

Francesco Colloca



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Current Position: researcher I° level, Senior Scientist

Current Affiliation:

Department EMI (Integrative Marine Ecology),
Stazione Zoologica Anton Dohrn
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Education/Training/Experience

Institute and Location	Degree / Function	Year	Field of Study
La Sapienza, University of Rome, Italy	Biological Science	1988	Marine biology
La Sapienza, University of Rome, Italy	PhD	2003	Marine ecology
La Sapienza, University of Rome, Italy	Postdoc	2003-2012	Marine ecology
CNR	Researcher	2012-2019	Fisheries ecology
La Sapienza, University of Rome, Italy	Associated professor	2017-present	Marine ecology
Stazione Zoologica Anton Dohrn, Napoli, Italy	Senior Researcher	2019-present	Marine ecology

Appointments and awards

2017-2019. Italian National Program on Fisheries Data Collection (PNRDA). Leader of WP 7: Development of a national information system for Italian fisheries data. Co-responsible for fisheries data collection in GSA 10.

2018. Italian National Fisheries Management Plans. Italian DG-Pesca – MIPAAF, CNR. Development of stock assessments for commercial stocks and advice for fisheries management.

2016-2018. Project MANTIS: Marine protected Areas Network Towards Sustainable fisheries in the Central Mediterranean. European Commission DG MARE (Mare/2014/41). Leader of WP4: “Designing and assessing an optimal management framework for the marine managed areas network”.

2012-ongoing. National flag project RITMARE (MIUR). Coordinator of the sub-project SP2_WP1_AZ4_UO07: “Tagging of demersal elasmobranchs in the Strait of Sicily”. ”SP2 “Technology for sustainable fisheries. WP1: “Identification of stock boundaries of commercial species”.

2015-2016. Scientific agreement CNR-Montenegro (CNR-MOS). Project” Development of a new methodological approach to study the recruitment dynamics of fish and crustaceans in the Kotor Bay (Montenegro)”. Italian coordinator of the project.

2014-2017. MareFrame project: Co-creating Ecosystem-based Fisheries Management Solutions, EU Seventh Framework Programme (FP 7). Leader of WP5 “Apply new methods in case studies”.

2015-2017. FIMAPS project: “Fishery Management Plan System”. Guidelines for long-terms fisheries management plans in Italian waters based on scientific advice (Reg. EU n. 1380/2013)”, grant from MIPAAF. Scientific coordinator.

2013-2014 StockMed project. “Stock units: Identification of distinct biological units (stock units) for different fish and shellfish species and among different GFCM-GSA”. European Commission, DG-MARE. Specific Contract No 7 (SI2.642234). Coordinator of task 3.2: “Review and analysis of the information on the position of nursery and spawning areas of commercial species of fish and cephalopods in Mediterranean waters”.

2015-ongoing. MINOUW project: “Science, Technology, and Society initiative to minimize Unwanted Catches in European Fisheries”. HORIZON 2020, EU Grant Agreement n. 634495.

2015-2017. Scientific agreement CNR - CNRS-L (National Council for Scientific Research of Lebanon). Project “Evaluation of the ecological role of some key Lessepsian fish species in marine Lebanese waters

2010-2013. CREAM project: Coordinating REsearch in support to Application of ecosystem approach to fisheries and management advice in the Mediterranean and Black seas. EU 7° Framework Programme. Coordinating and Support Action - Grant agreement no. 265648.

2009-2010. EVOMED project: “Understanding size developments of exploited stocks and ecosystems in the Mediterranean by using private fishermen's "tally-books" and historical information”. DG Mare open call for tenders n° MARE/2008/11, Proposal for Lot 4; Contratto N° SI2 539097.

Other

2018-ongoing. Member of the Technical Scientific Committee of the Italian Technological Cluster for the Blue Growth (Cluster BIG).

2017-2019 Advanced school on Multispecies modelling approaches for ecosystem based marine REsource management in the MEDiterranean Sea (AMARE-MED). EuroMarine. European Marine Research Network. Membro del comitato organizzatore della scuola.

2016-ongoing. Member of the ICES (International Council for the Exploration of the Sea) Working Group on Value of Coastal Habitats for Exploited Species [WGVHES].

2014-ongoing. Italian focal point of the project FAO – COPEMED II (DM MIPAAF 28/04/2014, n. 0009804)

2017-2019. Member of the organization committee of the FAO-GFCM summer school in Quantitative Fisheries Stock Assessment in the Mediterranean Sea.

2017-2018. National Strategic Plan for innovation and research in agriculture, food and forestry of the MIPAAF (2014-2020). CNR member at the governance and coordination table (D.M. n. 5776, 21/02/2017, MIPAAF).

