-induced patterns. *Marine environmental research*, 131, 195-204.

- Mangano, M. C., & Sara, G. (2017). The author's reply to NR Haddaway. *Journal of environmental management*, 197, 114-116.
- Mangano, M. C., & Sarà, G. (2017). Collating science-based evidence to inform public opinion on the environmental effects of marine drilling platforms in the Mediterranean Sea. *Journal of environmental management*, 188, 195-202.
- Mangano, M. C., Sarà, G., & Corsolini, S. (2017). Monitoring of persistent organic pollutants in the polar regions: knowledge gaps & gluts through evidence mapping. *Chemosphere*, 172, 37-45.
- Bottari, T., Rinelli, P., Garofalo, G., Spano, N., Mangano, M. C., Porporato, E., ... & Fiorentino, F. (2016). Epidemiology of gnathiid isopods on red mullet (*Mullus barbatus barbatus*) along the Tyrrhenian Sicilian coast (Mediterranean Sea). *Cah. Biol. Mar*, 57(3).
- D'Alessandro, M., Esposito, V., Giacobbe, S., Renzi, M., Mangano, M. C., Vivona, P., ... & Romeo, T. (2016). Ecological assessment of a heavily human-stressed area in the Gulf of Milazzo, Central Mediterranean Sea: an integrated study of biological, physical and chemical indicators. *Marine pollution bulletin*, 106(1-2), 260-273.
- Mangano, M. C., O'Leary, B. C., Mirto, S., Mazzola, A., & Sarà, G. (2015). The comparative biological effects of spatial management measures in protecting marine biodiversity: a systematic review protocol. *Environmental Evidence*, 4(1), 21.
- Mangano, M. C., Kaiser, M. J., Porporato, E. M. D., Lambert, G. I., & Spanò, N. (2015). Trawling disturbance effects on the trophic ecology of two co-generic Astropectinid species. *Mediterranean Marine Science*, 16(3), 538-549.
- Mangano, M. C., Kaiser, M. J., Porporato, E. M., Lambert, G. I., Rinelli, P., & Spanò, N. (2014). Infaunal community responses to a gradient of trawling disturbance and a long-term Fishery Exclusion Zone in the Southern Tyrrhenian Sea. *Continental Shelf Research*, 76, 25-35.
- Porporato, E. M., Mangano, M. C., De Domenico, F., Giacobbe, S., & Spanò, N. (2014). First observation of *Pteroeides spinosum* (Anthozoa: Octocorallia) fields in a Sicilian coastal zone (Central Mediterranean Sea). *Marine Biodiversity*, 44(4), 589-592.
- Mangano, M. C., Kaiser, M. J., Porporato, E. M., & Spanò, N. (2013). Evidence of trawl disturbance on mega-epibenthic communities in the Southern Tyrrhenian Sea. *Marine Ecology Progress Series*, 475, 101-117.
- Porporato, E. M., De Domenico, F., Mangano, M. C., Rinelli, P., & Spanò, N. (2012). *Ebalia nux* (Decapoda, Brachyura) found among the leaves of *Pteroeides spinosum* (Anthozoa, Octocorallia). *Crustaceana*, 85(1), 125.
- Porporato, E. M., De Domenico, F., Mangano, M. C., & Spano, N. (2011). *Macropodia longirostris* and *Latreillia elegans* (Decapoda, Brachyura) climbing on Mediterranean Pennatulidae (Anthozoa, Octocorallia): a preliminary note. *Crustaceana*, 84(14), 1777-1780.
- De Domenico, F., Mangano, M. C., Porporato, E. M., & Spanò, N. (2010). Young specimens of *Munida intermedia* (Decapoda, Anomura) living on *Antedon mediterranea* (Echinodermata, Crinoidea). *Crustaceana*, 215-221.