2017-2018: topic Editor, *Frontiers in Marine Science*, Research Topic: “Challenges and Opportunities for The EU Common Fisheries Policy application in The Mediterranean and Black Sea”.

2014-2015. Coordinator of the Sub-Committee of Stock Assessment of the General Fisheries Commission for the Mediterranean Sea (GFCM), 2014-2015.

2008-ongoing. Independent expert in several EWG of the European’s Commission Scientific, Technical & Economic Committee for Fisheries (STECF) and FAO-GFCM meetings.

Students’ Supervision (last 5 years)

Thesis supervisor of several students (external) University of Rome “La Sapienza”, PhD reviewer of 2 students, PhD external supervisor of 1 thesis.

Publications

Author of 66 publications on ISI-journals (h index: 25)

List of publications of the last 10 years):

Peer-reviewed

- Colloca F., Carpentieri P., Balestri E. & Ardizzone G.D. 2010. Food resource partitioning in a Mediterranean demersal assemblage: the effect of body size and niche width. *Marine Biology*, 157(3): 565-574.
- Carpentieri P., Cantarelli T., Colloca F., Criscoli A. & Ardizzone G.D. 2010. Feeding behaviour of the spotted flounder *Citharus linguatula* in the central Tyrrhenian Sea. *Scientia Marina* 74 (4), 659-667.
- Bartolino V., L. Maiorano & Colloca F.. 2011. A frequency distribution approach to hotspots identification. *Population Ecology*, 53 (2), 351-359.
- Bartolino V., Colloca F., Taylor L. & Stefansson G. 2011. First implementation of a Gadget model for the analysis of hake in the Mediterranean. *Fisheries Research* 107 (1-3), 75-83.
- Ligas a., Sartor P. & Colloca F. 2011. Trends in population dynamics and fishery of *Parapenaeus longirostris* and *Nephrops norvegicus* (NW Mediterranean) identifying the relative importance of fishery and environmental variables. *Marine Ecology-An Evolutionary Perspective*, 32, 25-35.
- Bartolino V., Maiorano L. & Colloca F., 2011. Frequency distribution curves and identification of hotspots: response to comments. *Population Ecology*, 53 (4), 603-604.
- Colloca F., Cardinale M., F. Maynou, Giannoulaki M., Scarcella G, Jenko K., Bellido J.M. & Fiorentino F., 2013. Rebuilding Mediterranean fisheries: a new paradigm for ecological sustainability. *Fish and Fisheries*, 14 (1), 89-109.
- Gaertner J-C, Maiorano P, Mérigot B, Colloca F, Politou C-Y, et al. 2013. Large-Scale Diversity of Slope Fishes: Pattern Inconsistency between Multiple Diversity Indices. *PLoS ONE* 8(7): e66753. doi:10.1371/journal.pone.0066753.
- Fiorentino F., Patti B., Colloca F., Bonanno A., Basilone G., Gancitano V., Garofalo G., Goncharov S., Gristina M., Sinacori G. & Mazzola S. 2013. A comparison between acoustic and bottom trawl estimates to reconstruct the biomass trends of sardine and anchovy in the Strait of Sicily (Central Mediterranean). *Fisheries Research*, 147: 290– 295.

- Rätz H.J., Charef A., Abella A.J., Colloca F., Ligas A., Mannini A. & Lloret J. 2013 A medium-term, stochastic forecast model to support sustainable, mixed fisheries management in the Mediterranean Sea. *Journal of Fish Biology*, 83(4), 921-938.
- Albouy C., Velez L., Coll M., Colloca F., Le Loc'h F., Mouillot D., & Gravel D., 2014. From projected species distribution to food web structure under climate change. *Global Change Biology*, 20: 730–741, doi: 10.1111/gcb.12467.
- Colloca F., Mastrantonio G., Jona Lasinio G., Ligas A. & Sartor P., 2014. *Parapenaeus longirostris* (Lucas, 1846) an early warning indicator species of global warming in the central Mediterranean Sea. *Journal of Marine System*, 138: 29-39.
- Sartor P, Colloca F., Maravelias C., & Maynou F., 2014. Critical assessment of the current understanding/knowledge towards the framework of Ecosystem Approach of Fisheries in Mediterranean and Black Sea. *Scientia Marina*: 78 (S1) : 19-27.
- Ligas A., Colloca F., Mannini A., Sartor P., Sbrana M., Voliani, A. & Belcari P., 2015. Modelling the growth of recruits of European hake, *Merluccius merluccius* (L., 1758), in north-western Mediterranean using Generalized Linear Models. *Fishery Bulletin* 113: 69-81.
- Druon JN, Fiorentino F, Murenu M, Knittweis L, Colloca F, Osio C., Mérigot B., Garofalo G., Mannini A., Jadaud A., Sbrana M., Scarcella G., Tserpes G., Peristeraki P., Carlucci R. & Heikkonen J.. 2015. Modelling of European hake nurseries in the Mediterranean sea: an ecological niche approach. *Progress in Oceanography* 130, 188-204.
- Colloca F., Garofalo G., Bitetto I, Facchini MT, Grati F., 2015. The seascape of demersal fish nursery areas in the North Mediterranean Sea, a first step towards the implementation of spatial planning for trawl fisheries. *PLoS ONE* 10(3): e0119590. doi:10.1371/journal.pone.0119590.
- Carpentieri, P., Serpetti, N., Colloca, F., Criscoli, A., & Ardizzone, G., 2016. Food preferences and rhythms of feeding activity of two co-existing demersal fish, the longspine snipefish, *Macroramphosus scolopax* (Linnaeus, 1758), and the boarfish *Capros aper* (Linnaeus, 1758), on the Mediterranean deep shelf. *Marine Ecology-An Evolutionary Perspective*, 37(1), 106-118. <https://doi.org/10.1111/maec.12265>.
- Lucchetti, A., Carbonara, P., Colloca, F., Lanteri, L., Spedicato, M. T., & Sartor, P. 2017. Small-scale driftnets in the Mediterranean: Technical features, legal constraints and management options for the reduction of protected species bycatch. *Ocean & Coastal Management*, 135, 43-55.
- Criscoli, A., Carpentieri, P., Colloca, F., Belluscio, A., & Ardizzone, G. 2017. Identification and Characterization of Nursery Areas of Red Mullet *Mullus barbatus* in the Central Tyrrhenian Sea. *Marine and Coastal Fisheries*, 9(1), 203-215.
- Cantafaro, A., Ardizzone, G., Enea, M., Ligas, A., & Colloca, F. 2017. Assessing the importance of nursery areas of European hake (*Merluccius merluccius*) using a body condition index. *Ecological Indicators*, 81, 383-389.
- Scannella D., Falsone F., Geraci M.L., Frogliola C., Fiorentino F., Giusto G.B., Zava B., Insacco G., Colloca F., 2017. First report of Northern brown shrimp *Penaeus aztecus* Ives, 1891 in Strait of Sicily. *BioInvasions Records*, vol. 6(1).
- Sabatella, E. C., Colloca, F., Coppola, G., Fiorentino, F., Gambino, M., Malvarosa, L., & Sabatella, R. 2017. Key Economic Characteristics of Italian Trawl Fisheries and Management Challenges. *Frontiers in Marine Science*, 4, 371.
- Colloca, F., Scarcella, G., & Libralato, S., 2017. Recent Trends and Impacts of Fisheries Exploitation on Mediterranean Stocks and Ecosystems. *Frontiers in Marine Science*, 4, 244.
- Colloca F., Enea M., Ragonese S., Di Lorenzo M., 2017. A century fishery data documenting the collapse of smooth-hounds (*Mustelus* spp.) in Mediterranean Sea. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 17:1145–1155.
- Libralato, S., Colloca, F., Gücü, A. C., Maravelias, C., Solidoro, C., Villasante, S., & Cardinale, M. 2018. Challenges and Opportunities for The EU Common Fisheries Policy application in The Mediterranean and Black Sea. *Frontiers in Marine Science*, 5, 299.

- Marino I.A.M., Finotto L., Colloca F., Di Lorenzo M., Gristina M., Farrell D.E., Zane L., Mazzoldi C., 2018. Resolving the ambiguities in the identification of two smooth-hound sharks (*Mustelus mustelus* and *Mustelus punctulatus*) using genetics and morphology. *Marine Biodiversity*, 48 (3), 1551-1562.
- Di Lorenzo, M., Sinerchia, M., & Colloca, F. 2018. The North sector of the Strait of Sicily: a priority area for conservation in the Mediterranean Sea. *Hydrobiologia*, 821 (1), 235-253.
- Milisenda G., Garofalo G., Fezzani S., Rjeibi O., Jarboui O., Chemmam B., Ceriola L., Bonanno A., Genovese S., Basilone G., Mifsud R., Lauria V., Gristina M., Colloca F. & Fiorentino F., 2018. Biomass HotSpot distribution model and spatial interaction of two exploited species of horse mackerel in the south-central Mediterranean Sea. *Hydrobiologia*, 821 (1), 135-150.
- Pipitone V., Colloca F., 2018. Recent trends in the productivity of the Italian trawl fishery: The importance of the socio-economic context and overexploitation. *Marine Policy*, 87: 135–140.
- Brown, E. J., Vasconcelos, R. P., Wennhage, H., Bergström, U., Støttrup, J. G., van de Wolfshaar, K., Milisenda G., Colloca F., Le Pape, O. 2018. Conflicts in the coastal zone: human impacts on commercially important fish species utilizing coastal habitat. *ICES Journal of Marine Science*, 75(4): 1203–1213.
- Elahi, R., Ferretti, F., Bastari, A., Cerrano, C., Colloca, F., Kowalik, J., Ruckelshaus M., Struck A. & Micheli, F. 2018. Leveraging vessel traffic data and a temporary fishing closure to inform marine management. *Frontiers in Ecology and the Environment*, 16(8): 440–446, doi: 10.1002/fee.1936.
- Geraci, M. L., Scannella, D., Falsone, F., Colloca, F., Vitale, S., Rizzo, P., ... & Fiorentino, F. 2018. Preliminary study on the biological traits of the Por's goatfish *Upeneus pori* (Chordata: Actinopterygii) off the southern coast of Lampedusa Island (Central Mediterranean). *The European Zoological Journal*, 85(1), 232-242.
- Vitale, S., Milisenda, G., Gristina, M., Baiata, P., Bonanomi, S., Colloca, F., ... & Sala, A. 2018. Towards more selective Mediterranean trawl fisheries: are juveniles and trash excluder devices effective tools for reducing undersized catches?. *Scientia Marina*, 82(S1), 215-223.
- Vitale, S., Enea, M., Milisenda, G., Gancitano, V., Geraci, M. L., Falsone, F., ... & Colloca, F. 2018. Modelling the effects of more selective trawl nets on the productivity of European hake (*Merluccius merluccius*) and deep-water rose shrimp (*Parapenaeus longirostris*) stocks in the Strait of Sicily. *Scientia Marina*, 82(S1), 199-208.
- Agnetta, D., Badalamenti, F., Colloca, F., D'Anna, G., Di Lorenzo, M., Fiorentino, F., ... & Pipitone, C. 2019. Benthic-pelagic coupling mediates interactions in Mediterranean mixed fisheries: An ecosystem modeling approach. *PloS one*, 14(1), e0210659.
- Carrozzì, V., Di Lorenzo, M., Massi, D., Titone, A., Ardizzone, G., & Colloca, F. 2019. Prey preferences and ontogenetic diet shift of European hake *Merluccius merluccius* (Linnaeus, 1758) in the central Mediterranean Sea. *Regional Studies in Marine Science*, 25, 100440.
- Ventura, D., Colloca, F., & Ardizzone, G. 2019. Settlement evidence of the Mediterranean parrotfish *Sparisoma cretense* (Teleostei: Scaridae) in the Central Tyrrhenian Sea (Giglio Island, Italy). *BioInvasions Records*, 8(2), 413-418.
- Colloca, F., Milisenda, G., Capezzuto, F., Cau, A., Garofalo, G., Jadaud, A., ... & Ordines F. 2019. Spatial and temporal trend in the abundance and distribution of gurnards (Pisces: Triglidae) in the northern Mediterranean Sea. *Scientia Marina*. 83(S1): 101-116
- Follesa, M. C., Marongiu, M. F., Zupa, W., Bellodi, A., Cau, A., Cannas, R., Colloca F.,... & Carbonara P. 2019. Spatial variability of Chondrichthyes in the northern Mediterranean. *Scientia Marina*, 83(S1), 81-100.
- Colloca, F., Scannella, D., Geraci, M. L., Falsone, F., Battista, G., Vitale, S., Di Lorenzo M., Bono, G. 2019. British sharks in Sicily: records of long distance migration of tope shark (*Galeorhinus galeus*) from North-eastern Atlantic to Mediterranean Sea. *Mediterranean Marine Science*, 20(2): 309-313

- Geraci, M. L., Di Lorenzo, M., Falsone, F., Scannella, D., Di Maio, F., Colloca, F., ... & Serena, F. 2019. The occurrence of Norwegian skate, *Dipturus nidarosiensis* (Elasmobranchii: Rajiformes: Rajidae), in the Strait of Sicily, central Mediterranean. *Acta Ichthyologica et Piscatoria*, 49(2), 203-208.
- Quattrocchi, G., Sinerchia, M., Colloca, F., Fiorentino, F., Garofalo, G., & Cucco, A. 2019. Hydrodynamic controls on connectivity of the high commercial value shrimp *Parapenaeus longirostris* (Lucas, 1846) in the Mediterranean Sea. *Scientific reports*, 9(1), 1-14.
- Di Maio, F., Geraci, M. L., Scannella, D., Falsone, F., Colloca, F., Vitale, S., ... & Fiorentino, F. 2020. Age structure of spawners of the axillary seabream, *Pagellus acarne* (Risso, 1827), in the central Mediterranean Sea (Strait of Sicily). *Regional Studies in Marine Science*, 101082.